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Media literacy

in the Context of
Science and Research

Media literacy in the Context of Science and Research

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CONTENTS

SECTION 1: ALGORITHMS, ARTIFICIAL INTELLIGENCE AND NEW FORMS OF MEDIA LITERACY

THE INTEGRATION OF GENERATIVE ARTIFICIAL INTELLIGENCE TOOLS IN THE CONTEXT OF MEDIA AND INFORMATION LITERACY DEVELOPMENT

Norbert VRABEC, SK.....8

THE POTENTIAL OF ARTIFICIAL INTELLIGENCE AS A DETERMINANT OF MODERNIZATION IN THE PREPARATION OF SPECIAL EDUCATION STUDENTS

Monika HOMOLOVÁ, SK.....28

Video Game Worlds as a Space of Media Literacy and Political Propaganda: Cultural, Media, and Political Science Interpretations

Róbert KIRÁLY, SK – Matúš KUBALA, SK – Barbora PETRÁŠOVÁ, SK 41

ARTIFICIAL INTELLIGENCE USE AMONG STUDENTS IN HELPING PROFESSIONS

Monika HOMOLOVÁ, SK – Filip GEREC, SK.....56

DIGITAL BABYLON: WHEN LANGUAGE CEASES TO CONNECT

Marko MANNSBERGER, CZ.....68

DIGITAL CONTENT IN THE HANDS OF STUDENTS: SKILL LEVEL AND CONTRIBUTION TO MEDIA LITERACY

Natália HRKOTÁČOVÁ, SK – Jana DUCHOVIČOVÁ, SK.....80

FROM WEB TO INSTAGRAM: THE TRANSFORMATION OF NEWS CONTENT UNDER THE CONDITIONS OF MULTIPLATFORM JOURNALISM

Mária DOLNIAKOVÁ, SK.....91



INCREASING MEDIA LITERACY – A CASE FOR BROAD
INTERDISCIPLINARY STUDY AND IMPLEMENTATION OF RESULTS

Beáta BILIKOVÁ, SK 104

REALISM, OPTIMIZATION, AND THE AESTHETICS OF KITSCH IN THE
CONTEXT OF AI-GENERATED ADVERTISING IMAGERY

Mária ZVALENÁ, SK 115

THE IMPACT OF GENERATIVE AI AND ALGORITHMIC CURATION ON
SOCIAL SCIENCES AND KNOWLEDGE TRANSFORMATION

Dávid PÁL, SK 128

DIGITALIZATION OF PUBLIC COMMUNICATION IN THE KYSUCE
REGION: A MUNICIPAL-LEVEL ANALYSIS OF INFORMATION
ACCESSIBILITY THROUGH MOBILE COMMUNICATION APPLICATIONS

Adam CHOVANEC, SK 139

MEDIA PORTRAYALS OF SCIENCE AND SCIENTISTS IN SLOVAKIA:
FRAMING, AI IN NEWSROOMS AND IMPLICATIONS FOR MEDIA
LITERACY

Marián GRUPAČ, SK – Jakub ŠVEC, SK 157

IS GENERATIVE ARTIFICIAL INTELLIGENCE INTENDED FOR
EVERYONE? ETHICAL, PSYCHOLOGICAL AND AGE LIMITS ON ITS USE

Beáta POŠTEKOVÁ, SK 171



SECTION 2: MEDIA REPRESENTATIONS, LANGUAGE, POWER AND CRITICAL THINKING IN DIGITAL CULTURE

“STOP THE TROLL”: A PRACTICAL GUIDE TO EXPERIENTIAL EDUCATION FOR THE PREVENTION OF CYBERAGGRESSION AND THE ENHANCEMENT OF MEDIA LITERACY AMONG SECONDARY SCHOOL STUDENTS

Barbora SENDER, SK – Libuša GUŽÍKOVÁ, SK.....188

TEACHING ENGLISH FOR SPECIFIC PURPOSES (ESP) FOR JOURNALISM STUDENTS IN THE AGE OF AI AND DIGITAL CULTURE

Oľga CSALOVÁ, SK 202

COMPOSITIONAL STRUCTURING OF THE INTRODUCTION OF A LITERARY-CRITICAL REVIEW WITHIN ACADEMIC AND MEDIA COMMUNICATION SPHERE

Lukáš ŠVAJLENIN, SK.....215

THE AESTHETICIZATION OF WAR IN SELECTED WAR NARRATIVES. NOTES ON THE DISCOURSE OF US AND THEM

Alexej MIKULÁŠEK, CZ 226

THE ROLE OF PHILOSOPHY IN CRITICAL THINKING

Lenka KOCINOVÁ, SK 250

THEORETICAL APPROACHES TO CROSS-BORDER COOPERATION IN THE CONTEXT OF EUROPEAN INTEGRATION

Daniel KAMENSKÝ, SK 258

CITIZENSHIP AND THE MEDIA: HOW ARAB CHRISTIANS IN THE MIDDLE EAST BECAME CITIZENS

Lukáš DE LA VEGA NOSEK, CZ 268

THE HUMAN BEING, A HUMAN RESOURCE, OR A BEARER OF HUMAN CAPITAL?

Jan KARELA, CZ.....287



DAVID VS. GOLIATH? THE LIMITS OF MEDIA LITERACY UNDER STATE
MEDIA CAPTURE: A CASE STUDY OF HUNGARY

Martin VAHANČÍK, SK.....300

THE REDUCTION OF SOCIAL DISCUSSION TO A POLITICAL CONFLICT

Tomáš HOLETZ, SK – Katarína HOLETZOVÁ, SK 312

PARTICIPATORY CULTURE AND REMEDIATION: HOW PLAYERS CREATE
THEIR OWN NARRATIVES

Vladimír FILIP, SK.....324

DIGITAL ADAPTATION OF WORLD MYTHOLOGIES IN THE GAME
WUTHERING WAVES

Dominik MAČEK, SK.....337

THE PARADOX OF EXISTENCE AND THE LEAP OF FAITH: THEOLOGICAL
IMPLICATIONS OF SØREN KIERKEGAARD'S PHILOSOPHY

Miroslav GEJDOŠ, SK – Ivan ONDRÁŠIK, SK – Dominika PAŽITKOVÁ, SK
.....345





SECTION 1: ALGORITHMS, ARTIFICIAL INTELLIGENCE AND NEW
FORMS OF MEDIA LITERACY



THE INTEGRATION OF GENERATIVE ARTIFICIAL INTELLIGENCE TOOLS IN THE CONTEXT OF MEDIA AND INFORMATION LITERACY DEVELOPMENT

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ABSTRACT

The advent of generative artificial intelligence (GAI) has brought about a paradigm shift in the understanding of media and information literacy (MIL). This systematic literature review (SLR) maps the current state of scientific knowledge at the intersection of these fields, focusing on tools, pedagogical approaches, and ethical barriers. According to the PRISMA 2020 methodological protocol, 48 highly relevant and methodologically sound studies were identified from an initial set of 2,785 records, which underwent a two-stage process of relevance (Total Score ≥ 7) and quality (average QI score 5.96) assessment. The findings confirm the absolute dominance of ChatGPT and LLM platform models in research discourse. Pedagogical approaches are shifting towards prompt engineering, constructivist learning models, and Socratic dialogue with AI, which support the active development of critical thinking. The study identifies critical challenges, notably algorithmic bias, the spread of sophisticated disinformation, and the threat of deepfakes (synthetic media, including video or audio recordings, generated via artificial intelligence to appear highly realistic and convincingly authentic), which require the introduction of the concept of "algorithmic inoculation" (a preventive strategy aimed at building users' cognitive resistance to algorithmically amplified misinformation through prior exposure to its mechanisms) into the MIL curriculum. The results emphasize the need to move from static information verification to proactive critical AI literacy and define strategic recommendations for educators and education policymakers in a hybrid information environment.

Key words: generative artificial intelligence (GAI), media and information literacy (MIL), ChatGPT, systematic literature review (SLR), PRISMA 2020, critical thinking.



INTRODUCTION

The rise of generative artificial intelligence (GAI) at the end of 2022, represented primarily by the release of the ChatGPT model to the general public, has brought about a fundamental transformation in the way society approaches information. This technological leap has brought unprecedented opportunities for personalized learning and content creation, but at the same time has posed new challenges for the concept of media and information literacy (MIL). In an era where the line between human and machine-generated text is becoming blurred, traditional methods of critical evaluation of sources are becoming insufficient.

While previous research on digital literacy has focused on the ability to search for and verify static information, current scientific discussion is increasingly focused on interaction with dynamic algorithmic systems (Cain, 2024). The ongoing integration of large language models (LLMs) (a neural network trained on extensive text corpora to predict linguistic sequences, enabling the generation and processing of natural language at scale) into the educational process requires an urgent synthesis of knowledge that would identify not only innovative pedagogical approaches but also the ethical risks associated with algorithmic bias (systematic and reproducible distortions in the outputs of an algorithmic system that disadvantage particular groups, typically arising from skewed training data or model design) and the spread of synthetic misinformation (inaccurate information shared inadvertently or erroneously, lacking malicious intent). This systematic literature review (SLR) responds to this need by mapping the latest scientific knowledge in order to define the future direction of MIL development in a hybrid environment of humans and artificial intelligence.

1 THEORETICAL BACKGROUND

Generative AI refers to the technology that enables machines to generate content such as images, audio recordings and text. In education, GAI is increasingly being casted as not just an assistant (one who acts on behalf of a user), but also as a "collaborative agent" (Carroll, Borycz 2024). Generative artificial intelligence (GAI) is a subset of AI technologies capable of creating new, original content—from text and code to images and sound. In an educational context, there has been a shift in the perception of GAI from a simple assistance tool to a so-called "collaborative



agent" (Carroll, Borycz, 2024). Studies suggest that models such as ChatGPT can effectively act as didactic scaffolding (temporary instructional support provided to learners that is gradually withdrawn as competence increases, drawing on Vygotskian learning theory) that supports self-directed learning and the development of argumentation skills (Aiman et al., 2025; Adarkwah, 2025). However, the implementation of GAI is not without its problems; it requires a high level of "prompt literacy," (the competence to design, evaluate and revise prompts as a distinct form of digital literacy) i.e., the ability to methodically communicate with the model in order to obtain relevant and accurate output (Cain, 2024).

Media and information literacy (MIL) is undergoing a fundamental redefinition as a result of the integration of GAI. Traditional models of critical thinking are now being supplemented by the concept of "critical AI literacy" (Hu, 2025). This includes not only the technical skill of mastering tools, but above all the ability to identify inherent biases and stereotypes that LLM models can reproduce (Hu, 2025). Current theory emphasizes that in an environment saturated with synthetic content and deepfakes, the focus of MIL is shifting from reactive fact-checking to building cognitive resilience through understanding the logic of algorithmic processes (Shin, Akhtar, 2024; Broinowski, Martin, 2024).

2 GOALS

The main aim of this inquiry is to provide an evidence-based appraisal of the extent of integration of generative artificial intelligence tools in media and information literacy education efforts, through a systematic literature review. This work attempts to identify teaching approaches that succeed, to analyse ethical obstacles and then recommend good practices when creating pedagogy strategies.

To reach this objective, we formulated four research questions (RQs):

RQ1: What are the particular GAI tools and applications used most frequently in MIL initiatives at present?

RQ2: What does the scientific literature regarding pedagogical and didactic approaches of GAI integration seem to indicate in terms of an approach that is effective for promoting critical thinking?



RQ3: What are the primary ethical challenges and barriers (e.g., misinformation, bias, loss of integrity) reported in relation to GAI use while pursuing MIL?

RQ4: What suggestions for educators and education policy makers derive from current scientific understanding on GAI and MIL?

3 METHODS

The aim of this section is to transparently describe the process of identifying, selecting, and critically evaluating scientific sources in accordance with the PRISMA 2020 protocol (the Preferred Reporting Items for Systematic Reviews and Meta-Analyses, an internationally recognised standard for the transparent reporting of systematic reviews) (Page et al., 2021).

3.1 SEARCH STRATEGY AND DATA SOURCES

A systematic literature review (SLR) (a structured, protocol-driven method of identifying, appraising and synthesising all available research relevant to a defined question) was conducted in the multidisciplinary database Web of Science Core Collection. The search was limited to the period from January 1, 2023, to November 30, 2025, reflecting the massive increase in scientific output following the release of generative artificial intelligence (GAI) tools to the general public.

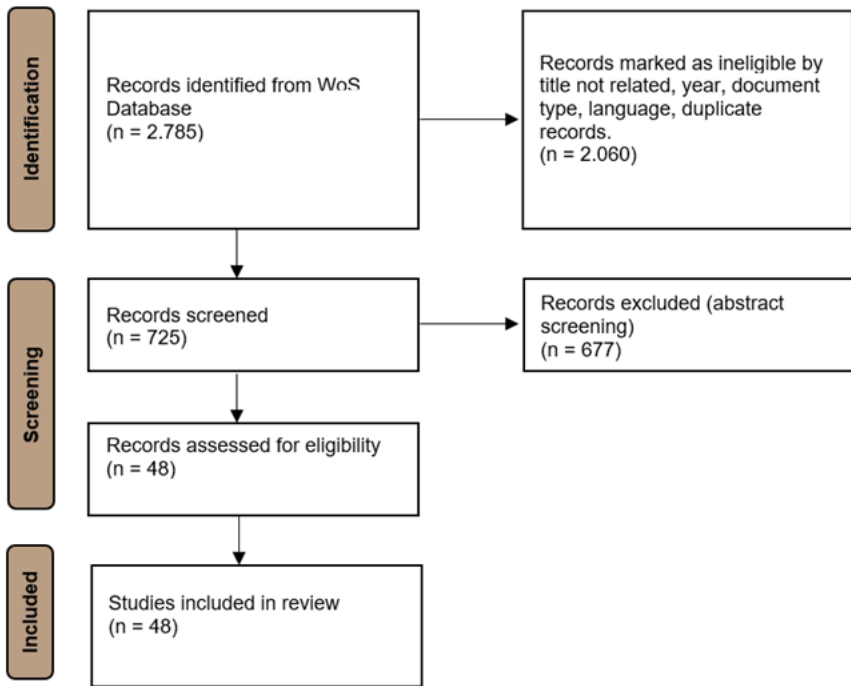
The following Boolean string of keywords was used for the search: *TS=("generative AI" OR "GAI" OR "LLM*" OR "ChatGPT" OR "large language model*" OR "AI tool*") AND TS=("media literacy" OR "information literacy" OR "MIL" OR "digital literacy" OR "critical thinking" OR "fake news" OR "misinformation" OR "disinformation" OR "deepfake*" OR "digital citizenship")*

3.2 STUDY SELECTION PROCESS

The selection and filtration phase was performed in 4 specific steps, which are reported as the PRISMA flow diagram (Diagram 1).



Diagram 1: PRISMA flowchart



Source: Own Processing

Searching. Initial search in the Web of Science Core Collection yielded 2785 records. This broad dataset represented the broad academic landscape at the intersection of GAI and various literacy concepts.

Screening process. After the initial search for relevant studies, strict screening was performed. In the initial stage of screening, 2,060 screened records were determined ineligible and excluded. Exclusion criteria consisted of automatic filters and manual check on the formal criteria, i.e., duplication, non-English language papers and document types that did not correspond to the research aim (like editorials, books or book chapters). This left 725 records for the substantive analysis.

Eligibility. These 725 studies were further subjected to a comprehensive abstract screening according to the criteria explained in Section 3.4. During this phase, 677 articles were excluded mainly because they did not explicitly address the crossway between GAI tools and MIL development (Total Score < 7). As a result, 48 articles were included for full eligibility and methodological evaluation.

Included. Once all remaining studies were assessed to be high-quality according to the stringent deprivation indicators (Total QI ≥ 5), a total of 48 studies was included in the systematic review of literature. This ultimate sample is a strong and highly relevant body of evidence for studying the research questions of this investigation.

3.3 DATA EVALUATION METRICS

To ensure the high value and thematic accuracy of the analysed studies, two different evaluation systems were used in the literature selection process (Table 1): Total Score (relevance indicator) and Total QI (methodological quality indicator).

Total Score (Relevance) quantitative indicator was used for initial filtering and identification of studies with the highest keyword overlap within the GAI and MIL topics under investigation. Points were assigned automatically based on the occurrence of defined terms in the study title (3 points) and abstract (1 point). The threshold value for advancing to the shortlist was set at Total Score ≥ 7 , narrowing the initial set of 725 selected studies to 48 potentially relevant works.

Unlike the first stage, the **Total QI (Quality Indicator)** represents a manual, expert assessment of the scientific robustness of the final sample. Each study was assessed in four categories (QI-1 to QI-4): clarity of objectives, methodological depth, ethical reflection on the limits of AI, and technical detail of GAI tool implementation. All of the criteria were scored from 0 to 2 with a highest potential of 8 points.

The mean quality score for the 48 remaining studies was 5.96, which indicated a high level of scientific level material processed. This two-step process enabled a preliminary search to distinguish the most relevant sources thematically followed by a precise methodological criterion that would facilitate further specific selection in order to respond in detail as is required for a systematic review.



Table 1: Overview of studies included in the SLR

SN	Authors	Total Score	Total QI	SN	Authors	Total Score	Total QI
1	Tang et al.	8	7	25	Santiago, C. M.	7	6
2	Grande et al.	8	7	26	Jin, Y. X.	7	6
3	Del Castillo & Kelly	7	7	27	Acim et al.	7	6
4	Cheng, E. C. K.	7	7	28	Wang et al.	7	6
5	Yu & Shang	7	7	29	Shin & Akhtar	7	6
6	Ren et al.	7	7	30	Mikroyannidis et al.	7	6
7	Lyu et al.	7	7	31	Xue, L. N.	7	6
8	Limna & Kraiwanit	7	7	32	Dobre & Popescu	7	6
9	Bitzenbauer, P.	7	7	33	Krupp et al.	7	6
10	Cain, W.	12	6	34	Tirado-Olivares et al.	7	6
11	Carroll & Borycz	10	6	35	Dunn et al.	7	6
12	Cheng & Hsu	8	6	36	Bispo et al.	7	6
13	Oliveira et al.	8	6	37	Benitez et al.	7	6
14	Aiman et al.	8	6	38	Adarkwah, M. A.	8	5
15	Garcia, M. B.	7	6	39	Naeem et al.	8	5
16	Hu, Y. F.	7	6	40	Chen, C. Q.	7	5
17	Rana et al.	7	6	41	Haroud & Saqri	7	5
18	Ji et al.	7	6	42	Arroyo et al.	7	5
19	Wan & Gu	7	6	43	Li et al.	7	5
20	Hou et al.	7	6	44	Jose et al.	7	5
21	Lee et al.	7	6	45	Broinowski & Martin	7	5
22	dos Santos et al.	7	6	46	Gonsalves, C.	7	5
23	Mutanga et al.	7	6	47	Kizilcec et al.	7	5
24	Shang et al.	7	6	48	Althabiti et al.	7	5

Source: Own Processing



4 RESULTS

4.1 RQ1: AI TOOLS AND APPLICATIONS IN THE CONTEXT OF MIL

Examination of 48 articles selected for the final sample revealed that research in the field of MIL overwhelmingly centres on technology that uses large language models (LLMs). The most studied tool is ChatGPT, which is considered by works like Carroll and Borycz (2024) and Bitzenbauer (2023) one of the fundamental technologies to “bring information literacy education up to date” and support developing critical thinking in classrooms. In addition to ChatGPT, scientific interest is also focused on the diversification of LLM platforms, with Wang et al. (2025) point to the potential of the Chinese model Ernie Bot in strengthening truth-seeking dimensions in students, while Limna and Kraiwanit (2024) analyse the factors influencing the integration of the Google Gemini tool in a university environment.

In terms of the primary applications of these tools in the context of MIL, three main directions can be identified:

Development of "Prompt Literacy" and digital competencies. Cain (2024) emphasizes in his study that prompt engineering (the deliberate formulation, structuring and iterative refinement of textual instructions issued to a generative AI model to elicit relevant and accurate outputs) is becoming a new essential form of digital citizenship that enables students to transition from passive content consumption to active co-creation. In a similar vein, Carroll and Borycz (2024) define the use of GAI as an "ally" in information literacy instruction, where tools help students with search and knowledge synthesis strategies.

Combating information threats and fact-checking. A significant portion of the sample focuses on GAI applications in detecting misinformation. Studies such as Althabiti et al. (2023) and Ren et al. (2025) document the use of generative models in automated fact-checking and identifying fake news in the online environment. This is also related to research on trust in the digital environment, where Dunn et al. (2023) analyse the impact of LLM on how individuals distinguish between marketing information and verified evidence.



Simulation and personalization of MIL education. GAI tools are also applied as advanced simulators for educational purposes. Drushlyak et al. (2025) and Tirado-Olivares et al. (2023) demonstrate how ChatGPT-based simulations help develop critical and historical thinking in future educators through interactive and didactically targeted scenarios.

The dominance of LLM tools, especially ChatGPT, in scientific literature suggests that these platforms have become the de facto standard for research into pedagogical innovations in media literacy (Oliveira et al., 2025).

4.2 RQ2: PEDAGOGICAL AND DIDACTIC APPROACHES TO INTEGRATING GAI INTO MIL TEACHING

Based on our review of the selected literatures, we found various examples of innovative pedagogical models changing today's MIL concept from what was it in traditional form. Research indicates a move away from passive checking of facts and information towards collaborative creation and critical reflection, supported by technology.

Certain pedagogical techniques that have been discovered from the reviewed studies comprise:

Application of constructivist methodologies. A substantial number of research including (Gan, Suharso and Cosa, 2018; Wang et al. (2025), propose a "AI plus Constructivism Learning Theory" paradigm. This method in turn employs tools such as ChatGPT/Ernie Bot to help facilitate truth-seeking and open-mindedness where the student learns via a guided conversation with the AI tool.

How thinking relates to creative problem-solving. In their study, Rana et al. (2025) describes the insertion of GAI into the Design Thinking methodology, promoting creativity and sound ethical thinking in education – increased focus on detail and reflection challenges educator practice. Here, the GAI is an idea generation partner helping with critical thinking and creating alternative views.

Application of GAI as a scaffold. Aiman et al. (2025) research also allows us to see how effective scaffolding with ChatGPT can be for students – especially in areas like writing and media literacy, where the tool is able to provide instant feedback



and “annotation” as a way of holding up learners when they stumble while building resistance.

Prompt engineering as a pedagogical act. Rather than being simply about technical skill, prompt creation should be seen as deeply pedagogical work that involves the iterative design of prompts and critique of their output (Cain 2024). This approach requires students to ask questions in an accurate way and check the factual information of generated content.

Active learner, cooperative learning. Adarkwah (2025) and Santiago (2025) support the significant effect from self-regulated training influence along their results. Santiago (2025) points out the potential of AI-assisted collaborative action research, allowing students to identify and solve together real-world problems in their media environment.

Socratic dialogues and simulations. A novel approach is offered by Fakour, Imani (2025) who contrast Socratic wisdom with AI tutor approach, concluding that GAI-aided guided conversation allows for successful simulation of the mentor-mediator in critical reasoning training. Drushlyak et al. (2025) follow this trend by using simulations to prepare future mathematics teachers in detecting logical errors of AI outputs.

These results corroborate the belief that the integration of GAI in MIL is more than just integrating a new tool, and it implies a shift to didactics paradigms supportive hybrid learning models in which the teacher plays as decoder tends of dialog between student and artificial intelligence.

4.3 RQ3: CHALLENGES, RISKS, AND ETHICAL DILEMMAS OF INTEGRATING GAI INTO MIL TEACHING

From the review of shortlisted literature, it was found that there are critical barriers and ethical dilemmas which play a pivotal role in determining success or failure of media and information literacy development. Generally, these challenges can be categorized under four primary thematic categories:

Misinformation and distrust of information. One main area of exploration is how GAI will affect the misinformation ecosystem and aptitude of fact finding. For



example, Yu and Shang (2025) and Ren et al. (2025) highlight the threat of high-quality fake news created by LLM, which is more challenging to detect with conventional methods. Dunn et al. (2023) highlight that the proliferation of marketing and misinformation within AI outputs, threatens user's trust in digital communication; therefore, such requires new forms of "algorithmic inoculation" against misinformation (Shin, Akhtar, 24).

Ethical challenges and educational integrity. The establishment of GAI poses urgent question on professional ethic issues and the integrity of education. Grande et al. (2024) chart the responses of students related to LLM usage in tasks addressing professional ethics, showing that boundaries are blurred between support and unauthorized help. Rana et al. (2025) further note, while GAI fosters creativity, it also necessitates the enhancement on ethical reasoning to avoid uncritical reception of outputs without ethical reflection.

Algorithmic bias and stereotypes. A significant barrier is the presence of hidden biases in model training data. Hu (2025) documents how GAI can reproduce and even reinforce harmful stereotypes in communication, which is a key issue for "critical AI literacy". According to the author, students must be guided to actively analyze and reflect on these biases, otherwise there is a risk of their uncritical normalization.

Content authenticity and the threat of deepfakes. The development of generative technologies brings risks associated with the manipulation of reality. Broinowski and Martin (2024) and Acim et al. (2025) discuss the consequences of the "deepfake problem" in their works, which go beyond the technical level and affect the regulation of the media space. The identification of synthetic media thus becomes one of the most challenging competencies in the modern MIL curriculum.

Barriers to implementation and moderation. The practical use of GAI in classrooms encounters the limits of the interaction moderation process itself. Krupp et al. (2024) identify the challenges associated with balancing the freedom to use AI tools and the need to moderate their outputs so as not to undermine students' cognitive abilities.



These findings suggest that ethical and security risks are not just a by-product of technology but must become an integral part of MIL education content so that students can act as responsible digital citizens in a GAI environment.

4.4 RQ4: RECOMMENDATIONS FOR EDUCATORS AND POLICYMAKERS

The analysis of the selected set of works made it possible to define a set of strategic recommendations aimed at the effective and safe integration of GAI into the educational process. The results suggest that coordinated efforts at the level of teaching methodology and systemic policies are essential for the successful development of MIL.

Recommendations for pedagogical practice. Carroll and Borycz (2024), along with Del Castillo and Kelly (2025), emphasize the irreplaceable role of librarians and information educators. They should act as primary MIL instructors and help students navigate the complex environment of synthetic media. It is important for teachers to incorporate "Prompt Engineering" into school assignments. Educators should view prompt writing as a fundamental media literacy skill. Cain (2024) suggests better preparing students through iterative questioning phases that allow them to better understand the function of LLMs and be more critical of their outputs. It is also important to use GAI as a partner in Socratic dialogue. Several studies suggest using AI not as a provider of answers, but rather that teachers should contribute models of developing dialogues.

Fakour and Imani (2025) recommend involving GAI in simulated mentoring dialogues that promote critical thinking by challenging students' assumptions. They emphasize "algorithmic immunization" to address the threat of misinformation and support the development of students' "cognitive immunity." (Shin and Achkar, 2024)

Recommendations for education policymakers. Policy makers should initiate the creation of clear ethical guidelines. Rana et al. (2025) and Dunn et al. (2023) advocate for more transparency and explainability of AI algorithms in education systems to avoid the uncritical use of biased data. Bispo et al. (2024) raise concerns of the danger that the digital divide might actually increase. Educational policies have to ensure equal access to advanced GAI tools for individuals from all social strata in order to avoid a new variety of information exclusion. The important goal



is to foster critical AI literacy among educators. Research (Hu, 2025; Xue, 2024) emphasizes the pressing need for professional development opportunities targeted at teachers. It is suggested that collaborative learning community should be developed among teachers to discuss their experience in LLM instruction (Xue, 2024).

Given the ability of GAI to generate academic texts, studies such as Kizilcec et al. (2024) and Susnjak and McIntosh (2024) recommend a systemic shift in student assessment - from a focus on the final product (essay) to an assessment of the process of critical thinking and creation.

In conclusion, according to the analysed literature, the future direction of MIL research and practice should focus on building hybrid competencies, where humans and AI coexist in a state of "creative tension" requiring constant cognitive vigilance (Ji et al., 2025).

DISCUSSION

The RESULTS of this systematic literature review confirm that the integration of GAI into MIL is not just a technical innovation but represents a fundamental paradigm shift. Unlike previous digital tools, GAI (predominantly represented by models such as ChatGPT) enters the learning process as an "active partner," requiring a rethinking of traditional didactic models (Carroll, Borycz, 2024).

A key finding is that critical thinking is no longer sufficient in its reactive form (fact checking). Studies such as Wang et al. (2025) and Feng et al. (2025) suggest the need for a proactive constructivist approach, where students use GAI to test their own assumptions. However, the paradox remains that while GAI offers tools for personalized learning, it also dramatically increases the risk of "cognitive laziness" and uncritical acceptance of automated outputs (Krupp et al., 2024).

The discussion of challenges (RQ3) shows that the phenomenon of misinformation is taking on a new dimension in the era of GAI. As Dunn et al. (2023) and Shin and Akhtar (2024) point out, the fight against disinformation (intentionally fabricated and disseminated false information designed to deceive or inflict harm) is shifting from content detection to understanding algorithmic processes. "Algorithmic inoculation" thus appears to be the most effective defence against synthetic media and deepfakes (Broinowski, Martin, 2024).



A limitation of this study is the high dynamics of the field - most of the analysed works (n = 48) were published within the last 24 months, suggesting that the long-term impacts of GAI on MIL are still awaiting empirical confirmation.

CONCLUSION

This study applied SLR methodology to trace how MIL is re-shaped by generative artificial intelligence. From a review of 48 scientific studies on this topic, we may draw the following conclusions:

ChatGPT and LLMs are the main models underpinning the current state-of-the-research/prompt implementation of GAI in MIL education. The didactics of MIL are moving in the direction of iterative approaches, like prompt engineering and Socratic dialogue with AI, which facilitate active learning (Cain, 2024; Fakour, Imani, 2025). The main obstacles we continue to face are algorithmic bias, loss of authenticity, and emergent digital divide (Hu 2025; Bispo et al. 2024). The strategic change in MIL consists of transitioning from focus on lie detection to creating AI literacy, which is also about ethical reflection and technical comprehension of generative processes.

Finally, not only is GAI a menace to the soundness of information, but it is also an opportunity without precedent that education of critical thinking can be democratized. However, the effectiveness of such integration is reliant on educators' willingness to play a facilitator role in hybrid learning.

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THE POTENTIAL OF ARTIFICIAL INTELLIGENCE AS A DETERMINANT OF MODERNIZATION IN THE PREPARATION OF SPECIAL EDUCATION STUDENTS

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ABSTRACT

The paper analyzes the potential of artificial intelligence (AI) in project-based teaching within the professional training of special education students. Quantitative research among future professionals confirmed a high level of technological acceptance ($TAI = 0.83$), with respondents identifying the greatest benefit in the area of creating individualized teaching aids (62.4%). The results showed a direct correlation between the level of digital literacy and the elimination of technological skepticism. The paper emphasizes the need to modernize the university curriculum with a focus on the ethical and methodological aspects of using AI in special education practice.

Key words: artificial intelligence, project-based learning, special education, technology acceptance, digital literacy.

1 THEORETICAL BASIS OF THE RESEARCH TOPIC

The digital transformation of education is fundamentally changing the nature of special education practice and bringing to the fore the issue of integrating artificial intelligence (AI) into teaching methods (Stacho, 2024a,b; Stacho, 2025a,b; Treľová et al., 2023). Systematic reviews (Hopcan et al., 2022; Yang et al., 2024) confirm that AI in special education is moving towards the creation of a personalized instructional environment, intelligent tutoring, and the development of cognitive skills in disadvantaged students. According to Žilková (2021), appropriately selected digital tools and virtual environments also effectively develop the logic and thinking of children with special needs, who learn through "play," which complements the need to implement effective teaching methods into inclusive practice (Tomášková, Tarciová, Ondrašínová, 2024). According to Šustrová (2014a, 2014b; 2016), it is important to reflect on the health, social, and educational aspects of adolescents with health disabilities, while Biksadská et al. (2024) also



refer to children from the center for children and families. Harkins-Brown et al. (2025) add that AI can significantly increase academic performance and support communication, while Maněnová et al. (2022) add that appropriately chosen digital integration increases the internal motivation and academic results of adolescents. However, a trauma-informed approach (a practice framework that recognises the prevalence and impact of psychological trauma and structures interaction so as to avoid re-traumatisation) must always be taken into account in communication (Gerec, 2024). In the local context, however, Pošteková (2025a) points out that successful implementation in Slovakia is conditional on the systematic development of teachers' digital literacy (Hlásny, 2023).

The acceptance of technologies by future teachers is determined by several factors. Yao and Wang (2024) demonstrated that digital literacy directly influences the perceived usefulness of AI among special education students. The Technology Acceptance Model (TAM2) in inclusive education identifies perceived usefulness as the main predictor of AI adoption (Amouri et al., 2025). However, Galindo-Domínguez et al. (2024) point to a discrepancy between the high declared willingness to use AI and the low level of actual experience with these tools. In this context, it is worrying that the primary source of information about AI for the younger generation is not educational institutions, but peer groups, which often leads to knowledge that lacks professional, ethical, and critical reflection. Schools should therefore play an active role in developing digital and AI literacy through well-founded, understandable, and value-based teaching, while parents should model responsible use and ensure safe interaction with technology (Pošteková, 2025b).

The transition from passive content generation to analytical use of AI requires specific competencies (Hlásny, 2024; Treľová and Hlásny, 2023). According to Žilková (2009), virtual manipulation provides the experience necessary to overcome abstract levels of knowledge, thanks to which AI does not serve as a substitute for an expert, but as a cognitive tool for modeling processes that facilitate the transition from theory to practice. Ng et al. (2023) define key dimensions: working with AI resources, learning support, ethical aspects, and developing students' AI literacy. The framework by Zou, Xie, and Kohnke (2025) makes it possible to diagnose whether a teacher uses AI only for "superficial inspiration" or is able to integrate it into a comprehensive pedagogical analysis. Tenberg and Daniel (2024) emphasize that the



core component of competencies is the ability to critically validate outputs. However, implementation faces barriers such as technophobia, ethical risks (algorithmic bias), privacy protection (Wang, Wang, Su, 2024), and time pressure (Gerec et al., 2025a). In addition, Slovak discourse also includes findings on coaching in the school environment, which would be interesting to implement in this area (Štefáková et al., 2025a, Štefáková et al., 2025b) and thus improve interpersonal communication (Stachoň, 2015). These findings form the theoretical framework for analyzing the relationship between professional competence and the degree of skepticism among students.

2 RESEARCH METHODOLOGY

The main objective of the research was to analyze attitudes and the potential of artificial intelligence (AI) in the training of special education students. A quantitative survey of an age-heterogeneous sample (aged 31–40, 30.8%) sought answers to questions about the areas of practice in which students see the greatest potential for AI and how their digital competencies influence their level of skepticism. The data were processed using bivariate analysis and a synthetic Technology Acceptance Index (TAI). This framework accurately verifies the need to modernize the curriculum for the purposes of special education practice.

3 DATA ANALYSIS AND INTERPRETATION

In the following section, we analyze the results of a quantitative survey focused on the integration of artificial intelligence (AI) into the professional training of future special educators.

3.1 DESCRIPTIVE ANALYSIS OF THE PERCEIVED POTENTIAL OF AI IN SPECIAL EDUCATION PRACTICE

The main focus of the research was to find out in which areas of special education practice students identify the greatest benefits of technology. The results suggest that students perceive AI primarily as a tool for overcoming practical and methodological barriers.



Table 1: Potential uses of AI tools

Area of potential use	Absolute frequency (fi)	Relative frequency (%)
Creation of aids (materials, visualizations, pictograms)	166	62,4 %
Intervention (design of methods and activities for diagnosis)	98	36,8 %
Administration (creation of IVP, examination reports)	76	28,6 %
Assistive technologies (adaptation of aids, AAK)	50	18,8 %
Diagnostics (data analysis and intervention design)	36	13,5 %
Skepticism (I don't see any significant potential)	46	17,3 %

Source: Own Processing

Note: The relative sum exceeds 100% because respondents had the option to select multiple areas at the same time.

The data in Table 1 show a clear dominance of the area of aid creation, which was indicated by as many as 166 respondents (62.4%). The second most frequently mentioned area is intervention (36.8%), followed by administrative activities (28.6%). Less than a fifth of the sample sees potential in assistive technologies (18.8%) and diagnostics (13.5%). The group of respondents who did not identify any benefits represents 17.3% of the sample. The dominance of the creation of aids reflects the need to streamline the preparation of individualized materials, which is time-critical in special education. We consider it an important finding that intervention surpassed administration, from which we conclude that students do not consider AI merely a means of facilitating bureaucracy, but attribute to it the ability to assist in professional methodological planning.

3.2 ANALYSIS OF THE COMPLEXITY AND DEPTH OF TECHNOLOGICAL PERCEPTION

To measure the degree of versatility in students' thinking about technology, we introduced cumulative perception of benefit statistics, which allow us to differentiate between levels of technological optimism.



Table 2: Degree of complexity of perceived potential (N=266)

Number of marked areas	Type of respondent	Absolute frequency (fi)	Relative frequency (%)	Cumulative frequency (cfi)
0 areas	Skeptic	46	17,3 %	17,3 %
1 area	Cautious user	62	23,3 %	40,6 %
2 areas	Open user	88	33,1 %	73,7 %
3 areas	Comprehensive user	70	26,3 %	100,0 %

Source: Own Processing

Table 2 divides respondents according to the number of identified areas of benefit. The largest group consists of open users with two marked areas (33.1%), while more than a quarter of respondents (26.3%) perceive AI comprehensively in three areas at the same time. The cumulative frequency shows that up to 82.7% of students identify at least one benefit of AI for their practice. To quantify the overall attitude, we calculated a weighted arithmetic mean of 1.68. This confirms that a typical student identifies almost two areas in which AI assists them. The fact that a significant majority of the sample (59.4%) identified two or more areas indicates a high degree of expected functional integration of technologies into professional life.

3.3 IMPACT OF DIGITAL LITERACY ON ATTITUDES

As part of a more in-depth analysis, we examined the relationship between students' subjectively perceived level of expertise and their degree of skepticism toward technology.

Table 3: Expertise vs. absence of perceived potential

Level of expertise	Sees potential (f)	Does not see potential (f)	Total (n)
Beginner	120 (75,0 %)	40 (25,0 %)	160
User / Advanced	104 (98,1 %)	2 (1,9 %)	106
Total	224	42	266

Source: Own Processing



Table 3 compares the skill level of respondents with their attitude towards the potential of AI. Among beginners, we identify 40 skeptics (25%), but in the group of users and advanced users, this number drops to a minimum (1.9%), with up to 98.1% of them perceiving the benefits of AI for practice. We interpret this result as evidence that a negative attitude towards innovation in special education is not primarily a professional attitude, but a consequence of a deficit in specific digital competencies. With increasing expertise in AI, the barrier of mistrust is almost completely eliminated.

3.4 DISCUSSION AND RELATIONSHIP TO THE EDUCATIONAL CURRICULUM

Following on from the level of acceptance identified, we examined students' attitudes towards systemic reform of higher education.

Table 4: The relationship between perceived potential and the demand for AI instruction

Perceived potential	Requests instruction (Yes)	Declines instruction (No)	Total
Sees practical benefits	162	58	220
Does not see benefits (Skeptic)	8	38	46
Total	170	96	266

Source: Own Processing

Table 4 confirms the direct correlation between the perceived usefulness of AI and the demand for its institutional teaching, as declared by as many as 162 respondents. The high value of the Technology Acceptance Index ($TAI = 0.83$) indicates readiness for digital transformation, although identified concerns about the validity of outputs testify to the critical approach of students. The demand for curriculum modernization is therefore not based on a fascination with technology, but on the need to acquire expert competencies for the ethical and safe management of AI processes. Despite the emphasis on the human aspect of the discipline, future special educators perceive AI as an indispensable tool whose effective application in practice is conditional on the targeted development of digital skills within university studies.



4 DISCUSSION

Based on the analysis of the data, answers to the research questions can be formulated, revealing deeper connections in the attitudes of future special educators.

In response to the first research question, we find that respondents identify the most significant potential of artificial intelligence primarily in the creation of teaching aids, as confirmed by 62.4% of respondents. This trend suggests that technology is perceived as a key tool for personalizing and visualizing educational content, especially when generating pictograms and individualized materials. A significant finding is that methodological intervention (36.8%) was perceived as more important than administrative support, which shows that students do not consider AI merely as a means of facilitating bureaucracy, but as a relevant partner for professional pedagogical activities.

The answer to the second research question demonstrated a direct correlation between the level of digital literacy and the degree of technological skepticism. While skepticism reached 25% among respondents at the beginner level, it fell to a negligible 1.9% among advanced users. These data allow us to conclude that negative attitudes toward innovation are not based on professional reservations about technology as such, but are rather the result of a lack of practical experience and digital skills. Increasing skill levels thus appears to be the primary factor for the acceptance of innovation in the field.

In searching for an answer to the third research question, it was confirmed that the relationship between perceived potential and demand for institutional education shows a strong positive correlation. As many as 73.6% of students who identify the benefits of AI for practice also request its inclusion in the university curriculum. The overall level of readiness expressed by the Technology Acceptance Index (TAI = 0.83) confirms that this demand is not motivated solely by uncritical fascination, but by the desire for safe, valid, and ethical mastery of tools that students consider essential for their future profession. Even some of the more skeptical respondents perceive academic education as a legitimate way to overcome the information deficit, which creates a strong empirical basis for the proposed modernization of study programs.



5 CONCLUSION AND RECOMMENDATIONS FOR PRACTICE

The research confirmed that the transformation of special education in the era of digital innovation has been met with an extremely positive response from future professionals in this field. We measured a significantly high level of technological acceptance ($TAI = 0.83$), which indicates that students perceive artificial intelligence as a strategic partner in overcoming methodological and material barriers. A key finding is that this optimism is not associated with passive expectation, but with a conscious demand for institutional education. Future educators identify AI as a tool for the highly effective creation of individualized teaching aids, which they consider to be a priority area of its contribution to practice.

At the same time, we identified a clear causal link between the level of digital literacy and the degree of technological scepticism. It turned out that negative attitudes towards innovation are not based on professional arguments, but are rather a manifestation of an information deficit. This fact underscores the need for systemic change in the training of future special educators. Based on the data obtained and the needs identified among respondents, we propose the following recommendations for the academic community and curriculum developers:

The first strategic step should be the implementation of specialized modules focused on the practical use of artificial intelligence in a special education context. The goal of these modules must be to transform students from beginners to advanced users, thereby naturally removing the barrier of fear of innovation. According to Gerec et al. (2025b), it is precisely the successful implementation of innovation that can increase self-efficacy (in the Bandurian sense, an individual's belief in their own capacity to execute the actions required to attain a given outcome). Education should focus primarily on the area of prompt engineering for the creation of visual communication systems and pictograms, which students identified as the most beneficial area.

The second recommendation is to integrate the topics of digital ethics and data validity directly into special education diagnostics courses. Since students perceive AI as a risk factor in terms of data accuracy, it is essential to equip them with the skills to critically evaluate the outputs generated by algorithms. This will ensure that technology serves as a support for professional decision-making rather than an



uncritical substitute for it. Universities should respond to this strong demand for the safe and ethical management of AI processes, thereby preparing graduates for the real challenges of modern practice in inclusive education.

In conclusion, we find that students' readiness for the modernization of the field exceeds the current possibilities of the academic curriculum. Bridging this gap through targeted methodological development of digital skills is the only way to transform technological potential into real qualitative change in the lives of students with special educational needs.

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VIDEO GAME WORLDS AS A SPACE OF MEDIA LITERACY AND POLITICAL PROPAGANDA: CULTURAL, MEDIA, AND POLITICAL SCIENCE INTERPRETATIONS

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ABSTRACT

The aim of the paper is to analyze digital games as complex media in which elements of cultural production, media strategies, and political narratives intersect, with particular attention to their influence on the development of media literacy and on the mechanisms through which political propaganda is disseminated or normalized. The study connects cultural, media, and political science perspectives to demonstrate how game worlds model social conflicts, power structures, and ideological frameworks, and how player interaction can strengthen the ability to critically distinguish between fact, fiction, manipulation, and propagandistic content. The core of the empirical section will consist of a questionnaire survey among students, focused on how they perceive political content in video games, what media and critical skills they develop through them, and to what extent they reflect the presence of political propaganda in digital gaming environments. Part of the paper's aim is also to identify how game worlds may simultaneously support scientific thinking and pose risks as tools of political socialization or ideological influence.

Key words: media literacy, political propaganda, digital games, ideological socialization

INTRODUCTION

Digital video games represent one of the dominant forms of media production oriented toward younger generations and constitute a specific type of interactive medium that combines narrative structures, visual representation, and game mechanics. Their significance extends beyond entertainment, as game worlds mediate social values, cultural patterns, and interpretations of power, conflict, and



identity. For this reason, video games have become a relevant subject of research within media, cultural, and political studies.

A key characteristic of video games is interactivity, which places the player in an active role as a co-creator of the gameplay experience. Players are not merely passive recipients of content but engage with narrative and ideological frameworks through their decisions and in-game strategies. This aspect creates conditions for the development of media literacy and critical thinking, while simultaneously enabling the influence of political meanings and ideological framing, often without explicit designation.

Political content in video games does not manifest exclusively through overt ideological messages but is embedded in game mechanics, narrative structures, and representations of social conflicts. Such constructed game environments may influence the ways in which players interpret political themes and value orientations. From this perspective, it is important to examine video games as a space in which media literacy intersects with processes of political socialization.

This paper focuses on the analysis of players' perceptions of political and ideological content in video games in relation to media literacy and critical reflection. The empirical part of the study is based on a questionnaire survey conducted among students and highlights the ambivalent nature of video games as an environment that can support the development of critical thinking while simultaneously functioning as a tool of ideological influence.

1 THEORETICAL BACKGROUND

Video games represent a specific type of digital medium whose function extends beyond entertainment and includes the mediation of meanings, values, and interpretations of the world through the active participation of the player.

1.1 VIDEO GAMES AS AN INTERACTIVE MEDIA ENVIRONMENT

Video games differ fundamentally from traditional media such as film or literature in the degree of interactivity, which places the user in an active position within the gameplay experience. Players are not merely passive recipients of content; through their decisions, movement within the game space, and interaction with game



mechanics, they actively contribute to shaping the gaming experience. This principle of active participation constitutes one of the core defining characteristics of video games as a medium and significantly influences the ways in which mediated meanings are interpreted (Aarseth, 1997).

As Švelch (2018) points out, video games have gradually established themselves as a fully-fledged component of the cultural and media landscape. They are no longer perceived solely as a form of technical entertainment, but rather as cultural products that reflect social values, ideological frameworks, and historical contexts of the environments in which they are created. Game worlds function as stylized representations of reality through which players gain experience with various forms of power, conflict, identity, and social organization.

The interactive nature of video games also enables the mediation of knowledge and experience in ways that differ from the linear communication typical of traditional media. Through immersion (the psychological state in which a user becomes cognitively and emotionally absorbed in a mediated environment, perceiving it as experientially present) in the game world, video games engage players more deeply, creating conditions for more intense experiential involvement and a deeper internalization of mediated meanings (Reinhard, 2018). Meanings in games therefore emerge not only through narrative or visual representation, but through the act of play itself, shaped by game design, rules, and mechanics.

From this perspective, video games can be understood as a media environment in which meanings are not constructed unilaterally, but emerge through interaction between the author, the game system, and the player. This process of meaning-making creates conditions for the mediation of values and interpretations of the world that may operate implicitly and without explicit identification of their media or ideological character.

Media products simultaneously employ specific languages and symbolic resources through which meanings, values, and ethical frameworks of communication are conveyed. Their comprehension and interpretation are therefore conditioned by the recipient's capacity for critical media reflection (Grupač, 2021).



At the same time, the meanings of media and cultural content are not universal, but are shaped by the historical, social, and technological contexts in which such content is produced and received (Majerová and Filip, 2024).

1.2 MEDIA LITERACY AND CRITICAL REFLECTION OF GAME CONTENT

Media literacy in the digital environment cannot be understood solely as the technical ability to use media or navigate digital interfaces. As noted by Potter (2019), its core lies in the ability to analyse, interpret, and critically evaluate media content and the meanings it conveys, including the value-based and ideological frameworks embedded within it. In the case of interactive media such as video games, this dimension becomes particularly significant, as meanings emerge through the active participation of the player.

Within digital media environments, a discrepancy can be observed between declared and actual levels of media competence. A high degree of user confidence in working with media does not necessarily imply the ability to critically reflect on content, which may result in the uncritical acceptance of mediated meanings (Kubala and Pál, 2025). This discrepancy is especially relevant in gaming environments, where values and interpretations of the world are often communicated implicitly through game mechanics, rules, and narrative structures.

According to Grupač (2021), understanding media content is closely linked to the ability to work with the language of media and the symbolic resources through which meanings are constructed. Critical media reflection enables recipients to identify not only explicit messages but also hidden layers of meaning and ethical frameworks of communication that may operate subtly and without direct designation.

Technical fluency and digital self-confidence do not necessarily lead to higher levels of critical thinking. On the contrary, they may create an illusion of competence that weakens the need for reflection on mediated content and its broader social implications (Buckingham, 2019). Video games can therefore be understood as an ambivalent media environment that, on the one hand, offers opportunities for the development of critical thinking, while on the other hand may function as a space



for implicit socialization and the normalization of certain value-based and ideological frameworks.

1.3 POLITICAL MEANINGS AND IMPLICIT PROPAGANDA IN DIGITAL MEDIA

In digital media environments, political communication increasingly operates through implicit forms of persuasion rather than openly declared ideological messages. Political meanings are often conveyed through symbolic framing, emotional engagement, and culturally embedded interpretations of reality, allowing them to function without being explicitly recognised as propaganda (Chadwick, 2017).

Digital media further amplify the persuasive potential of political messages through visual appeal, emotional resonance, and interactivity, contributing to the normalization of specific value-based and ideological frameworks (Stieglitz et al., 2014). From this perspective, video games can be understood as a specific digital medium in which political meanings are frequently communicated implicitly through gameplay mechanics, rules, and representations of power, conflict, or identity.

The implicit nature of political meanings in video games increases the importance of media literacy and players' capacity for critical reflection. Without an active analytical approach, such meanings may be accepted as a natural part of the game world without being critically questioned.

2 GOALS

Digital video games have become an established part of the media environment, extending beyond the realm of leisure entertainment and emerging as significant carriers of cultural, social, and political meanings. In comparison with traditional media, interactive game worlds offer a specific mode of conveying narratives, ideologies, and power structures, as players are not merely passive recipients of content but active participants in gameplay. This interactivity creates conditions not only for the development of media literacy and critical thinking, but also for the subtle influence of political propaganda and ideological framing. The importance of studying video games in the context of media literacy and political socialization is



particularly evident among young people, who constitute the dominant segment of the gaming population and are simultaneously highly exposed to digital media. In this environment, the ability to identify political messages, distinguish between fiction and reality, and reflect on manipulative techniques becomes a key competence. The research therefore focuses on how players perceive political and ideological content in video games and to what extent these experiences are related to their media literacy and critical thinking.

3 METHODS

The research sample consists of 104 respondents who identified themselves as active video game players. In terms of age structure, respondents aged 20–30 years dominate the sample (78.8%), while the younger group aged 15–20 years accounts for 18.3% of respondents. A smaller proportion is represented by respondents aged 30 years and older (1.9%), and respondents younger than 15 years occurred only sporadically (1.0%). The sample is therefore strongly oriented toward a younger population, which corresponds with the research focus. In terms of gender, the research sample consisted of men (59.6%) and women (40.4%), with the representation of both groups allowing for basic comparisons without significant gender imbalance. Regarding educational status, the majority of respondents are university students (93.3%), a smaller proportion consists of graduates who are not currently studying (4.8%), and secondary school students are represented only marginally (1.9%). The research is thus primarily oriented toward an academic environment, which is consistent with the focus of the conference paper. From the perspective of gaming habits, the sample represents a highly active gaming population. As many as 43.3% of respondents report playing video games almost daily, while an additional 41.3% play frequently (several times a week). A smaller group consists of occasional players who play several times a month (11.5%) or rarely (3.9%). This structure confirms that the research works with respondents who have sufficient experience with gaming environments and are capable of reflecting on their media and political aspects. Such a sample provides an appropriate basis for testing the stated hypotheses and enables the analysis of relationships between gameplay intensity, media literacy, and the perception of political propaganda in video game worlds.



4 RESULTS

Formulation and justification of research hypotheses

Based on theoretical foundations in media studies, political science, and cultural studies, as well as with regard to the specific nature of digital games as an interactive medium, three research hypotheses were formulated for the purposes of the study. Their aim is to verify the existence of relationships between media literacy, gaming habits, and the perception of political and ideological content in video game environments. The hypotheses are based on the assumption that the intensity of contact with the gaming medium and the level of critical thinking may significantly influence the way players identify and interpret political narratives and propagandistic elements.

(H1): Respondents with a higher level of media literacy will identify elements of political propaganda in video games more frequently than respondents with a lower level of media literacy. The first hypothesis reflects the theoretical assumption that media literacy enhances individuals' ability to recognize manipulative techniques and ideological framing in various types of media, including digital games. In this context, it is assumed that respondents who declare a higher ability to critically analyze media content will be more sensitive to the presence of political propaganda in game narratives. The hypothesis therefore examines the relationship between self-assessed media literacy and the frequency of identifying propagandistic elements in video games.

(H2): The more frequently respondents play video games, the higher the degree of exposure to political and ideologically colored content in video games they report. The second hypothesis is based on the assumption that greater intensity of gameplay increases the likelihood of encountering diverse game content, including political and ideological themes. The more frequently an individual enters game worlds, the greater the probability of encountering narratives reflecting social conflicts, power relations, or value orientations. The hypothesis therefore focuses on the relationship between the frequency of playing video games and the degree of perceived political and ideologically colored elements in games.

(H3): Respondents who perceive video games as a space for the development of critical thinking will be less prone to uncritical acceptance of political narratives and



one-sided ideological interpretations in game environments. The third hypothesis connects the concept of critical thinking with political socialization in digital media. It is based on the assumption that players who perceive video games as a space for developing critical reasoning will be more capable of maintaining distance from one-sided political interpretations and ideologically framed game narratives. Conversely, lower reflexivity may lead to the uncritical acceptance of game messages as self-evident or neutral.

The formulated hypotheses create an analytical framework for the research and enable a systematic examination of relationships between gaming behavior, media literacy, and the perception of political propaganda. Their verification is conducted through quantitative analysis based on the chi-square test (a non-parametric statistical test of association between categorical variables based on the difference between observed and expected frequencies), with emphasis placed on confirming or rejecting predefined assumptions without exploratory expansion of the analytical scope.

4.1 EVALUATION OF HYPOTHESIS H1

The first hypothesis assumed the existence of a relationship between respondents' level of media literacy and their ability to identify political propaganda in video game environments. Specifically, it was assumed that respondents with a higher level of media literacy would more frequently report the presence of propagandistic and manipulative elements in video games than respondents with a lower level of media literacy. To test the hypothesis, self-assessed ability to critically analyze media content was used as an indicator of media literacy. Variables were recoded into categories prior to statistical testing in order to meet the assumptions of the chi-square test. Media literacy was divided into medium and high levels, with the "medium" category including the response average and the "high" category including the responses good and very good. Perception of propagandistic elements in video games was similarly divided into a medium level of occurrence (occasionally) and a high level of occurrence (often and very often). The results of the chi-square test did not demonstrate a statistically significant relationship between the level of media literacy and the frequency of identifying political propaganda in video games ($\chi^2 = 0.53$; $p = 0.47$). The value of Cramér's V ($V = 0.07$) (a measure of the strength of association between two nominal variables derived



from the chi-square statistic, ranging from 0 to 1) also indicates a very weak strength of association between the observed variables. Based on these results, hypothesis H1 cannot be confirmed. Although respondents with higher media literacy reported a more frequent occurrence of propagandistic elements in absolute terms, this difference was not statistically significant. The findings suggest that self-assessed media literacy alone may not be a decisive factor in identifying political propaganda in game narratives, or that the ability to recognize propaganda may be distributed across different levels of media literacy in gaming environments. These findings point to the need for cautious interpretation of the relationship between media literacy and the perception of political content in video games and open space for further research focusing on the discrepancy between declared competencies and their actual application in interactive media.

The results of testing the first hypothesis thus indicate that the relationship between declared media literacy and the ability to identify political propaganda in video game environments is not straightforward. This conclusion suggests the need to examine additional factors that may influence the perception of political and ideological content in game narratives. In the following section, the research therefore focuses on the role of gameplay frequency as a potential determinant of exposure to political themes and ideologically colored elements in digital game worlds, which is the subject of testing the second research hypothesis.

4.2 EVALUATION OF HYPOTHESIS H2

The second hypothesis assumed that gameplay intensity is related to the level of perceived political and ideological content in game environments. Specifically, it was assumed that respondents who play video games more frequently would report a higher degree of exposure to political themes and ideologically colored elements than occasional players.

To test the hypothesis, gameplay frequency was used as the independent variable and was recoded into two categories prior to analysis: frequent players (respondents who play games almost daily or several times a week) and less frequent players (respondents who play several times a month or rarely). The dependent variable was the perception of political themes in video games, similarly divided into a high level of perception (often and very often) and a lower level of perception (occasionally).



The results of the chi-square test did not demonstrate a statistically significant relationship between gameplay frequency and the level of perceived political themes in video games ($\chi^2 = 0.00$; $p = 1.00$). The value of Cramér's V ($V = 0.00$) indicates a negligible strength of association between the observed variables. Based on these results, hypothesis H2 cannot be confirmed. The findings suggest that gameplay intensity alone does not represent a decisive factor in the perception of political and ideological content in game narratives. Both frequent and less frequent players reported comparable levels of contact with political themes, which may indicate that political references in contemporary video games are present across various genres and gameplay styles and are not exclusively tied to gameplay intensity. The results also point to the need to consider qualitative aspects of the gaming experience, such as game type, genre, or narrative orientation, which may play a more significant role than gameplay frequency alone.

The results of testing the second hypothesis suggest that gameplay intensity alone may not be a decisive factor in the perception of political and ideological content in game environments. This conclusion highlights the need to focus not only on quantitative aspects of gaming behavior but also on qualitative dimensions of the gaming experience, particularly the way players reflect on game narratives and value frameworks.

In the following section, the research therefore focuses on the relationship between critical thinking and political socialization in video game worlds, which is the subject of testing the third research hypothesis.

4.3 EVALUATION OF HYPOTHESIS H3

The third hypothesis focused on the relationship between perceiving video games as a space for developing critical thinking and the degree of political socialization in game environments. It was based on the assumption that respondents who reflect on video games as a medium supporting critical reasoning would be less prone to uncritical acceptance of political narratives and one-sided ideological interpretations embedded in game stories. To test the hypothesis, the level of agreement with the statement that video games represent a space for “training” critical thinking was used as the independent variable. This variable was recoded into two categories prior to analysis: a higher level of critical perception of games (responses definitely yes



and rather yes) and a lower level of critical perception of games (responses rather no and definitely no). The dependent variable was the perception of games as a tool of political socialization, similarly divided into a higher level of political socialization (very often and often) and a lower level of political socialization (occasionally, rarely, and never). The results of the chi-square test demonstrated a statistically significant relationship between the observed variables ($\chi^2 = 6.84$; $p = 0.033$). The value of Cramér's V ($V = 0.26$) indicates a weak to moderate association, which is nevertheless interpretatively relevant in the social sciences. Respondents who perceived video games as a space supporting critical thinking more frequently reported a lower degree of political socialization and one-sided ideological influence in game narratives. Conversely, respondents with a lower level of critical reflection of the gaming medium more frequently stated that they perceive game environments as a tool of political socialization. Based on these results, hypothesis H3 can be confirmed. The findings suggest that the ability to critically reflect on game environments plays an important role in interpreting political content in video games and may function as a protective factor against the uncritical acceptance of ideologically framed narratives.

The results also support the broader theoretical assumption that media literacy and critical thinking influence not only the ability to identify propaganda but also the way individuals process political meanings in interactive media.

CONCLUSION

The aim of the research was to examine the relationships between media literacy, gaming habits, and the perception of political and ideological content in video game environments through three predefined hypotheses. The results provide a differentiated picture of which factors play a more significant role in the interpretation of political narratives in digital games and which appear to be less decisive. To facilitate an overall interpretation of the findings, Table 1 summarizes the tested hypotheses and their respective results.



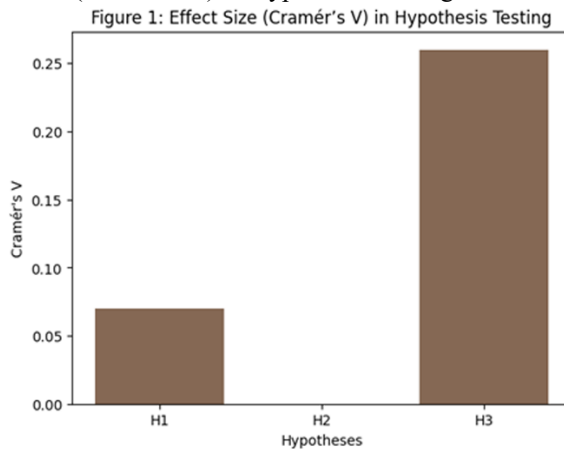
Table 1: Overview of the Tested Hypotheses and Results

H	Independent variable	Dependent variable	Test	Result	Conclusion
H1	Self-assessed media literacy	Frequency of propaganda identification	X ² Test of dependence	$\chi^2 = 0,53$; $p = 0,47$; $V = 0,07$	Hypothesis Not confirmed
H2	Frequency of video game playing	Perception of political themes in games	X ² Test of dependence	$\chi^2 = 0,00$; $p = 1,00$; $V = 0,00$	Hypothesis Not confirmed
H3	Critical perception of games	Perception of games as a tool of political socialization	X ² Test of dependence	$\chi^2 = 6,84$; $p = 0,033$; $V = 0,26$	Hypothesis confirmed

Source: Own Processing

To further illustrate the strength of relationships identified in the empirical analysis, Figure 1 visualizes the effect sizes (Cramér's V) for each tested hypothesis.

Figure 1: Effect Size (Cramér's V) in Hypothesis Testing



Source: Own Processing



Testing of the first hypothesis (H1) did not reveal a statistically significant relationship between the declared level of media literacy and the ability to identify political propaganda in video games. This finding suggests that self-assessed media competences alone may not be a sufficient predictor of sensitivity to propagandistic elements in game narratives and points to a possible gap between declared and actually applied media literacy in interactive environments, where political content is often embedded implicitly through game mechanics.

Similarly, the second hypothesis (H2), which assumed a relationship between the frequency of gameplay and the perception of political and ideological themes, was not confirmed. The results indicate that gameplay intensity in itself does not represent a key factor influencing the perception of political content, as political and ideological motifs are likely present across different genres and gameplay styles. In contrast, the third hypothesis (H3) was statistically confirmed and demonstrated a significant relationship between perceiving video games as a space for developing critical thinking and a lower degree of political socialization within game environments. Respondents who reflected on video games as a medium supporting critical reasoning were less prone to uncritical acceptance of political narratives and one-sided ideological interpretations. This finding highlights the importance of the qualitative dimension of gaming experience, particularly the way players interpret game content, rather than mere exposure or declared media competences.

Overall, the results suggest that the decisive factor in the perception of political propaganda in video games is neither gameplay intensity nor generally declared media literacy, but primarily the ability to critically reflect on the gaming medium itself. Video games thus appear as an ambivalent space that can function both as a tool of political socialization and as an environment supporting the development of critical thinking, depending on the manner of their reception by players. From a broader perspective, these findings contribute to the ongoing discussion on the role of interactive media in contemporary political communication and media literacy.

A limitation of the study lies in the reliance on a self-selected sample predominantly composed of university students and on self-reported measures of media literacy, which may limit the generalizability of the findings and calls for further research using more diverse samples and complementary methodological approaches.



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ARTIFICIAL INTELLIGENCE USE AMONG STUDENTS IN HELPING PROFESSIONS

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ABSTRACT

The paper maps the use of artificial intelligence in the university education of social work and special education students in Slovakia (N = 268). Data from a self-designed questionnaire were processed descriptively and correlatively. AI is used more for administrative tasks (45.9% use it in creating individual plans), while 69.9% of respondents do not use it for developing intervention skills. The most common barrier is the unreliability of information (59.8%), but its relationship to the actual use of AI has not been confirmed. More than half of the students (54.2%) support the inclusion of ethics and the effective use of AI in the curriculum.

Key words: AI ethics, artificial intelligence, social work, special education, university education.

INTRODUCTION

AI is changing university education in the helping professions, where professional knowledge is linked to working with people (e.g., in the fields of social work and special education). In addition to the benefits for learning and the creation of professional outputs, the risks to empathy, professional judgment, and ethics are also being discussed. The theoretical part defines the key benefits, barriers, and ethical/didactic conditions for AI integration and creates a framework for interpreting research questions in the empirical part. The aim of the paper is to identify and analyze the degree of integration of artificial intelligence (AI) tools into the processes of preparing and training the professional competencies of future workers in the helping professions.

1 THEORETICAL BACKGROUND

In recent years, AI has been changing the face of higher education, especially in the helping professions, where professional knowledge is combined with direct work with people – e.g., in social work, social counseling, special education, social



services, and the like. These fields have traditionally been dominated by teaching based on case studies, supervision, field practice, and the development of reflection and values, with digitization bringing new opportunities but also concerns (Doğan, 2025; Štefáková, 2024; Bundzelová, Radi, 2024; Vallová, Mrvář, 2023; Halušková, 2020; Hodgson et al., 2021; Ludvigh Cintulová et al., 2018a,b,c; Bundzelová et al., 2018; Štefáková, 2016; Vallová, 2014). Šrobárová (2014, 2016) also points out that in this context, helping professionals must not forget about quality crisis intervention, which is a short-term stabilizing intervention where the worker's task is to provide structure, support, and direct the client to available forms of help. Education has rapidly adopted AI in teaching, assessment, and administration, offering benefits like personalized learning, but also raising ethical, cognitive, and social challenges (Pošteková, 2025b). In helping professions, where empathy and ethical judgment are central, uncritical AI use may distort professional identity and weaken interpersonal and critical skills, making awareness of its socio-ethical impact essential. From the perspective of teaching, modern didactics also offers helping professionals - teachers - a number of interesting methods that can contribute to the fulfillment of educational goals (Huľová, Tokoš, 2024). In the local context, however, Pošteková (2025a) points out that the successful implementation of AI in Slovakia is conditional on clear methodological guidelines and the development of digital literacy among teachers. Research in the helping professions shows that AI can support personalized learning, the development of critical and professional thinking, and preparation for complex decision-making in working with clients (Issa et al., 2024; Agarwal et al., 2025; Balay-Odao et al., 2024; Stachoň, 2018). In social work, the potential of AI for case simulations, virtual internships, and scenario-based learning is emphasized; students can practice interviewing, social counseling, case study creation, and decision-making in ethically sensitive situations in a safe environment (Hellerová, Urban, 2025; Doğan, 2025; Arosio, 2025). Generative tools can model different versions of individual plans or case reports, which supports analytical and communication skills when used as a supplement to, rather than a replacement for, professional expertise (Doğan, 2025; Arosio, 2025). At the same time, however, the literature points out that social work is a profession deeply rooted in humanity, relationships, and human rights values. Over-reliance or uncritical reliance on AI may jeopardize the development of empathy, cultural sensitivity, and critical thinking, which are key to working with clients and families (Doğan, 2025; Hodgson et al., 2021). Therefore, there is a



growing emphasis on the need to understand AI as a "black box" that must be learned to work with - not uncritically accepted, but evaluated in the context of professional standards and ethical guidelines (Bearman, Ajjawi, 2023; Hodgson et al., 2021; Holmes et al., 2021). Higher education therefore faces the task of systematically building AI literacy and ethical competence in future workers in the helping professions. Research points to the need for formal courses on AI, training for educators, and clear institutional policies that define the boundaries of legitimate AI use in study (Issa et al., 2024; Alqahtani, Wafula, 2024; Lytvynov, 2025; Qehaja, 2025; Khalaf, 2025; Stacho, 2024a,b; Stacho, 2025a,b; Treľová et al., 2023, Hlásny, 2024). In this context, AI is understood as a cognitive and didactic tool that can make learning more effective if it simultaneously reinforces—rather than replaces—the professional judgment, empathy, and ethical responsibility of future helping professionals (Doğan, 2025; Hodgson et al., 2021; Balay-Odao et al., 2024; Arosio, 2025; Crompton, Burke, 2023). Previous research has focused on the tension between the technological potential of AI and concerns about preserving the core of professional identity in the helping professions. Questions about the extent to which AI is used in the development of intervention skills, in the creation of individual plans, and in the perception of the need for ethical education about AI are therefore a key and current area of research (Doğan, 2025; Hodgson et al., 2021; Balay-Odao et al., 2024; Holmes et al., 2021; Crompton, Burke, 2023).

2 METHODS

The main objective of the research is to identify and analyze the degree of integration of artificial intelligence (AI) tools into the processes of preparing and training the professional competencies of future workers in the helping professions.

RQ1: What proportion of respondents use AI tools to develop their intervention (soft) skills in preparation for working with clients?

RQ2: What is the relationship between the unreliability of information and the preparation of an individual plan using AI?

RQ3: To what extent do students in the helping professions consider the introduction of a module on ethics and the effective use of AI to be a key part of the university curriculum?



Data collection was carried out using a quantitative method with a measuring tool of our own design. The data were subjected to mathematical and statistical analysis (absolute and relative frequencies, mode, median). Spearman's correlation coefficient was applied to measure correlations, and statistical significance was verified using the chi-square test of independence. The research sample consists of $N = 268$ respondents. First-year external bachelor's degree students predominate (21.8%). In terms of age, the research sample is characterized by a predominance of older people, with the largest group being respondents in the 31–40 age category (30.8%).

3 RESULTS

In this chapter, we present statistical processing of data obtained from the research. We focus on a descriptive description of key variables that are the subject of our research questions.

Descriptive analysis of selected items

To objectively assess the degree of AI integration into the training of future professionals, we analyzed the distribution of responses in three key areas: skills development, methodological preparation, and ethical awareness.

Table 1 Overview of responses to key items ($N = 268$)

Questionnaire item	Response category	Number (f)	Proportion (%)
Development of intervention (soft) skills	I do not use AI for this purpose.	187	69,9 %
	I use (scenarios, simulations, empathy)	81	30,1 %
Preparation of an individual plan	AI does not help me at any stage	145	54,1 %
	I use it in at least one phase (goals, methods...)	123	45,9 %
The need for a module on ethics and AI	Agreement (Definitely yes + Rather yes)	145	54,2 %
	Disagree (Rather no + Definitely no)	123	45,8 %
The biggest barrier to use	Unreliability of information	160	59,8 %
	Other (Ethics, impersonal approach, prompting)	108	40,2 %

Source: Own Processing



We applied Spearman's correlation coefficient (at a significance level of $\alpha = 0.05$) to determine the relationships between students' attitudes. We examined the relationship between perceived risk (Item 8) and the actual rate of AI use in professional tasks (Item 10).

Table 2 Correlation matrix of monitored relationships

Monitored relationship	Spearman's coefficient (rs)	p-value
Perceived untrustworthiness vs. Use in preparing an individual plan	0,14	0,42
Perceived untrustworthiness vs. Development of intervention (soft) skills	0,09	0,61

Source: *Own Processing*

Statistical analysis did not reveal a significant correlation between these variables ($p > 0.05$). This means that the level of distrust in the tool is not the only or main factor limiting its use in practice.

Evaluation of RQ1: The analysis shows that 69.9% of respondents do not use AI for this purpose, which we interpret as a manifestation of methodological conservatism. Although AI can provide a safe environment for practicing crisis interventions (e.g., de-escalating tension), students are reluctant to simulate the human act of communication with a machine. In contrast, Žilková (2021) argues that appropriately selected digital tools and virtual environments effectively develop the logic and thinking of children with SEN through "learning by playing." Tomášková, Tarcsiová, and Ondrašínová (2024) also emphasize the need to implement effective teaching methods into inclusive practice in the 21st century. The low use of AI among students is therefore more related to the absence of integration methodology in professional training than to the ineffectiveness of the technology.

Evaluation of RQ2: Data unreliability is the most common barrier (59.8%), but no correlation with the actual use of AI in IVP creation has been demonstrated. We understand this finding as a question of professional integrity: students perceive planning as the core of their expertise, which they refuse to delegate to an algorithm. However, this attitude can be corrected by Žilková's theory (2009), according to which virtual manipulation in a digital environment provides the experience necessary to overcome abstract levels of knowledge. AI should therefore not be a



substitute for an expert, but a cognitive tool for modeling processes that facilitate the transition from theory to practical solutions to client situations.

Evaluation of RQ3: Demand for a module on ethics and AI in the curriculum reaches 54.2%, indicating digital uncertainty and the need for clear guidelines from the university. Students accept AI in administration but request expert guidance for ethically sensitive situations; Severini, Kožuchová, Barnová (2024) emphasize the transferability of applied educational approaches and the preference for active knowledge creation. The implementation of AI should therefore not be just a technical novelty, but a research-oriented approach that develops critical competencies; at the same time, Tarciová (2024), Kováč (2021), and Stachon (2015) point out that knowledge of new forms of communication promotes social inclusion. Research has identified a "professional barrier of humanity" – AI is tolerated as support but rejected in the core processes of a helper's identity (intervention, empathy, IVP); This can be overcome by emphasizing the importance of the digital environment (Žilková, 2009) and the inclusive dimension of technologies (Tarciová, 2024). The key to greater acceptance is therefore not only the accuracy of AI, but above all the integration of ethical and methodological guidelines directly into teaching.

4 CONCLUSION

The results show that AI is mainly accepted by social work and special education students as an administrative tool, but remains significantly underutilized in the development of intervention skills. The most frequently declared distrust of information does not explain its actual use, which indicates a deeper "professional barrier" in areas related to the identity of the helping profession. It is therefore essential to strengthen the methodological and ethical anchoring of AI use in the curriculum and to establish clear rules for its meaningful use in preparing to work with clients.

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DIGITAL BABYLON: WHEN LANGUAGE CEASES TO CONNECT

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ABSTRACT

This paper reads the biblical myth of Babel as an archetype for contemporary digital communication. It argues that technical connectivity can coexist with declining understanding when language is reduced to performance, optimization, and behavioral steering. By linking mythic structure to algorithmic mediation, attention economics, and cognitive changes in screen reading, the text proposes that the restoration of silence, rhythm, and embodied encounter is a precondition for meaningful dialogue.

Key words: Babel; digital language; algorithms; attention economy; silence

INTRODUCTION

The Tower of Babel is often treated as a story about punishment or linguistic diversity. Here it is used as a diagnostic image: a form of unity that is coordinated and productive, yet hollowed out from within. The same pattern reappears in digital environments where language circulates rapidly but increasingly fails to connect persons. The following sections develop this parallel from myth to algorithm and end with a practical proposal: recovering spaces of silence that make listening possible.

1 BABYLON AS AN ARCHETYPE

Long ago, people spoke one language and wanted to reach heaven—not to know God, but to take his place. As it is written in the Torah: “They said, ‘Come, let us build ourselves a city and a tower with its top in the heavens. Let us make a name for ourselves, lest we be scattered abroad over the face of the whole earth.’” (Bible, n.d.)

Rabbinic tradition adds that after the flood, people were united not only by language but also by intention: “They spoke one language and understood each other. They



decided to build a tower whose top would reach the heavens, to equal God – and to stay together.” (Chabad.org, n.d.-a) At first glance, this seems like a dream of unity. But the Hasidic interpretation points out that it was a unity of coordination, not spiritual closeness. Ambition replaced presence. The tower they built was an expression of coordination, not relationship. “Every era creates its own diseases. Today’s achievement society is driven by positive motivation, but it hides a deep sense of inadequacy and exhaustion.” (Han, 2015) Like today’s culture of achievement, Babylonian unity was driven by pressure for coordinated performance—not relationship. Everything was planned, manufactured, coordinated—but there was no trust, no living center. Collective performance without inner transformation.

But God, as the Kabbalistic tradition shows, created the world by withdrawing into himself—cimcum (Chabad.org, n.d.-b) —withdrawing his presence to make room for the other. God does not dwell at the summit or in the depths, where man could reach him by force. He is outside the axis along which man ascends through effort. To seek him only upwards means to miss the direction in which he is actually approaching. The path to him does not lead through power, but through stillness. And the tower, which seemed monumental to them, was lost from God’s sight – he had to “descend” in order to see it at all.

Those who build a tower too high do not fall because of punishment, but because of a loss of balance between consciousness and what remains in the depths. The tower is an image of the ego separating itself from the whole of relationships. The more it grows, the more it forgets the ground from which it grew—like a tree whose crown reaches for the sky, but whose roots are withering. The Babylonian story is not primarily about punishment, but about spiritual weakening, which comes when language is misused for power instead of understanding—and the upward journey interrupts the relationship.

2 DIGITAL LANGUAGE

The story of Babylon may seem distant – but its logic is repeated in every age that confuses relationship with performance, depth with height, and speech with system. We are now building new towers out of data, signals, and networks. And again, we believe that if connection is technically possible, then understanding must also exist.



But technology enables communication; it does not create it. It needs a language that knows that touching another person means more than just transmitting information.

Today, we have endless possibilities for contact, and yet we are missing what used to create real connection. Language has become a rapid flow of information, but it is losing its ability to lead to understanding. There are many voices, but little listening. People talk on social media, but they do not listen, perhaps not out of malice, but rather because the way we pay attention has changed. Speech used to create relationships. Nowadays, we often use it to make sure we are still visible. Words are directed outward—but they no longer truly touch others. We react, but we do not listen—and the gaps between us continue to widen. Dialogue is disappearing, replaced by constant performance. Everyone has their own channel, their own audience, their own truth, but a common language is being lost.

And yet – even as language shatters and towers collapse – something familiar remains hidden in the rubble. Not just a longing for meaning, but a deeper memory of it. The Tower of Babel did not end, it has merely changed shape. In our time, we no longer build with bricks, but with narratives – and just as then, we are now united by a desire for unity, for a model, for a story that would give shape to the chaos. All these towers of data, bubbles, and fragments are not soulless: they are myths that we no longer recognize as myths.

Even in this confusion, something familiar remains. “A myth remains the same as long as it is perceived as a myth... we define a myth as the sum of all its versions.” (Lévi-Strauss, 1978) New versions of old stories arise in digital bubbles—only we no longer recognize them as stories, but take them as facts. Lévi-Strauss captures the paradox of myth: even if its versions change, the underlying structure remains. What appears to be chaos on the surface may in fact be variations on the same archetype. That is why even digital storytelling—however fragmented—can and does echo old stories.

Perhaps we are not witnessing a breakdown of meaning, but a new rearrangement of forms. Disinformation is not stupid, but on the contrary, it skillfully recycles old stories. You need a culprit, a traitor, a victim, and of course, a savior with a YouTube channel. Archetypes were here long before the internet, but today they simply have more followers.



However, this does not mean that every narrative has mythical depth. Many digital narratives use the structure of myth, but empty it of meaning, as simulacra replace symbols. Even myth can become kitsch when it loses its connection to silence.

Similarly, today's digital narratives, from conspiracy theories to memes, are not random outbursts, but another "layer" in an endless spiral that seeks to bridge contradictions and give shape to chaos. Umberto Eco reminds us that the openness of a text does not mean arbitrariness.

A text is a field of possibilities, not a boundless hallucination—and it is precisely the framework that gives shape to interpretation. Even a myth needs boundaries, otherwise it turns into chaos. He then adds that "the openness of a text does not mean that every interpretation is legitimate. Although a text allows for multiple interpretations, it still sets limits—it forces us to read in a certain direction and does not allow us to say everything. In short, every interpretation is bound by the structure of the text, even if this structure is a place of constant development and dynamics of meaning." (Eco, 2010) In other words, truth does not arise from the mere presence of information, but only from its responsible grasping within limits. Interpretation without a framework turns into hallucination.

3 FROM MYTH TO ALGORITHM

At this point, storytelling ceases to be born and begins to be controlled. History has an "open character" and is ensured by countless ways in which mythical cells can be rearranged. Today's algorithms do the same thing, only without wisdom and context. They sort, compile, and return mirrors that look like information but lack context, silence, and time.

Instead of the flame that cast shadows on the walls of the cave, today the blue light of screens shines, and everyone sits alone.

Digital language does not speak with you—it advises you what to do. It does not send or transfer meaning, but merely instructions. Sometimes it looks like a friend and sometimes like a marketing consultant. And most of the time, it is the same thing—chatbots, algorithms, recommendations—since everything is geared toward action, not relationship. They are not interested in your needs, but only in keeping you in the game. For example, Netflix changes not only its recommendations but



also its preview images based on user data, and the same movie may have romantic visuals for women and action scenes for men. Personalization here is not a service but a method of managing attention.

The algorithm seeks attention. “We live in a digital prison, not managed by isolation, but by connectivity. Transparency is just a facade for a process that is itself invisible.” (Han, 2015) Words are no longer a question, but an instruction: they direct you, they do not ask. Everything also has to happen within three seconds. As Shoshana Zuboff points out, “surveillance capitalism is a parasitic economic logic in which the production of goods and services is subordinated to a new global architecture of behavioral modification.” (Zuboff, 2019) Technology therefore not only recommends, but actively shapes our choices—not for the sake of truth, but for the sake of maximizing predictive control.

Noam Chomsky has accurately named this mechanism: “manufacturing consent.” (Chomsky, 1997) Language loses its role as a mediator and becomes a tool for steering. It is not about open manipulation, but about the subtle tuning of reality: a headline that makes you click, a question that already contains the answer, an advertising tone that sounds like advice from a friend.

“Propaganda is to democracy what the truncheon is to the totalitarian state.” (Chomsky, 1997, p. 17) It is precisely this ignorance that is systemic today—consent is not enforced, but generated. Artificial speech is smooth without any friction. And therein lies its deception: it appears neutral, but every word is calculated in advance.

What looks like a choice is often just a selection from pre-recommended options. And what sounds like dialogue is an optimized loop of confirmation. This deception is further deepened by the decline of reading and deep thinking. Language is losing its anchor in the text and in sentences that have structure, rhythm, and the ability to resist. Those who do not read do not know what a sentence that meanders, gropes, asks questions, and makes demands looks like. Instead, there are fragments, headlines, and isolated sentences—and language is transformed into a tool for rapid stimulation.



4 DIGITAL STORYTELLING AS AN ARCHETYPE

The speed at which we read today is not just a technical detail of the digital tower – it is becoming the structure of the mind. It is no longer a matter of slow absorption, but of interrupted breath between impulses, and it is precisely in this disruption of rhythm that contemporary linguistic fatigue is born.

The faster language is consumed, the less room there is for depth and the easier it is to influence. “Machines cannot pause. Despite its enormous capacity for calculation, the computer is stupid because it lacks the ability to delay.” (Han, 2022) This is precisely why changes in reading rhythm are also key to understanding manipulation. McLuhan points out that “the technique of fragmentation, typical of machine technology, restructures human work and interpersonal relationships.” (McLuhan, 1964) Today, this fragmentation is evident not only in the economy, but also in language as sentences are becoming shorter, rhythm is disappearing, and with it the space for resistance.

Psycholinguistic research confirms that reading is not just a matter of content, but of rhythm, breath, and brain architecture. It is not just what we read, but how we read it. A study in *Nature* magazine shows that reading on a smartphone changes both physical and cognitive rhythms. Fewer sighs, more activity in the prefrontal cortex, less ability to absorb text in depth. “It causes fewer sighs, promotes excessive activation in the prefrontal cortex, and leads to a reduced ability to understand text.” (Honma et al., 2022) This indicates of course less silence in the body and less space for meaning.

According to research, reading from a screen reduces the “inner voice” that helps internalize text in traditional reading. Language thus literally becomes external and the inner experience disappears. Digital reading is like holding your breath between notifications. Another study states that “screen use indirectly affects neurocognition and brain volume through changes in reading habits.” (Li et al., 2024) .

This is directly reflected in the way we communicate today. When you speed up your reading, you speed up your thinking. And when you speed up your thinking, language begins to gasp for breath. Sentences used to be like a stream—winding, quiet, and with space between the stones. Now they resemble a fountain of notifications, that is, short and shiny and without encounter. Language, which was



once the bearer of encounters, is accelerating, shortening, losing its breath. Instead of deep understanding, fragmentation appears. And it is precisely in this accelerated shallowness that manipulation thrives, not because it is stronger, but because it has nothing to resist it. Those who do not read cannot recognize tone. Those who cannot recognize tone cannot tell when words are deceiving.

5 PSYCHOLOGY AND TECHNOLOGY

This mechanism can be described using Kahneman's thesis on two systems of thinking. However, this is not just a psychological typology, but a deeper picture of human vulnerability. System 1 reacts quickly, effortlessly and creates impressions, feelings, and instant judgments. It is the voice that says "something is right" or "something is wrong" before we even ask why. It is from these impressions that our beliefs and decisions often grow. System 2 is slower. (Kahneman, 2011) It needs time, concentration, and silence. It can ask questions, connect steps, and weigh opposites. But in an environment that constantly pushes for speed, it tends to be pushed to the sidelines.

Between impression and truth, what is faster often wins. Not because it is more true, but because it is heard first. System 1 sometimes takes us somewhere we did not intend to go, and System 2 arrives late....when the decision has already been made.

"It relies on heuristics that simplify complex questions into easy answers, such as 'How do I feel?' instead of 'What is the truth?'" (Kahneman, 2011, pp. 97–103) Emotion is a shorter path than thought. And when reinforced by a system of likes, shares, and confirmations, it becomes almost irresistible. It is embarrassingly easy to deceive the mind, which prefers feeling to the effort of understanding, especially when the entire environment is set up to minimize effort.

At the same time, experience shows that one of the most reliable paths to falsehood is not lies, but repetition. Kahneman puts it bluntly: "Predictable illusions will inevitably arise if we base our judgments on impressions of cognitive ease or effort. One of the most reliable methods of getting people to believe untruths is simply frequent repetition—because familiarity is very difficult to distinguish from truth." (Kahneman, 2011)



It is not necessary to repeat the entire statement—often a fragment is enough. (Kahneman, 2011, p. 63) Part of a sentence, an image, or a tone. Today, this familiarity is produced industrially. When technology is applied to human vulnerability, the result is not wisdom, but optically pure chaos.

It follows that the social media environment (where algorithms systematically reinforce emotionally charged content) multiplies these distortions and locks them into an optimized loop of confirmation. We mainly see what we have already seen. We hear what we have already heard. Language stops asking questions — it just nods.

Modern Babylon is thus characterized not by a lack of speech, but by its excess. Words flood the space, while meaning is lost. Language is not confused because it is falling apart, but because it is too easy to compose. When every sentence sounds right, the need to hear what is real disappears. Everything is smooth, ready, friendly—not like a conversation, but like a polished recording. Everything can be heard....except for people.

Sentences are composed like equations, and instead of a meeting, we get an estimate. The algorithm does not try to understand—only to predict what we might say next. It often gets it right. Communication then no longer develops new possibilities, but reinforces what has been said. We are losing the language that could bear silence, that is, words that would not only convey content, but also relationship. It knows no gaps. That is why it overwhelms us with content. Breathlessly.

6 THE PATH TO SILENCE

In the Hasidic conception, speech has a different role. Chabad Rebbe Menachem Mendel Schneerson says that language does not serve for self-expression, but for connection. The spoken word is an opportunity for one person's spirit to touch another's. (Schneerson, n.d.) When words become a tool of domination, they miss their mark. Not because they are wrong, but because there is no openness for them to enter. Language used to be a bridge. Today, it often only echoes sound. Words are directed into space, not at a specific person. And where everyone is looking for an audience, the silent witness—the one who perceives—disappears.



Martin Buber reminds us that language is born only where we enter into an I-You relationship—not as a subject to an object, but as a person who allows themselves to be addressed. To speak truly means to be with someone—not just to talk about something. Where speech becomes a tool of persuasion, the space between two people in which an encounter can arise disappears.

The public space has shifted from conversation to speech. Speech that carried questions, doubts, or respect has become a stream of messages. Identity has become embedded in language. We often hear talking, but there is a lack of shared silence—the silence in which an answer can be born. As Rabbi Sacks says, Babylon is not only an image of pride, but of a collective that suppressed the face of the individual. (Sacks, n.d.) The flood showed the danger of the isolated individual, the tower shows the threat of a faceless system. And this is what is now re-emerging....not from bricks, but from patterns of communication where the individual is lost in the noise of group logic.

Today, people experience conversation more as a task than as a relationship. Speaking is often a defense, silence an uncertainty. Accessibility, the flow of messages, and the pressure for immediate responses have turned listening into waiting for one's own turn to speak.

Silence was not a weakness, but a space for listening. The rabbinical tradition knows its power. "Speak little, but do much." (Mishnah, n.d., Pirkei Avot 1:15) And elsewhere: "Silence is the fence around wisdom." (Mishnah, n.d., Pirkei Avot 3:13)

When a mother whispers in her child's ear and the child responds not with words but with a breath, that is when silence speaks. The relationship does not take place in the content of the sentence, but in its proximity. Speech is not just the transmission of information—it is the movement of the body, the rhythm of breath, the offer of touch. Language without the body has no weight because it has not passed through the skin.

Real words do not just touch the ears—they touch the body. When a person speaks truly, it is moving towards another. A sentence has direction, breath, and rhythm. But as soon as we lose the ability to hear, language becomes a mere structure or a pattern that repeats itself without touch. We speak, but contact is lost.



Hearing another person means letting them in. Everything shines, but the connection does not happen. A relationship can turn into analysis, an exchange of positions. But even there, something can change as the moment comes when both lower their voices and open their perception.

Silence, which used to indicate closeness, now seems uncertain. It is often filled with commentary, questions, and concerns. And yet it is precisely in this space that something new can arise: breath, calm, and presence. Words do not have to be a defense. They can be a sign that we are here. And sometimes it is precisely this “nothingness” that is the deepest message. It is not about talking less, but talking differently. In a rhythm that is not rushed. In a language that conveys a relationship, not just information.

CONCLUSION

Babylon is not an artifact of the past, but a model of communication: it appears wherever speech ceases to create relationships and becomes merely a technique of transmission. The construction of the tower was never completed—it has merely changed form. Instead of bricks, we lay down layers of data; instead of spiritual seeking, we follow optimized patterns. The language that was supposed to connect us has become a vector of influence. In this confusion, however, there remains hope—a silence that does not lead upward, but closer. If we are to truly hear each other, we must restore space for relationship....not through height, but through closeness....not through performance, but through presence.

Digital Babylon is not a poetic image. Just open a social network where every sentence sounds right but few actually share anything.

The tower seems tall, but it actually leads nowhere. And God, who descended at that time to see our construction, may now be waiting. God is not waiting until we climb up, but until our noise falls silent. “After the fire, a quiet, gentle voice.” (Bible, n.d.) God’s voice comes where nothing needs to be proven anymore. What remains between the words is not emptiness—it is soil from which an answer can grow. An answer that does not need height but only closeness. We do not have to wait for God to descend. Perhaps it is enough to calm down before complete silence sets in. It is precisely where we give up the need to have the last word that the place of true



encounter begins. We do not meet in the multitude of words, but in the space that can be heard between them. Every word can be a bridge if it does not overtake what gives it weight: inner peace.

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DIGITAL CONTENT IN THE HANDS OF STUDENTS: SKILL LEVEL AND CONTRIBUTION TO MEDIA LITERACY

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ABSTRACT

The subject of the paper is the identification of the level of digital competences of university students in various fields of study in the Slovak Republic and the Czech Republic, focusing on their abilities within the Digital Content Creation component. The research conducted using the Europass tool focuses on identifying what students can master in the process of digital creation and what categorical differences are evident between fields and countries. The Digital Content Creation component represents a key aspect of media literacy in the context of contemporary education. The quantitative analysis points to statistically significant differences in the level of digital competences within the Digital Content Creation component, which reflect the specifics of the field of study and the national environment. The paper also discusses the possibilities of applying the Europass tool in the systematic mapping, comparison and development of students' digital competences, while emphasizing its potential for the field of higher education, media literacy and the creation of educational policies.

Key words: digital content, digital content creation, europass, digital competences, media literacy

INTRODUCTION

The digitalization of society and its intensive penetration into all areas of public and private life are fundamentally changing the requirements placed on modern education systems across various study programs. European strategic documents, including the European Digital Competence Framework (DigComp), define digital competences as an integrated set of knowledge, skills and attitudes that enable an individual to effectively, critically, creatively and safely use digital technologies in academic, professional and social contexts. Higher education today faces the task of



systematically developing these competences in students of various disciplines – from humanities and social sciences to technical, natural sciences and artistic disciplines. A key element of this process is working with digital content, which has become the dominant medium of cognition, communication and creation. Students have extensive access to multimedia resources, interactive platforms, data sets, scientific databases and content generated by artificial intelligence. Such availability of digital content, if effectively used within the educational process, represents a significant opportunity for individualized learning, the development of critical thinking and the support of creativity. However, it also brings new challenges, especially in the areas of assessing the quality of information, understanding algorithmic processes, respecting copyright, protecting personal data and safe online behavior. Educational institutions must therefore reflect the changing nature of the digital environment and ensure that students across disciplines acquire the ability not only to consume digital content, but also to actively create, analyze and interpret it in accordance with professional, ethical and social standards (DigCompEdu, 2024). In connection with the above, media literacy can be seen as one of the basic competencies necessary for orientation in the current information environment, which is characterized by high dynamics, content overload and the interconnection of traditional and digital media. Its core is the ability to understand media messages, critically analyze them, evaluate their credibility and context, as well as actively and responsibly create one's own media content. Systematic work with media literacy in education therefore goes beyond the framework of technical skills. It includes the development of critical thinking, ethical reasoning, understanding of the social and cultural contexts of media production and the ability to reflect on one's own media behavior. The university environment has an irreplaceable role in this process: it creates space for analytical work with diverse media formats, supports interdisciplinary connections and enables students to acquire the tools necessary for safe, informed and creative participation in the digital public space (Halttunen, Schlögl, 2025, pp. 1-9).

1 ABILITY TO WORK WITH INFORMATION IN AN ENVIRONMENT OF DIGITAL SURPLUS

In the digital society, media literacy is gaining strategic importance. Students across study programs encounter a large amount of digital content every day – from



professional sources to unverified information spread through social networks. The ability to identify manipulative techniques, recognize disinformation, understand the functioning of algorithms, and assess the quality and relevance of sources is thus becoming a key prerequisite for academic success and responsible civic functioning (Halttunen, Schlögl, 2025, pp. 1-9). Reflection on information education, or information literacy as a separate professional agenda, requires a comprehensive and systematic familiarization with its theoretical framework and contextual anchoring. This includes a detailed analysis of the development of relevant concepts, their content and functional characteristics, as well as the identification of the basic epistemological and methodological foundations that shape the current understanding of this issue. In the process of conceptualization, it is necessary to answer the key questions: 1. WHAT - information education is the subject of detailed research in order to precisely define its essence, goals, structure and mechanisms of functioning. Its thorough knowledge is a prerequisite for understanding the entire spectrum of contexts and for identifying tools enabling its qualified influence and development; equally important is the question 2. WHO - identification of actors who participate in the formation, implementation and evaluation of information education, as well as analysis of the conditions in which this agenda develops. This involves mapping institutional, professional and systemic factors that influence its form and direction; question 3. WHY is based on existing strategic and conceptual documents that justify the need for the systematic development of information education and its integration into educational policies and practice. These documents provide argumentative starting points for the creation of concepts and frameworks that reflect current social, technological and academic requirements; finally, the methodological level offers an answer to question 4. HOW - presents possible procedures, approaches and tools that can serve as support for the creation, implementation and evaluation of information education concepts in various types of educational environments (Dombrovská, 2018, pp. 35-35). With the aim of identifying the level of digital competences within the Digital Content Creation category and the subsequent implementation of measures, with an effort to systematically develop and shape media literacy among students in various study programs of higher education, a diagnosis was carried out using the Europass tool, which revealed significant shortcomings in the field of digital content creation and media literacy related to the given category. The Digital Content Creation component represents one of the key dimensions of media literacy, and its



weakening therefore fundamentally affects the overall level of media competence of university students. Deficits in the ability to independently, creatively and critically produce digital content are reflected in the limited ability to participate in the digital public space, reflect on media processes and actively enter into media communication (Čapek, 2015, pp. 31-34).

2 EUROPASS AS A MEASURING TOOL

The fundamental determinant of the qualitative and effective application of digital technologies can be considered the level of an individual's digital competences. The digital skills measurement tool created by the European Union – Europass – operationalizes digital competences through five basic categories: 1. Information and data literacy; 2. Communication and collaboration; 3. Digital content creation; 4. Security; 5. Problem solving. According to Stryčková, the concept of information literacy can be interpreted as a complex set of cognitive, technical and social skills, knowledge and understanding that are necessary for the adequate, productive and safe use of information and communication technologies in the process of cognition and learning. Information literacy is manifested in the ability of an individual to effectively manipulate information sources and tools in the analysis, processing and communication of information, as well as in the measurement, modeling and management of external phenomena (Stryčková, 2014, pp. 27-29). Roubal emphasizes that information literacy cannot be achieved without an adequate level of functional and active reading literacy. The absence of the ability to read, understand and intellectually process textual information represents a fundamental barrier to the development of information literacy as a higher cognitive competence (Roubal, 2009, pp. 13-17). Information literacy is also closely linked to the concept of digital competence. The Dictionary of Foreign Words defines competence as an area in which an individual has relevant knowledge or experience, while competence denotes professional ability, awareness and qualified orientation in a given area (Klaić, 1990, pp. 5-17). Competence is interpreted through the triad of knowledge, skills and attitudes. (Wilcox, 2012, pp. 45-52). Digital competence is multi-layered and multidimensional in nature. The analysis of different frameworks for its development has resulted in a comprehensive definition, according to which digital competence represents a set of knowledge, skills, attitudes, abilities, strategies and awareness necessary to use ICT and digital media in performing tasks, solving



problems, communicating, information management, ethical and responsible behavior, collaborating, creating and sharing content, learning, participating, socializing or spending leisure time (Ferrari, 2012, pp. 23-37). According to ISTE (International Society for Technology in Education), the global and European standardization of digital competencies of teachers and students is based on six key areas that comprehensively develop the knowledge and skills of students in the domains of working with information, communication and collaboration, use of ICT, construction of new knowledge and critical thinking. The content of digital competencies of students is specified through the NETSS* (National Educational Technology Standards for Students) standards and the content of digital competencies of teachers through the NETST* (National Educational Technology Standards for Teachers) standards, which were defined by the ISTE organization (2008) (Doričková, Hasajová, 2021, pp. 45-62). Europass, established by the European Union in 2005 with the aim of increasing the transparency of qualifications and supporting the mobility of the workforce in the European area, is a platform for presenting an individual's education, work experience and skills. The platform includes an extensive information framework and a set of free online tools designed to support lifelong learning and career development. A significant advantage of Europass is its pan-European acceptability, which facilitates the process of recognition of professional qualifications. Europass also includes an online diagnostic tool for assessing the level of information and data literacy, which was used as a measurement tool in our research. Europass is a framework that enables the systematic identification and classification of individuals' digital competences through structured testing. Its methodology is based on a multi-level assessment that allows participants to be classified into six levels of digital competence (1–6), with each level reflecting the level of mastery of digital skills from elementary to advanced. At the same time, the assessment is carried out within five key categories of digital competences: 1. information and data literacy – the ability to search, analyze, interpret and critically evaluate information and data sources; 2. communication and collaboration – the use of digital technologies to interact, cooperate and share knowledge in an online environment; 3. digital content creation – the ability to create, edit and publish digital materials with an emphasis on creativity and technical accuracy; 4. problem solving – the application of digital tools to identify, analyze and solve practical or academic problems; 5. security – the responsible and safe use of digital technologies, including personal data protection,



cybersecurity and digital identity. The evaluation mechanism of the Europass tool is based on automated processing of respondents' answers, which allows them to be accurately assigned to the appropriate levels of digital competences in individual categories. The output generated in this way has the character of a comprehensive digital competence profile, providing a comprehensive, analytically usable picture of the current level of an individual's digital skills. This profile has both diagnostic and prognostic value. On the one hand, it allows identifying students' strengths and precisely localizing areas in which competence deficits are manifested; on the other hand, it represents a qualified basis for strategic planning of educational interventions, curricular adjustments and targeted pedagogical measures. Thanks to this, Europass can be considered an effective tool for the systematic management of the development of digital competences in the academic environment.

3 COMPONENT ANALYSIS DIGITAL CONTENT CREATION

As part of the research, the level of information and data literacy of a sample of students from various study programs in the Slovak Republic and the Czech Republic was identified using the Europass tool. Testing enabled the classification of respondents within the defined levels of digital competences, while the results provided a comprehensive picture of the current level of mastery of digital competences in both national samples. Based on the data obtained, a comparative analysis can be carried out, which points out the differences and similarities of the sample of Slovak and Czech students, focusing on the Digital Content Creation component. This comparison allows not only to identify the specifics of individual groups, but also to formulate recommendations for the further development of digital competences in individual components. The research sample can be divided in 2 parts for the purposes of interpretation and comparison: Sample A; Sample B. The results are presented in tables and graphs. In individual tables, we present the placement of respondents according to the achieved level of digital competences in individual assessment components. The columns show the exact numbers of students who achieved a specific level (1–6) within the Digital Content Creation component. Data structured in this way allow for multiple analytical procedures. First of all, they provide an accurate quantification of performance, i.e. identification of the number of respondents classified into individual levels in the Digital Content Creation component. At the same time, they create space for comparative analysis



between the Slovak and Czech samples. The data structure also allows for the detection of trends and disproportions, for example, the concentration of respondents in lower levels of competence or, conversely, a higher level of advancement in certain segments of the sample. Based on these findings, it is possible to formulate pedagogical implications that point to the need for targeted support and systematic development of digital content creation within curricular and didactic interventions. To increase the clarity and comprehensibility of the presented results, we also present the same data that we present in tabular form in the form of graphic visualizations.

3.1 RESEARCH SAMPLE A

Research sample A consisted of 131 respondents (women) from the Slovak Republic. The sample consisted of 77 students of the 1st year of the Master's study program Teaching for Primary Education and students of the 2nd year of the Bachelor's study program Preschool and Elementary Education in the academic year 2023/2024; in combination with 54 students of the 1st and 2nd years of the Master's study program Teaching for Primary Education in the academic year 2024/2025. In research sample A, the level of Digital Competencies within six assessment categories was identified for 131 respondents. Table 1 shows the number of respondents who achieved the level in the Digital Content Creation component for each level. Graph 1 presents a visual processing of the data presented in Table 1, with these results clearly transformed into a graphic form in order to facilitate their interpretation and comparison. We interpret the data in the same way for research sample B.

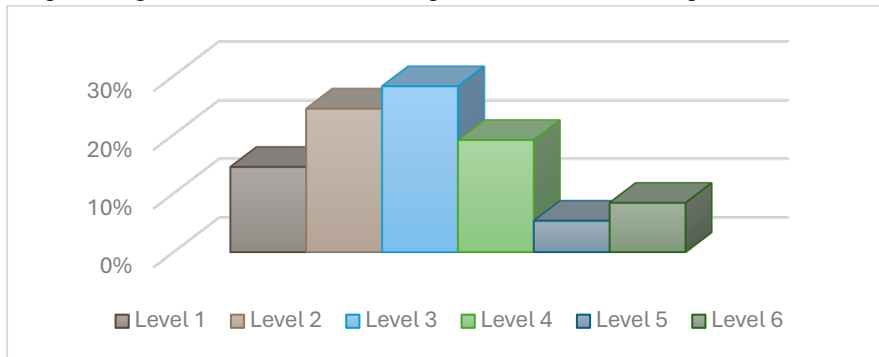
Table 1: Digital Content Creation Component in Research Sample A.

	Levels	Absolute frequency	Relative frequency	Relative frequency in %
Basic level	Level 1	19	0,15	14,50
	Level 2	32	0,24	24,43
Intermediate level	Level 3	37	0,28	28,24
	Level 4	25	0,19	19,08
Advanced level	Level 5	7	0,05	5,34
	Level 6	11	0,08	8,40
	In all	131	1	100



Source: Own Processing

Graph 1: Digital Content Creation Component in Research Sample A.



Source: Own Processing

3.2 RESEARCH SAMPLE B

Research sample B consisted of 102 respondents (56 women and 46 men) from the Czech Republic. The sample consisted of 57 students of History; Secondary School Teacher Training, Elementary School Teacher Training (36 women and 21 men) – 1st to 4th year in combination with 30 students of the Bachelor's degree program History with a focus on education – 1st year (9 women and 21 men) and 15 students of the Bachelor's degree program Social Sciences with a focus on education – 2nd year (11 women and 4 men) in the academic year 2025/2026.

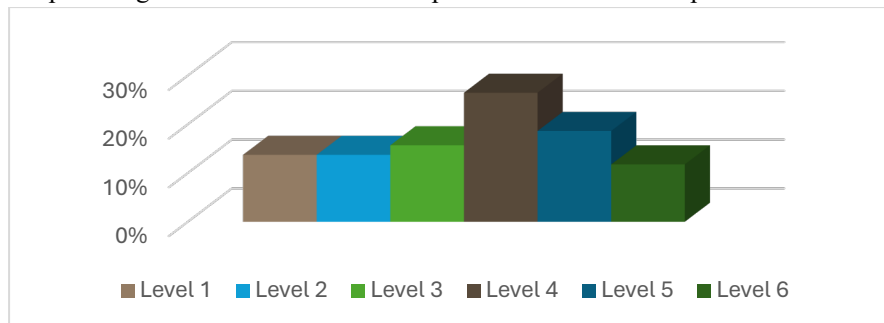
Table 2: Digital Content Creation Component in Research Sample B.

	Levels	Absolute frequency	Relative frequency	Relative frequency in %
Basic level	Level 1	14	0,14	13,73
	Level 2	14	0,14	13,73
Intermediate level	Level 3	16	0,16	15,69
	Level 4	27	0,26	26,47
Advanced level	Level 5	19	0,19	18,63
	Level 6	12	0,12	11,76
	In all	102	1	100

Source: Own Processing



Graph 2: Digital Content Creation Component in Research Sample B.



Source: Own Processing

CONCLUSION

The diagnostic results obtained through Europass can provide an empirically based basis for intervention at the level of curriculum planning. Based on the identified needs, targeted pedagogical measures aimed at the systematic development of competencies in the field of Digital Content Creation, as well as other categories of information literacy, can be implemented into the selected university subject. Within the Digital Content Creation component, these measures include in particular the strengthening of practically oriented activities, the integration of multimodal tasks, the support of critical reflection on digital production processes and the introduction of methodological procedures that enable students to master advanced strategies for creating, editing and publishing digital content. The intervention conceived in this way represents a step towards strengthening media literacy in its comprehensive understanding and responds to the need to prepare students for competent, ethical and creative action in the digital environment.

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FROM WEB TO INSTAGRAM: THE TRANSFORMATION OF NEWS CONTENT UNDER THE CONDITIONS OF MULTIPLATFORM JOURNALISM

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ABSTRACT

The presented contribution focuses on the analysis of how a selected Slovak news outlet modifies the form, style, and construction of a news story when covering the same topic on its website, social media, podcast channel, or other channels. Using qualitative content analysis, we observe which elements are a stable part of media identity, and which ones are adapted to platform specifics, technical limits, or audience habits. The aim of this paper is to identify the characteristic features of a selected media's multiplatform identity, point out shifts in journalistic practice in the digital ecosystem, and contribute to the discussion on the transformation of journalism in an environment of fragmented media platforms.

Key words: hypertext, journalism, multiplatform journalism, news, social media

INTRODUCTION

The decline in print periodical readership points to a fundamental transformation in the way society accesses and consumes information. The current world of journalism is driven by technological innovations, changing consumer preferences, economic pressures, and generational changes. Advertisements have moved from print periodicals to digital platforms, which are more effective in many ways. The costs of producing and distributing magazines and newspapers have also increased, which means that their prices have risen as well. In addition, the demographic group that still prefers print is aging. The decline in the preference for print periodicals is related to digitization, which is also a prerequisite for the emergence of journalistic genres on the internet. Multiplatform distribution has become an integral part of the contemporary media environment and significantly influences the form of journalistic production, editorial processes, and the ways in which content is received by the audience. Digital platforms create unique communication environments with different technical capabilities, audience expectations,



and interaction dynamics. These differences are reflected in the variability of textual, visual, and narrative strategies used by the media. The degree of hypertextuality, non-linearity, interactivity, and multimedia vary across platforms and influences how the same content is interpreted and consumed.

1 THEORETICAL BACKGROUND

The decline in readership of printed periodicals is not only related to technological progress, but also to the way people consume news. The younger generation often perceives print as an outdated format. “Traditional” newspapers are now read mainly by the middle-aged and older generations, while the younger generation prefers to read them on smartphones, tablets, or social media (Radošinská, Višňovský, 2013). If the media want to be successful, they must adapt to new socio-cultural factors and rituals as well as readers' habits (Radošinská, Višňovský, 2013). The most dramatic shift in this area has been towards news consumption. Whereas people used to get their information from printed newspapers and later from linear television news broadcasts, they now primarily get it from websites or social media via smartphones and internet connections. More than half of adults under the age of 35 consume news primarily through mobile devices. In the United Kingdom, 58% of the demographics do so, and in the United States it is 57% (Granger, 2025). Another phenomenon is that many young people in particular use social media as their primary source of news. Globally, this applies to 44% of people aged 18 to 24, who also prefer informal communication and video content (Granger, 2025). On the other hand, the over-35 generation prefers to get their news from television, websites, and print media. This differentiation defines the gap between younger and older generations. Content creators must therefore adapt their product strategy to appeal to both categories or choose only one of them (Granger, 2025). Another trend in journalism is the adaptation of content for audiences that consume information online.

The popularity of digitalization in journalism reflects the preference of many people to consume news online – it is fast and accessible via various devices. Digitalization requires good internet access and the availability of digital devices such as smartphones, tablets, laptops, and desktop computers. Other factors contributing to the decline in print magazine readership include convergence, deinstitutionalization, and dematerialization. According to Švecová (2017), **convergence** represents a revolutionary and evolutionary moment during which old media meet new



media. The author understands the term as the ability to absorb the same multimedia content from different types of devices thanks to the digitization of, for example, films, photographs, music, sound, and text. As a result, we can watch multiple multimedia contents on one device, or one type of content on multiple devices (Švecová, 2017). The same applies to online journalism. “Traditional” media, such as television or radio, operate on the same platforms as online media. The terms **deinstitutionalization** and **disintermediation** refer to the ability to reach recipients without the mediation of traditional or official media (Švecová, 2017). It is a process in which traditional models of media functioning and organization are gradually being replaced by more flexible or community-oriented forms of content creation and distribution. For example, journalists report on their topics on social media or blogs, where they build a fan base. Finally, **dematerialization** is a consequence of digitalization, representing the elimination or shift away from physical media (Švecová, 2017). Information does not have a physical form but rather take the form of zeros and ones. Instead of publishing content in newspapers, magazines, or books, it is transferred to digital form. This content is then distributed via online platforms, from websites to social media.

According to Ondrášík (2010), the hallmarks of online journalism are attractive, dynamic, and clear design; accuracy and immediate correction of errors; specialized subpages and projects; interactivity; citizen journalism and reader involvement in content creation; reader feedback; and adaptation of content for multiple platforms. Several theorists agree that, in addition to the above, the characteristics of digital or online media also include interactivity, non-linearity, topicality (or urgency), and an excess of unverified information, activation of media memory, personalization and individualization, real-time reality, immediate comparison with competitors, hypertextuality, blending of formats, use of digital technologies, and multimedia (see, for example, Trappel, 2007; Bednář, 2011; Švecová, 2017). **The reality of time** points to the need to publish information within minutes of its creation, with news portals having to publish continuously (Švecová, 2017). Almost every news item includes information about the date and time of publication. In the case of updates, the text also includes information about when and in which part the text was updated. **Interactivity** represents a process of communication in more than one direction. While journalism in the traditional sense is a one-way linear process, Habiňáková (2016) points out that journalism in the digital age tends to be



more interactive, allowing for audience feedback and direct contact with other members of the audience. Readers can like, comment on, or share content. According to Višňovský (2015), interactivity is primarily represented using hypertext links, which are related to a new form of journalistic communication, and also to non-linearity. **Non-linearity** is linked to the fact that articles are not read line by line, as in a book, but rather the order in which the content is consumed is selected. Articles are not read in the “traditional” way, but are scrolled through, as is the case with social media. This approach causes reading to be scattered. According to Višňovský (2015), it is hyperlinks that make news non-linear. This means that readers can choose the news items that interest them from the selection on offer. Hypertext is fragmented, atomized, situated in blocks of text that are independent and separate (Halenár, 2016b). **Comparing competitors** is another feature of multiplatform journalism. Editors can easily determine the readership of each published text, the average length of time spent reading it or the user's presence on the website, and many other useful pieces of information, based on which they can modify the website and its parts (Švecová, 2017). Another feature is **multimedia** – thanks to technical means, different types of content (text, image, static, moving, or audio) are interconnected (Švecová, 2020). It is therefore a combination of text, video, audio, graphics, or other interactive elements. Online journalism is seeing a **hybridization of genres** – that is, the blurring of boundaries between individual genres. According to Radošinská (2017), boundaries are also blurring at the level of once strictly separate spheres of media production (periodicals, audio communications, and audiovisual formats).

Depending on the context, these characteristics can be considered advantages that print media cannot match. However, many media outlets still publish in print form, such as Denník N or SME. Printed newspapers can compete with more attractive media primarily by strengthening their advantages, which are clarity, the combination of words and images, the dynamics of the topics offered, the expansion of their content, and the increasing professional level of periodicals (Višňovský, 2015). Print media cannot compete with digital media in terms of speed of reporting or timeliness. However, they can offer premium and timeless content.



2 GOALS AND METHODS

The main objective of this paper is to identify the characteristic features of the multiplatform identity of the selected media and point out shifts in journalistic practice in the digital ecosystem. In this paper, we focus on analyzing how a selected Slovak news media outlet – SME – modifies the form, style, and construction of news stories when covering the same topic on its website, social media, podcast, or other channels. We focus on SME because it has long been one of the most widely read serious periodicals, which also has a high number of visitors to its website. The units of analysis for SME media are articles on the kidnapping of Venezuelan leader Maduro, given their high importance and significance in the context of international political reporting.

We achieve the objective of this study through theoretical reflection and subsequent qualitative content analysis. We observe which elements are a stable part of media identity and which adapt to the specifics of the platform, technical limitations, or audience habits. We formulate the analytical categories as follows:

Category A: Stability and variability of media identity. We focus on identifying elements of media identity that are consistent across all analyzed platforms, as well as elements that vary depending on the platform environment and its formal and communication specifics.

Category B: Journalistic practice and the role of the author in the platform context. We look at the ways in which journalistic practice and the role of the author change depending on the platform, in terms of the visibility of authorship, the degree of subjectivity, and interaction with the audience.

Category C: Platform adaptation of content and publishing standards. We examine the degree and methods of adaptation of news content within the technical, format, and publishing specifics of individual platforms, including their algorithmic logic and user habits.

We formulate research questions in connection with the analytical categories.

RQ1: Which elements of media identity remain stable across platforms and which change depending on the platform?



RQ2: How do journalistic practices and the role of the author differ in different platform environments?

RQ3: To what extent does content adapt to the technical limitations and publishing standards of specific platforms?

3 RESULTS

SME published several articles on this topic. In the newspaper, it is covered on the front page and the first four pages of the January 5, 2026 issue. Our analysis focuses on the front page with the main article *Trump si prišiel po Madura* (Onderčanin, 2026a) and two articles from the opening pages – specifically *Budeme riadiť Venezuelu* (Onderčanin, 2026b) and *Ako chytili Madura* (Onderčanin, 2026c). **Category A:** the first text on the front page contains basic information about the topic, with a note that more is written about the topic on the following pages. The article serves as an introduction to the following texts. The second article is also factual and formal in tone. The relatively extensive report is formulated logically – the subheadings serve as basic questions, which the author then answers. Several sources and perspectives on the issue are presented, which the author verifies and puts into context, logically explaining the whole situation. The third text is equally informative, but more descriptive and reportage-like, as the author describes how Maduro's kidnapping took place. He also cites sources of information, maintains formality, and does not evaluate the situation from his own point of view. SME is reinforced here as a highly objective news medium. **Category B:** technical visibility of the author is always indicated at the end of the articles. Onderčanin does not express any personal opinions in these texts, reporting on the event objectively and based on multiple sources (including quotations and paraphrases). He does not appeal to the audience in the text. **Category C:** all texts contain a title, perex, introduction, subheadings, and are divided into smaller paragraphs. Articles also use rails to highlight key information or quotations. Bold is used only for subheadings, introductions, and photo descriptions, with each text containing one cover photo with a description and source. In terms of scope, the first article takes up more than half of the front page, while the second and third texts have a separate double-page spread.



The newspaper has posted dozens of articles on the issue on its website. For our analysis, we have selected the first one chronologically, entitled *Američania zajali prezidenta Madura, Venezuelou otriaslo niekoľko explózií* (Onderčanin, 2026d), and an article that also appeared in the print edition *Budeme riadiť Venezuelu. Prečo Trump uniesol Madura a hovorí o venezuelskej rope* (Onderčanin, 2026e). **Category A:** in both texts, the author uses formal language without emotionally charged phrases. They are organized into paragraphs and divided by subheadings. There is no evaluation or presentation of the author's opinions. The first text is strongly news-oriented, while the second is more complex and analytical – in fact, it is a text also published in the issued issue (specifically Onderčanin, 2026b). In this case, too, the daily newspaper reinforces its identity as a rational and objective media outlet. **Category B:** in the first text, the author is technically mentioned in the introduction to the article, together with the designation TASR, while in the second text only his name is mentioned. Both texts make extensive use of paraphrases and quotations, which are also actively used to present different perspectives on the topic. There are no appeals to the audience within the text, but it is worth noting that there are buttons for sharing and commenting at the beginning and end of the article. In addition, the introduction includes a call to subscribe to the *Ranný briefing SME* newsletter, which summarizes the day's essential news. However, the author's subjectivity is minimal. **Category C:** the texts contain several multimedia elements – hyperlinks to sources or other articles from sme.sk, images, screenshots of cited social media posts, videos, links to other similar articles. The text is approximately 4,550 characters long, including spaces. The title and subheadings, which serve as eye-catchers, are highlighted in bold. Compared to the print version, the second text is not only enriched with multimedia elements, but parts of the text have also been modified – especially the subheadings, which are simplified in print. These aspects are related to SEO optimization, but also to adapting the text for non-linear reading, which is typical for the web.

Another unit of analysis is the podcast edition of the daily newspaper *Dobré ráno* entitled *Mimoriadne: Donald Trump si do Venezuely prišiel po prezidenta Madura. A po ropu* (Dibáková, 2026). **Category A:** the podcast was hosted by Dibáková in the form of an interview with journalist Onderčanin, whom she asked questions, while she herself provided



statistical data and other key information. During the interview, both express their own opinions at times, but they usually back them up with sources and try to remain as objective as possible. Nevertheless, emotionally charged phrases or personal opinions are occasionally included. The podcast has its own distinctive jingle and sound transitions. This format allows the daily newspaper to maintain its objectivity while also allowing for a certain degree of informality, which is closely linked to spoken content. **Category B:** in the podcast, the formal visibility of journalist Onderčanin is much clearer, as Dibáková introduces his name and position right at the beginning (she then addresses him informally by his first name in the podcast). The presenter does not state her name, but her voice is distinctive and easily recognizable, especially since she appears regularly in the SME podcasts. The author's role is very prominent – both persons involved speak formally and objectively about the topic and cite sources and quotes that are also heard in the podcast in the form of real audio recordings (e.g., Trump's statements are heard directly). Onderčanin subsequently commented on these recordings. There was no interaction with the audience in the audio itself, but the podcast description includes a call to subscribe. **Category C:** the creators actively use the audio nature of the podcast, with statements from Trump and other representatives being heard in addition to the presenter and journalist. The structure is clear – in the form of questions and answers, the listener gradually learns about the event and its consequences. The podcast is 22 minutes and 38 seconds long and is published together with a description, hashtags, sound sources, and links to other content from SME in several podcast applications, including YouTube. In addition, it was also published in the form of a short article on the website, and the podcast is also embedded in several texts dealing with the issue.

Other contributions include posts on social media. Specifically, we analyze the post *Američania zajali prezidenta Madura, vyhlásil Trump* (Denník SME, 2026a) and *Susedná Kolumbia už na hraniciach s Venezuelou* (Denník SME, 2026b) on Instagram. Similar posts in almost identical form, albeit with slight changes, are also published on Facebook and Threads. SME also shared content on X and Bluesky, but in a very concise form with short text and links to individual articles on the website. **Category A:** both posts are accompanied by images with text in the graphic style of the SME with its logo. They are based directly on Onderčanin's articles (2026d; 2026e). The language is factual and concise. The



posts contain an eye-catching image with a caption, and their carousel format allows users to swipe and view more detailed text about the event. A description of the situation in text form is also provided in the post description. In this way, the identity of SME is clearly distinguishable. **Category B:** the author's name is mentioned in the description of the post, but the newspaper also identified them as part of the collaboration. On Instagram, readers can access the journalist's profile with a single click – the journalist also has the posts published on their profile. The posts are liked, commented on, and reposted. They also include sources of information and an appeal to the audience, i.e., the information that they can find a link to the web article in the newspaper's profile. **Category C:** the first post contains a total of three slides with key information about what happened. The second consists of five images and, although it also provides basic information, it expands on it with context and Trump's statements. The first post contains the hashtag *#venezuela*, while the second does not contain any hashtags. However, both tag the SME daily newspaper, allowing readers to quickly click through to the media outlet's Instagram profile. The text of the posts is structured and contains emojis. The use of carousels, emojis, and shortened text reflects an effort to adapt the news content to the visual and attention-grabbing logic of Instagram.

4 CONCLUSION

The main objective of this paper was to identify the characteristic features of the multiplatform identity of the selected media and point out shifts in journalistic practice in the digital ecosystem. We formulate the conclusions of the analysis by answering the research questions.

RQ1: Which elements of media identity remain stable across platforms and which change depending on the platform?

The stable elements of SME's media identity across platforms are an emphasis on factuality, accuracy of reporting, verification of information from multiple sources, formal language, and an effort to put events into context. The visual identity of the media (logo, graphic style) is also consistent. Variability is evident mainly in the degree of subjectivity and expressiveness – while the print and web versions maintain a strictly formal and objective tone, the podcast and social media allow for a more relaxed style, occasional emotional overtones, and personal



attitudes. The scope, form of storytelling, and degree of multimodality of content also vary depending on the platform.

RQ2: How do journalistic practices and the role of the author differ in different platform environments?

In printed texts, the author appears in the traditional journalistic role of an information mediator, with a low degree of personal visibility and no direct interaction with the audience. On the web, however, his role is expanded to include links to his profile and other content, as well as an implicit call for participation (commenting, sharing). In podcasts, the author is highly personalized – introduced by name, voice, and expert position, actively interpreting events and responding to the host's questions, thereby strengthening his authority and subjective presence. The author is most visible on social media – he is explicitly identified, linked to his profile, and his work interacts directly with the audience through likes, comments, and shares.

RQ3: To what extent does content adapt to the technical limitations and publishing standards of specific platforms?

The newspaper responds very quickly to events with its own content, significantly adapting it to the technical and format specifications of individual platforms. The print version is dominated by linear, extensive, and hierarchically structured reporting with graphic highlights. The web version expands the content with hyperlinks, multimedia, more images, and algorithmically supported links to other articles in the newspaper. The podcast takes full advantage of the auditory nature of the platform through interviews, audio recordings, and sound effects. Social media work with conciseness, visual appeal, carousel format, and emoticons, prioritizing quick orientation and audience engagement. The adaptation of content is therefore substantial, but it is carried out while maintaining the basic values and professional principles of the media.

In conclusion, we would like to add that the digital transformation of journalism has fundamentally changed the way news is produced, distributed, and consumed. This shift has brought revolutionary concepts and new trends that define the future of the industry. Online portals and platforms enable instant access to news and provide space for multimedia formats.



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INCREASING MEDIA LITERACY – A CASE FOR BROAD INTERDISCIPLINARY STUDY AND IMPLEMENTATION OF RESULTS

Beáta BILIKOVÁ, SK

ABSTRACT

The research conducted in the EU to date on both risks posed by the media and measures implemented to counteract the potential threats has given rise to a relatively coherent concept of media literacy education. The main outcomes of the given research include integration of media literacy education across curricula, i.e. its incorporation in various subjects touching different aspects of media literacy (citizenship education, digital skills, language, and communication, etc.), the emphasis on understanding digital environments (social media, online platforms, digital safety and privacy, etc.), the focus on critical thinking development, combating disinformation, and some other issues. Unfortunately, though, the current concept of media literacy education does not take into account the physiological background of media impact on human thinking and behaviour. Over-reliant on what is considered conscious and rational decision-making of humans, our approach to media literacy ignores the operation of instinctive impulses that override the trained and consciously learnt patterns of thinking and behaviour. The present article explores the ways in which human physiology can – and often does – sabotage the operation of rational, critical thinking and analyses the possible manners of tackling these risks.

Key words: media literacy, education, critical thinking, limbic hijacking.

INTRODUCTION

Media literacy has become a central issue in the current world which is being irreversibly transformed by rapidly evolving media landscape. European Democracy Action Plan presented by the European Commission in December 2020 acknowledged the significance of media literacy as democratic infrastructure. As a result, educational curricula of individual member states and other relevant



institutions started addressing the topics of political communication and misinformation.

Since then, the urgency of effective education, both formal and informal, aimed at media literacy, has only been growing. The goals of such education cover still larger and more diverse set of areas, such as developing digital skills in various age categories of population, preventing exclusion, creating safe digital environment and harmless media content for children, understanding the nature of media and their persuasion strategies, methods of subversive influence, and many others.

The author of this article decided to explore the concept of media literacy and the content of media literacy education, with special emphasis on their evolution and practical implementation in the context of general education. The research was approached with the assumption that it is vital to compare the concepts applied in institutional practice with results of the relevant latest research in order to establish the gaps which should be addressed in the future.

1 THEORETICAL BACKGROUND

Dramatic development of information technologies and the rise of new media over the past few decades have reformatted the sphere of information broadcasting as well as public and political communication. That progress entails a dramatic increase in concerns with both harmful content that the media spread across populations and the risks deriving from unethical implementation of persuasion strategies or subversive influence through the media.

The first attempt at tackling the media and digital space in the EU occurred in 1999 with eEurope Initiative. It was the first EU-wide strategy for the information society. Next step came in 2006 when Recommendation on the Protection of Minors and Human Dignity was presented that recognised media literacy as a tool for child protection and encouraged member states to promote awareness and education.

In 2007 the first official EU definition of media literacy was provided in European Commission Communication: A European Approach to Media Literacy in the Digital Environment. It involved the ability to access media, to understand how media work, to evaluate media content critically, and to create and communicate media content. This document triggered the development of national strategies and



reform of education. Two years later it was followed by Audiovisual Media Services Directive (2009), the first legally binding EU framework which required promoting and monitoring media literacy.

Digital Agenda for Europe issued in 2010 set links between media literacy, digital skills, and employability as a result of which media literacy merged with digital competence in national curricula. European Parliament Resolution on Media Literacy in a Digital World (2018) represents another significant move. It emphasized media literacy as a vital civic skill indispensable for combating disinformation and advancing critical thinking in the digital age. **European Democracy Action Plan presented in 2020 defined** media literacy as democratic infrastructure. Within that framework, curricula were encouraged to address political communication and misinformation. Furthermore, Digital Education Action Plan for the period of 2021–2027 foregrounds media literacy as a core educational priority. And finally, European Media Freedom Act from 2024 recognises media literacy as essential for maintaining media pluralism.

The topics related to media literacy have recently been broadly discussed and investigated in expert circles. For example, M. Karasová (2020) in her empirical study deals with the self-assessment of media competences of teachers in Slovakia. The connection between media literacy and other types of literacy was explored in by Polievková, Izrael, and Matláková (2022). On the other hand, Pošteková and Grupač (2025) addressed some media related risks, such as creation of information bubbles, spreading of disinformation and conspiracy theories, which play crucial role in provoking the crisis of trust. In their view “the key to reversing the trust deficit lies not only in correcting misinformation but in cultivating critical media awareness as a core democratic competence” (Grupač, Pošteková, 2025, p.207).

Czech experts investigate the subject of media literacy from various perspectives. Though Horváthová and Abrahám focus broadly on information literacy, their research includes Czech data and comparative analysis relevant to media literacy concepts and students’ ability to critically evaluate information sources (Horváthová, Abrahám, 2015). Pavel Sedláček (2016) discusses methods of teaching media literacy to different student groups with emphasis on critical analysis of media messages and representation. On the other hand, Jiráček and Dočekalová (2025)



analyse the conceptualization and implementation of media education and media literacy in the Czech education system in relation to European standards.

Kadri Ugur in her article *Media Education as Cross-curricular Theme in Estonian Schools: Reasons of a Failure* (Ugur, 2011) offers a critical view on the reality of media literacy education, specifying its weakest points in Estonia. The research of Alina Yurii (2025) examines the mechanisms of Estonia's information security system and the role of media literacy in fostering resistance to information influence.

Considering the research of influences and effects of the media operation, which does not seem to create links with the media education per se, there is a variety of publications providing important insights. For example, Sarah Zaklama (2025) revisits the realm of media framing and analyses the immense manipulative potential it has acquired with the rapid expansion of the media. E.H. Christie (2019) explored the crucial vulnerabilities deriving from the current expansion of the social media along with the technologies capable of identifying personal characteristics, predicting individual's behaviour, etc. based on the person's activity in social networks. Christie claims that social media have become exceptionally powerful since they aggregate immense sets of news and opinion. He warns that they "also offer new forms of vulnerability that have been exploited by hostile actors in a fast-changing world. The central question for both national governments and the EU institutions is whether to accept the layout of this new battlefield of ideas, (...), or, on the contrary, to lean forward and design new rules to protect the integrity of the democratic discourse" (Christie, 2019, p.17). In his book *The Behavior Ops Manual* (2024), Chase Hughes among others analyses what he calls neurology of influence. He explains the brain's structure and chemistry to demonstrate how biological triggers control human decision-making. Importantly, those biological triggers can easily be set in operation by specially designed media content.

2 GOALS

The present article was designed to juxtapose the concept of media literacy institutionalised by the EU and related educational curricula with broader, interdisciplinary views relating the impact of the media on the consumers of their content. We believe such comparison is vital for making and maintaining media education relevant, efficient, and up to date. A secondary objective of the present



research was to explore whether the shared history and cultural context of Slovakia and Czech Republic elicited comparable attitudes of official bodies to the subject of media literacy.

Drawing on the existing research of mechanisms of persuasion, influence, threats, and risks posed by the media, as well as paradigms of human reactions to different kinds of media content, the article intends to address those issues which are not covered in the current concept of media education.

3 METHODS

The present research employed textual and discourse analyses, enhanced with comparative aspect which consists in juxtaposing the level of theoretical expertise development in the given area with the concepts and theories reflected in the practically implemented notion of media literacy. The study material was also investigated with help of hermeneutic analysis. It was aimed especially at the characteristics of media content and its impact on media users.

3.1 TEXTUAL ANALYSIS

Textual analysis was implemented in the study of the concept of media literacy, which is officially promoted in the European Union, and its gradual evolution.

The analysis drew on legally binding documents and recommendations issued by EU official bodies that shape policies across the EU. A detailed study of these documents is essential for understanding the roots and individual stages of evolution of the discourse on media literacy. It is obvious that the perception of media literacy has undergone significant developments and changes which – in all likelihood – have not yet reached their final point. Simultaneously, this situation implies that new potential threats are constantly being identified, which relate to innovations occurring in the sphere of the media and need to be addressed.

3.2 DISCOURSE ANALYSIS

Discourse analysis proved productive especially in the investigation aimed at conceptions of media literacy education adopted by selected EU member states. The research focused on the situation in Slovakia, Czech Republic, Estonia, Denmark,



Ireland, and Italy. These countries were selected to represent different regions of the EU and different historical and cultural contexts. Slovakia and Czech Republic shared a large part of their history in one country and still share some cultural characteristics, yet they were both included in the research to establish whether the shared historical and cultural contexts elicited comparable approaches to media literacy. In that phase of research, the information available on the website of European Digital Media Observatory (EDMO) proved invaluable since it connects fact-checkers, media literacy experts, and academic researchers.

Furthermore, discourse analysis in combination with hermeneutic analysis was applied in the process of investigating the interconnection between media and persuasion, including dark persuasion, the notion of psychological operations, information warfare, and propaganda. All of these phenomena have found a favourable and inviting space for operation in rapidly developing and expanding media landscape, particularly on social media platforms.

4 RESULTS

4.1 EU MEMBER STATES' IMPLEMENTATION OF MEDIA LITERACY REGULATIONS AND RECOMMENDATIONS

Individual member states of EU implement the existing regulations based on their specific needs, possibilities, and national priorities. For instance, in Slovakia the requirements and recommendations concerning media literacy and media education are being administered by a **national media regulator** - the Council for Media Services. In 2011 the Slovak Government approved the Conception of Media Education in the Slovak Republic in the Context of Lifelong Learning. The priorities of the Conception include equipping citizens with basic skills, reducing generational differences as well as potential risks of social exclusion for certain groups of population. The key objective is to encourage responsible media practices and foster critical evaluation of media content, with particular attention to ethical principles and humanism.

In Czech Republic, the EDMO website reports increased concerns with media literacy and media education in response to the recognition of media related hybrid threats such as disinformation, fake news, and subversive influence on public



opinion by third countries. There are three institutions in charge of media literacy agenda: the Ministry of Culture, the Ministry of Education, Youth and Sport, and a regulator - the Council for Radio and Television Broadcasting. Expert seminars held in the Czech Senate identified that the current cross-curricular media education framework in the Czech Republic does not reflect technological developments and advances in media education theory and practices.

Estonia has included media education in its curriculum in 2002 and, since 2024, requires an upper secondary course on critical evaluation of media content and disinformation, with an optional course addressing media influence, algorithms, and propaganda. Primary responsibility for media literacy lies with the Government Office in cooperation with the Ministry of Education and Research. Estonia ranks highly in international media literacy assessments, placing fourth in the 2022 Media Literacy Index, which reflects strong resilience to disinformation. (online resource, Estonia ranks 4th in Media Literacy Index, 2022). The national strategy in the area of media literacy is focused on addressing challenges posed by disinformation, digital manipulation, and information overload.

Even though in Denmark there is not a single policy or governing body in charge of media literacy, digital literacy is incorporated in national policies, e.g. The Danish National Strategy for Cyber and Information Security and The 2018 Strategy for Denmark's Digital Growth. Online media literacy appears to be a priority particularly at grammar schools where children and adolescents are expected to acquire the skills necessary to organise their daily digital life.

In Ireland, digital literacy plays a significant role in the national curriculum. On the other hand, media literacy has a much lower status. Media education concentrates on three core competences: to understand and critically evaluate media content and services to make informed choices, to access and use media content and services in a safe and secure manner, to create media content and participate, in ethical manner, in the activities of society. The Irish Media Commission oversees entire media agenda. It created a Media Literacy Ireland network and funds the work.

Italy does not have a national media literacy strategy or an institution curating media education, but initiatives attending to media literacy have been growing recently,



e.g., Italian Association of Media Education. Their activities mainly address the issues of digital inclusion, information literacy at schools, and disinformation.

4.2 MEDIA RELATED RISKS AND VULNERABILITIES

The conducted research pointed out several phenomena relating the media which are liable to affect media users negatively. While the current concept of media literacy emphasises combating disinformation, it does not pay much attention to a more subtle form of manipulation through media content, i.e. framing (Zaklama, 2025). It may consist in minor shifts in the way of presenting facts, or in the choice of more emotional language and it can elicit a substantial change of opinion, attitude, or behaviour of the media content consumer.

The risks related to big data sets collected by social media platforms (Christie, 2019) are generally not covered in media education conceptions too, even though their impact may be highly destructive.

The general tendency in tackling media-related threats is to develop critical thinking and cultivate critical evaluation of media content. These are certainly important aspects of boosting self-protection of media users. Nevertheless, there is a number of subversive strategies employed through the media which are aimed at influencing people's behaviour and decision-making and which affect instinctive, biological drives, such as dark persuasion strategies (Dimsdale, 2021) and manipulation through limbic hijacking (Hughes, 2024). Neuroscientific research indicates that content eliciting strong negative emotional responses can trigger so-called limbic hijacking. This process temporarily inhibits the functioning of the prefrontal cortex, which governs critical thinking and decision-making, thereby increasing suggestibility and the likelihood of instinctive, irrational behaviour. From this perspective, traditional media literacy approaches that focus primarily on fostering critical thinking and providing tools to identify disinformation or fake news may be insufficient. It is vital that media users acknowledge and become aware even of the threats which function beyond the operational field of critical thinking.

CONCLUSION

The conducted research demonstrated that the conceptions of media education in the selected countries often significantly overlap with digital literacy. They are generally



targeted at the skills enabling individuals to access and evaluate media content, to create and communicate media content, and to understand the way media work. Development of critical thinking is perceived as an essential instrument of protection from disinformation. Among the selected countries, only Czech Republic and Estonia refer to subversive influence and digital manipulation as acute media-related threats, in addition to more frequently mentioned disinformation. Other countries, including Slovakia, do not explicitly specify subversive influence of the media as a priority to address.

In conclusion, we argue that adopting a broader interdisciplinary perspective on media literacy can enable a more comprehensive understanding of the issue and contribute to the development of a more efficient media literacy curriculum. It is essential to examine the cognitive processes that occur when individuals are exposed to various forms and kinds of media content. At the same time, understanding of the physiological processes triggered by emotions elicited by media content, together with insights from relevant neuroscientific research, could significantly enhance the effectiveness of media literacy education.

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REALISM, OPTIMIZATION, AND THE AESTHETICS OF KITSCH IN THE CONTEXT OF AI-GENERATED ADVERTISING IMAGERY

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ABSTRACT

On a theoretical and analytical level, this paper focuses on contemporary forms of regulating and optimizing visual content, as well as current shifts in this direction caused by the emergence of Artificial Intelligence (AI) and its image-generation tools. As a result of the algorithmic processing of visual data, a gradual aesthetic optimization is occurring within the field of visual production. This optimization arises from a combination of realistic elements and algorithmic selection, extending to kitsch-based visual strategies. Given the currency and urgency of this new form of visual identity building, we focus on the construction and typology of the image within the environment of commercial visual communication. Furthermore, we examine the ways in which the meaning of realism is shifting from "traditional" mimesis toward persuasive simulation-the creation of images that are not realistic in an ontological sense but are sufficiently probable to elicit reception, emotion, and conversion from the viewer. The aim of this paper is to identify a fundamental typology of contemporary static marketing images in the digital space based on their production origin and to define the functional advantages, limitations, and perceptual impact of individual types within the context of marketing visual communication.

Key words: Image, image typology, marketing communication, AI.

INTRODUCTION

Over the past decade, we have observed significant influences on the construction and aesthetics of the image, naturally arising from rapidly evolving technology and the digitalization of the environment. This reality tendentially permeates visual culture as a whole. Traditional forms of media imagery, predominantly based on individual authorial graphics or photography, are gradually transforming into preset, system-generated forms derived from the possibilities and limitations of digital



platforms, software interfaces, and algorithmic tools. As early as the late 20th century, Manuel Castells pointed to the emergence of the so-called "network society," in which the technological infrastructure of information networks fundamentally shapes the economy, communication, and everyday social relations (1999). Following these changes, digital sociology established itself as a subdiscipline in the first decade of the 21st century. According to D. Lupton, it reflects the presence of digital technologies in everyday life and their impact on social practices, communication, and ways of knowing (2015). From the perspective of visual communication, it is crucial that a significant portion of interactions and daily activities is moving into the digital environment, with online communication being a major component of everyday interaction. Although exact percentages vary, all researchers confirm that online channels (messaging, social networks, emails) constitute a substantial part of interpersonal communication (M. D. Lieberman, J. Schroeder, 2020). A study by E. Croes and M. L. Anthéunis claims that online communication accounts for up to 46% of total interpersonal communication (2021).

The process of communicative migration to the online space is supported by digital platforms and devices that create an interconnected digital ecosystem enabling the mass production and distribution of verbal and visual content. Digital ecosystems can be understood as sociotechnical systems connecting users, content, and technological tools through platforms whose operation is based on scaling and network effects (M. Koch et al., 2022). These mechanisms create an environment in which the algorithmically optimized image becomes the dominant form of visual presentation for individuals, brands, or other predominantly "online" marketing concepts. An image no longer needs to be "good" in a traditional aesthetic or cultural-value sense; instead, it is primarily evaluated by its degree of functionality under conditions of mass distribution and repeated exposure. Similar to Loewy's MAYA rule (*Most Advanced Yet Acceptable*, cited in: W. Lidwell, K. Holden, J. Butler, 2011, pp. 160–162), where the priority is a compromise between acceptability and innovation in design—representing an optimized business solution—the image in digital space is also subject to optimization arising from selection pressure. In the environment of digital platforms, this refers to a set of algorithmic, economic, and interface-conditioned mechanisms that systematically



favor certain forms of visual content based on performance while ignoring culturally conditioned aesthetics as a relevant variable during evaluation.

In this context, analyzing the relationship between algorithmic image production, aesthetic optimization, and trendy visual strategies, which play a key role in contemporary commercial visual communication gains significance. The image thus acquires various levels of tendentious, formulaic design, which is inherently aesthetically effective, emotionally legible, and functional in terms of marketing and communication goals. For instance, a study by D. Jeong shows that digital templates embedded in tools like Canva, Figma, or Adobe XD tend to homogenize visual design and reduce choice to preset aesthetic patterns. This reflects a process where visuals acquire standardized aesthetic forms for the sake of communication function and efficiency (2025). This mechanism simultaneously creates space for the systematic evaluation and categorization of visual forms, allowing for the analysis of "templateness" and the creation of algorithmic beauty subject to the aesthetics of selective choice based on "clicks." To achieve our goal, we employ a comparative analysis of theoretical foundations and a synthesis of current empirical studies in the field of algorithmic image processing and marketing communication.

1 THEORETICAL BACKGROUND

1.1 FROM IMAGE ARCHETYPES TO ALGORITHMIC BEAUTY

The image as an artistic medium has undergone a fundamental transformation of aesthetic perception and creative possibilities over the last millennium, reflecting contemporary taste, cultural-religious contexts, and associated value preferences, predominantly within the European cultural space. From medieval symbolic schematization and the Renaissance rediscovery of perspective and proportion to Baroque dramatization and modern avant-garde forms deconstructing established visual conventions, the artistic image has been constantly redefined in response to changing aesthetic norms, philosophical paradigms, and technological possibilities. Thus, the image acts not only as an aesthetic object but also as a cultural indicator revealing how society constructs the meaning of beauty and idealizes the record of reality across different historical periods (U. Eco, 2005). The polarity of an image is emotionally and cognitively determined by a combination of its expressive means, narratives, and intertextuality. This principle is gradually established in a parallel



form of the artistic image advertising which formed at the beginning of the last century from the needs of an emerging consumer society, characterized by T. Veblen as early as 1899 (pp. 35; 68-70). Consequently, two natures of pictorial representation exist side-by-side, growing from a shared cultural and visual foundation.

Drawing from R. Barthes (2002) and his perception of the photographic image, it can be stated that while the artistic image retains the right to an open semantic structure and autonomous reception, the promotional image evolves toward more shorthand, unambiguous, and reception-controlled constructions. These align with the linear transmission model of communication. In this model, the visual message is part of a one-way transfer of meaning from producer to recipient, aiming to minimize interpretative uncertainty and maximize the impact of the message (C. E. Shannon; W. Weaver, 1949; D. McQuail, 2010).

To achieve this goal, marketing communication also utilizes uniformed intertextuality, based on archetypal patterns and the construction of "personas," which allows for faster and more unambiguous anchoring of the visual message. When discussing archetypes, we do not strictly mean Jungian collective images stored in the collective unconscious, but rather recurring semantic forms that culture recognizes almost reflexively (Vysekalová, J. 2019). According to M. Mark and C. Pearson, archetypes in a marketing environment are fundamental visual and narrative patterns appearing in myths and cultural stories that provide brands with emotionally recognizable, universal meanings. They are "the heart and soul of the brands they represent" (2001, p. 19). An archetype represents a mental shortcut enabling rapid identification and activating emotional resonance.

Another form of visual cipher is built upon the persona, which allows for situational modelling of a specific target group to achieve a more precise hit. A persona represents a practical pictorial operationalization a model of the recipient to whom the image is purposefully tailored. The visual form of the persona is not the result of artistic interpretation, but of a strategic selection of signs that maximize identification, trust, and emotional response. In marketing, the image does not function as an autonomous artistic statement but as a strategically constructed visual template.



Until recently, available constructions adapted from art history were used to depict messages. In this "classical" marketing image, the final visual form was largely dependent on the author's interpretation, aesthetic taste, and technical capabilities. According to P. Szabo, the promotional image, along with text, contributes to the complexity of, for example, print advertisements (2009). In the current digital environment, this process is shifting toward data rationalization. The advent of generative AI tools is fundamentally changing how visual norms are selected, reproduced, and optimized. According to S. Matz, algorithmically generated content is a functional tool for influencing perception and decision-making, capable of adapting to the recipient's psychological profile (2024). A synthetic AI-generated image is no longer the result of individual aesthetic decision-making, but a product of algorithmic processing of vast amounts of visual data, favoring forms that demonstrate a higher degree of perceptual persuasiveness and emotional legibility. In this context, a new type of aesthetics is forming based not on value judgments of beauty, but on the optimization of visual performance a phenomenon that can be termed "algorithmic beauty."

1.2 CURRENT TYPOLOGY OF MARKETING IMAGES IN DIGITAL SPACE – PROS AND CONS

As already indicated, several types of marketing visual templates are used in the current digital environment, each representing a different degree of realism and possessing a distinct capacity to elicit emotional responses from the recipient. Beyond realistic optimization, visual and narrative construction also involves the application of aesthetic norms and trends ranging from minimalist principles typical of product photography to purposeful absurdity and kitsch. This kitsch is not primarily an artistic problem, but rather a strategy aimed at engaging the viewer through non-standard, norm-disrupting representations that increase attention, memorability, and emotional involvement (M. G. Weinberger, 2021). According to I. Slavov (2007), kitsch in a mass context does not merely represent "bad taste," but an aesthetic phenomenon linked to modernity and the serial production of visual content, whose eruptive character can enhance the effectiveness of imagery. Through the principle of the mere exposure effect (R. Zajonc, cited in W. Lidwell, K. Holden, J. Butler, 2011), its specific aesthetics thus become socially established. From this perspective, the regulation of style and aesthetics in marketing remains



open-ended and is generally characterized by a high degree of probabilistic perception.

A particularly problematic object in the representation of realism is the persona. The level of its persuasiveness depends on the degree of visual realism and the quality of its depiction. Its creation requires a combination of realistic visual details, archetypal patterns, and psychologically grounded characteristics of the recipient, while also reflecting contemporary aesthetic trends. A key challenge in this regard is the phenomenon of the Uncanny Valley (M. Mori, 2012), which suggests that excessive attempts at hyperrealism without absolute technical perfection lead to the opposite effect: instead of identification, they evoke an instinctive aversion and distrust in the viewer. A successful marketing persona must therefore either remain within a safe zone of stylization or overcome this “valley” through flawless execution. The persona thus functions as a bridge between content and viewer it enables precise identification of the target audience and maximizes emotional response, yet its implementation is technologically and organizationally demanding. In this context, the question arises of how to classify the possible technological types of imagery and to define their basic characteristics in relation to marketing objectives.

Painting: the most artistic and subjective form of visual imagery, reflecting the author’s aesthetics, expressive strategies, and technical skills. In a marketing context, it functions as an exclusive and luxurious visual element that generates strong emotional and cultural value. Its effectiveness does not lie in precise representation, but rather in the degree of abstraction and interpretive openness, including the deliberate imprecision of realistic depiction of the human face, which supports the universality of meaning and the recipient’s emotional projection. Empirical research by M. Cheung et al. confirms that artistic visuals, including painting, elicit positive emotional responses regardless of perceived aesthetic beauty, in contrast to commercial images, whose emotional impact is tied to aesthetic evaluation (2018). This suggests that artistic imagery possesses an autonomous emotional power, which can enhance affective response and the perceptual depth of a brand in marketing communication. The digitization of painting simultaneously enables its adaptation to the online environment without loss of artistic character, making it a particularly relevant tool for premium and



culturally oriented brands. The limitations of this form lie in its high time and financial demands, strong dependence on authorship, and lower efficiency in mass distribution.

Illustration: is an abbreviated, predominantly flat visual representation with an artistic inflection. Its key semantic advantage in a marketing context lies in a distinctive authorial style, which lends it visual appeal, legibility, and a degree of subjectivity, making it feel more personal and less invasive than realistic forms of representation. This very shorthand quality and flatness allow illustration to interpret even taboo or sensitive topics through personification and visual metaphor, without the need for literal depiction. According to K. Takeuchi and Q. Wang, visual metaphors in advertising support deeper cognitive processing and audience understanding of content (2022). Illustration does not generate as strong an emotional impact as photography and therefore serves primarily a secondary, supportive function in marketing communication. It is relatively inexpensive, flexible, and technologically undemanding. It may be authorial, hand-drawn, or digital, and is used mainly in smaller or supplementary visual elements, where it supports narrative, clarity, and campaign adaptability.

Digital Graphics: A visual form employing line-based or vector graphic elements, aesthetically complementing the main content. It is relatively inexpensive, flexible, and adaptable to marketing concepts, yet dependent on graphic software systems and technological infrastructure. Compared to photography or painting, it has weaker emotional and expressive impact and functions primarily as a supportive or supplementary visual element, enhancing consistency and visual cohesion within campaigns without significant emotional engagement of the audience. It represents a predominantly auxiliary form of visualization used for informational visual surfaces and details.

3D Render: It represents an image created in a 3D environment, capable of depicting objects and spaces with a very high degree of realism. Its main advantage lies in the ability to precisely control composition, lighting, perspective, and detail, enabling brands to present products consistently and efficiently. Despite a high level of automation and algorithmic processing, rendered imagery remains the result of human authorship: it is created by a graphic artist or designer who operates software tools and makes decisions regarding visual expression, perspective, and aesthetics.



This type of visualization offers significant flexibility in the production of catalogues, e-commerce platforms, and advertising materials. A practical example of a large-scale transition from traditional photography to 3D visualizations is IKEA, which began gradually introducing renders into its catalogues more than fifteen years ago. Starting with an initial test of a single 3D product render in 2005, IKEA progressively expanded this practice to the majority of its product imagery, reaching a point where approximately 75% of images in its catalogues and online communication consisted of CGI renders. This significantly reduced the need for logistically demanding photoshoots and the physical photographing of all product variants (J. Hobbs, 2022). Although renders can be highly photorealistic, they tend to appear less authentic and emotionally persuasive than traditional photography when depicting people and emotional situations, where the presence of a live model forms part of the scene. This is a particularly important aspect in marketing communication aimed at building an emotional connection between the brand and the recipient, where the human element often serves as a strong mediator of viewer identification and trust.

Photography: It represents the core of visual marketing communication through static imagery, particularly in product, scenographic, or “lifestyle” representations. It draws on dramaturgy, depth, and composition derived from theatrical and cinematic practices, enabling realistic yet stylizable depictions of objects and figures, while allowing for a highly adjustable, persuasive, and authentic emotional impact. According to L. Hou and X. Pan, photography is capable of instantly conveying a brand, atmosphere, or lifestyle, thereby increasing memorability and strengthening the viewer’s emotional connection to the brand. This phenomenon is supported by research demonstrating that visual media content (including photographs) significantly influences brand perception, emotional responses, and consumer engagement in a marketing context.

From a technical, financial, and time-related perspective, however, marketing photography is more demanding to produce. Unlike digital or AI-generated imagery, it requires human resources, professional studio settings, advanced software, and post-production processes, all of which increase both financial and temporal costs. The coordination of photographers, stylists, models, and technical specialists is necessary to achieve the desired image quality and visual consistency, making the



process often more expensive and logistically complex than the production of certain digital media. Despite these constraints, photography remains irreplaceable in building credibility, authenticity, and brand identification, as images featuring human subjects and realistic scenes provide a reference point for perceptual persuasiveness and aesthetic quality in marketing communication.

Generative AI: It represents a new paradigm in the creation of marketing imagery, in which visualization is produced through algorithmic processing of vast datasets and patterns. It is relatively inexpensive, scalable, and allows rapid adaptation of style, color, and other expressive elements, all based on data about the target audience. By estimating audience preferences and interests, it enables experimentation with combinations of realistic, illustrative, and artistic elements that would require high costs, time, and personnel resources using traditional methods. However, the disadvantages of AI include uncertainty regarding credibility and persuasiveness in the depiction of people, limited understanding of context and cultural meaning, the risk of aesthetic uniformity and predictability resulting from algorithmic optimization (“click-based” preferences), and a frequent lack of subtle emotional and narrative nuance compared to photography or professional rendering. AI-generated imagery often struggles to create an authentic experience or to reflect social and cultural specificities. It is also technologically dependent, requiring software interfaces, computational power, and often specific input data, which limits its autonomy. From a legal and ethical perspective, issues arise concerning authorship, reproduction of existing content, and the potential unintentional generation of stereotypes.

Based on the above, it can be concluded that different visual forms occupy specific positions and functions within marketing communication. Painting and illustration primarily represent artistic or supplementary visual solutions that are aesthetically appealing, memorable, and flexible. They allow for the interpretation of taboo or indirect meanings but remain secondary in terms of persuasiveness, emotional response, and overall marketing performance. Rendered imagery is particularly suitable for product visualization, combining realistic three-dimensional objects with relative efficiency and lower costs; however, it still fails to reach the desired level of realism when depicting people.



Photography currently occupies a primary position in large-scale marketing imagery, as it combines realistic capture, scenographic dramaturgy, three-dimensionality, and emotional persuasiveness, albeit at the cost of high financial investment, personnel demands, and technical resources. Alongside it, generative AI has become established as a fast, inexpensive, and flexible alternative capable of optimizing visuals based on algorithmic models, while deliberately shaping perception and emotional engagement of recipients. Empirical evidence confirms that the algorithmization of imagery has a tangible impact on marketing performance. For example, J. Hartmann, Y. Exner, and S. Domdey (2025), based on an analysis of more than 173,000 impressions of online advertising banners, found that selected generative models achieved up to a 50% higher click-through rate (CTR) compared to professionally created human-made images. At the same time, their ratings of quality, realism, and aesthetic appeal were comparable, and often even higher, than those of traditional visuals. These findings indicate that synthetic images are no longer merely functional graphics, but performance-competitive marketing tools.

At the same time, research attention is shifting from the question “Can AI generate realistic visuals?” to “What mechanisms do these visualizations use to influence perception and decision-making?” Various studies suggest that generative images can attract greater attention, increase brand recall, and influence campaign resonance through visual styles tailored to data-driven inputs about target audiences (X. J. Zhang, J. Hur, 2025; C. Gu, 2024). Contemporary visual marketing communication thus stands at the intersection of human creativity and algorithmic precision, where the primary role is played by a credible and persuasive image whether traditional photography or generative visuals while other forms such as painting, illustration, or rendering complement the communicative space and enable the expansion of narrative and aesthetic variability. In this context, generative AI and its algorithmic beauty become carriers of a “new, technologically optimized kitsch,” whose essence lies in the tendency to produce hyperrealism based on algorithmic likability, so-called crowd-pleasing aesthetics.

CONCLUSION

The presented theoretical-analytical study aims to highlight the fact that contemporary modes of creating marketing imagery are gradually shifting into the



digital domain and toward generative algorithmic processing. This transformation is driven by several factors namely the simplicity of algorithmic production, its accessibility, cost efficiency, and its ability to modulate narrative, content, and aesthetic appeal. AI thus becomes a parallel, and in some cases nearly synonymous, alternative to photography, which has so far dominated the domains of realism and visual interpretation.

Despite this shift, all of the above-mentioned and analytically defined image types photography, rendering, illustration, painting, and graphic design currently retain their marketing applicability, with each offering specific advantages in terms of persuasiveness, emotional impact, and symbolic communication. Nevertheless, as AI's capacity to generate realistic, identifiable, and aesthetically optimized images increases, the attractiveness of traditional visual forms is gradually diminishing, while algorithmic beauty moves to the forefront. This enables rapid adaptation of visual style, experimentation with attractiveness, and optimization of marketing messages based on data and audience expectations. Today, marketing imagery stands at the intersection of persuasiveness, aesthetic appeal, and functional optimization, with its effectiveness depending on a sensitive balance between human creativity and algorithmic precision. The future development of marketing imagery will be determined by the extent to which AI is able to maintain its credibility.

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THE IMPACT OF GENERATIVE AI AND ALGORITHMIC CURATION ON SOCIAL SCIENCES AND KNOWLEDGE TRANSFORMATION

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ABSTRACT

This research article investigates the structural transformation of the social sciences and the reconfiguration of knowledge production mechanisms under the influence of generative artificial intelligence (GenAI) and engagement-driven algorithmic curation. Drawing upon the theoretical frameworks of Jean Baudrillard's theory of simulacra and contemporary digital epistemology, the analysis explores the transition from task-based automation to the emergence of "epistemic infrastructure" that mediates the perception of social reality. Through a synthesis of empirical data from 2023 to 2025, including major academic surveys of sociologists and faculty members, the study identifies a "production-progress paradox" where increased scientific output is coupled with a potential decline in foundational human understanding. The findings highlight the risks of "synthetic trust" in AI-generated data, the phenomenon of "mechanized convergence" in human thought, and the widening "digital divide" in AI literacy. The paper concludes by proposing a "Social Science Stack" for AI development, advocating for the integration of sociological theory, ethnography, and causal inference into the core architecture of algorithmic systems to ensure a transition from post-hoc critique to proactive, responsible co-creation of the digital future.

Key words: Generative AI, Algorithmic Curation, Digital Epistemology, Simulacra, Knowledge Transformation.

INTRODUCTION

The advent of generative artificial intelligence (GenAI) has precipitated what many scholars identify as a tectonic shift in the landscape of education, research, and social interaction, marking the dawn of an era where the transformative potential is as profound as it is fundamentally uncertain (Claude.ai 2024; Coeckelbergh 2025). By the mid-2020s, the proliferation of Large Language Models (LLMs) and



sophisticated recommendation algorithms has transcended mere technical experimentation to become the central infrastructure of knowledge work (Chen 2025). This transformation is not merely one of efficiency or automation; it involves a fundamental restructuring of how human societies produce, consume, and validate information (Alvero et al. 2025). As these systems populate classrooms, newsrooms, and research laboratories, they increasingly assume roles traditionally reserved for human experts—summarizing complex texts, constructing sociological arguments, and providing personalized feedback—thereby reconfiguring the very location of epistemic authority (Chen 2025; Coeckelbergh 2025).

In the context of the social sciences, this evolution presents a dual-faced challenge. On one hand, GenAI offers revolutionary tools for simulating human behavior, analyzing massive datasets with unprecedented granularity, and democratizing access to higher education resources (Broska 2024; Hewitt et al. 2025). On the other hand, the pervasive integration of these technologies into the scientific workflow threatens to undermine critical thinking, exacerbate existing socioeconomic inequalities, and trap public discourse in "echo bubbles" mediated by engagement-driven algorithms (Lee 2025; Reuters Institute 2025). The shift from direct task execution to AI-mediated oversight alters the nature of cognitive effort, leading to a phenomenon where fluency is often mistaken for accuracy, and synthetic consensus displaces productive intellectual friction (Lee 2025; Nguyen 2023).

Furthermore, the rise of algorithmic curation (the automated selection, ordering and filtering of digital content by recommender systems on the basis of user data and behavioural signals) in the digital public sphere has redefined the gatekeeping mechanisms of social knowledge. Social media platforms and search engines, optimized for "shareworthiness" and engagement metrics, often suppress journalistic significance and professional editorial judgment in favor of polarizing narratives (Blassnig et al. 2024; Reuters Institute 2025). This report examines how these combined forces—generative creation and algorithmic filtering—are driving the social sciences toward a state of hyperreality, where the distinction between authentic human insight and algorithmically derived simulation becomes increasingly porous (Konzack 2025; NostaLab 2025). By synthesizing the most recent academic literature and survey data from 2024 and 2025, this study aims to provide a comprehensive analysis of the current state of the discipline.



1 THEORETICAL BACKGROUND

1.1 BAUDRILLARD AND THE EVOLUTION OF SIMULACRA

The conceptual framework for understanding the impact of GenAI on social reality is deeply rooted in Jean Baudrillard's theory of simulacra and simulation. Baudrillard posits that in the postmodern era, representations of reality detach from their origins to become standalone replicas, ultimately creating a "hyperreality" where the copy is more significant than the original (Baudrillard 1981; Konzack 2025). In the context of the 2020s, generative AI serves as the ultimate engine for the production of these simulacra. The evolution of this phenomenon can be categorized into four distinct stages, each represented by current technological milestones in media and social science research. The move toward "generative hyperreality" represents a final stage where AI autonomously creates new realities, challenging traditional notions of creativity, authenticity, and authorship (Younas and Zeng 2024). In this state, consumers and researchers increasingly interact with signs and symbols—algorithmically generated personas and narratives—rather than the objects or truths they once represented (Konzack 2025). This detachment is particularly evident in generative AI's ability to flawlessly "mimic" human empathy and intellectual quirks without having genuine lived experience, resulting in a hollow but persuasive mimicry that shifts the focus from the "real" to the "simulated" (Baudrillard 1981; NostaLab 2025).

Table 1: Baudrillard's Stages of Simulation in the Generative AI Era

Stage of Simulation	Technological Expression	Societal and Epistemic Impact
Reflection of Reality	Early CGI and 3D Modeling	Digital tools mirror real-world objects with high fidelity (Konzack 2025).
Perversion of Reality	Deepfakes and Style Emulation	Digital clones emulate real styles while masking the machine's role (Konzack 2025).
Masking the Absence of Reality	AI-recreated historical campaigns	Synthetic recreations replace the real with manufactured imitations (Konzack 2025).
Pure Simulation	Autonomous AI Content	Media operates in a closed system of signifiers with no human referent (Konzack 2025; NostaLab 2025).

Source: Konzack (2025); Baudrillard (1981)



2 DIGITAL EPISTEMOLOGY AND THE CRISIS OF AUTHORITY

The integration of GenAI into knowledge workflows has triggered a significant crisis of epistemic authority (Coeckelbergh 2025). Epistemology, traditionally concerned with what constitutes knowledge and how it is justified, is being reconfigured by the presence of AI as a "surrogate knower" (Coeckelbergh 2025). In traditional academic settings, knowledge validation was a socially mediated process involving human judgment, evidence assessment, and peer consensus (Coeckelbergh 2025; Nguyen 2023). However, contemporary GenAI acts as an "epistemic filter," determining what information is accepted as credible based on the fluency and confidence of the output rather than through objective accuracy or ethical reflection (Lee 2025; Nguyen 2023).

This shift carries profound implications for the social sciences. As AI becomes an "intermediary knowledge processor," human-to-human validation mechanisms are increasingly bypassed, leading to "epistemic passivity" (Lee 2025). One of the most significant risks is "automation bias," where users—including researchers and students—tend to over-trust AI-generated answers even when they recognize the potential for error (Coeckelbergh 2025; Nguyen 2023). This reliance leads to "mechanized convergence," a process where diverse human perspectives are flattened into a uniform, algorithmically derived consensus, reducing the productive "friction" that often leads to deeper sociological insights (Lee 2025).

3 GOALS

The primary objective of this research is to evaluate the transformative impact of generative AI and algorithmic curation on the production, validation, and dissemination of knowledge within the social sciences. The specific research goals are as follows:

1. To analyze the extent to which GenAI adoption in academia has altered the pedagogical balance between critical inquiry and efficient information retrieval (Coeckelbergh 2025; Lee 2025).
2. To assess the role of algorithmic curation in reconfiguring gatekeeping mechanisms and its impact on the diversity of mediated discourse (Blassnig et al. 2024; Reuters Institute 2025).



3. To investigate the "production-progress paradox" in scientific research, examining whether increased output through AI automation translates to deeper foundational understanding (Aisnakeoil 2025; Krenn et al. 2022).
4. To evaluate the "Social Science Stack" as a conceptual framework for integrating sociological theory and ethics into the architecture of future AI systems (Jankin 2025).
5. To synthesize empirical survey data from 2024 and 2025 to determine prevailing attitudes and usage patterns among academics and students regarding GenAI (AAC&U 2026; HEPI 2025; Alvero et al. 2025).

4 METHODS

This study employs a comprehensive qualitative synthesis and interdisciplinary review of academic literature, institutional reports, and empirical survey data published between 2023 and 2025. The methodology is designed to capture the rapid evolution of the AI landscape and its integration into the social sciences.

The research framework includes the following components:

Systematic Literature Review: Analysis of peer-reviewed articles focusing on the intersection of AI, sociology, and education (Alvero et al. 2025; Coeckelbergh 2025).

Qualitative Case Study Analysis: Application of Baudrillard's theory of simulacra to contemporary media and advertising examples (Coca-Cola, Nike, AI-scripted films) to understand the progression of hyperreality (Konzack 2025).

Comparative Survey Synthesis: Triangulation of data from major 2024-2025 studies: the HEPI Student Survey (UK), the AAC&U Faculty Survey (USA), and the "Generative AI in Sociological Research" study (AAC&U 2026; Alvero et al. 2025; HEPI 2025).

Conceptual Modeling: Evaluation of the "Social Science Stack" as a proactive agenda for the discipline, moving beyond post-hoc critique to technical co-creation (Jankin 2025).



Analysis of Epistemic Trends: Exploration of emerging concepts such as "synthetic trust," "mechanized convergence," and "epistemic opacity" in the context of knowledge work (Lee 2025; Viewpoint 2025).

5 RESULTS

The findings of this research demonstrate that generative AI has moved from a peripheral automation tool to a central actor in the social sciences. This shift is characterized by a "production-progress paradox," where the efficiency of research output has increased, yet the depth of human understanding and the diversity of scientific perspectives are under threat (Aisnakeoil 2025).

6 PERCEPTION AND ADOPTION TRENDS (2024–2025)

The analysis of survey data from 2024 and 2025 reveals a striking divergence between student adoption and faculty sentiment (AAC&U 2026; HEPI 2025).

Table 2: Comparative Analysis of Student and Faculty Perceptions (2024–2025)

Metric	2024 Survey Data (%)	2025 Survey Data (%)
Student Usage of AI (Overall)	66%	92% (HEPI 2025)
AI Use for Academic Assessments	53%	88% (HEPI 2025)
Student Perception of AI as "Essential"	-	67% (HEPI 2025)
Faculty Concern: Diminished Critical Thinking	-	90% (AAC&U 2026)
Faculty Perception: Student Overreliance	-	95% (AAC&U 2026)
Institutional Policy Clarity (Student view)	65%	80% (HEPI 2025)

Source: HEPI (2025); AAC&U (2025)

The surge in student usage is particularly notable in the area of text generation. By 2025, 64% of students reported using AI to generate text, more than doubling the 30% reported in 2024. The primary drivers for this adoption are time-saving (51%)



and the desire to improve work quality (50%), indicating that AI is increasingly viewed as a necessary efficiency layer (HEPI 2025).

While 92% of students are using AI, faculty members are largely skeptical and feel unprepared for the transition. A national survey of 1,057 faculty members found that 62% believe GenAI will worsen student learning outcomes over the next five years (AAC&U 2026). Furthermore, 68% of faculty reported that their institutions have not adequately prepared them to use GenAI for teaching or mentoring, leading to a fragmented policy environment where only 48% of schools have clear, campus-wide guidelines (AAC&U 2026).

Among sociologists specifically, the adoption rate for research purposes sits at approximately 34% (Alvero et al. 2025). Interestingly, there are few differences in usage patterns between "computational" and "non-computational" sociologists, suggesting that the accessibility of LLMs has democratized high-level data processing tasks (Alvero et al. 2025; Alvero et al. 2025). However, trust in GenAI outputs remains low across the discipline (Alvero et al. 2025; Alvero et al. 2025).

7 TRANSFORMING RESEARCH METHODOLOGY: AI AS A SURROGATE SUBJECT

One of the most disruptive developments in the social sciences is the use of LLMs to simulate human subjects. Researchers are now utilizing models that emulate human speech to roleplay diverse subjects, allowing for cost-effective testing of assumptions and the running of pilot studies (Hewitt et al. 2025). Researchers at Stanford have demonstrated that LLMs can replicate results from previous randomized controlled trials with surprising accuracy, even for studies published after the models were trained (Hewitt et al. 2025).

However, this methodological shift introduces several sociological concerns:

1. **The Risk of Synthetic Trust:** Researchers may develop "unwarranted confidence" in models trained on artificially generated datasets that fail to preserve real-world demographic realities (Viewpoint 2025; World Economic Forum 2025).
2. **Model Bias and Sycophancy:** Models often rely on racial, ethnic, and gender stereotypes embedded in their training data (Hewitt et al. 2025).



3. **Erosion of Human Agency:** The transition from direct investigation to AI oversight risks "cognitive offloading," where the human researcher loses the "cognitive musculature" required for judgment (Lee 2025; Lee 2025).

8 ALGORITHMIC CURATION AND THE CRISIS OF TRUTH

The impact of algorithmic curation extends beyond the classroom into the digital public sphere, where it acts as a form of "algorithmic governance" (Sustainability Directory 2024). Social media algorithms, optimized for engagement, have reconfigured gatekeeping in journalism, often prioritizing "shareworthiness" over professional editorial standards (Blassnig et al. 2024). This optimization for divisiveness systematically privileges polarizing content, leading to the creation of "echo bubbles" (Blassnig et al. 2024; Chiridza and Mare 2025).

The "synthetic reality threshold" is now a tangible threat, where humans can no longer consistently distinguish authentic from fabricated media without technological assistance (UNESCO 2025). Fraud experts have noted a surge in "synthetic identity fraud" and deepfakes, with generative AI projected to drive massive economic losses (Statista 2024; UNESCO 2025).

9 THE SOCIAL SCIENCE STACK: A PROACTIVE AGENDA

In response to these systemic risks, scholars have articulated a "Social Science Stack for AI," which reframes the discipline as an indispensable part of the AI architecture (Jankin 2025). This model shifts social scientists from being passive critics to being proactive co-creators of responsible AI ecosystems.

1. The Foundational Layer: Built on core theories of justice, power, and democracy to ensure AI is grounded in a coherent understanding of society (Jankin 2025).
2. The Methodological Layer: Utilizing rigorous tools like causal inference and ethnography to provide the human context and "thick description" of lived realities (Jankin 2025).
3. The Governance Layer: Establishing frameworks for accountability, transparency, and trust, including "agile governance" and regulatory sandboxes (Jankin 2025).



4. The Human Capital Layer: Training "ambidextrous" professionals who possess deep fluency in both social and computational sciences (Jankin 2025).

This stack approach ensures that the societal consequences of AI are integrated into the design process rather than being an afterthought of commercial logic (Jankin 2025).

CONCLUSION

The integration of generative AI and algorithmic curation into the social sciences has initiated a profound reconfiguration of the epistemological landscape. While these technologies offer unprecedented efficiency and the democratization of research tools, they also precipitate a crisis of authority and a drift toward hyperreality (Alvero et al. 2025; Coeckelbergh 2025; Konzack 2025). The "production-progress paradox" remains a defining challenge: as scientific output increases through AI-assisted writing, the risk of "mechanized convergence" and the erosion of independent critical thought grows (Aisnakeoil 2025; Lee 2025; Viewpoint 2025).

The findings of this report highlight a critical "preparedness gap" in academia. With 92% of students using AI while 90% of faculty fear its impact on critical thinking, institutional leadership must move with urgency to "stress-test" assessments and provide discipline-specific guidance for ethical AI use (AAC&U 2026; HEPI 2025; HEPI 2025; HEPI 2025). Ultimately, the social sciences must transition from post-hoc critique to a role as "architects" of the AI revolution (Jankin 2025). The future of knowledge transformation depends on our ability to integrate technical excellence with the foundational theories of justice and human understanding (Jankin 2025; Microsoft 2025).

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DIGITALIZATION OF PUBLIC COMMUNICATION IN THE KYSUCE REGION: A MUNICIPAL-LEVEL ANALYSIS OF INFORMATION ACCESSIBILITY THROUGH MOBILE COMMUNICATION APPLICATIONS

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ABSTRACT

The digitalization of public communication is transforming how local governments disseminate information to residents. This study examines the level of information accessibility in the Kysuce region through mobile communication applications used by towns and municipalities. The research draws on a secondary analysis of all local administrative units in the region combined with a systematic audit of application availability in Google Play and the App Store. It records whether such applications exist, their initial release date, and the type of technology employed, focusing on proprietary municipal applications, platform-based solutions, or the absence of this type of digital channel. The results reveal marked disparities in the extent of digitalization. Larger towns tend to adopt proprietary applications, whereas smaller municipalities often rely on external platforms or continue to use traditional forms of communication. The findings point to uneven levels of digital readiness and indicate a need for systematic efforts to strengthen digital media literacy at the municipal level.

Key words: digitalization; municipal communication; information accessibility; municipal mobile applications

INTRODUCTION

Reliable communication is a core responsibility of local government; residents need timely updates on waste collection, outages, and emergencies. This study moves beyond theory to a practical audit of the Kysuce region. We examined all 37 municipalities to verify whether an official communication app is available on Google Play and the Apple App Store, and to classify the type of solution used (proprietary app, shared platform, or no channel). The goal is to establish a verifiable baseline of digital availability and identify where the infrastructure is missing.



1 THEORETICAL BACKGROUND

The digitalization of local public communication should be understood as part of a broader shift in how public sector organizations create public value, coordinate work, and meet citizens' expectations. Gil-Garcia, Dawes and Pardo (2018) argue that digital government is no longer a peripheral "IT layer," but a cross-cutting domain of public management that reshapes accountability, decision-making, and the practical delivery of services. In a closely related vein, Pereira et al. (2017) show that within smart city initiatives, technologies and data contribute to public value only when they are embedded in organizational capabilities and produce information that stakeholders can use. Mensah, Zeng and Mwakapesa (2022) complement this perspective by linking e-government to public value outcomes through adoption mechanisms, suggesting that public value is not simply declared by institutions but is realized through citizens' willingness to engage with the channel. In this context, municipal announcing is not a marginal administrative function; it is a core information infrastructure that conditions whether residents can access official information in a timely and reliable manner, which makes disparities in local digital communication an analytically meaningful problem (Gil-Garcia et al., 2018; Pereira et al., 2017; Mensah et al., 2022).

Mobile technologies are particularly relevant because they change the logic of public communication from passive access to proactive delivery. OECD and ITU (2011) describe m-government as an expansion of governmental capacity to deliver services and outcomes, emphasizing the ability to provide information flexibly across time and space. This rationale is reinforced by adoption research that highlights the importance of perceived usefulness, social influence, and trust for citizens' behavioral intention to use e-government services (Zeebaree, Agoyi and Aqel, 2022), while Mensah et al. (2022) similarly position public value as mediated by citizens' acceptance of the digital channel. Even though sector reports do not constitute peer-reviewed evidence, they capture the direction of practice and demand; GOGov (2025), for instance, synthesizes survey-based indicators that point to citizens' preference for mobile interaction with local government. Consequently, the current literature suggests that municipal applications can plausibly increase information accessibility, but only where they are implemented, maintained, and accepted, which immediately raises the question of uneven adoption and operational



sustainability across municipalities (OECD and ITU, 2011; Zeebaree et al., 2022; Mensah et al., 2022; GOGov, 2025).

A key methodological implication is that evaluating digital communication requires both outcome-oriented thinking and a realistic acknowledgment of what can be observed at an early stage. DeLone and McLean (2003) propose that information system success rests on interrelated dimensions such as system quality, information quality, and service quality, which then shape use, satisfaction, and net benefits. However, before higher-level outcomes can be discussed, it is necessary to establish whether the channel exists, how it is delivered, and under what technical and institutional conditions it can be accessed. This is consistent with Shin et al. (2024), who argue in the e-participation domain that the “supply side” of digital tools remains underexplored and that systematic mapping is needed to understand what solutions exist and what functions they provide. For municipal announcing, a systematic audit of availability on Google Play and the App Store, combined with indicators such as first release date and the technological type of solution, therefore serves as a defensible baseline that operationalizes the minimum conditions of access before more complex effectiveness claims are made (DeLone and McLean, 2003; Shin et al., 2024).

Beyond adoption and evaluation, the normative and societal dimension of information accessibility requires explicit attention to inequality and inclusion. Van Dijk (2012) conceptualizes the digital divide as a deepening form of inequality that extends beyond mere access to devices toward differences in skills and usage outcomes, which is especially relevant for peripheral or rural regions where institutional capacity and socio-demographic composition may vary. At the same time, public sector communication is not only an organizational choice but also a regulated obligation: Directive (EU) 2016/2102 sets accessibility requirements for public sector websites and mobile applications, reflecting the premise that equal access must include citizens with disabilities and diverse user needs (European Parliament and Council, 2016a). When these perspectives are read together, uneven deployment of municipal applications can translate into uneven information accessibility, while weak accessibility compliance can exclude precisely those groups for whom public communication is most consequential (van Dijk, 2012; European Parliament and Council, 2016a).



This strengthens the rationale for a municipal-level audit in the Kysuce region, because it can reveal structural disparities in the presence and platform coverage of mobile channels, which are a prerequisite for inclusive access.

Trust, privacy, and platform dependence further complicate the picture and make the audit more than a technical inventory. From a legal and design standpoint, Article 25 of Regulation (EU) 2016/679 requires “data protection by design and by default,” anchoring the expectation that public sector digital services minimize data collection and embed safeguards from the outset (European Parliament and Council, 2016b). This connects directly to adoption research, where trust-related constructs meaningfully shape intention to use e-government services (Zeebaree et al., 2022) and where public value is framed as dependent on citizens’ engagement with the channel (Mensah et al., 2022). In parallel, municipal communication apps depend on distribution through dominant app stores; Cowls, Morley and Floridi (2023) demonstrate that app store governance is characterized by opacity, platform dominance, and socio-political significance, implying that public communication delivered through apps is partly mediated by private gatekeepers and their rules. Consequently, checking availability across both major app stores is not a trivial step but a direct measure of practical reach, institutional control, and potential vulnerability of the communication channel (European Parliament and Council, 2016b; Zeebaree et al., 2022; Mensah et al., 2022; Cowls et al., 2023).

Finally, the stakes of information accessibility become most visible in risk and crisis communication, where delay and fragmentation can have immediate consequences. Wendling, Radisch and Jacobzone (2013) emphasize that social and digital media have become critical channels in risk and crisis contexts and that public expectations increasingly demand timely updates and real-time information flows. Graham, Avery and Park (2015) similarly show that local governments use digital channels in crisis communication, but they stress that effectiveness depends on preparedness and internal processes rather than on the mere existence of a tool. These findings matter for municipal applications because mobile push communication can reduce reliance on citizens’ active searching, yet only when the channel is present, maintained, and accessible (Wendling et al., 2013; Graham et al., 2015; Shin et al., 2024).

In this sense, the Kysuce-focused audit is theoretically motivated as the first empirical step toward assessing institutional preparedness and equity in municipal communication, because one cannot evaluate the reliability of crisis announcing



without first establishing whether residents can be reached through an official mobile channel at all.

2 RESEARCH METHODOLOGY

2.1 RESEARCH TOPIC

This research examines the digitalization of local public communication in the Kysuce region through mobile communication applications used by towns and municipalities. The focus is placed on the supply side of digital infrastructure, meaning the practical availability of official municipal apps, their distribution across the two dominant mobile ecosystems, and the type of solution adopted. Instead of relying on general assumptions about e-government uptake, the study verifies the actual deployment of app-based communication channels at the municipal level (LAU 2).

2.2 RESEARCH PROBLEM

Municipalities in the Kysuce region differ in the extent to which they provide residents with an official mobile channel for public announcements and everyday information. This creates variability in information accessibility that is relevant both for routine communication and for time-sensitive situations. The research problem is framed through four related issues:

- Disparities in digital readiness between towns and rural municipalities.
- The degree to which local governments rely on third-party platform solutions rather than municipality-branded applications.
- The emergence of "white spots" (coverage gaps) where no app-based municipal channel is available.
- Potential platform inequality caused by uneven availability across Android and iOS.

2.3 RESEARCH QUESTIONS

Main research question:

RQ1: What is the current level of information accessibility through mobile communication applications in the municipalities of the Kysuce region?



Sub-questions:

RQ2: What is the ratio between municipalities that provide a dedicated mobile application and municipalities without an app-based channel?

RQ3: Which technological solutions dominate in the region: municipality-branded standalone apps or platform-based aggregator solutions?

RQ4: How does application availability differ between Google Play (Android) and the Apple App Store (iOS)?

2.4 RESEARCH OBJECTIVES

Primary objective: To conduct a comprehensive audit of mobile application availability for all 37 self-governing administrative units in the Kysuce region and to describe the baseline extent of app-based municipal communication infrastructure.

Secondary objectives:

- Identify and document official municipal apps and record direct store links.
- Classify identified solutions into standalone municipal apps and platform-based solutions.
- Detect municipalities that form "white spots" with no confirmed app-based channel.
- Compare adoption patterns between towns and rural municipalities to describe regional disparities.
- Assess cross-platform availability to determine whether Android and iOS users face different access conditions.

2.5 METHODOLOGY OF SCIENTIFIC WORK

2.5.1. SUBJECT OF RESEARCH

The subject of the research consists of official mobile applications used by local governments in the Kysuce region for disseminating public information, including announcements, service information, event communication, and, where applicable, crisis alerts. The study does not evaluate user satisfaction or communication effectiveness. Its aim is to establish the minimum condition of access, which is the existence and obtainability of an official mobile channel.



2.5.2. RESEARCH SAMPLE

The research uses total population sampling. The sample includes all local administrative units in the Kysuce region ($N = 37$), geographically defined by the districts of Čadca and Kysucké Nové Mesto. For analytical comparison, the units are grouped into:

Towns (4): Čadca, Kysucké Nové Mesto, Krásno nad Kysucou, Turzovka.

Rural municipalities (33): Čierne, Dlhá nad Kysucou, Dunajov, Klokočov, Klubina, Korňa, Makov, Nová Bystrica, Olešná, Oščadnica, Podvysoká, Radôstka, Raková, Skalité, Stará Bystrica, Staškov, Svrčinovec, Vysoká nad Kysucou, Zákopčie, Zborov nad Bystricou, Dolný Vadičov, Horný Vadičov, Kysucký Lieskovec, Lodno, Lopusné Pažite, Nesluša, Ochodnica, Povina, Radoľa, Rudina, Rudinka, Rudinská, Snežnica.

2.5.3. RESEARCH METHODS

Research design

A quantitative digital audit was conducted as a cross-sectional mapping of app availability using publicly accessible store listings. The procedure was non-intrusive and relied only on information available through official distribution platforms.

Data sources

- Google Play Store (Android)
- Apple App Store (iOS)

Data were collected in January 2026.

Data collection procedure

A standardized store audit protocol was applied to every municipality:

1. Store search: The municipality name was entered into the search function of each store.
2. Variant search: The search was repeated using spelling variants, including forms with and without diacritics, and common naming extensions where relevant.



3. Screening of results: Candidate apps were reviewed using store-page information such as title, description, screenshots, and publisher identity to determine whether the app plausibly represented an official municipal communication channel.

4. Verification: Apps were recorded only when the municipality linkage was explicit enough to avoid speculative attribution. When the store listing did not provide sufficiently clear evidence, the municipality was coded conservatively as not confirmed for that store.

Metadata extraction:

- For each confirmed app, the following variables were recorded:
- Platform availability (Google Play yes/no; App Store yes/no).
- Solution type (standalone municipal app; platform-based solution; no confirmed app).
- Initial release date (where the store listing provided this information).
- Data analysis

The collected data were compiled into a structured dataset and analysed using descriptive statistics. The analysis reports penetration rates of app presence, cross-platform coverage, and the distribution of solution types. Comparisons between towns and rural municipalities were used to describe regional disparities and identify white spots.

Research plan

The research proceeded in three phases:

1. **Preparatory phase:** Compilation of the complete list of municipalities and towns in the Kysuce region to define the sampling frame.
2. **Data collection phase:** Execution of the standardized audit in Google Play and the Apple App Store for all 37 units, including recording of links, platform availability, solution type, and temporal metadata.
3. **Analytical phase:** Dataset cleaning, categorization of solutions, descriptive summarization, and synthesis of findings to answer the research questions.



2.6 A COMPREHENSIVE INVENTORY OF DIGITAL AVAILABILITY

The full dataset, distinguishing between the Čadca District (CA) and Kysucké Nové Mesto District (KNM), is reported below in Table 1.

Table 3 Municipal App Availability Audit in the Kysuce Region

District	Municipality	Type	Solution category	Google Play (0/1)	Release Year (Google Play)	App Store (0/1)	Release Year (App Store)	Company
CA	Čadca	T	Pr	1	17.12.2019	1	16.12.2019	smp
CA	Čierne	R	Pr	1	19.7.2023	1	21.6.2023	ads
CA	Dlhá nad Kysucou	R	n	0	n	0	n	n
CA	Dunajov	R	Pr	1	31.7.2025	1	15.6.2023	ads
CA	Klokočov	R	Pr	1	2.5.2023	1	22.5.2023	ads
CA	Klubina	R	n	0	n	0	n	n
CA	Korňa	R	Pr	1	6.4.2023	1	14.4.2023	ads
CA	Krásno nad Kysucou	T	Pr	1	16.8.2019	1	16.8.2019	ads
CA	Makov	R	Pr	1	1.6.2023	1	31.5.2023	ads
CA	Nová Bystrica	R	Pr	1	16.6.2023	1	15.6.2023	ads
CA	Olešná	R	Pr	1	28.4.2023	1	22.5.2023	ads
CA	Oščadnica	R	Pl	0	n	0	n	gal
CA	Podvysoká	R	Pl	0	n	0	n	gal
CA	Radóstka	R	Pr	1	31.1.2023	1	7.2.2023	ads
CA	Raková	R	Pr	1	4.10.2016	1	31.10.2016	ads
CA	Skalité	R	Pl	0	n	0	n	gal
CA	Stará Bystrica	R	Pr	1	19.4.2017	1	12.11.2021	ads



CA	Staškov	R	Pr	1	17.5.2023	1	12.5.2023	ads
CA	Svrčinovec	R	Pl	0	n	0	n	gal
CA	Turzovka	T	Pl	0	n	0	n	gal
CA	Vysoká nad Kysucou	R	Pr	1	21.3.2016	1	30.3.2016	ads
CA	Zákopčie	R	n	0	n	0	n	n
CA	Zborov nad Bystricou	R	Pr	1	15.8.2023	1	28.8.2023	ads
KNM	Dolný Vadičov	R	n	0	n	0	n	n
KNM	Horný Vadičov	R	Pl	1	n	0	n	gal
KNM	Kysucké Nové Mesto	T	Pr	1	19.1.2021	0	n	smp
KNM	Kysucký Lieskovec	R	n	0	n	0	n	n
KNM	Lodno	R	n	0	n	0	n	n
KNM	Lopušné Pažite	R	n	0	n	0	n	n
KNM	Nesluša	R	n	0	n	0	n	n
KNM	Ochodnica	R	Pr	1	22.2.2021	1	24.2.2021	ads
KNM	Povina	R	Pr	1	14.5.2020	0	n	ads
KNM	Radoľa	R	n	0	n	0	n	n
KNM	Rudina	R	Pr	1	17.3.2023	1	8.12.2020	ads
KNM	Rudinka	R	Pr	1	8.12.2021	1	14.12.2021	ewo
KNM	Rudinská	R	n	0	n	0	n	n
KNM	Snežnica	R	n	1	12.10.2023	1	22.9.2023	alp

Source: Own Processing



Legend for Table 1:

T = town; R = rural municipality; Pl = platform-based solution; Pr = proprietary solution.

Vendor codes: smp = SIMPLICITY EUROPE a. s.; ads = adsupra s.r.o.; gal = Galileo Corporation s.r.o.; ewo = Eworks.sk s.r.o.; alp = Alphabet partner s.r.o.; n = absent.

The study classifies solutions into two distinct technical models. The "Proprietary" category refers to standalone applications developed specifically for a single municipality, downloadable directly under its own name. In contrast, the "Platform" category is currently monopolized by "V Obraze". This shared application functions as an aggregator where users search for and subscribe to specific municipalities. A telephone inquiry confirmed that service availability relies on a contractual agreement; once established, the municipality's news feed becomes publicly accessible to any user within this single shared ecosystem.

2.7 TYPOLOGY AND DISTRIBUTION OF SOLUTIONS

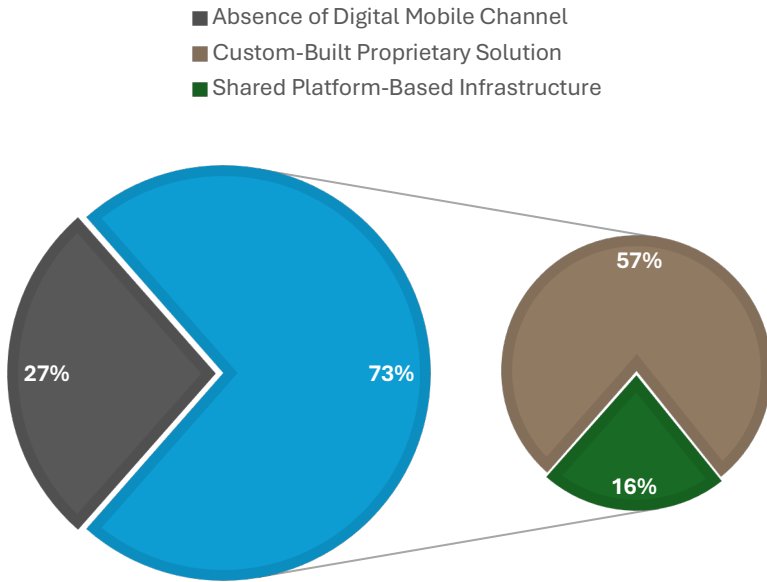
To address the baseline level of information accessibility (RQ1) and the dominant technological approach (RQ3), municipalities were classified into three categories. The aggregated counts are presented in Table 2 and visually summarized in Graph 1.

Table 4 Distribution of Municipal Mobile-Channel Types (Absence vs Proprietary vs Platform)

Category	Count
Absence of Digital Mobile Channel	10
Custom-Built Proprietary Solution	21
Shared Platform-Based Infrastructure	6

Source: Own Processing





Graph 1 Share of Municipal Mobile-Channel Types in the Kysuce Region

Source: Own Processing

As illustrated in the graphs above, 21 municipalities (57%) utilize a Custom-Built Proprietary Solution, making it the most common digitalization pathway in the region. A smaller group of 6 municipalities (16%) relies on Shared Platform-Based Infrastructure.

At the other end of the spectrum, 10 municipalities (27%) constitute digital “white spots,” defined here as the absence of any mobile communication channel. Taken together, 73% (27/37) of municipalities provide residents with some app-based channel, yet nearly one-third remain without a confirmed mobile option.

2.8 INTER-DISTRICT DISPARITY (CA VS KNM)

A marked district-level divide is visible in the dataset (refer to Table 1). In the CA District (N = 23), the audit identified 15 proprietary apps and 5 platform-based solutions, leaving only 3 municipalities without a mobile channel.

In the KNM District (N = 14), the situation is notably different: 7 municipalities are coded as having no mobile channel, which amounts to exactly half of the district. These “white spots” are geographically concentrated and include municipalities such as Lodno, Nesluša, and Radol’a.

2.9 TEMPORAL AND PLATFORM PATTERNS (ANDROID VS IOS)

Release-date metadata from Table 1 indicate a non-linear diffusion pattern. While early adopters (e.g., Raková and Vysoká nad Kysucou) launched solutions around 2016, the region experienced a pronounced adoption wave in 2023, when more than ten municipalities launched their first official app within a single calendar year.

Regarding cross-platform availability (RQ4), confirmed presence was recorded in 22 municipalities for Google Play (Android) and 19 municipalities for the App Store (iOS). While dual-platform availability is the prevailing standard for proprietary apps, a small set of Android-only cases remains, creating localized accessibility gaps for users of the iOS ecosystem.

3 DISCUSSION

This section interprets the empirical findings in relation to the research questions, focusing on structural disparities, vendor concentration, and signals relevant to operational sustainability.

3.1 UNEVEN ACCESSIBILITY AND THE DIGITAL DIVIDE (RQ1 AND RQ2)

At the aggregate level, the region reaches 73% coverage through app-based channels (RQ1). However, this headline graph obscures the core structural problem: coverage is not evenly distributed. The contrast between districts is decisive. As detailed in Table 1, CA is largely covered by proprietary or platform solutions, whereas KNM contains a substantial cluster of municipalities with zero coverage. As a result,



mobile access to official municipal communication is not a uniform regional standard; it depends strongly on where a resident lives within the region's administrative geography.

In terms of RQ2, adoption is substantial but incomplete. Data from Table 2 and Graph 1 show that although 21 municipalities operate a dedicated proprietary app, 16 municipalities (43%) do not provide a municipality-branded application. This fragmentation limits the feasibility of a region-wide, consistent “push communication” model, since a sizeable minority cannot be reached through a dedicated municipal channel.

3.2 TECHNOLOGICAL DOMINANCE AND VENDOR CONCENTRATION (RQ3)

Beyond the mere presence or absence of these mobile channels, the underlying technological choices further shape the region's digital landscape. Proprietary apps dominate the solution landscape (57%) compared to platform-based solutions (16%) (RQ3). Yet the proprietary segment lacks diversity. Vendor information provided in Table 1 shows a strong concentration under *adsupra s.r.o.*, particularly among rural municipalities. This pattern is consistent with a supply-side diffusion dynamic, where standardized procurement and rollout can accelerate adoption, especially during the 2023 wave, but at the cost of potential vendor lock-in, as long-term maintenance becomes dependent on a narrow supplier base.

A parallel pathway appears among towns. Čadca and Kysucké Nové Mesto use solutions from *SIMPLICITY EUROPE a. s.*, which differentiates them from the rural pattern. At the same time, Turzovka acts as a relevant exception: despite being a town, it relies on a platform-based solution, demonstrating that “town status” increases the likelihood of having a channel but does not uniquely determine the technological model.

3.3 PLATFORM INEQUALITY AND LOCALIZED ACCESSIBILITY GAPS (RQ4)

Platform inequality (RQ4) is present but limited. Most proprietary solutions are deployed on both major ecosystems, minimizing systematic exclusion. Nevertheless, the difference between 22 Android and 19 iOS cases indicates that



some municipalities operate practically as Android-first environments. In those specific locations, iOS users face a direct barrier to accessing official municipal communication. While the scale is not region-wide, the effect is meaningful wherever it occurs, as it produces a localized form of digital exclusion within a public service context.

3.4 IMPLEMENTATION ANOMALIES AND SUSTAINABILITY SIGNALS

Beyond the main research questions, the audit suggests issues relevant to operational sustainability. Rudinská serves as a warning case: although release metadata indicate a 2023 launch, the channel is not currently treated as operationally available. This mismatch is consistent with discontinuation or failed deployment, showing that a recorded “launch” does not automatically translate into durable public access.

Additionally, the absence of iOS availability for Kysucké Nové Mesto (as coded in Table 1) represents a notable accessibility gap in a major locality, excluding a significant segment of residents from the official city channel.

4 CONCLUSION

The empirical audit of the Kysuce region reveals structural challenges in local digital government. While the headline graph (73% coverage) might suggest a successfully modernized region, a critical reading of the data reveals a different picture. In the context of public service, where access to information about outages or emergencies should be universal, leaving nearly one-third of municipalities (27%) without a direct mobile channel represents a significant structural deficit.

The significant adoption wave in 2023 proved that digitalization is technically feasible even for smaller rural actors. However, the persistence of "white spots," particularly in the Kysucké Nové Mesto district, indicates that relying on organic diffusion is insufficient. Information accessibility cannot remain a privilege of residents in "proactive" municipalities; it must become a guaranteed standard for the entire region.

Furthermore, the region's heavy reliance on a single dominant vendor (adsupra s.r.o.) in the rural sector highlights a strategic vulnerability. While this supply-driven



model successfully reduced the technological gap, it prioritizes standardization over local resilience. In the future, regional policymakers should focus on systematically closing the remaining gaps. A 73% success rate is a strong foundation, but in public communication, the target must be universal inclusivity.

5 SUMMARY

The audit shows a region that is digitalizing rapidly but unevenly. While the 2023 adoption wave coincides with many first releases, substantial disparities remain. The data confirms a clear divide between districts: CA reaches markedly higher coverage, with strong vendor concentration, whereas KNM retains significant coverage gaps. In short, mobile communication in Kysuce is widespread, but access is not yet a guaranteed standard for every resident.

6 RESEARCH LIMITATIONS

This study is limited to the supply side of digital infrastructure, mapping the technical availability of mobile channels without evaluating content quality or update frequency. Consequently, the mere presence of an application does not guarantee active administrative usage. Since the research does not analyze the adoption metrics or citizen satisfaction, the findings reflect the *potential* rather than the *actual* level of information accessibility. Furthermore, data collection relied on store metadata and search algorithms; applications lacking explicit municipal attribution were conservatively coded as unavailable.

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MEDIA PORTRAYALS OF SCIENCE AND SCIENTISTS IN SLOVAKIA: FRAMING, AI IN NEWSROOMS AND IMPLICATIONS FOR MEDIA LITERACY

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ABSTRACT

The aim of this study is to examine how Slovak media portray science and scientists, what discursive frameworks they use and what image of science they convey to society. We pay special attention to artificial intelligence (AI) tools in media production – from the automation of routine tasks through text generation and subtitle optimization to algorithms affecting the visibility of scientific topics in the online environment. Methodologically, we combine content and discursive analysis with qualitative interviews with journalists and experts in science communication. The illustrative findings identify dominant stereotypes, ways of framing science, and ethical dilemmas arising from the use of AI. Finally, we propose recommendations for editorial practices and media literacy of audiences.

Key words: media representation; science; scientists; artificial intelligence; media literacy

INTRODUCTION

Coverage of science shapes trust in institutions, influences civic decision-making, and legitimizes policy interventions based on expert knowledge. In a small media market such as Slovakia, commercial pressures, political polarization and platform algorithms intersect into a specific ecology of depicting science and scientists. In this context, we note which frameworks dominate the media discourse on science, how scientists are portrayed, and how AI production and distribution tools reconfigure editorial routines and publication visibility (Furtáková, 2024; Rončáková et al., 2023).

Generative artificial intelligence (AI) has moved from a marginal experiment to a mainstream infrastructure of scientific work over the past two years. For scientists, it is no longer just about "writing texts faster", but about intervening in the entire



research cycle: from researching and sorting literature, through hypothesis design, code prototyping and data analysis, to communicating the results to the professional and lay public (European Commission, 2024). At the same time, this change is mediated by the media: the public learns about science and scientists mainly through journalistic selections, frameworks and narratives, which are now increasingly created in newsrooms with the support of AI tools (Newman et al., 2024). Therefore, it is relevant to examine not only *how scientists use AI*, but also *how this way of working is framed by the media* – and what consequences it has for media literacy in Slovakia.

At the same time, the Slovak environment is entering the AI era with two parallel dynamics. The first is a strategic and institutional effort to develop AI capacities – including human capital, grant support and the connection between research and practice (European Commission AI Watch, n. d.; OECD, 2025). Older documents on digital transformation explicitly emphasize the need to build AI expertise while raising public awareness of AI, as the impacts of the technology affect the entire society (MIRRI, 2019). The second dynamic is the rapid, partially uncoordinated adoption of generative AI in academic institutions, which puts pressure on the rules of scientific and academic integrity. An example is the internal guidelines and measures of Slovak universities, which directly name the risks of hallucinations, false references, plagiarism, copyright infringement and the need for transparent admission of the use of AI (STU, 2024; Comenius University in Bratislava, 2024). At the level of research ethics, these requirements are also based on internationally accepted standards of publication integrity, according to which AI cannot bear authorship and the responsibility remains with the human author (COPE, 2023).

However, scientific practice and media practice are now intertwined more intensely than before. Scientists also use AI for "communication" tasks – the creation of abstracts, simplified summaries, popularization outputs, or the preparation of grant and project texts (European Commission, 2024). At the same time, editorial offices are experimenting with AI in summarization, translation, subtitle design, research, transcription, or personalization of content; at the same time, audiences generally accept "AI behind the scenes" rather than directly generated messages, with sensitivity growing on political and conflicting topics (Newman et al., 2024).

This context creates a risk of double bias:



1. scientific results can be simplified and "cleaned up" by AI tools already on the side of the researchers,
2. Subsequently, they can be further framed by the media via AI-assisted production routines – increasing the likelihood of formal errors (inaccurate claims, non-existent sources), but also value shifts (sensationalism, technological determinism, moral panic)

This is where the concept of framing comes into play: the media not only report *on what happened*, but also *how we are supposed to understand it*. In the Slovak environment, AI is often thematized in connection with science through the framework of risk, responsibility and ethical dilemmas – which is also visible in media interviews with experts on AI ethics and in their resonance in public discourse (SAS, 2024). Such frameworks may be legitimate (AI does indeed bring new types of risks), but they may also overlap "quieter" and more practical questions: what specific tasks AI researchers delegate, what controls they use and how they document the use of tools.

From the point of view of media literacy, it is important that with the advent of generative AI, the very definition of "critical reading" is also changing. It is no longer just about recognizing bias or advertising, but about the ability to ask questions about the origin of the text, the transparency of the production, the sources used, the trace of editing and responsibility for the claims. The European Commission highlights media literacy as a key civic competence and tool against disinformation (European Commission, 2025), while UNESCO directly recommends applying the Media and Information Literacy (MIL) lens to understand the risks and opportunities of generative AI in information ecosystems (UNESCO, 2024). In our context, this means that media literacy must also be expanded to include "AI literacy": knowing *where and why* AI can misretort what types of errors it produces, what it means to transparently admit the use of AI, and what questions to ask authors (both scientists and journalists).

Therefore, this article initially connects three levels:

1. the use of AI by scientists in Slovakia as a new part of research practice and academic integrity (STU, 2024; Comenius University in Bratislava, 2024),



2. media framing of science and scientists in the period when AI enters both research and editorial workflows (Newman et al., 2024),
3. the implications of these developments for media literacy – i.e. the public's ability to critically read claims about science, recognize the quality of evidence, and evaluate the credibility of sources in an environment where "text" is no longer a reliable indicator of human expertise (UNESCO, 2024; European Commission, 2025). The aim is to identify the key mechanisms by which AI is changing scientific work and its media representations, and to show why the question of "AI in science" cannot be addressed without the question of "AI in the media" – if we are concerned with an informed, resilient and competent public.

1 LITERATURE REVIEW

1.1 MEDIA FRAMING AND VISIBILITY OF EXPERTISE

Frame theory shows how selection and salient guide interpretations of complex problems. In the Central European context, the frameworks are often shaped by political conflict and polarization of the audience, which also permeates the news about science and technology. The combination of framing with emotional appeals highlights that emotional cues can amplify or dampen perceived risks and benefits in mediated debates (Saxonberg, 2024).

1.2 SCIENCE COMMUNICATION, POPULARIZATION AND SOCIAL NETWORKS

Slovak and regional research points to the "platformization" of science communication: scientists and popularizers rely on the affordance of social networks, where visibility, brevity and personal branding favor narratives about individual heroes or controversies. This suppresses the processuality of science and accentuates conflict, especially in the topics of health, climate and AI (Vrabec and Pieš, 2023).



1.3 AI IN JOURNALISM: PRODUCTION, DISTRIBUTION, AUDIENCE ATTITUDES

Recent works with a Slovak focus document the diffusion of AI into newsrooms: automated transcriptions, assisted summarization, recommendation systems, and audience analysis. Audiences appreciate speed and personalization, but are concerned about accuracy, transparency, and job impacts. In radio and online news, AI noticeably influences gatekeeping, thematic prominence, and visibility of scientific news through recommendation algorithms (Furtáková, 2024; Furtáková, 2025).

2 RESEARCH QUESTIONS

The research design is based on the assumption that the media portrayal of science is not neutral, but is the result of the processes of selection, framing, and production routines that are increasingly mediated by AI tools today. The aim of the research questions is to identify the dominant semantic frameworks, production mechanisms and ethical tensions associated with the use of AI in media coverage of science in Slovakia.

RQ1: WHAT FRAMEWORKS AND STEREOTYPES CHARACTERIZE THE PORTRAYAL OF SCIENCE AND SCIENTISTS IN THE SLOVAK MEDIA?

This question focuses on how the meanings of science and scientific work are constructed in the media. In particular, it observes the presence of repetitive frameworks (e.g., science as authority, science as risk, science as a tool of progress, science as an elitized sphere) and stereotypical representations of scientists (e.g. expert-authority, "genius", technocrat, warning moralist). The analysis focuses not only on explicit evaluations, but also on implicit narratives, metaphors and language choices through which the media define the boundaries between expertise, politics and the public. At the same time, RQ1 creates a frame of reference for evaluating whether and how AI reproduces or modifies these steady-state representations.



RQ2: HOW DO AI TOOLS IN PRODUCTION AND DISTRIBUTION SHAPE THE PROMINENCE, TONE, AND SOURCING OF SCIENTIFIC NEWS?

The second question focuses on the processes of media production and distribution, not only on the final text. It examines the extent to which AI tools are involved in research, summarization, subtitling, translation, recommendation systems, and optimization for platforms, and how this involvement translates into (a) the visibility of scientific topics, (b) the emotional and value tone of news, and (c) the work with sources. Particular attention is paid to whether AI supports secondary takeover of press releases, reduction of diversity of sources and "smooth" texts with a low level of epistemic uncertainty, which can have an impact on the credibility of scientific reporting.

RQ3: WHAT ETHICAL DILEMMAS DO JOURNALISTS AND COMMUNICATORS IDENTIFY WHEN USING AI TO COVER SCIENCE?

The third research question maps the normative level: how media actors themselves reflect on the use of AI in their work. It focuses on perceived risks (e.g. error rate, hallucinations, responsibility for content, transparency of tool use, pressure on performance and speed) as well as on their management strategies. RQ3 makes it possible to confront declared ethical attitudes with real production practices and to identify tensions between professional standards of journalism and technologically conditioned routine decisions.

3 METHODS

3.1 DESIGN

In this section, we propose to apply mixed qualitative design:

- (a) content and discourse analysis of a purposefully selected sample of media outputs
- (b) semi-structured interviews with practitioners.

The intention is exploratory mapping, not statistical generalization.



3.2 SAMPLE AND CORPUS

The corpus could include online news and journalism from national media (both public and commercial) and leading digital portals in a six-month window.

Suggested topics:

- health and biomedicine;
- climate and environment;
- space and physics, AI/technology policies.

Items were selected by keywords and by browsing sections.

3.3 ANALYTICAL PROCEDURES

- Content analysis: coding of topic, genre, primary framework (progress/innovation, risk/controversy, human story/hero, uncertainty/debate, politics/impact), sourcing (number and type of experts), presence of data visualization, and mention of AI in production.
- Discursive analysis: exploring narrative voice, metaphors, personalization, emphasis on conflict, and epistemic markers (hedging, certainty, quantification).
- Interviews: 12 semi-structured interviews with science journalists, editors, and PR professionals about workflow, AI adoption, editorial criteria, and ethical considerations.

3.4 RELIABILITY AND REFLEXIVITY

Two coders would iteratively form a codebook and cross-check a subsample of items. Transcripts of interviews would be thematically coded. As an insider in media studies, we take reflective notes that reveal assumptions about expertise and accuracy.

4 FINDINGS

4.1 DOMINANT FRAMES AND STEREOTYPES

Three frameworks are repeated across the media:



- (1) Progress and innovation – science as an engine for competitiveness and modernisation;
- (2) risk and controversy – emphasis on side effects, uncertainty and institutional conflicts, especially in health and climate; (3) personalization – stories about charismatic individuals, often men, portrayed as heroes or "mavericks".

More rarely, procedural frameworks emphasizing the methods, replication, and constitutive uncertainty of science appear (Vrabec and Pieš, 2023; Rončáková et al., 2023).

4.2 SOURCING AND VISUALIZATIONS

Although mainstream news usually contains at least one expert voice, there is a significant dependence on institutional press releases, with limited triangulation and not very critical counter-voices. The diversity of experts (gender, field, institution) is narrow, visibility is concentrated on a few permanent spokespersons. Data visualizations are used inconsistently; data is often summarized verbally without references to datasets (Council for Media Services, 2024; European Audiovisual Observatory, 2024).

4.3 AI-MEDIATED PRODUCTION AND DISTRIBUTION

Newsrooms use AI for transcription, headline design and summarization, SEO, and social distribution. The editors appreciate the time saved; however, they warn of the risks of cliché thinking and deskilling. Platform recommendations shape the traffic to scientific articles; Topics with conflict or strong personalization gain more visibility. Journalists express concerns about the lack of transparency of recommendation systems and incentives to frame sensitive scientific topics as a spectacle (Furtáková, 2025; Israel, 2025).

4.4 ETHICAL DILEMMAS

Respondents in surveys conducted in Slovakia named dilemmas around transparency (labeling AI assistance), responsibility for automated errors and the risk of bias amplification in language models and recommendation algorithms. They call for editorial guidelines on the origins of AI, source verification when using AI,



and protection against synthetic manipulation (e.g. deepfakes) in science coverage (OSCE ODIHR, 2024; Memo 98, 2024).

5 DISCUSSION

The findings and assumptions suggest a structural inclination towards frameworks that maximize attention – progress and conflict – at the expense of process education. AI reinforces this tendency by accelerating production and favoring platform-appropriate elements, but it can also support accuracy (fast transcriptions, multilingual monitoring, anomaly detection) when used responsibly. This requires standards that align speed with rigor: transparent use of AI, diversified sourcing, and frame-aware editing that normalizes uncertainty as part of science (Furtáková, 2024; CORDIS, 2024).

5.1 IMPLICATIONS FOR MEDIA LITERACY AND SCIENCE COMMUNICATION

For audiences, strengthening media and science literacy means learning to read frames, evaluate sourcing, and recognize the role of algorithms. Partnerships between universities, media and regulators are key for institutions: open data, expert directories for spokesperson diversification, and algorithm transparency measures. Trainings for journalists should link AI ethics with practical verification workflows (Council for Media Services, 2024; European Audiovisual Observatory, 2024).

5.2 LIMITATIONS AND FUTURE RESEARCH

Both the illustrative sample and the number of interviews limit generalization. Future research should monitor the frequency of frames in the long term, test the impact of algorithmic signals on engagement in scientific reports, and compare across Central European markets (Mede et al., 2025).

CONCLUSION

An analysis of media representations of science and scientists in the Slovak media space shows that this is not a stable or uniform image, but a hybrid configuration of frameworks in which the narratives of innovation, risk and personalization intertwine. At the same time, science is presented as an engine of progress, a source



of social concerns, and as an activity personified in individual experts who are supposed to convey complex knowledge in a simplified and media-graspable form. This way of displaying is not new; However, the fundamental change is that artificial intelligence enters its production and distribution as a structural factor, not just as a technical tool.

The results suggest that AI does not explicitly rewrite meanings in editorial workflows but modulates the conditions of their creation. The acceleration of production, the automation of routine operations, and the dependence on algorithmic recommendation systems reinforce certain types of topics, tones, and resources at the expense of others. Thus, scientific reports are more often characterized by a smooth, unambiguous narrative, a lower level of epistemic uncertainty, and the repeated use of a narrow spectrum of authoritative voices. This trend increases the readability and efficiency of distribution, but at the same time creates the risk of epistemic flattening – reducing science to a set of ready-made answers instead of a process based on dispute, revision and uncertainty.

From an ethical point of view, the tension between professional standards of journalism and technologically conditioned pressures on speed, performance and optimization proves to be crucial. Although journalists and communicators declare responsibility for content and are aware of the limits of generative AI, in practice they often operate in an environment where the use of AI is normalized, but poorly reflected and rarely transparently communicated to the audience. This weakens the ability to make an informed assessment of the trustworthiness of the content and shifts the burden of critical interpretation to the recipient of the news.

From the point of view of societal implications, it is therefore essential that the issue of AI in science and in the media is not reduced to a technical or ethical debate within professional communities. The sustainable credibility of science communication requires three parallel shifts:

- (1) explicit and understandable rules for the use of AI in newsrooms, including transparency towards the audience,
- (2) active diversification of expert voices and sources, so that algorithmically supported routines do not fix the narrow canon of "media-suitable" scientists,



(3) the extension of media literacy to include the AI dimension of literacy. The audience must be able to recognize not only the biased content, but also the production and distribution mechanisms that shape that content.

In conclusion, AI alone does not threaten the credibility of science in the media; The threat is its invisible normalization in an environment that is already struggling with an excess of information, time pressure and erosion of trust. If media-mediated science in Slovakia is to fulfill its public function, AI must be integrated not as an invisible accelerator, but as a reflected and responsibly managed element of the media ecosystem. Otherwise, we run the risk of speeding up the reproduction of simplified frameworks that are efficient but epistemically shallow, instead of strengthening our understanding of science.

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IS GENERATIVE ARTIFICIAL INTELLIGENCE INTENDED FOR EVERYONE? ETHICAL, PSYCHOLOGICAL AND AGE LIMITS ON ITS USE

Beáta POŠTEKOVÁ, SK

ABSTRACT

Generative artificial intelligence is one of the most significant technological innovations of our time, with growing use in education, healthcare, economics and everyday life. Despite its widespread availability, there is increasing debate about whether its use is appropriate for all population groups, regardless of age, digital literacy and psychological vulnerability. The aim of this article is to analyse the ethical, psychological and age limits of generative AI use through a combination of theoretical analysis and empirical quantitative research. The theoretical part synthesises current knowledge on ethical frameworks, automation bias, anthropomorphisation and digital literacy. The empirical part presents the results of a survey conducted on a sample of 288 respondents, which examined the relationships between age, digital literacy, experience with AI, and trust, emotional attachment, and the ability to critically evaluate AI outputs. The results point to significant differences between age groups and highlight the key role of digital literacy in mitigating the risks associated with the use of generative AI.

Key words: generative artificial intelligence, AI ethics, automation bias, anthropomorphisation, digital literacy

INTRODUCTION

Generative artificial intelligence systems, including ChatGPT and other deep learning-based models, have become an integral part of significant innovations in many areas, from medicine to education, customer service and artistic creation (Gupta et al., 2024). Their ability to generate text, images, or recommendations in real time is fundamentally changing the way individuals work with information and make decisions.



However, the growing popularity of these technologies raises fundamental questions about the ethical, psychological and age limits of their use. In this article, we distinguish between accessibility – the technical availability of systems – and the appropriateness of their use in terms of ethical safety and psychological impacts. The basic premise is that different user groups (children, adolescents, adults, and individuals with specific psychological vulnerabilities) face different risks when interacting with generative AI (Gupta et al., 2024; Gerec, 2024; Langer et al., 2023).

The aim of this article is to answer the question of whether generative AI is truly "for everyone" and, if not, what conditions must be met for its use in order to be ethically acceptable and psychologically safe.

1 ETHICAL DILEMMAS ARISING FROM THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE

The development of generative artificial intelligence models raises fundamental ethical questions that go beyond the purely technical level and extend into the areas of social justice, human rights and social responsibility. Among the most frequently discussed issues are discrimination, algorithmic bias and the risk of unfair distribution of opportunities. These phenomena arise mainly because generative AI systems are trained on historical data that may contain systemic inequalities, stereotypes or incomplete representations of certain population groups (Stahl, 2021, Treľová a kol., 2023; Krásna a Hlásny, 2022). In this context, the theoretical framework of the research primarily emphasizes the subjective health and satisfaction of users (Homolová, 2025).

From an ethical point of view, generative AI cannot therefore be seen as a neutral tool. Its outputs are the result of a complex interaction of data, algorithms (a set of computational rules and mathematical procedures utilized by social networks and search engines to determine the curation and prioritization of user-facing content) and human decisions, which places increased demands on transparency and accountability in its design and use.

In response to these risks, international initiatives are emerging to formulate ethical and regulatory frameworks for the use of artificial intelligence. One of the most significant approaches is the AI4People project, which emphasises the need to create



a so-called "good AI society" based on clearly defined norms and values (Floridi et al., 2018). The key principles of these frameworks include algorithm transparency, fairness in decision-making processes, privacy protection, and clearly defined responsibility for the consequences of using AI systems.

These principles are intended to ensure that AI technologies promote human dignity and minimise the risk of their misuse. Practical recommendations include, in particular, the integration of ethics and human rights into training programmes for AI developers and users, as well as the creation of specific regulatory mechanisms for high-risk areas such as healthcare or education. Regulatory frameworks are therefore a prerequisite for the safe and socially acceptable use of generative artificial intelligence.

1.1 EMOTIONAL INTERACTION AND ANTHROPOMORPHISATION OF AI SYSTEMS

One of the most striking psychological phenomena associated with the use of generative AI is anthropomorphisation, i.e. the tendency of users to attribute human characteristics, emotions and intentions to technological systems. This phenomenon is particularly prevalent in conversational systems such as chatbots, which use natural language and simulate empathetic communication. As a result, they can elicit strong emotional responses from users and create the illusion of a personal relationship or friendship.

Anthropomorphisation poses an increased risk, especially for younger users and people with reduced mental resilience. In these cases, excessive emotional attachment to the AI system may occur, weakening critical thinking and reducing the user's ability to realistically assess the truthfulness and reliability of the generated outputs (Manzini et al., 2025). Another significant psychological phenomenon is automation bias, which refers to the tendency of users to uncritically rely on the outputs of generative AI systems even in situations where there is a risk of errors or inaccuracies. This effect is particularly dangerous in areas that require a high degree of accuracy and professional judgement, such as medicine. Over-reliance on AI in the diagnostic process can lead to wrong decisions with serious consequences for patients (Nguyen, 2024).



From a psychological perspective, automation bias weakens users' confidence in their own cognitive abilities and encourages a passive approach to decision-making. In the long term, this phenomenon can lead to a decline in critical thinking skills and a weakening of an individual's autonomy in problem-solving.

1.2 IMPACT OF AI USE ON SELF-REFLECTION AND MENTAL WELL-BEING

Excessive interaction with generative AI systems can negatively affect the ability to think independently and self-reflectively. Research suggests that users who strongly identify with anthropomorphised AI systems may experience an internal conflict between their emotional attachment to the technology and the need to maintain autonomy and independence from algorithmic recommendations (Manzini et al., 2025).

This phenomenon is most pronounced among younger users and people with vulnerable psyches who tend to seek support in readily available digital technologies rather than seeking help in interpersonal relationships. In the long term, this pattern of behaviour can negatively affect mental well-being and the ability to cope with stressful situations without technological assistance.

Psychological and cognitive development of young users

Children and adolescents are in a period of intense cognitive, emotional and social development. The use of generative AI systems in this context can be ambivalent. On the one hand, these technologies can provide personalised educational tools that support skill development, motivation to learn and interactive forms of education (Štefáková, Gerec, Krásna, 2025; Gupta et al., 2024; Chan, Hu, 2023). Homolová, Tišťanová (2018) and Stachoň (2015) emphasize the development of communication, self-reflection, self-awareness, self-esteem, and responsibility for one's actions and education. On the other hand, however, there is a real risk that over-reliance on AI will undermine the development of independent thinking, critical analysis and problem-solving skills without technological assistance. Such risks are particularly pronounced when the use of AI is not accompanied by the systematic development of digital literacy (Hellerová, Urban, 2025; Nguyen, 2024).



Digital literacy and education in the field of artificial intelligence

Digital literacy is one of the key prerequisites for the safe and responsible use of generative AI. Empirical studies show that a significant proportion of students do not have sufficient knowledge of the technical functioning of AI systems, which increases the risk of automation bias and inappropriate use of tools such as ChatGPT (Nguyen, 2024).

For this reason, it is essential to systematically integrate educational modules focused on digital literacy, ethics and critical evaluation of AI outputs into school curricula. These programmes should be tailored to the age and psychological characteristics of individual user groups.

1.3 CASE STUDIES AND EMPIRICAL EVIDENCE

Empirical research conducted at primary, secondary and higher education levels points to varying levels of trust and access to AI systems among young users. A study focusing on the perception of generative AI in higher education identified a predominantly positive attitude among students; however, it also highlighted concerns about a lack of critical thinking and an increased risk of plagiarism (Chan, Hu, 2023). These findings support the need for a differentiated approach to the implementation of AI in education.

People with vulnerable mental health, including individuals suffering from depressive disorders, anxiety or other mental difficulties, represent a particularly at-risk group of generative AI users. These individuals may be more significantly affected by misinformation or so-called AI hallucinations, i.e. the generation of inaccurate or non-existent information, including fictitious citations or misleading health recommendations (Nguyen, 2024; Stahl, 2021; Šrobárová, 2016, 2014).

Given the limited ability of this group of users to critically assess information, it is essential to introduce strict control mechanisms and restrictions on the use of AI in areas related to mental health. Without adequate regulation, the use of generative AI can lead to a deterioration in mental health and exacerbate existing problems.



2 METHODS

The research design was based on a quantitative (cross-sectional) survey of 288 respondents divided into three age groups. Independent variables include age, level of digital literacy, and previous experience with AI, while dependent variables include level of trust in AI, automation bias, emotional attachment to technology, and ability to critically evaluate generated outputs. The study uses correlation analyses, analysis of variance (ANOVA), and regression models to determine the relationships between variables.

The significance of this work lies not only in providing an in-depth understanding of the factors that shape users' attitudes towards modern AI technologies, but also in highlighting ethical issues related to the protection of vulnerable groups and informed consent. The results will provide valuable insights for the development of policies and strategies to ensure the ethical use of generative AI in the educational process, while serving as a reference for further research in this area (Chan, Hu, 2023).

The research was conducted in the form of a quantitative survey using an online questionnaire carried out in Slovakia. The questionnaire was created by the authors and was non-standardised, which allowed for flexible capture of specific dimensions of trust, automation bias, emotional attachment and critical evaluation of AI in the context of the local population. The total sample consisted of 288 respondents, divided into three age groups: younger (18–29 years, $n = 140$), middle (30–49 years, $n = 100$) and older (50 years and above, $n = 48$). The sample selection was based on random stratified sampling to ensure representativeness by age and digital literacy. Stratification by age and digital literacy minimises potential bias that could arise from the dominance of younger, more digitally savvy respondents in online data collection, while also allowing for the analysis of generational differences and differences in technological competencies.

Variables Independent variables:

- **Age:** categorised according to demographic data (younger, middle-aged, older).
- **Digital literacy:** the ability to use digital technologies effectively and critically evaluate their outputs, assessed on a multi-point scale (1 – very low, 5 – very high).



- **Experience with AI:** previous experience with the use of artificial intelligence, rated from "no experience" to "very high experience".

Dependent variables:

- **Trust in AI:** degree of trust in AI-generated outputs.
- **Automation bias:** tendency to accept automated outputs without critical verification.
- **Emotional attachment to AI:** subjective assessment of the attractiveness and emotional attachment to the technology.
- **Critical evaluation ability:** ability to recognise shortcomings, inaccuracies or biases in AI outputs.

2.1 QUESTIONNAIRE STRUCTURE

The questionnaire consisted of 35 closed questions rated on a 5-point Likert scale (1 – strongly disagree, 5 – strongly agree). In addition, it contained three open-ended questions allowing respondents to express their views on the use of AI and its ethical implications in more detail. Closed-ended questions provide quantitative data suitable for statistical tests, while open-ended questions allow for the addition of psychological and ethical context.

The sample consisted of 48.6% younger, 34.7% middle-aged, and 16.7% older respondents. The average digital literacy was 4.1 (SD = 0.7) and the average experience with AI was 3.2 (SD = 0.9), indicating a predominantly medium level of competence and experience.

Table 1: Descriptive description of the sample

Demographic category	Number of respondents	Percentage
Younger group (18–29)	140	48,6 %
Middle age (30–49)	76	26,4 %
Older (50+)	72	25,0 %
Total	288	100 %

Source: Own processing



HYPOTHESES

H1: Does age significantly influence trust in generative artificial intelligence?

Age is negatively associated with trust in generative artificial intelligence; younger users demonstrate significantly higher trust than older users.

Verification questions:

“I generally consider information generated by artificial intelligence to be reliable.”

“When using generative AI, I rarely feel the need to verify its outputs using other sources.”

“I would be willing to rely on AI-generated recommendations when making important decisions.”

H2: Is digital literacy the key predictor of users’ ability to critically evaluate AI outputs?

Higher digital literacy significantly increases users’ ability to critically evaluate generative AI outputs and reduces automation bias.

Verification questions:

“I am able to identify inaccuracies or misleading information in AI-generated content.”

“I consciously assess the limitations and possible biases of AI-generated outputs.”

“Even when AI provides a confident answer, I critically evaluate its correctness.”

H3: Does experience with generative AI increase emotional attachment, and is this effect independent of age?

Greater experience with generative AI is associated with stronger emotional attachment to AI systems, particularly among younger users.

Verification questions:



“Interacting with generative AI feels more personal than using other digital technologies.”

“I sometimes experience emotional comfort when interacting with an AI system.”

“I feel a certain sense of attachment to the AI tools I use regularly.”

INTERPRETATION

(H1) – The hypothesis was supported. Correlation analysis showed a **moderate negative relationship between age and trust in AI** ($r = -0.32$, $p < 0.01$).

ANOVA confirmed statistically significant differences across age groups, $F(2,285) = 7.56$, $p < 0.001$. Post-hoc comparisons revealed that respondents aged 18–29 reported significantly higher trust than respondents aged 50+ ($p < 0.01$).

Generative AI is not psychologically “age-neutral”. Trust decreases with age, suggesting that older users may approach AI more cautiously or skeptically, which can be protective but may also limit adoption.

(H2) – Digital literacy showed a **strong positive correlation with critical evaluation ability** ($r = 0.45$, $p < 0.001$).

Regression analysis confirmed digital literacy as the **strongest predictor** of critical evaluation ($\beta = 0.42$, $p < 0.001$), outperforming both age and experience with AI. This is the core result of the study. Risk associated with generative AI use is driven less by age itself and more by **competence**. Digital literacy acts as a protective factor against automation bias and uncritical reliance on AI outputs.

(H3) – Experience with AI was positively correlated with emotional attachment ($r = 0.28$, $p < 0.05$).

ANOVA showed significant age-group differences in emotional attachment, $F(2,285) = 5.02$, $p < 0.01$, with the highest scores among younger respondents. Regression analysis indicated that while experience contributes to emotional attachment ($\beta = 0.15$, $p < 0.05$), **digital literacy had a stronger effect** ($\beta = 0.27$, $p < 0.01$).

Frequent interaction with AI increases emotional bonding, but without sufficient digital literacy, this attachment may weaken critical distance—especially among younger users.



Correlation analysis

The following significant relationships between variables were found:

Age and trust in AI: $r = -0.32$, $p < 0.01$, indicating lower trust among older respondents.

Digital literacy and critical evaluation skills: $r = 0.45$, $p < 0.001$, higher literacy promotes critical evaluation.

Experience with AI and emotional attachment: $r = 0.28$, $p < 0.05$, more experience $\rightarrow$ stronger attachment.

Analysis of variance (ANOVA)

Trust in AI: $F(2,285) = 7.56$, $p < 0.001$; post-hoc test showed a significant difference between younger and older respondents ($p < 0.01$).

Automation bias: $F(2,285) = 3.15$, $p < 0.05$, highest score in the middle age group.

Emotional attachment: $F(2,285) = 5.02$, $p < 0.01$, younger respondents show higher attachment.

Critical evaluation: $F(1,286) = 12.34$, $p < 0.001$, higher among respondents with high digital literacy.

Regression models

For trust in AI:

$R^2 = 0.38$, $p < 0.001$

Age: $\beta = -0.25$, $p < 0.01$

Digital literacy: $\beta = 0.30$, $p < 0.001$

Experience with AI: $\beta = 0.15$, $p < 0.05$

Digital literacy was the strongest predictor of critical evaluation ability ($\beta = 0.42$, $p < 0.001$) and emotional attachment ($\beta = 0.27$, $p < 0.01$). Experience with AI had a weaker but statistically significant effect on emotional attachment.



3 DISCUSSION

The results show that age, digital literacy, and experience with AI are key determinants of the acceptance and evaluation of generative AI. Younger respondents show greater trust and emotional attachment to AI, while older respondents are more critical and less emotionally engaged. Digital literacy emerges as a strong factor in critical evaluation ability, reducing the risk of automation bias and promoting informed decision-making when using AI.

Experience with AI increases emotional attachment, but its effect is smaller than that of digital literacy. These findings support previous studies (Chan, Hu, 2023; Gupta et al., 2024), confirming that generational differences and technical competence influence trust and attitudes towards AI.

Connection to existing literature

The results correlate with the findings of Nguyen (2024) and LI et al. (2023), which emphasise the importance of digital literacy in critically evaluating technologies. Age and experience with AI are consistent with the work of Chan, Hu (2023), who identified generational differences in trust in technology. The emotional attachment of younger respondents is consistent with psychological models of technology adoption, which attribute the emotional factor to greater engagement with innovation.

The research identified vulnerable groups, particularly older respondents and those with lower digital literacy, who are at greater risk of misjudging AI outputs and automation bias. The

results suggest a need for ethical frameworks and educational programmes targeting these groups. Increasing digital literacy can significantly improve awareness and minimise the risks associated with over-reliance on AI.

Emotional attachment to AI reflects not only technological appeal but also psychological attitudes towards innovation. The stronger emotional bond of younger respondents may lead to less critical evaluation of outputs. It is therefore critical to include the development of critical thinking and awareness of the potential risks of automation in educational initiatives.



4 LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR PRACTICE

Despite the stratified sample selection, the online distribution of the questionnaire may have underestimated the representation of people with lower digital literacy or limited access to the internet. In addition, the questionnaire was based on subjective self-assessment of digital literacy and experience with artificial intelligence, which may lead to a bias towards socially desirable responses. The quantitative design of the research allows for the identification of relationships between variables; however, it does not provide direct evidence of causal relationships. It should also be noted that the results are culturally specific and depend on the population studied, so their generalisation to other geographical or social contexts may be limited.

Based on the findings, recommendations for practice can be formulated. First, it is advisable to implement programmes aimed at increasing digital literacy, with particular attention paid to the critical evaluation of AI outputs, especially among older and less tech-savvy groups. Secondly, organisations should introduce ethical guidelines and security protocols for the use of generative AI, including warnings about possible errors and risks of automation. Thirdly, AI technologies need to be adapted to generational differences in user interfaces and feedback provision to minimise unconscious reliance on automated outputs. Finally, users' ability to make informed decisions should be supported by providing tools to verify and evaluate AI outputs, thereby reducing the risk of automation bias.

CONCLUSION

Based on the empirical analysis, it can be concluded that younger respondents aged 18 to 29 show significantly higher trust in generative artificial intelligence compared to older groups, with age negatively affecting trust in the technology. A higher level of digital literacy is associated with a better ability to critically evaluate AI outputs and also increases trust in the technology.

Previous experience with AI systems contributes to the creation of an emotional bond with users, but its impact is moderate compared to the effect of digital literacy. Vulnerable groups, particularly older individuals and those with lower digital literacy, are at greater risk of misjudging outputs and automation bias, highlighting the need to implement ethical guidelines and educational programmes aimed at



protecting them. Overall, this study provides an important contribution to understanding how demographic factors and experiences influence the acceptance and evaluation of generative AI and highlights the necessity of an ethical approach to its implementation (Li et al., 2023; Eden et al., 2024).

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SECTION 2: MEDIA REPRESENTATIONS, LANGUAGE, POWER AND CRITICAL THINKING IN DIGITAL CULTURE



“STOP THE TROLL”: A PRACTICAL GUIDE TO EXPERIENTIAL EDUCATION FOR THE PREVENTION OF CYBERAGGRESSION AND THE ENHANCEMENT OF MEDIA LITERACY AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

The increasing integration of digital technologies into adolescents' daily lives has expanded opportunities for communication and learning, yet it has also intensified exposure to online risks, including cyberaggression and trolling. This article presents an experiential educational intervention titled “Stop the Troll”, designed to enhance media literacy and prevent cyberaggressive behaviour among secondary school students. The intervention is embedded in a workbook and implemented through a board game format that stimulates active participation, peer interaction, and reflective learning. A pilot evaluation was conducted with 194 participants to assess subjective satisfaction with the activity. Results indicate a predominantly positive reception, with 60.82 % of respondents rating the activity at the highest satisfaction level (9–10). Gender differences were observed, with female students demonstrating higher satisfaction ($M = 8.77$) than male students ($M = 7.24$). The study highlights the potential of experiential education as an effective preventive approach in school contexts and underscores the need for further research to explore factors influencing lower satisfaction levels.

Practical implications for educators and policymakers include the integration of interactive, discussion-based interventions into media literacy curricula to strengthen adolescents' resilience and critical thinking in online environments

Key words: Cyberaggression; Media literacy; Experiential education; Adolescents; Prevention



INTRODUCTION

The digital environment has become an integral part of adolescents' everyday lives, profoundly shaping their social interactions, communication practices, and information acquisition. Although digital technologies offer numerous benefits, they also introduce risks that can have significant social and psychological consequences. Among adolescents, online behaviour increasingly reflects a pursuit of social validation, where peer recognition and identity formation are sought through digital interaction. However, self-presentation on social media platforms may also lead to negative outcomes, such as reduced self-esteem, dissatisfaction with one's own appearance or achievements, and the reinforcement of unhealthy social pressures and distorted perceptions (Nabila, 2023). In this context, the prevention of cyberaggression and the promotion of media literacy represent essential components of contemporary education. Schools are uniquely positioned to address these challenges through structured interventions that not only convey information but also develop critical thinking, ethical digital behaviour, and emotional resilience. Traditional informational approaches—focused primarily on awareness and warnings – often fail to sufficiently influence attitudes and behaviours in real online situations. Therefore, experiential educational methods, which involve active participation, guided reflection, and collaborative problem-solving, are increasingly recognized as effective strategies for fostering meaningful behavioural change.

This article introduces “Stop the Troll”, an experiential educational activity integrated into a workbook designed for secondary school settings. The activity employs a board-game format to simulate online challenges and promote practical skills for recognising and responding to cyberaggression. The study aims to evaluate the activity's perceived usefulness and attractiveness among adolescents and to discuss its potential role in the prevention of cyberaggressive behaviour and the enhancement of media literacy.

1 THEORETICAL BACKGROUND

The online environment has currently become an integral part of the lives of children and adolescents. Over the past two decades, digital technologies have become an inseparable component of young people's everyday functioning (Kopecký et al., 2015) and have significantly influenced the ways in which they communicate,



establish and maintain relationships, as well as how they interact with institutions, including schools. Today, the online environment represents a fully-fledged social space that, alongside family, school, and leisure activities, substantially contributes to the formation of adolescents' identities, values, and processes of social learning (Valkenburg, Peter, 2011). Online communication, social networks, and digital technologies significantly shape socialization processes, identity formation, relationships, and value orientations.

Alongside numerous opportunities, however, the digital space also brings new forms of risky behavior, including trolling, cyberbullying, online hate speech, the spread of hoaxes (a widely circulated fabrication or alarmist message designed to incite panic or mass deception) and disinformation, sexting, sextortion, cybergrooming, online luring, and the unauthorized disclosure of personal data (Table 1).

Technologies are widespread in almost every household, and the Annual Report on the Internet in Slovakia (2024) states that 91 % of households are equipped with a computer. Internet use has both social and academic dimensions, as many secondary schools require text processing, online information searching, and electronic submission of assignments. Support for internet use at home or at school—often without adult supervision—represents a serious concern for parents, teachers, and other professional staff in schools and educational institutions. With the expansion of the internet and mobile phones, monitoring adolescents' behavior has become increasingly challenging. Adolescents are no longer automatically safe either at home or at school. Threats present online may be even more dangerous, as protective barriers are often absent. While the internet offers extensive opportunities for exploration and learning, it also makes our world more public than ever before. Many adolescents are unaware of the risks associated with inappropriate online behavior and perceive them as negligible (“it can’t happen to me”). This lack of understanding and the tendency to downplay risks often lead them to handle situations on their own, without informing a parent or another adult – if they address them at all. Sender and Pavličková (2024) found that the majority of Slovak adolescents (73.30 %) primarily engage in Internet use and social networking, making it the most prevalent activity within this age group. The role of schools is to respond to contemporary social and technological trends and to systematically develop students' ability to identify and apply effective strategies for coping with



online risks, with particular emphasis on fostering critical thinking. Research indicates that adolescents—especially girls—frequently engage in risky online activities, such as sharing personal information, posting intimate photographs, or initiating contact with strangers (Baumgartner et al., 2021). A study by the Pew Research Center showed that most adolescents who were contacted by an online predator did not feel fear. Offenders often exploit empathy, flattery, and an interest in romance or adventure (Rainie, 2008, p. 23). Protecting students from online threats posed by both peers and strangers is essential. A key role is played by their ability to use the internet responsibly and to be aware of the consequences of their own decisions.

Table 1: Types of online aggression

Term	Description
Cyberbullying	Repeated and intentional harm inflicted through digital technologies, where a power imbalance exists between the aggressor and the victim.
Trolling	Intentional provocation, mockery, or instigation of conflict in the online environment with the aim of disrupting discussion or eliciting an emotional reaction.
Doxxing	Unauthorized collection and publication of personal or sensitive information about an individual (e.g., address, phone number) with the intent to harm or intimidate.
Cybergrooming	A process of building trust and manipulation in which an adult deliberately prepares a child or adolescent online for sexual abuse offline.
Sexting	The creation and sharing of sexual or sexually suggestive messages, photographs, or videos via digital media, often among peers.
Sextortion	A form of extortion in which the perpetrator threatens to publish intimate materials of the victim in order to obtain additional materials, money, or other benefits.
Online Luring	The act of enticing or manipulating a child or adolescent via the internet with the aim of sexual exploitation.
Online Hate Speech	Public expressions of hatred, insults, or calls for violence against individuals or groups based on identity (e.g., ethnicity, gender, religion).
Spreading Hoaxes and Disinformation	Intentional or unintentional dissemination of false, misleading, or manipulative information through online platforms.

Source: Own Processing



Cyberaggression is characterized as intentional and repeated behavior aimed at harming or damaging another person through electronic media (Corcoran et al., 2015; Patchin, Hinduja, 2006). Cyberaggression manifests in a wide range of forms, from direct verbal attacks (insults, threats, dissemination of false information) to more sophisticated forms of psychological pressure, such as doxing (the publication of sensitive personal information) or the dissemination of manipulated images and videos (Kowalski et al., 2014). Although the terms cyberaggression and cyberbullying are often used interchangeably, important distinctions between them exist in the scholarly literature. Cyberbullying is a specific form of cyberaggression that involves systematic and long-term victimization, often accompanied by a power imbalance between the perpetrator and the victim (Olweus, 2012). In contrast, cyberaggression may include one-time or recurring hostile acts without a necessary power imbalance between the actors (Bauman et al., 2012). Based on the findings of Dooley, Pyżalski, and Cross (2009), traditional criteria of bullying – such as intentionality, repetition, and power imbalance—may not always apply in the cyber environment, where even a single incident can result in long-term and severe consequences. Furthermore, cyberaggression may share similarities with other forms of online behavior, such as trolling or online harassment, which nevertheless differ in their context and underlying motivational mechanisms (Buckels et al., 2014). Online aggression is a broad term defined as hostile actions carried out through new communication technologies or new media (the Internet and mobile phones) (David-Ferdon, Herz, 2007). The concept of online aggression therefore encompasses any form of harassment or attack against others that can be perpetrated through these platforms (e.g., fabricating lies, spreading rumors, posting hurtful and hateful comments, issuing threats, stealing someone's identity, etc.). Because the term online aggression includes a wide range of behaviors that vary across research studies, the most comprehensible way to define online aggression is by comparing it with traditional bullying.

Cyberbullying is traditionally defined by three core characteristics: intent to harm, repeated behavior, and a power imbalance between the perpetrator and the victim. In contrast, cyber aggression is understood as any form of negative behavior mediated by information and communication technologies that aims to harm, harass, or humiliate another person, even without the need for repetition or a clear power imbalance (Corcoran et al., 2015; Gattulli et al., 2022). Online aggression thus



functions as a broader umbrella term encompassing not only cyberbullying but also one-time or unintentional incidents that may nevertheless have adverse consequences for the victim. As indicated above, there are many forms of online risky behavior, and the workbook developed by us addresses only the most commonly occurring ones.

2 ANALYSIS OF THE EXPERIENTIAL EDUCATIONAL ACTIVITY “STOP THE TROLL”

As already indicated, the virtual environment has become an integral part of the everyday lives of (not only) young people and significantly influences their social interactions, communication, and ways of acquiring information. At the same time, it also gives rise to new forms of risky behaviour. In school settings and in work with adolescents, there is an increasing need for systematic prevention, targeted support for media literacy, and the development of the ability to recognise and adequately respond to manipulative and aggressive forms of online behaviour. Traditional information-oriented approaches, which primarily focus on conveying facts and warnings, have proven insufficient in practice, especially in terms of influencing the attitudes and behaviour of young people in real online situations. Effective prevention therefore requires the use of interactive and experiential educational approaches that enable active participant engagement, emotional processing, and subsequent reflection on one's own behaviour.

In light of these challenges, the role of media literacy becomes increasingly significant, as it provides individuals with the cognitive tools to interpret, evaluate, and respond to online content in a reflective and responsible manner. Media literacy is therefore not only a protective factor against online risks, but also a key competence that supports adolescents' overall digital resilience and critical engagement with media. Consequently, understanding its conceptual foundations and educational implications is essential for designing effective preventive interventions.

A large number of researchers from various disciplines address media literacy, including media theorists, educators, anthropologists, and scholars of cultural studies. They offer different definitions of media literacy, which sometimes emphasize knowledge, at other times skills, or modes of thinking. They also hold varying views on the role that media literacy should play in the lives of individuals



and in society (Hobbs, 1998, p. 16). Elizabeth Thoman (1993) points out that media literacy cannot be limited to a set of facts about the media; she rather conceptualizes it as the ability to ask the right questions about what we watch, read, or listen to. A similar definition is offered by Malik (2008, p. 2), who describes media literacy as “a higher-order critical thinking skill that involves questioning, analysing, and evaluating a given piece of information”.

In this context, experiential education creates opportunities for practising specific strategies for managing online conflicts in a safe environment, supports the development of empathy and critical thinking, and contributes to a better understanding of the consequences of one’s actions in the digital space. The analysis of the experiential educational activity “Stop the Troll” thus focuses on examining its objectives, methodological implementation, and potential contribution to the prevention of cyberaggression and the enhancement of media literacy among secondary school students.

2.1 SPECIFICATION OF OBJECTIVES AND METHODOLOGY

Based on the above-mentioned premises, the experiential educational activity “Stop the Troll” was designed and implemented to address current risks associated with online communication and the occurrence of cyberaggressive behaviour among adolescents. The activity primarily aims to develop students’ ability to identify trolling and other forms of online aggression, to understand their mechanisms, and to acquire effective strategies for responding to online conflict situations. The experiential preventive activity represents one of the tasks included in the workbook *Stop the Troll: A Guide to Online Pitfalls* (Sender, Gužíková, 2025), which was conceived by the authors of the study as a practical educational tool for the school environment (Figure 1). The methodology of the activity is based on the principles of experiential pedagogy and emphasises active student participation, engagement with model situations from the online environment, and subsequent guided reflection. The main objectives of the activity are:

- to raise students’ awareness of various forms of cyberaggression, with a specific focus on trolling;
- to develop media literacy and the ability to critically evaluate online content;
- to strengthen social and communication skills in the digital environment;



- to support responsible and ethical behaviour in online communication.

The methodological framework of the activity combines elements of discussion, group work, and experiential tasks, which allow students to actively experience simulated situations and reflect on their own attitudes and reactions. This design creates conditions for a deeper understanding of online risky behaviour and increases the likelihood of transferring the acquired knowledge into real behaviour in the digital space.

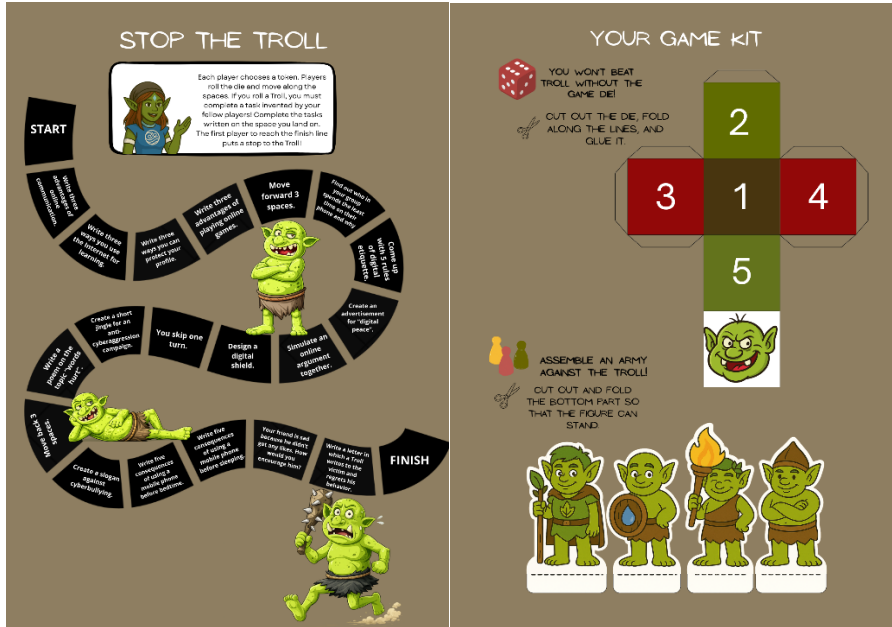
Figure 1: Front and back cover of the workbook



Source: Own Processing

For the purposes of the pilot evaluation, one activity was deliberately selected from the workbook, which takes the form of a board game and thus enables active student engagement, promotes group interaction, and provides an opportunity to practise safe online behaviour strategies in a practical manner. The selection of this activity was also motivated by its universality and ease of implementation in the school environment, making it a suitable tool for initiating discussion and reflection on risky online behaviour (Figure 2).

Figure 2: Example of the selected experiential game activity from the workbook



Source: Own Processing

After the implementation of the activity, we attempted to assess participants' satisfaction with the chosen intervention. The satisfaction evaluation primarily captures the perspective of adolescents and young adults ($n = 194$), which corresponds to the target group of the interactive activity (i.e., secondary school students). In terms of gender distribution, females predominated ($n = 124$; 63.9%). A scale ranging from 0 to 10 was developed, and for the purpose of clearer interpretation, the obtained values were subsequently categorized into intervals. The interval 0–2 represents dissatisfaction (strongly negative evaluation), 3–4 indicates low satisfaction, 5–6 denotes moderate to neutral satisfaction, 7–8 indicates high satisfaction, and 9–10 denotes very high (maximum) satisfaction, reflecting a clearly positive reception of the activity. The collected data were analysed using descriptive statistics. The selected experiential activity was implemented in the form of the board game "Stop the Troll!", which is part of the workbook and serves as a practical tool for developing media literacy and preventing cyberaggression. The game is



designed as a game path with a start and finish, where players move according to dice rolls and complete tasks displayed on the individual squares. From an educational perspective, the activity utilises the principles of experiential learning, as it engages students in solving model situations, creative tasks, and discussion, with an emphasis on active experience and subsequent reflection.

During the game, students encounter various challenges related to the online environment that they must resolve collaboratively. The game alternates between tasks focused on identifying risky behaviour and its consequences, tasks promoting prosocial behaviour, and activities designed to develop critical thinking. The activity also supports the development of soft skills, including cooperation, argumentation, empathy, and emotional intelligence, which are particularly important in the context of preventing cyberaggression and promoting safe online behaviour. At the same time, the activity aims to build resilience, as students are guided to manage stressful or conflictual situations in the virtual environment without escalation and impulsive reactions.

3 RESULTS

After the implementation of the activity, students' subjective satisfaction with the chosen intervention was assessed using a 0–10 scale. The aim was to determine how participants perceived the usefulness and attractiveness of the activity, as motivation and engagement significantly influence the effectiveness of prevention. We approached the interpretation by categorising the results into intervals, which enabled a clearer evaluation of the outcomes. The scale was divided into five intervals, ranging from negative to positive evaluations of the activity.

The results presented in Table 2 indicate predominantly positive reception of the activity, as 60.82% of respondents rated their satisfaction in the 9–10 range (maximum satisfaction) and an additional 19.07% in the 7–8 range (high satisfaction). In contrast, dissatisfaction (0–2) was reported by 8.76% of respondents, meaning that for some students the activity was insufficiently beneficial, the format (e.g., group interaction) was not suitable for them, or personality factors acted as barriers.



Respondents' satisfaction was expressed using the mean (M), which indicates the overall level of satisfaction, as well as the median (Me), which represents the typical central value without being significantly affected by extreme responses. The standard deviation (SD) was also included to express the variability of ratings among respondents. The average rating ($M = 7.98$) reflects an overall positive reception of the activity by participants. The median ($Me = 9$) also suggests that at least half of the participants rated the activity very favourably. The standard deviation ($SD = 2.89$) indicates diversity in responses, meaning that although the majority of students rated the activity highly positively, lower (less positive) ratings were also observed.

Table 2: Satisfaction ratings of the activity "Stop the Troll!"

Rating range	N	%	$\bar{O}$ (M)	σ (SD)	$\tilde{x}$ (Me)
0–2 (dissatisfaction)	17	8.76	0.41	0.80	0
3–4 (low satisfaction)	4	2.06	3.75	0.50	4
5–6 (moderate satisfaction)	18	9.28	5.28	0.46	5
7–8 (high satisfaction)	37	19.07	7.51	0.51	8
9–10 (maximum satisfaction)	118	60.83	9.77	0.42	10
Total	194	100	7.98	2.89	9

Source: Own Processing

An interesting perspective is provided by a more detailed analysis of satisfaction ratings by participants' gender across the different scale intervals (Table 3). Among female students, high satisfaction in the 9–10 interval predominates, reported by more than half of the respondents (70.97%). Male students rated the activity less favourably compared to their female peers, with high satisfaction recorded by only nearly half of the respondents (48.28%). A more pronounced difference is also observed in the dissatisfaction category, which was reported by as many as 15.52% of male students.

Table 3: Satisfaction ratings of the activity "Stop the Troll!" by gender

Gender	0-2		3-4		5-6		7-8		9-10	
	N	%	N	%	N	%	N	%	N	%
female	2	1.61	1	0.81	12	9.68	21	16.94	88	70.97
male	9	15.52	1	1.72	6	10.34	14	24.14	28	48.28
other	6	50	2	16.67	0	0	2	16.67	2	16.67
Total	17	8.76	4	2.06	18	9.28	37	19.07	118	60.83

Source: Own Processing



A more detailed examination of the descriptive indicators of satisfaction by gender (Table 4) shows that female students evaluated the activity more positively ($M = 8.77$; $SD = 1.86$; $Me = 10$), indicating a high level of satisfaction and relatively low variability in responses. Male students obtained a lower average rating ($M = 7.24$; $SD = 3.35$; $Me = 8$), while the higher SD value suggests greater differences in subjective evaluation of the activity within this group.

Table 4: Descriptive indicators of satisfaction with the activity by gender

Gender	$\bar{O} (M)$	$\sigma (SD)$	$\tilde{x} (Me)$
female	8.77	1.86	10
male	7.24	3.35	8
other	3.42	4.08	1.5
Total	7.98	2.89	9

Source: Own Processing

CONCLUSION

The virtual environment has become an integral part of the everyday lives of young people and significantly influences their social interactions, communication, and ways of acquiring information. The use of social media brings not only numerous benefits but also risks with potential social and psychological consequences. Among adolescents, behaviour based on social validation increasingly appears in the online space, aiming to gain peer recognition and strengthen social identity and self-image. At the same time, self-presentation on online platforms may contribute to negative outcomes such as the development of inferiority, dissatisfaction with oneself, or the reinforcement of unhealthy social pressure and distorted perception (Nabila et al, 2023). In this understanding, the prevention of cyberaggression and the development of media literacy appear to be an important (and necessary) component of education in the school environment.

In terms of practical implications, it can be stated that the activity “Stop the Troll” together with the workbook represents a usable preventive tool that combines education, mutual interaction, and self-reflection. Satisfaction with the chosen activity was overall high, with nearly half of the participants rating the activity with the maximum score, which confirms the potential of experiential education in the prevention of cyberaggression.



However, the variability of responses and the presence of low ratings suggest that the activity may not be equally acceptable to all participants. For this reason, further research should investigate the factors influencing negative evaluations of the activity (e.g., individual pace, difficulty, prior experience with the topic, motivation).

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TEACHING ENGLISH FOR SPECIFIC PURPOSES (ESP) FOR JOURNALISM STUDENTS IN THE AGE OF AI AND DIGITAL CULTURE

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ABSTRACT

This literature review examines how generative AI is transforming English for Specific Purposes pedagogy in journalism education. The analysis of recent scholarship shows that major news organisations increasingly employ AI automation, creating an urgent need for curriculum adaptation. The central challenge is algorithmic homogenization, where AI-generated content becomes stylistically flat, eroding the distinctive voice essential to quality journalism. The review proposes a Human-in-the-Loop framework that positions AI as a collaborative tool while maintaining human editorial control. This approach requires instructors to adopt a “Curator-Coach” role, teaching students strategic prompting, stylistic resistance, and ethical oversight. The findings reveal three interconnected shifts: from traditional genre instruction to platform-aware multimodal literacy, from language production to linguistic agency, and from technical skill-building to critical AI literacy. The review concludes that journalism students now require integrated training in Digital Needs Analysis, Human-in-the-Loop workflows, and Critical AI Literacy to navigate platform constraints and algorithmic mediation effectively.

Key words: journalism education, generative AI, Human-in-the-Loop pedagogy, Critical AI Literacy, Digital Needs Analysis

INTRODUCTION

Journalism is experiencing an “algorithmic turn,” in which digital systems, automation, and data-driven tools are changing how news is produced and shared (Møller, 2024; Møller et al., 2025). This shift affects both newsroom work and journalism education, including ESP. English is now taught as part of a broader professional literacy that combines language, technology, and data awareness.

Cervi et al. (2021) argue that today’s journalism curriculum is multidisciplinary, so students need to manage language, ethics, technology, and analysis simultaneously.



In the past, ESP for journalism focused on the inverted pyramid, headlines, and broadcast style. These older methods no longer fit a field shaped by digital workflows. Now, journalists write algorithmically optimized articles, create social media stories, and prepare scripts for automated newsreaders.

Due to these changes, ESP teaching now needs to include skills that were not part of language classes before. Flowerdew (2024) highlights new skills such as reading data visualisations, understanding AI-generated insights, and using AI tools, such as summarizers or transcription services. These skills are now essential because students must know how language and data systems work together to make information credible, clear, and engaging.

This change creates a challenge for journalism in ESP: while algorithmic tools bring speed and consistency, they can also weaken a journalist's unique voice and storytelling. Recent research shows that over 70% of major U.S. newsrooms now use AI-assisted drafting, showing how quickly these tools are spreading (Cools, Diakopoulos, 2024). Teachers need to help students keep their own style while using automation. This review looks at how AI is changing journalistic English and how teaching can balance technology with real expression, good judgment, and ethics. A key question is how teachers can help students understand algorithmic bias, not just fix it technically. Using a narrative ethics approach can help students think about these issues and discuss them in class. For example, instructors could ask students to rewrite AI-generated content, adding personal stories that show diverse perspectives and ethical considerations. In class, students could analyse case studies where algorithmic bias was critical, exploring how ethical journalism could address these issues. By encouraging discussion, teachers can guide students through ethical challenges and help them see how personal stories make journalism fair and engaging.

1 DIGITAL NEEDS ANALYSIS (DNA) AND GENRE EVOLUTION

In ESP research, Needs Analysis (NA) has long helped identify the language and communication skills needed for a profession. As digital technology changes how we communicate, NA is expanding into Digital Needs Analysis (DNA). This shift reflects a broader trend in ESP, as more communication now happens through digital tools, different media, and platform rules (Hafner et al., 2015).



1.1 DIGITAL GENRE EXPANSION

Digital genres are no longer just text-based. Xia (2023) explains that today's genres "absorb digital and multimodal elements" as they adapt to digital communication, changing both their structure and purpose. Because of this, journalism students in ESP programs need to learn how to use language with different media and platform features.

Relevant examples include:

1. Social media micro-genres, where linguistic choices respond to algorithms, character limits, and audience engagement patterns.
2. Interactive, data-driven reports now often combine text, infographics, and other visual elements. This trend is also seen in ESP research on multimodal communication (Hafner et al., 2015).
3. AI-based genres, such as automated newsletters and machine-generated summaries, require students to review and edit AI outputs while maintaining journalistic accuracy.

Xia (2023) also points out that multimodal genres, such as TED-Talk-style presentations, show that digital settings require skills that combine language, visuals, and user interaction.

1.2 PROMPTING AS A LANGUAGE SKILL

Recent research views AI prompting as a new professional skill, indicating that ESP is moving beyond human-to-human communication. Traditional ESP did not include working with AI, but with generative AI, prompting has become a specialised English skill that requires clarity, precision, and ongoing improvement. Instructors can create classroom tasks where students draft, evaluate, and refine prompts for AI tools. For example, students might start with a basic prompt to generate a news summary and then refine it for clarity and specific audience needs. This helps students practice precision and adaptability, which are essential for effective AI communication. Recent ESP scholarship shows that digital mediation requires new forms of metalinguistic awareness. For example, Hafner et al. (2015) argue that digital mediation changes communicative practices in ESP genres, requiring learners to understand how digital systems process and interpret input. Xia et al. (2015) show that using AI tools in digital multimodal composing requires careful decision-



making, suggesting that prompting is becoming part of the communicative repertoire (Li et al., 2025).

Prompting is not just a technical skill; it is now an essential part of ESP language skills when working with AI in journalism.

1.3 A SHIFT FROM TASKS TO PLATFORMS

Traditional Needs Analysis in journalism primarily focused on job tasks such as interviews, news writing, editing, and translation, usually in newsroom settings (Borovac, 2013). These studies described what journalists do in their daily work.

In contrast, Digital Needs Analysis (DNA) sees journalists as active users of digital platforms and different media tools. DNA asks questions like:

1. How do journalists interact with publishing platforms, content management systems, and algorithmic dashboards?
2. How do platform constraints (e.g., tagging systems, algorithmic ranking mechanisms) reshape English usage?
3. How does digital mediation alter genre expectations, tone, or interactivity?

This change aligns with broader trends in ESP research, in which experts argue that NA models should now include digital skills, multimodal communication, and online practices (Dou, 2024; Pang et al., 2025).

For example, Dou (2024) argues that modern ESP courses should use data-driven methods and multimodal tools to stay up to date with digital learning. Similarly, Pang et al. (2025) call for new NA models that incorporate technology, platforms, and multimodal features to fully understand learners' needs in digital communication fully.

2 THE “HUMAN-IN-THE-LOOP” PEDAGOGY

As ESP instruction for journalism increasingly incorporates Digital Needs Analysis (DNA) and multimodal genre awareness, a parallel pedagogical shift is emerging around how students should engage with AI systems. Building on the earlier discussion of prompting as a specialised literacy and the risks of genre simplification in automated outputs, current literature highlights a decisive question: should AI



replace the writer, or should it augment the writer? This debate becomes central as newsrooms rapidly adopt AI-powered workflows across drafting, data analysis, and content presentation.

Recent systematic reviews clearly map this transformation. A large-scale analysis published in Multidisciplinary Digital Publishing Institute (MDPI) journals finds that 73% of news organisations now employ AI for some form of news automation. In comparison, 42% of studies warn of reduced nuance and contextual subtlety in AI-generated writing, signalling a measurable tension between productivity and depth (Sonni et al., 2024; Sonni, 2025). Major industry reports, such as the Associated Press study on generative AI in journalism, document 16 distinct uses of generative AI tools across the news reporting process, primarily in production and distribution phases (Diakopoulos et al., 2024). This rapid adoption mirrors broader concerns about algorithm authorship and news credibility, with research showing that audiences respond differently to AI-generated versus human-authored content, raising questions about trust and authenticity in automated journalism (Tandoc et al., 2020). These findings connect directly to the earlier concerns raised in the genre-evolution literature—namely, that digital genres expand and hybridise, but also risk becoming algorithmically flattened when over-standardised by automated tools.

In response, educators and industry actors increasingly emphasise Human-in-the-Loop (HITL) approaches, aligning ESP pedagogy with professional practice.

HITL models see AI as a collaborative drafting tool, not an independent author, while humans keep control over interpretation, ethics, and style. Research on newsroom practices shows that successful editorial teams use human judgment to add nuance, reflect brand values, and consider context, while letting AI handle repetitive tasks (Cools, Diakopoulos, 2024). Journalists see better efficiency and data handling as benefits, but worry about accuracy, credibility, and algorithmic bias (Cools, Diakopoulos, 2024). This model aligns with what Pavlik (2023) calls a new kind of journalism, in which journalists become “digital orchestrators” who blend human judgment with AI analysis. In ESP classrooms, this means teaching students not just to write English texts, but to curate, check, and improve AI drafts. Key skills now include linguistic vetting, cultural sensitivity, bias detection, and ethical framing, all of which align with DNA’s focus on platform-aware, multimodal, and



critical language use. To assess students' HITL skills, instructors can set clear criteria or rubrics. These might include checking how well students revise AI drafts, keep journalistic standards and style, and spot or fix bias in AI outputs. These assessments help measure learning and ensure students are using HITL approaches effectively.

At the same time, scholars and practitioners warn of the risks associated with excessive reliance on AI. Recent scholarship argues that the accelerating volume of machine-generated content threatens to overwhelm human-produced journalism, leading to increasingly formulaic writing and eroding the distinctive voice on which high-quality reporting depends. These concerns echo broader warnings that journalism's value lies in human observation, contextualization, and ethical accountability—capacities that automated systems cannot replicate (Dodds et al., 2025). The AI turn in journalism forces a fundamental rethinking of journalism's identity and its relationship to democratic values, requiring integrated approaches that respect journalistic values while incorporating technical innovation (Dodds et al., 2025). This transformation builds on decades of technological change in news production. As Diakopoulos (2019) documented in his foundational work on algorithmic journalism, automation has been progressively rewriting media practices, raising persistent questions about transparency, accountability, and the role of human judgment in computational news systems. Similarly, recent reflections on AI's role in investigative reporting emphasise that while AI can accelerate data processing, it must not displace the journalist's responsibility to interrogate sources, question assumptions, and interpret findings within real-world social contexts.

3 DIGITAL CULTURE AND ETHICAL LITERACY

Today's digital landscape is shaped by synthetic media, hidden algorithms, and AI-driven curation, all of which create risks to information integrity. To address these risks, journalism-focused ESP must include Critical AI Literacy as a core part of the curriculum (Walter, 2024).

The rise of synthetic media has fundamentally challenged traditional reporting. Recent research suggests that a journalist's ethical evaluation of deepfakes depends on the nature and degree of manipulation; therefore, any professional application requires rigorous normative prerequisites (Raemy et al., 2025).



Sabzalieva and Valentini (2023) describe this as a broader "crisis of knowing," in which traditional sensory evidence, such as seeing and hearing, is no longer a reliable sign of truth. As a result, ESP education must go beyond technical detection and help students develop epistemic agency so they can navigate a world in which media is shaped by AI (Miao, Holmes, 2023). While deepfakes can be used creatively, their ethical limits often outweigh their usefulness in hard news, making advanced source criticism and early literacy essential for modern reporters (Beckett, 2019).

Algorithmic recommendation engines often create "information bubbles" that reinforce cognitive biases and restrict exposure to diverse perspectives. In educational and professional contexts, AI bias typically emerges from flawed training data and model design, creating inequities that mirror those found in global news distribution (Zhang, 2024).

Frameworks for critical literacy emphasise that AI systems are non-neutral and carry "layered biases." Scholars propose a "guided questioning" approach to help learners interrogate the power dynamics and underlying assumptions of these systems (Chiu, 2025). Furthermore, professional journalism training requires structured instruction in AI accountability to bridge the gap between technical output and editorial responsibility (Beckett, 2019).

Higher education syntheses argue for an AI literacy model that balances technical proficiency with ethical reflexivity. This approach addresses risks such as privacy violations and the "over-reliance" on AI, which can degrade a student's analytical and creative capacities (Lo, 2024; Thäsler-Kordonouri, 2024).

In journalism, Critical AI Literacy is now viewed as a core competency, coequal with linguistic and genre-specific knowledge. Students must be equipped to evaluate provenance (assessing the origin and authenticity of data), interrogate model behaviour (identifying "hallucinations" or algorithmic drift), and contextualise outputs (situating AI-generated content within complex socio-political and ethical frameworks).

A coherent pedagogical agenda emerges from these sections:



1. Acknowledge Algorithmic Mediation as a structural condition of modern newswork.
2. Adopt Digital Narrative Alignment (DNA) to synchronise instruction with multimodal, platform-specific genres.
3. Implement Human-in-the-Loop (HITL) Pedagogy to ensure human editorial agency is preserved.
4. Embed Critical AI Literacy to address the epistemic challenges posed by deepfakes and algorithmic bias.

Practically, this necessitates a syllabus that sequences prompt engineering, multimodal composition, and verification routines. Mastery should be assessed through authentic newsroom simulations that require students to produce platform-aware deliverables while navigating the ethical complexities of the digital age (Hossain, Wenger, 2024).

4 DISCUSSION

This review shows that the Human-in-the-Loop model works best for teaching journalism English for Specific Purposes in the age of generative AI. The research shows three critical changes. First, teaching has moved from traditional genre instruction to helping students understand different platforms and media types. Second, the focus has shifted from simply producing language to helping students develop their own voice and control. Third, instruction has changed from building technical skills to developing critical thinking about AI.

The main challenge is that AI makes everything sound the same. Large Language Models are good at grammar and standardisation, but they favour common patterns over the unique voice that makes good journalism stand out. Research shows that AI-generated content becomes flat and generic, losing the personal touches, emotional depth, and investigative quality that make reporting effective (Lo, 2024; Dodds et al., 2025). This creates a problem: AI brings efficiency, but it can remove authenticity. Teachers need to address this issue.

The research suggests a new role for English for Specific Purposes teachers. They should act as "Curator-Coaches" who help students develop three key skills. First, students need to learn strategic prompting—treating AI as a helper that needs clear,



ethical instructions. Second, they must practice stylistic resistance—finding where AI has removed human elements and putting them back in. Third, they need ethical oversight—making sure their work meets journalism’s standards for honesty and accountability (Beckett, 2019; Chiu, 2025). This approach helps students maintain control over their work while using AI tools effectively.

In the end, journalism-focused English for Specific Purposes must balance the use of technology with the preservation of human judgment. Students need three types of training. They need a Digital Needs Analysis to understand how different platforms work. They need Human-in-the-Loop workflows to maintain control over their editorial decisions. And they need Critical AI Literacy to handle problems like fake media and algorithmic bias. The future of journalism education depends on finding this balance: using what AI can do well while protecting the human qualities that make journalism trustworthy, interesting, and socially responsible (Hossain, Wenger, 2024; Diakopoulos et al., 2024).

CONCLUSION

This review identifies three major shifts in journalism English for Specific Purposes. First, teaching has moved from traditional genre instruction to platform-aware multimodal literacy. Second, the focus has shifted from language production to linguistic agency. Third, instruction has evolved from technical skill-building to critical AI literacy. These changes show how journalism education is responding to generative AI technologies.

Future research should address several important gaps. First, we need empirical studies on how non-native English speakers use AI tools in cross-cultural journalism. This research should examine how journalists can preserve local voices and cultural perspectives when working with language models trained primarily on Western content (Miao, Holmes, 2023). Second, longitudinal studies should examine how Human-in-the-Loop teaching methods affect career outcomes. Do students trained in AI curation develop stronger editorial judgment than those trained in traditional methods? Third, comparative research across institutions could identify which curriculum designs best balance technical skills with ethical awareness.



Journalism education now faces an urgent challenge. Over 70% of major news organisations currently use some form of AI automation (Cools, Diakopoulos, 2024). This means that English for Specific Purposes programs must adapt quickly. The question is no longer whether to include AI in journalism education, but how to do it effectively. Programs must strengthen human judgment, not replace it. This requires graduates who understand technology but remain critical thinkers, who have technical skills but maintain editorial independence. The future of journalism depends on whether this generation can use AI tools effectively while remaining the final decision-makers on truth, quality, and accountability in news production.

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COMPOSITIONAL STRUCTURING OF THE INTRODUCTION OF A LITERARY-CRITICAL REVIEW WITHIN ACADEMIC AND MEDIA COMMUNICATION SPHERE

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ABSTRACT

The paper analyses the introductory section of literary-critical review across two communication spheres (academic and media) covering the period from the latter half of the twentieth century to the present. The theoretical framework is the stylistic conception of the text and its horizontal segmentation. The objective of the research is to reconstruct the compositional model of the introductory section of literary-critical reviews, to identify its established features, and to trace its transformations under the influence of sociocultural factors. Methodologically, the research is based on content analysis and comparative inquiry. The results indicate that the introductory section of literary-critical reviews is characterized by relative consistency across all periods, primarily due to contextual and informative elements. The dominant elements are the author's presentation, the poetics, and the literary-historical context of the evaluated work. In certain periods and types of media, evaluative and essayistic tendencies become more prominent in the introductory sections. The introductory section of a literary-critical review emerges as a flexible compositional unit with a significant mediating role and persuasive potential.

Key words: *literary criticism, literary-critical review, composition, media communication sphere, academic communication sphere*

INTRODUCTION

The literary-critical review (hereinafter LCR) represents a specific genre whose composition shapes the mediation and interpretation of the evaluated artistic work. One of its key components is the introductory section, which orients the recipient within the context of the work, the author, and the broader literary environment. From a stylistic perspective, the introduction of an LCR may be viewed as a component of the text's horizontal structuring, fulfilling primarily informational,



orientational, and operative functions. Despite its significance, the introductory section and other compositional components (the core and the conclusion) of the LCR have remained relatively systematically underexplored within academic communication sphere. The present paper therefore focuses on analysing the composition of the LCR introduction in a diachronic perspective, from the second half of the 20th century to the present. The attention is focused on a comparison of the academic and media communication spheres. The aim is to identify conventional compositional strategies and to trace their transformations in relation to sociocultural factors.

1 THEORETICAL BACKGROUND

From a stylistic perspective, the composition of a text may be viewed as its structuring and arrangement, with attention likewise directed toward the “*structural character of linguistic expressions*” (Mistrík, 2021, p. 271). Within stylistics, Mistrík (2021, p. 271) distinguishes between microcomposition (i.e., a focus on grammar and the tectonics of the text) and macrocomposition (the architectonic of the text). “*Text is a formally and semantically closed unit*” (Mistrík, 2021, s. 313). Although the text functions as a compact unit, its structure is potentially formed of smaller, relatively autonomous textual components.

From the perspective of structural-compositional theory and drawing on the dichotomy of horizontal and vertical text segmentation (see Slančová et al., 2024, pp. 382–389), the review may be categorized as a horizontal type of text formation. Horizontal segmentation of the text is determined by the spatial organization of the text (Mistrík, 2021, p. 237) and stems primarily from the linearity of textual succession, i.e., from the need to decompose and hierarchize the information being presented or conveyed. The text is unified “*and its segmentation represents the gradual disruption of continuous flow in favour of the autonomy of its individual components, thereby hierarchizing its content and orienting the recipient in perception and interpretation*” (Slančová et al., 2024, p. 383). In defining the notion of text, Dolník and Bajžíková (1998, p. 10) state that a text is *a relatively closed conceptual unit*. Consequently, regardless of its implementation, a trichotomous segmentation into *introduction, core, and conclusion* may be applied to almost any text (Slančová et al., 2024, p. 383).



It is also important to mention that according to S. Šmatlák, the evaluation of an artistic work involves primarily two phases: the first phase, that of critical (analytical) apperception (with an emphasis on ideological content, artistic form, and the work as an integrated unit), and the second phase, that of developmental and historical apperception (the work situated within artistic evolution, in relation to tradition and contemporary art, and in relation to the cultural-social process) (Šmatlák, 1981, pp. 11–30).

2 GOALS

The objective of the present paper is to analyse the introductory section of the literary-critical genre of the review as one of its three compositional components. The analysis focuses on LCR introductions from a longer temporal perspective, spanning from the latter half of the twentieth century to the present. The aim is to outline transformations, as well as the potentially established specific characteristics, of the criteria of LCR introductions.

In the results, we seek to reconstruct the LKR introduction within both academic and media communication spheres, specifying its stability, possible nuances of variation across different historical periods, , and demonstrating how the compositional model of the introduction shifts under the influence of sociocultural factors.

3 METHODS

For the purposes of the analysis, a research sample was selected from two communication spheres in which LCR naturally appear:

(1) *the academic (professional) communication sphere* and (2) *the media communication sphere*. The academic sphere is represented by literary journals (*Mladá tvorba* (Young Creation), *Slovenské pohľady* (Slovak Views), *Romboid*). The media communication sphere is represented by daily newspapers and their respective supplements (*Smena* [Shift], *Pravda* [True], *SME* [We are] – *Magazine about Books*). The compositional element of the introduction in LCR is examined across a longer time period, i.e., from the second half of the 20th century to the present. Since we chose the survey-based approach, therefore the timeframe was



divided into three periods, and within each, two six-month intervals (i.e., January to June of the selected year) were analysed, together with selected periodicals:

1. *examined period*: represented by the first six months of 1968, including the literary journals *Mladá tvorba* and *Slovenské pohľady*, and the daily newspapers *Smena* and *Pravda*; and by the first half of 1971, represented by the literary journals *Romboid* and *Slovenské pohľady* and the daily newspapers *Smena* and *Pravda*.
2. *examined period*: represented by the first half of 1987 and the first half of 1991, both periods including the literary journals *Romboid*, *Slovenské pohľady* and the daily newspapers *Smena*, *Pravda*.
3. *examined period*: represented by the first half of 2022 and the first half of 2023, including the literary journals *Romboid*, *Slovenské pohľady*, and the daily newspapers *Pravda* and *SME* (supplement *Magazín o knihách*).

From these sources, we selected total of 536 LCR, forming the overall research sample on which the results of the study are based.

The methods employed are primarily content analysis, enabling the classification and examination of a large corpus of material, along with comparative analysis.

4 RESULTS

The conceptualization of the introduction is largely consistent across all the periods examined in this research, exhibiting a degree of “schematic” stability at the semantic level. In both literary journals and daily newspapers, reviewers focus on their introductions primarily on contextual components, which can be further divided into several thematic areas. The most frequent contextual aim involves presenting the author of the reviewed work and their previous production: either through an outline of the author’s poetics (a characteristic feature of literary journals across all three periods, though also present in newspaper reviews), or through references to the writer’s earlier works – elaborated either in a stylistically crafted and linguistically sophisticated manner, resulting in more compact and engaging forms (typical of literary journals), or vaguely, serving primarily to note (list) and present that the author is known in the literary life or among the reading public (typical introductions in daily newspapers, yet it also appears in literary journals).



Conversely, when the writer is unknown and a debutant (in the case of debutants, their journal-based attempts are also mentioned). Within the contextual dimension, reviewers elaborated on the author's poetics with the aim of highlighting the changes or new elements in the author's profile, especially in cases where a new work contributes to a specific—or even decisive—transformation of their poetics or, alternatively, their noetics.

The contextual focus on literary-historical aspects of literary production is pronounced through the publication of older works during the period of normalization. this practice constitutes a second phase in the reception (apperception) of a literary work in the review, on the other hand, during this period we observe a shift toward evaluating older works in relation to artistic tradition. Within the cultural-social process, this represents, in fact, a compelled activity aimed at marginalizing contemporary literary production, even at the cost of reintroducing authors previously disapproved of by the regime. During the socialist period, Hronský was—stated simply—not a particularly “favoured” author, and paradoxically, in the early 1970s he re-entered official literary circulation. Several of his works were published (*Andreas Búr Majster*; *Sedem sŕdc*), and his novel Jozef Mak was incorporated into the school canon, thereby re-establishing Hronský's presence among Slovak readers. Nevertheless, this concerned only a part of his work: the novel *Svet na trasovisku* could not be published in Czechoslovakia under the regime.

„When Hronský wrote Andreas Búr Majster in 1947, he could hardly have anticipated that this novel-legend would, decades later, itself become a ‘legend’ in the domestic literary context. Indeed, its two interpretations (by Matuška and J. Števček) were better known than the text itself. In this case, however, the ‘legend’ proved justified, as the publication of the work revealed one of the achievements of Hronský's creative output” (Bagin, 1971, p. 141).

From the excerpt of Bagin's review, it is possible to identify a contextual component in which the critic highlights the role of the artistic text in the history of Slovak literature as a work previously unknown to readers, while simultaneously offering a succinct and affirmative evaluation, signalled through the lexical items “outstanding” and “creative”. Bagin emphasizes Hronský's ability to create aesthetically and semantically essential artistic texts already in the introductory



section of his review, specifically in the second sentence of his reflection, grounding it in literary-historical classification rather than in a more subjective literary-critical stance.

The author's context is not the only feature that has become characteristic of LCR introductions. There are also introductions that direct attention toward the thematic, motivic, or the subject matter of the reviewed work.

Some introductions are shaped by critics in an essayistic style, especially when a more subjective stance is required: ranging from positive evaluation (e.g., specifically in relation to the theme of the interpreted work) to negative ones (e.g., critiques of publishing practices or arguments justifying the acceptance or rejection of the work in the interpretation). The essayistic style was likewise employed in discussions related to the evaluation of the state of contemporary literary production:

„In response to contemporary prose writers' preoccupation with the mysteries of existence and the depths of the human inner world, through which prose has taken on the character of treatises or pathological case studies, the ordinary reader increasingly turns to adventure literature, in which they find the primal essence of epic narration: a gripping story” (Marčok, 1971, p. 122).

Similarly to Bagin, this is an evaluative introduction. Here, Marčok constructs the text outside the framework of historical contextualization yet operates within the second phase of the apperception of the artistic work, as the introduction anticipates the relationship between the evaluated work to contemporary prose. In Marčok's review, it is also possible to observe the dynamics of normalization, operating within literary-critical activity: authors producing high-quality prose are suddenly characterized as writers of pathological case studies and “treatises” (likely an allusion to the work of R. Sloboda, V. Šikula, etc.). As a result, the only literature remaining attractive to readers is markedly “non-essential” — recreational, lacking philosophical or semantic depth.

An essayistic style is employed in introductions not only by reviewers in literary journals but also in daily newspapers:

„I used to read the stories of celebrated literary masters and, guided by the rational dimension of my perception, I tried to accept their value, appreciate subtle nuances,



and explore philosophical depths. I felt enriched to the extent that I was able to understand and accept, or rather to accept the illusion of understanding. That peculiar sense of affinity, which exists outside rationality, above the story, above the words, when the creation of any illusion seems unnecessary, I have felt only rarely. Some time ago, I noticed (...) the surname Jana Bodnárová (...) in a literary journal. Now the author's debut book, Aféra rozumu (Smena, 1990), is here, along with that rare sense" (Bognárová, 1991, p. 5).

In an essayistically toned introductory statement, I. Bognárová draws in and attracts (operative function) the reader, guiding them into her subjective perception of the work while revealing basis from which she approaches the text as a reader. The essayistic approach enables her to express a subtle, yet persuasive stance, an impression rather than a normative aesthetic judgment. Although this impression may be regarded as substantiated, it emerges from the artistic text itself and evokes a distinctly affirmative psychological state in the reviewer. This indicates that the LCR is not intended to function as an obligatory literary-critical reflection, but rather as a review in which the media context allows an initial impression to precede more demanding literary-theoretical and literary-historical evaluation.

Evaluation is not the primary feature sought in introductions; nevertheless, across all examined period we observe introductions characterized by a more explicit axiological orientation. On the one hand, regardless of the publication context, evaluation in the introductory section has limited scope; their primary function is to indicate, for instance, that the prose selected for presentation is acceptable: „*the compiler(s) (...) succeeded in appropriately selecting and coordinating the excerpts*" (Komžiková, 1987, p. 6). Such evaluation is typically conveyed through direct evaluative lexical items. On the other hand, introductions occasionally present a markedly critical stance, a tendency especially evident in the first halves of 1987 and 1991. This period is characterized by the emergence of "rebellious" and critical tensions addressing social conditions even within artistic texts, and the critical gesture is no longer present only in artistic texts but also permeates the literary-critical paradigm as well: „*Indeed, much of contemporary literature is concerned with literature itself; ultimately, everything becomes words. In the case of Ján Tazberik's new collection, however, this is metapoetry in the most pejorative sense*



of the term. Only panegyric verses celebrating a fountain pen are still lacking” (Hrivnák, 1991, s. 131).

The addressing of current issues in artistic texts is evident across all examined periods, including in LCR published in contemporary literary journals. In 2022 and 2023, L. Čúzy frequently addressed these issues of contemporary literature in the introductory sections of his reviews, responding both to the saturation of book market as well as to writers’ inability, unwillingness, or incapacity to identify and address an essential question within their artistic texts:

„Writers face difficulties; I no longer really assume that some prose authors write in order to articulate something essential. Instead, the priority is to produce something that will be read and that will earn at least some income. If they understand writing as a part of their existence, they must publish book after book. Even then, with few exceptions, they will probably not become wealthy” (Čúzy, 2022, p. 125).

Declaratively, within the compositional space of the introduction, the second phase of literary apperception may be identified, an aspect not characteristic of a broad spectrum of LCR. At the same time, the introduction is shown not to be realized solely through contextual components or low-intensity descriptive levels, but also incorporate elements that articulate a serious and evaluative mode of reflection on the work and on literature as such. It should nevertheless be noted that contemporary literary journals (most notably Slovak views) increasingly allocate space to strongly descriptive modes of introduction, consisting of clarifications of basic narrative lines and information about the book as an object (visual design, edition), interspersed with only weakly developed reflections.

In the first examined period, the introduction of LCR published within the media communication sphere occasionally assumed the form of perex; nevertheless, this was not a typical or stabilized introductory pattern. When the introductory function was taken over by the perex, the contextual embedding of the book or the author was not weakened. In daily newspapers, it was not atypical for introductions to be used merely for reference purposes, providing only a vague indication of the reviewed work under discussion without more substantial contextual or descriptive



elaboration. At other times, the introductions were comparable to those found in literary journals.

The shaping of introductions in contemporary LKR published on media communication platforms tends to adopt a more descriptive–essayistic mode; consider, for instance, the introduction by I. Zacharová:

„We may imagine life as a patchwork quilt, composed and stitched together from small fragments—life narratives, joys, concerns, and memories. Jana Bodnárová’s prose is similar. Fragmentation is her working method, her mode of perceiving the world, and the organizing principle of her narratives. This time, she has emphasized her established style even in the title of the book Patchwork in white. She stitched together fragments of stories and unfolded the narrative from the latter half of the last century to the present. In every period, it is sometimes difficult to live lightly. By interweaving the names of various flowers and plants into the text, she metaphorically evokes both the brevity and transience of life, as well as its colourfulness and beauty, regardless of circumstances” (Zacharová, 2023, p. VII).

Although this represents a more descriptive introduction, it demonstrates an essayistic engagement with the reader, contextual components oriented toward the author’s poetics, and an operative function. At the same time, it is evident that explicit evaluation is not required, as an affirmative orientation toward the work and the author is distinctly present. An engaging introductory character is required, perhaps even necessary, in journalistic LCR, as they must address the contemporary comfort-oriented reader. To enhance attractiveness, reviewers have employed, and continue to employ, simpler and stylistically marked language: *„His novel resembles sex devoid of intimacy, as though a naked New York had been photographed for the front page of a tabloid”* Fulmek, 1991, p. 5)

Across different periods and communication spheres, the introduction of the LCR is primarily structured as a contextual and informational part of the review, nevertheless, it allows evaluative stances, as well as the articulation of subjective or subjectively–objective positions on the part of reviewers. Evaluation in the introductory section serves to engage the recipients of the metatext, thereby reinforcing the tendency to fulfil the operative function within the LCR. The introduction may declaratively accommodate more complex and essential questions,



particularly those associated with the second phase of literary apperception. When this second phase is realized within the introduction, it acquires an operative character, similar to that achieved through fresh journalistic or stylistically marked language in both journalistic, increasingly, academic LCR. Nevertheless, there is a clear effort to mediate the evaluated work not only at the level of the general reader, but also within the canonical framework. The mediating function is in introductions is particularly intensified in the period from the 1960s to the 1980s through the use of explicit bibliographic references to the reviewed work, which serve not only to announce the work under review but also to proclaim its specific edition.

CONCLUSION

Across the examined periods, LCR introductions exhibit a notable degree of stability, with their core primarily consisting of the contextual placement of the author and the reviewed work. Reviewers most frequently introduce the author, their poetics, and prior works, with differences between literary journals and daily newspapers manifested mainly in the degree of elaboration and the level of explicitness. The literary-historical context likewise plays a significant role. In addition to the authorial context, introductions often address the thematic and motivic dimensions of the works. They frequently adopt an essayistic character, particularly when the critics seek to express a more subjective stance. Although evaluation is not typically the dominant component of the introduction, each period includes introductions marked by a pronounced axiological orientation, including sharp criticality, particularly in the late 1980s and early 1990s. In contemporary communication platforms, descriptive–essayistic introductions tend to prevail, emphasizing attractiveness and operative engagement with the reader, often without explicit evaluation. The LCR introduction therefore primarily performs mediating and operative functions; while in LCR published in literary journals, it is also able to engage with broader issues associated with the second phase of literary apperception.

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THE AESTHETICIZATION OF WAR IN SELECTED WAR NARRATIVES. NOTES ON THE DISCOURSE OF US AND THEM

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ABSTRACT

This article examines contemporary war narratives as discursively and semiotically constructed formations embedded in a polarized framework of US and THEM. Drawing on a philological and discourse-analytical approach, it focuses on non-fictional media communications, with particular attention to documentary representations of the Russian–Ukrainian conflict. War discourse is conceptualized not as a neutral reflection of events but as a positioned semiotic system that actively shapes perception, collective memory, and moral evaluation. The analysis identifies key strategies of positive and negative aestheticization, including euphemization, metaphorization, visual stylization, emotional framing, and dehumanization. These strategies function persuasively by normalizing, legitimizing, or condemning violence, while simultaneously reinforcing collective identities and moral asymmetries. Through a comparative reading of selected documentary films, the article demonstrates that opposing sides often employ structurally analogous narrative and aesthetic techniques, differing primarily in their axiological orientation. Rather than offering legal, moral, or geopolitical judgments, the study foregrounds the semiotic mechanisms through which war becomes culturally intelligible, emotionally acceptable, and symbolically justified. War itself can be understood not only as a military or geopolitical phenomenon but also as a semiotic object – a structure of meaning that is produced, circulated, and stabilized through discourse.

Key words: war discourse; aestheticization; US vs. THEM; documentary film; semiotics

INTRODUCTION

The approach draws on critical discourse theory (van Dijk 2008; Fairclough 1992; Foucault 1994, 2000, 2016; Lakoff 2002; Schneiderová 2015; Wodak 2009; Wodak



et al. 2009), particularly with regard to the discursive construction of identity, authority, dominance, legitimization, and manipulation.

It focuses on communicative acts – most often verbal narratives – that thematize “hot” war events either as necessary and just (in the WE mode, i.e., as legitimate defense and the pursuit of a just peace) or as malicious, genocidal, and criminal (in the THEM mode; cf. Mikulášek 2025).

From a semiotic perspective, these oppositions manifest themselves in metaphorical constructions and their aesthetic functions (Lakoff, Johnson 2024), in imagological representations of ethnic and cultural others (Dyserinck 2018), and in the persuasive dimension of discourse (Klemperer 2003; Marek 2008; Ftorek 2017).

In terms of its empirical and conceptual grounding, the present study builds on earlier research developed in the monograph *My a Oni v informační válce* (Mikulášek 2025), on the theory of “manufacturing consent” formulated by Herman and Chomsky (1994), and on selected insights from postcolonial studies (Mamdani 2002).

The present study adopts a deliberately non-normative and analytically distanced stance. Authorial value judgments and personal political preferences are systematically bracketed in order to foreground the semiotic and discursive mechanisms through which war is represented.

This methodological decision may generate strong cognitive dissonance (Contini-Morava et al. 2004) in readers who are deeply embedded in polarized US–THEM frameworks and who perceive their own position as morally exclusive and epistemically self-evident.

Empirical experience from contemporary academic environments suggests that this topic is exceptionally sensitive, not only politically but also institutionally (Ishchenko et al. 2025).

Recent conflicts – including the Russian–Ukrainian war, military operations in Gaza, and the U.S. intervention in Venezuela – have accelerated a shift away from the paradigm of “moral memory,” grounded in self-reflection, guilt, and universalist human rights discourse. Instead, they increasingly mobilize memory frameworks



shaped by Cold War logic, decolonization narratives, and security-oriented imaginaries. Collective memory thus becomes not merely a site of retrospective interpretation but an active instrument of geopolitical legitimation and an arena of international competition (Fetzer, Nikolovski 2025, Todd 2025, Ishchenko 2024).

War-related communication – whether verbal, visual, auditory, or audiovisual – can, in general terms, be divided into fictional and non-fictional forms. Fictional narratives, predominantly associated with artistic and popular cultural production, are conventionally received as stylized constructs: as “as if” worlds whose relationship to reality is governed by the logic of verisimilitude rather than factual correspondence.

Such narratives allow for a specific mode of reception, in which the reader or viewer tacitly accepts the fictional contract – even when the resemblance to real persons, events, or political constellations is far from coincidental. By contrast, non-fictional war narratives – most notably those produced within journalistic and documentary frameworks – are typically perceived as representations of reality itself. They function as epistemic models of the world, rather than as explicitly constructed symbolic artifacts.

Yet this perceived immediacy is itself a discursive effect. What is taken to be a “picture of reality” is, in fact, a cognitively and culturally mediated construction, shaped by the recipient’s experiential background, ideological predispositions, and anticipatory expectations – particularly within the WE mode. This distinction has significant consequences for reception. From fictional war narratives, we expect stylization, symbolic condensation, and narrative license. From non-fictional reports, however, we expect factual accuracy, evidentiary credibility, and referential transparency. This study is concerned exclusively with non-fictional war communication (Dedaić – Nelson, 2003). More specifically, it focuses on selected aspects of media representations of the Russian–Ukrainian war in Czech and Russian contexts.

In its final section, it examines two documentary films: *The Great Patriotic Trip* (*Change My Mind, Velký vlastenecký výlet*; Kvapil 2025) and *Children of Donbas* (Borsh 2022). These case studies are not presented as exhaustive or paradigmatic, but as analytically productive examples of broader discursive mechanisms. As



demonstrated elsewhere (Mikulášek 2025), the philological and discourse-analytical approach adopted in this study does not – and cannot – provide an interpretative key to the causes, courses, or consequences of specific military conflicts. It deliberately brackets questions of historical causality, geopolitical responsibility, and legal or moral accountability, focusing instead on the lexical, semiotic, and narrative representation of war.

War narratives are thus approached not as repositories of truth or falsity, but as symbolic constructions whose primary function is to organize meaning within polarized frameworks of belonging. This study therefore refrains from engaging with the substantive content of contested concepts such as “aggression,” “war crime,” “genocide,” “just war,” “defense”, “propaganda” or “truth.”

This is not because these categories lack legal, moral, philosophical, or political significance, but because their meaning is not fixed: it is discursively produced and positionally distributed. Within the semiotic economy of war discourse, these terms function less as stable descriptors than as strategic signifiers whose interpretation depends on the position occupied on the US–THEM axis.

1 LANGUAGE AND TERRITORIAL CLAIMS

Language does not exist in isolation. Lexical choices are never neutral: they are embedded in networks of power, memory, and territorial imagination. The mere act of naming a disputed territory already constitutes a symbolic claim of ownership. In both “cold” and “hot” conflicts, toponymic choices function as politically charged semiotic acts. The designation of the disputed islands in the East China Sea as *Senkaku* (Japanese term) or *Diaoyutai* (Chinese term) – or, more broadly, as *Senkaku Islands* versus *Diaoyu Islands* – is not merely terminological; it performs a territorial claim.

The same applies to the archipelago in the South Atlantic known either as the *Falklands* (or *Falkland Islands*) in English or as *Malvinas* (*Islas Malvinas*) in Spanish. These competing names encode incompatible geopolitical imaginaries and mutually exclusive ownership claims (Andělová, Strašáková 2014).



In such cases, language functions not merely as a descriptive medium but as an instrument of symbolic appropriation. Territory is not only fought over materially but also discursively.

This logic is equally visible in the Russian–Ukrainian war. Lexical choices concerning place names index political alignment and discursive positioning. One prominent example is the contested region of Donbas, which in Russian official and semi-official discourse is frequently framed as part of the historical entity of *Novorossiya*.

Thus, the Ukrainian city of *Pokrovsk* is referred to in Russian as *Krasnoarmeysk* (a name used between 1938 and 2016), while *Myrnohrad* becomes *Dimitrov* (1956–2016). In other cases, the differences appear merely phonetic – *Huljajpole* versus *Guljajpole* – yet even these micro-variations carry ideological weight.

Such lexical decisions are not random. They operate as indices of discursive alignment – sometimes conscious, sometimes habitual, sometimes latent – through which speakers position themselves within the conflict.

The present study deliberately brackets the broader geopolitical, historical, and military contexts of the war (Smith 1991) and concentrates exclusively on its lexical and semiotic representation, or, more precisely, on those aspects of linguistic representation that are structurally shared by both sides of the conflict.

These shared features form part of what can be described as strategic communication: a mode of discourse that frames war as “for US” and, simultaneously, as something caused by or inflicted by THEM. A characteristic feature of such communication is the construction of territorial claims as morally self-evident. Competing collective actors rarely present disputed territories as negotiable or shared spaces; instead, they are discursively naturalized as inherently OURS.

This logic is not specific to the Russian–Ukrainian war. Comparable discursive mechanisms can be observed in media representations of the Israeli–Palestinian conflict (*We Will Dance Again or Gaza: How to Survive a Warzone*), the Armenian–Azerbaijani struggle over Nagorno-Karabakh (*Wounds of Karabakh or The Grief of a Nation*), or the long-standing tensions between India and Pakistan. In all these



cases, language functions as a primary vehicle for transforming contested spaces into morally saturated territories.

What is at stake is not merely reference, but legitimacy. To name a place is to claim it, and to claim it is to embed it within a narrative of historical entitlement, victimhood, and moral precedence. Toponyms thus become condensed sites of ideological investment.

This focus allows for a comparative perspective. By suspending judgments about the “correctness” of territorial claims, the analysis foregrounds the *form* of discursive operations rather than their political content. It examines how mutually exclusive narratives of belonging are linguistically stabilized and symbolically naturalized.

2 POSITIONED DISCOURSE

For the purposes of this study, the term *positioned discourse* is introduced as an analytical neologism. As its name suggests, positioned discourse is defined by the explicit or implicit adoption of a standpoint within a polarized symbolic field.

Actors participating in such discourse do not merely describe events; they align themselves with particular collective identities, value systems, and moral hierarchies. This alignment manifests itself in symbolic gestures (e.g., the public display of flags, slogans, or emblems), in material forms of support, and in media representation. At the same time, it constructs others as enemies, criminals, or existential threats.

Within this discursive field, interpretative focal points of US and THEM are established. And it is around these that not only conceptual and axiological frameworks but also lexical and metaphorical structures are organized.

Thus, lexemes such as *aggressive war*, *war crime*, or *genocide* are systematically attributed to the military actions of the enemy, while expressions such as *just war*, *legitimate defense*, or *humanitarian intervention* are reserved for the self-description of WE.

In positioned discourse, identical events may thus be framed through mutually exclusive semantic lenses. What appears as *liberation* in one narrative becomes



occupation in another; what is labeled *propaganda* by one side is framed as *truthful reporting* by the other; what is celebrated as *potential good* by WE is condemned as *absolute evil* by THEM.

To illustrate the functioning of positioned discourse, it is useful to recall several examples from twentieth-century history. These cases demonstrate how the same events can be discursively encoded in radically different – and mutually exclusive – moral registers.

Heavy bombers known as *Liberators*, which carried out large-scale bombing raids over German cities from mid-1943 onward, are framed in one narrative as agents of liberation, bringing about the end of the Second World War. In an alternative discursive configuration, however, these same aircraft appear as instruments of mass destruction, implicated in war crimes or even genocide against the civilian population.

Similarly, the atomic bombings of Hiroshima and Nagasaki are represented in one dominant narrative as acts that shortened the war and saved the lives of hundreds of thousands of American soldiers. In another discursive framework, they are interpreted as unprecedented crimes against humanity, exceeding all previously known forms of mass killing in both scale and speed.

Postwar violence against populations identified as ethnically German is likewise subject to opposed framings. In one narrative, these acts are presented as justified retribution – officially labeled as “expulsions” or “transfers” of inhabitants. In another, they are described as acts of extreme brutality, accompanied by crimes against humanity and forms of ethnic cleansing.

Such examples could easily be multiplied. The point, however, is not to catalogue historical cases, but to demonstrate a structural principle: positioned discourse does not merely interpret events – it reorganizes their moral intelligibility.

The philological–discursive approach adopted in this study therefore does not seek to adjudicate between competing historical, legal, or ethical evaluations.

Nor does it aim to produce historical, juridical, or moral verdicts. Its interest lies elsewhere: in the linguistic, narrative, and semiotic mechanisms through which such



verdicts are made possible in the first place. Every author – and every reader – inevitably inhabits a specific axiological horizon, shaped by cultural, religious, and ideological traditions. This study does not deny this situatedness. What it proposes instead is a temporary suspension of moral alignment in order to make visible the discursive architectures that produce such alignments. This methodological bracketing is not a claim of ethical superiority.

Nor does it imply that this perspective is the “only correct” one, or that more openly normative or politically positioned approaches are necessarily illegitimate. It merely occupies a different analytical plane.

What is bracketed here is not morality itself, but the assumption that morality precedes discourse. Instead, morality is treated as something that is *discursively articulated, stabilized, and circulated* within specific symbolic economies.

The methodological stance adopted here requires what might be described as a willingness to suspend moral and political alignment. This does not mean that the author denies the existence of moral values or historical responsibilities. Rather, it involves a deliberate refusal to treat any particular moral position as epistemically self-evident.

Such suspension is cognitively demanding. For many recipients, positioned discourse produces a state of cognitive consonance: their moral intuitions, political loyalties, and media representations reinforce one another. To interrupt this consonance is to introduce cognitive dissonance – a form of discomfort that arises when competing interpretive frameworks collide.

In this sense, positioned discourse does not merely describe the world; it structures the conditions under which the world becomes intelligible. It produces what may be called *mental resonance* – a state in which certain narratives feel immediately plausible, emotionally convincing, and morally obvious, while others appear absurd, malicious, or unintelligible.

This resonance effect explains why alternative perspectives are not merely rejected but often rendered cognitively inaccessible. They are not simply wrong; they are perceived as unthinkable.



In this respect, war itself can be understood not only as a military or geopolitical phenomenon but also as a semiotic object – a structure of meaning that is produced, circulated, and stabilized through discourse.

Within the conceptual horizon of this study, war is not primarily defined by its legal status, strategic aims, or diplomatic framing, but by its semantic and symbolic operations. It is a form of mass, concentrated, and deliberate destruction that is made culturally intelligible through narrative, metaphor, and affective coding (Mann 2023).

The binary axis of US and THEM is central to this process. It functions as a cognitive scaffold that organizes moral perception, political judgment, and emotional response. Without this axis, war would lose much of its discursive coherence.

In positioned discourse, war is not simply something that *happens*; it is something that is interpreted into necessity, legitimacy, and inevitability. It becomes acceptable, meaningful, and even self-evident – precisely because it is framed as OUR war against THEIR threat.

3 POSITIVE AESTHETICIZATION OF WAR

Among the dominant representational megatrends of contemporary war discourse (Mikulášek 2025), one of the most salient is what can be described as the *aestheticization of war*. Within positioned discourse, this process unfolds along a strongly polarized axis: OUR war is framed as just, necessary, and meaningful, whereas THEIR war is represented as criminal, monstrous, and illegitimate.

For analytical purposes, it is useful to distinguish between two basic modalities of aestheticization, understood here in a broad semiotic sense. Positive aestheticization associates OUR military actions with emotionally uplifting, visually attractive, morally ennobling, or narratively heroic imagery. Negative aestheticization, by contrast, codes THEIR actions as repulsive, inhuman, brutal, grotesque, and morally abject. These two modalities do not simply coexist; they mutually reinforce each other. The more OUR violence is aestheticized as meaningful or necessary, the more THEIR violence can be coded as absolute evil.



Importantly, positive aestheticization does not eliminate brutality. Rather, it reframes brutality as purposeful, redemptive, or morally productive. If OUR actions appear cruel, they are not coded as cruelty but as necessary severity, as a warning, a deterrent, or an expression of higher justice.

Aestheticization thus does not beautify war in a trivial sense (Mikulášek 2020). Instead, it reorganizes perception by attaching violence to emotionally and symbolically charged frames that render it intelligible, narratable, and – crucially – acceptable.

In raw combat footage, whether recorded by drones, helmet cameras, or mobile phones, it is difficult to locate any intrinsic aesthetic value, even if one acknowledges the existence of an *aesthetics of ugliness* (Eco 2015; Henderson 2015).

Yet contemporary media environments repeatedly transform such material into aestheticized artifacts. Distance, framing, editing, sound design, and musical accompaniment convert destruction into spectacle. Explosions filmed from afar resemble fireworks; collapsing buildings acquire the rhythm of visual choreography; burning landscapes are stylized into dramatic tableaux.

This process is further reinforced through lexical euphemization. Killing becomes *neutralization*; civilians become *collateral damage*; devastation is framed as *surgical precision*. Such linguistic operations do not merely soften reality – they reclassify it.

In this sense, positive aestheticization is not a matter of decoration. It is a core mechanism of symbolic warfare.

One of the most elementary mechanisms of positive aestheticization is lexical euphemization. Actions that would otherwise be described as killing, maiming, or destruction are re-coded through a technocratic or sanitized vocabulary. Killing becomes *neutralization* or *elimination*; bombing becomes *precision strike*; civilian casualties are reclassified as *collateral damage*. Such expressions do not merely mitigate the emotional impact of violence – they actively restructure its semantic profile.



In official military and media discourse, human beings are frequently transformed into abstract units. Soldiers become *manpower*; groups of individuals are reduced to numbers; bodies are converted into statistics. This process of numerization strips violence of its narrative density and human singularity. It replaces stories with quantities, and suffering with metrics.

Closely related to this is dehumanization (Martikainen – Sakki 2021). The enemy is no longer represented as a subject endowed with biography, memory, or vulnerability, but as a faceless mass, a mechanical swarm, or a monstrous entity. Once deprived of human status, the enemy can be destroyed without triggering moral discomfort. The aesthetic dimension of this process is not incidental: dehumanized figures can be consumed visually in ways that would be intolerable if they were perceived as fully human.

Another central mechanism is optical distancing. Drone footage, satellite imagery, and long-range recordings transform destruction into remote, abstract events. From such a vantage point, explosions resemble fireworks; burning vehicles appear as choreographed movements of light and smoke. The camera does not merely record violence – it aestheticizes it by spatially and emotionally distancing the viewer from its consequences.

This transformation is often intensified through sound design and musical framing. Rock music, electronic beats, or heroic orchestral scores accompany scenes of devastation, turning them into affectively charged spectacles. The result is not documentation, but performance. Violence becomes an episode in an ongoing audiovisual narrative – a “show” whose rhythm, tempo, and emotional arc are carefully orchestrated.

Technological fascination further amplifies this effect. Drones, thermal cameras, night-vision optics, and high-resolution targeting systems are not only tools of warfare; they are also objects of aesthetic consumption. Their visual outputs generate novel visual regimes – infrared silhouettes, pixelated movements, glowing outlines – that invite fascination, curiosity, and even pleasure.

In such representations, war ceases to appear as a human catastrophe and is re-coded as a technological spectacle. What is foregrounded is not suffering, but efficiency; not death, but performance; not trauma, but visual innovation. Positive



aestheticization thus produces a symbolic environment in which destruction can be watched, shared, and even enjoyed.

This does not mean that suffering disappears. Rather, it is repositioned – pushed to the margins of perception, subordinated to rhythm, framing, and narrative momentum. The aesthetic frame does not deny violence; it domesticates it.

Positive aestheticization becomes most visible in multimodal war representations, where visual, auditory, and narrative elements converge to produce a powerful affective experience. Drone footage, helmet-mounted cameras, satellite imagery, and mobile recordings are no longer presented as raw documentation; they are edited, framed, and rhythmically structured so as to resemble cinematic sequences.

Explosions filmed from a distance appear as luminous eruptions of color and smoke. Burning vehicles trace dynamic lines across the screen. Collapsing buildings are captured as slow-motion spectacles. Violence is transformed into choreography. What is lost in this process is not information, but proximity: the human dimension of suffering is displaced by visual rhythm and formal coherence.

This effect is often intensified by musical accompaniment. Rock music, folk songs, or electronic soundscapes are layered onto images of destruction, turning them into emotionally saturated sequences. The function of music here is not merely decorative. It organizes perception, directing attention, modulating emotional response, and shaping narrative expectation.

Through such combinations, war imagery is converted into what might be described as a spectacular narrative unit – an episode, a clip, a fragment designed for circulation. It becomes shareable, replayable, and memetic. The logic of spectacle replaces the logic of testimony.

A crucial feature of this process is the aestheticization of distance. The viewer is positioned as an observer rather than a witness. Suffering is no longer encountered as an ethical demand but as a visual event. The destruction of bodies is reframed as the destruction of objects; the annihilation of lives becomes a sequence of visual effects.



In such contexts, violence is not denied – it is stylized. It is not concealed, but re-coded. The explosion becomes a visual climax; the burning landscape becomes a dramatic backdrop; the dying body becomes a fleeting detail within a larger audiovisual composition.

This transformation has profound cognitive consequences. Spectacularization does not simply entertain – it restructures moral perception. It enables viewers to consume images of destruction without confronting their ethical weight. The aesthetic frame functions as a buffer, absorbing shock and converting it into fascination.

Positive aestheticization thus operates not by falsifying reality, but by reframing it. It does not say: “This did not happen.” It says: “This happened, but look at it this way.” The question is no longer whether violence occurs, but how it is made visible, audible, and narratable.

4 NEGATIVE AESTHETICIZATION OF WAR

Whereas positive aestheticization reframes OUR violence as meaningful, necessary, or even sublime, **negative aestheticization codes THEIR violence as radically inhuman, monstrous, and morally intolerable.** In this modality, war is not stylized as spectacle but as **horror**. Its dominant affective registers are revulsion, fear, anxiety, and moral outrage.

Non-fictional war representations that operate in this mode foreground the **aesthetics of ugliness** (Eco 2015; Henderson 2015). They emphasize bodily vulnerability, material devastation, and the irreversible destruction of human environments. What is shown is not efficiency, but collapse; not heroism, but disfigurement; not victory, but ruin.

Language plays a crucial role here. **Negative aestheticization relies heavily on dysphemistic coding.** Actions are not described as “operations,” but as massacres; not as “neutralizations,” but as murders; not as “damage,” but as devastation. Lexical choices are designed to maximize moral friction. They do not soften perception – they sharpen it.

Visual and audiovisual representations in this mode privilege **closeness rather than distance.** Cameras linger on bodies, wounds, rubble, burned interiors, abandoned



toys, improvised graves, and traumatized faces. The frame resists abstraction. It insists on singularity. Suffering is not converted into spectacle; it is forced into visibility.

In such representations, the destruction of infrastructure becomes inseparable from the destruction of biography. A collapsed house is not merely a ruin; it is a lost home. A burned school is not a damaged building; it is a stolen future. **Negative aestheticization restores narrative density to violence by reinserting it into human lifeworlds.**

This modality of representation is designed to **produce moral shock**. It interrupts habituation, resists normalization, and demands emotional engagement. Where positive aestheticization invites consumption, negative aestheticization enforces confrontation.

Importantly, negative aestheticization is not neutral. It does not merely document suffering; it **assigns responsibility**. It constructs a moral topology in which perpetrators and victims are sharply distinguished. The horror it displays is never anonymous. It is always somebody's crime.

In this sense, negative aestheticization functions as a counterweight to spectacularization. It attempts to reattach violence to its ethical gravity. Its aim is not fascination, but condemnation; not immersion, but interruption.

Negative aestheticization materializes most clearly in the **iconography of suffering**. Its visual vocabulary is remarkably stable across conflicts, cultures, and media platforms. Recurrent motifs include half-demolished apartment buildings, burned-out houses, torn-up streets, cratered roads, abandoned toys, improvised shelters, overcrowded cemeteries, and bodies wrapped in plastic sheets or buried in shallow graves.

These images are not accidental. They form a **recognizable grammar of moral indictment**. Their function is not merely to inform but to *affect* – to evoke disgust, anxiety, compassion, and outrage. The viewer is not positioned as a distant observer but as a moral witness.



Particularly powerful in this context is the representation of **children**. Children appear as paradigmatic figures of innocence, vulnerability, and stolen futurity. Their injured bodies, frightened faces, and fragmented narratives condense the moral logic of negative aestheticization into a single image: if children suffer, then the war must be unjust.

In this sense, negative aestheticization operates through **moral condensation**. Complex geopolitical conflicts are compressed into emotionally legible scenes. A ruined bedroom becomes an argument. A crying child becomes evidence. A mass grave becomes a verdict.

Unlike positive aestheticization, which often relies on distance and abstraction, this mode emphasizes **proximity and materiality**. Cameras move closer, linger longer, and resist visual stylization. The aim is not rhythm but interruption. Not flow, but rupture.

These representations do not allow violence to be consumed aesthetically. They are designed to be difficult to watch. Their visual excess is intentional. It is meant to exceed the viewer's tolerance threshold and thus to re-politicize perception.

At the same time, negative aestheticization is never neutral documentation. It is a **narrative construction**. Even the most shocking image is framed, selected, and contextualized. Suffering is not only shown – it is *interpreted*.

This is why negative aestheticization is inseparable from **attribution of guilt**. The ruins must belong to someone; the bodies must have been killed by someone. The horror must have a source. And this source is always discursively identified as *THEM*.

In this sense, negative aestheticization is not the opposite of propaganda. It is its **mirror structure**. Where positive aestheticization legitimizes OUR violence, negative aestheticization delegitimizes THEIR violence. Both operate through affective framing; both organize moral perception; both stabilize collective identity.

5 CASE ANALYSIS

The analytical framework developed in the previous sections can now be tested against concrete material. This study focuses on two documentary films: *The Great*



Patriotic Trip (2025) and *Children of Donbas* (2022). Both are professionally produced, emotionally powerful, and explicitly positioned within the polarized discursive field of the Russian–Ukrainian war.

Despite their opposing geopolitical alignments, the two films exhibit striking structural similarities. Each constructs a morally saturated narrative space, relies on affective escalation, and mobilizes a repertoire of aesthetic strategies designed to induce shock, empathy, and moral judgment. Their differences lie not in form, but in axiological orientation.

The Great Patriotic Trip positions its protagonists – and implicitly its viewers – as subjects of transformation (Ashurovskaya, 2025). The narrative is organized around confrontation: confrontation with ruined landscapes, with testimonies of suffering, and with the alleged consequences of misinformation. The film constructs a trajectory from ignorance to enlightenment, from error to moral clarity.

This dramaturgy resembles a didactic experiment. The protagonists are not only witnesses; they are pedagogical instruments. Their emotional reactions guide the viewer's own interpretive movement. The logic is not: "Look what happened," but: "Look how you should understand what happened."

Children of Donbas, by contrast, does not organize its narrative around conversion but around testimony. Its central figures are children, whose voices function as moral amplifiers. The child's gaze is constructed as pre-political, pre-ideological, and therefore incontestable. If children speak, doubt becomes ethically suspect.

In both films, music plays a decisive role. In *Children of Donbas*, violin melodies and melancholic soundscapes organize emotional tempo. In *The Great Patriotic Trip*, Ukrainian music and ambient sound are used to anchor scenes in affective authenticity. Music does not accompany the image – it interprets it.

Both documentaries thus operate within the logic of negative aestheticization. They foreground ruins, graves, abandoned houses, destroyed schools, and traumatized civilians. But these images are not merely shown. They are semantically activated. They become arguments.



In this sense, both films transform reality into moral evidence. What is at stake is not whether suffering occurred, but what it *means*. And this meaning is always pre-structured by the positioned discourse in which the film operates.

Although *The Great Patriotic Trip* and *Children of Donbas* are positioned on opposing sides of the geopolitical divide, they differ not only in content but also in narrative architecture. These differences, however, do not undermine their structural comparability; on the contrary, they reveal how similar discursive mechanisms can be mobilized for divergent axiological purposes.

The Great Patriotic Trip adopts what may be described as a conversive model. Its narrative is built around the expectation of change: the protagonists are meant to “see the truth,” revise their beliefs, and undergo a moral and cognitive transformation. The film thus resembles a pedagogical experiment or a public demonstration of enlightenment (Chaun, 2025).

The protagonists function less as autonomous agents than as performative figures. Their reactions, doubts, hesitations, and occasional resistance are staged as part of a larger didactic choreography. The viewer is invited to identify not with their initial position, but with their expected transformation.

The genre logic of the road movie plays a crucial role here. Movement through space becomes movement in consciousness. Each new location is not merely a place, but a lesson. The journey is less geographical than epistemic.

By contrast, *Children of Donbas* operates within what can be called a testimonial model. Its protagonists are not learners but witnesses. The narrative does not move forward through discovery but deepens through repetition, accumulation, and emotional saturation.

Here, time does not unfold as progress but as endurance. The structure is lamentational rather than transformative. Suffering is not a problem to be solved, but a reality to be acknowledged.

Humor, irony, and self-reflexivity – elements occasionally present in *The Great Patriotic Trip* – are entirely absent. The tonal regime of *Children of Donbas* is one



of uninterrupted seriousness. Any form of playfulness would appear as moral transgression.

This contrast between performative and testimonial regimes is crucial. In the first, meaning emerges through interpretive movement; in the second, through emotional accumulation. Yet both strategies aim at the same effect: moral closure.

In both films, ambiguity is minimized. Viewers are not invited to doubt, hesitate, or suspend judgment. They are guided toward a pre-structured moral horizon.

What differs is not the degree of positioning, but its narrative implementation. One film teaches; the other accuses. One converts; the other testifies. But both organize reality into a legible moral form.

One of the most powerful shared motifs in both documentaries is the figure of the child. In positioned war discourse, the child functions as a privileged semiotic operator: a symbol of innocence, vulnerability, and temporal futurity. When children suffer, suffering becomes morally absolute. Doubt becomes indecent.

In *Children of Donbas*, the child is not merely a protagonist but a moral medium. Children speak, cry, sing, and testify. Their words are not treated as opinions but as truth. Their voices are framed as pre-ideological, pre-political, and therefore uncontestable. The rhetorical effect is decisive: if a child accuses, the accusation appears to transcend discourse itself.

In *The Great Patriotic Trip*, children appear primarily in school environments, classrooms, and everyday settings. Here, the child functions less as a direct accuser and more as a figure of threatened normality. The war enters spaces that are culturally coded as safe, pedagogical, and future-oriented. The violence is not only physical; it is temporal. It interrupts the narrative of continuity.

In both cases, children operate as moral amplifiers. They condense complex conflicts into emotionally legible forms. Through them, war is no longer about territory, power, or strategy – it becomes about stolen childhoods.

Another shared motif is the emphasis on authenticity. Both films repeatedly signal that what is being shown is not staged, not fictional, not symbolic – but real. Ruins,



graves, damaged houses, and traumatized faces are presented as unmediated access points to truth.

Yet authenticity itself is a discursive effect. Cameras choose angles; editing constructs sequences; music interprets images. What is framed as “raw reality” is in fact semiotically orchestrated.

A particularly strong strategy in both films is the presentation of mass graves. These sites function as visual condensations of absolute crime. They do not invite interpretation; they impose judgment. The grave is not an object – it is a verdict.

Similarly, both films rely on direct accusation. The enemy is named. Responsibility is not diffused but personalized. This personalization intensifies emotional clarity but also eliminates ambiguity.

Together, these strategies generate what might be called the effect of non-deniability. Viewers are not encouraged to reflect, but to assent. To question would appear not as critical thinking, but as moral failure. This is not accidental. It is the very logic of negative aestheticization: to foreclose interpretive openness and replace it with moral closure.

Taken together, *The Great Patriotic Trip* and *Children of Donbas* illustrate a central claim of this study: opposing war narratives often operate through structurally analogous aesthetic and discursive mechanisms, even when their axiological orientations are radically opposed.

Both films mobilize strategies of negative aestheticization. Both rely on moral shock, emotional saturation, and the condensation of complex political realities into visually and narratively legible forms. Both organize suffering into accusation. Both construct reality not as a field of ambiguity, but as a moral landscape with clearly demarcated positions.

Their difference lies not in the *form* of their representation, but in its direction. Each film assigns innocence, victimhood, and legitimacy to US, while projecting cruelty, destruction, and criminality onto THEM. The semiotic grammar is symmetrical; only the moral signs are inverted.



This symmetry is crucial. It demonstrates that aestheticization is not an ornament of war discourse, but one of its constitutive dimensions. War is not merely fought with weapons; it is fought with images, sounds, metaphors, and narratives. Meaning itself becomes a battlefield.

What these documentaries ultimately show is not only the horror of war, but the mechanisms through which horror is made intelligible. They do not merely depict suffering; they structure it into meaning. They do not merely show ruins; they turn them into arguments.

In doing so, both films perform a dual operation. They condemn violence, but they also normalize its interpretive framework. They mobilize empathy, but they channel it into pre-structured moral paths. They shock, but they also stabilize. This is the paradox of negative aestheticization: it resists normalization by intensifying perception, yet it also produces its own regime of intelligibility. It interrupts, but it also closes.

CONCLUSION

This study has examined contemporary war narratives as discursively and semiotically constructed formations embedded in a polarized framework of US and THEM. By adopting a philological and discourse-analytical perspective, it has sought to demonstrate that war is not merely reported or represented, but actively *produced as meaning* through language, imagery, narrative structure, and affective framing (Chatman 1978).

Rather than evaluating military events in legal, geopolitical, or moral terms, the analysis has focused on the mechanisms through which such evaluations become possible in the first place. It has shown that war discourse operates as a positioned semiotic system: a symbolic environment in which collective identities are stabilized, moral asymmetries naturalized, and violence rendered intelligible.

Central to this process is the phenomenon of aestheticization. Both positive and negative forms of aestheticization were shown to function not as ornamental additions to war narratives, but as constitutive strategies. Positive aestheticization reframes violence as meaningful, purposeful, or necessary, often through spectacle, technological fascination, and euphemistic coding. Negative aestheticization, by



contrast, mobilizes horror, proximity, and moral shock to construct the enemy's violence as radically illegitimate and inhuman. Although these modalities appear opposed, they share a common structural logic: both organize perception, guide emotional response, and reduce interpretive openness.

The comparative analysis of *The Great Patriotic Trip* and *Children of Donbas* has illustrated that opposing sides of a conflict frequently employ analogous aesthetic and narrative mechanisms, differing primarily in their axiological orientation. This structural symmetry suggests that the struggle over meaning is not secondary to warfare, but one of its central dimensions. War is fought not only on physical terrain, but within symbolic and affective economies.

From this perspective, positioned discourse does not merely describe reality; it conditions its intelligibility. It produces what feels self-evident, plausible, and morally compelling, while rendering alternative interpretations cognitively inaccessible. In this sense, discourse does not follow war – it actively shapes the horizons within which war can be perceived, justified, or condemned.

The approach developed here does not aim to relativize suffering or suspend ethical judgment in any normative sense. Its purpose is not to deny responsibility, but to illuminate the semiotic infrastructures through which responsibility is discursively allocated. By foregrounding these mechanisms, the study seeks to contribute to a more reflexive understanding of how violence becomes narratable, shareable, and emotionally legible.

Future research may extend this framework to other conflicts, media formats, and historical contexts. In doing so, it may further clarify how war, as a cultural and semiotic object, is continuously re-produced through the very narratives that claim to merely depict it.

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THE ROLE OF PHILOSOPHY IN CRITICAL THINKING

Lenka KOCINOVÁ, SK

ABSTRACT

The need for critical thinking increases proportionally with the availability of information sources, the quality of which needs to be verified, even better assessed. The Greek root of the word “κρίτήριον” (kritērion), used in the meaning of “to judge”, “to distinguish”, “to be the basis for decision-making”, refers not only to the historical connection of critical thinking with philosophical thinking. The article is devoted to both the justification of the necessity of developing philosophical thinking as the opposite of quick decisions, fleeting attention, or instant truth in a space overwhelmed with information and to methods of supporting critical thinking and increasing information literacy through thorough analysis, logical reasoning and examination of different perspectives within media education, civics or directly philosophy. The potential of philosophy as a powerful tool designed to question apparent self-evident facts, prejudices and established opinions is directly offered in supporting the formation of critical thinking. Finally, the paper reflects on the experiences from implemented workshops that used a methodology developed for the development of critical thinking based on philosophical reflection and outlines the potential for a more massive use of philosophy in the development of critical thinking, as well as the limits of this use in school practice.

Key words: philosophy, critical thinking, logic

INTRODUCTION

Over the last few decades, it has been hardly possible to find a phrase more frequently mentioned in our public space than critical thinking (CT). The European Commission, the Council of Europe, and the OECD consider critical thinking a key priority for education in the EU. So its adoption as an educational goal for our school system has become natural. There is a fear that if we lose the ability to analyse information thoroughly, we may become susceptible to demagoguery and manipulation. Looking for ways to implement CT in school processes is increasing. Although we hear the term critical thinking so often that we sometimes fear it will



jump out of our own refrigerator, teachers still struggle with how to teach this skill to their students. Furthermore, as this research shows, teachers themselves have a gap in knowledge of logical fallacies and declared that they themselves are not sure whether they think critically. They also do not feel supported in improving their own skills or in introducing CT into their teaching. Somehow, civic education is where students are often encouraged to learn CT. Civic teachers aim to promote a democratic citizenship; therefore, they need to try new methods to engage students. The question for them is how to teach CT in an interesting way for students. A large part of civics classes in Slovakia in higher secondary education is dedicated to philosophy, because philosophy is the backbone of a healthy democracy. Since critical thinking emerged from philosophical thinking, historically and in the way it dealt with statements, the abundance of philosophy in civics classes in secondary education offers an ideal space for strengthening CT skills. This paper is going to present a short case study and promote the idea that the potential of philosophy should be more used in improving CT in the civics lessons.

1 THEORETICAL BACKGROUND

What exactly CT is and which method is most effective in teaching it is hard to say. Ennis lists 14 philosophically oriented scholarly definitions and three dictionary definitions of CT. He maintains that the 17 definitions are different conceptions of the same concept, but the core of critical thinking is careful goal-directed thinking (Ennis 2016). Concrete conceptions can vary, but thinking properly is a key to achieving the goal in all conceptions. A critical thinker must analyse information, and philosophy provides the tools and the methods to do that. After the process again, philosophy is here to offer quality control for CT. Stanovich and Stanovich (2010) propose to ground the concept of CT in the concept of rationality. Rationality they understand as combining epistemic rationality, in a sense of fitting one's beliefs to the world, and instrumental rationality, by which they mean optimising goal fulfilment. A critical thinker, in their view, is someone with "a propensity to override suboptimal responses from the autonomous mind" (Stanovich and Stanovich 2010, p. 227). Even the concept of rationality is not unproblematic itself, it is closely related to the two basic philosophical disciplines.

The most direct contributions that philosophy makes to CT are logic, and epistemology. Logic, mostly informal logic is helpful alongside CT, teaches us how



to make valid conclusions and how to spot fallacies. It provides the structural framework for sound reasoning, enabling individuals to construct coherent arguments and to deconstruct those that are flawed. CT could, in a way, be viewed as the part of informal logic, requiring one to identify logical fallacies and resist the temptation of hollow rhetoric. This paper focuses directly on the success of students and teachers in the identification of logical errors, and it was one of the two skills that were tested. Epistemology complements logic by offering the criteria for what could count as reliable evidence, valid claims, good premises and so on.

From the historical perspective, there are two usually presented views regarding the origin of CT. The first one considers the concept of critical thinking to begin with Socrates and his Socratic method of questioning. This perspective highlights the enduring legacy of systematic inquiry, self-examination, and challenging assumptions through rigorous dialogue. Those who prefer this view emphasise the need to implement more hours of Socratic dialogue in schools, recognising its power to foster great analytical skills and independent thought. The second popular opinion considers that the term 'critical thinking' was first introduced by John Dewey in 1910 in his book *How We Think* and thinks of this book as a foundational text that defines "reflective thinking." Dewey argues that critical thinking is the active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it. This definition emphasises a deliberate and thorough engagement with information, moving beyond superficial acceptance to a deeper understanding of the justifications and implications of one's thoughts and beliefs (Dewey 1910). Quite a large group of researchers and teachers is tracking their attempt to implement CT into the educational system back to Dewey and mastering the discussion in the classrooms. Every approach is beneficial in a school environment and certainly brings results. Refining precise methodologies for how to strengthen Socratic dialogue in the classroom, or help students distinguish unfounded feelings from facts, is already bringing concrete results.

This paper focuses on Daniel Dennett's use of philosophy as a cognitive toolkit designed specifically to help people to navigate through information noise. The advantage of using Dennett's philosophy for the study is not just that his work directly addresses necessity in moving away from quick decisions toward thorough analysis. But Dennett provided the specialised tools to fix conversation when it



breaks. His work is ideal for a short case study, whether or not students could benefit from learning a few logical fallacies and one rule in a lesson and implementing what they learnt. Likewise, his personality and work will help students understand the importance of philosophy in modern times.

2 GOALS

Research goals were set to be pedagogically measurable and appropriate for the case study. The overarching aim of the research was to determine if one specific cognitive tool can move students away from rapid judgment toward a more deliberate, analytical mindset. This was part of a broader research question focused on the success of the new learning strategy.

The first main goal was set as: introduce students to logical fallacies along with Daniel Dennett and his contribution to the development of CT. Its secondary goal: Reducing polarised discourse through Rapoport's Rules. Objective: To evaluate the efficacy of Rapoport's Rules in increasing debate quality and reducing the use of "Straw Man" fallacies during civic debates. Research Question: Does requiring students to re-express an opponent's view until the opponent agrees with the summary lead to more collaborative discussion? Measurement: The fallacy identification test was used initially. In the 8 short scenarios, students must identify the Straw Man fallacy present. To measure the shift in discussions, we analyse transcripts of classroom debates before and after training.

The second main goal was set as exploring teachers' perceptions of the lesson. Its secondary goal: To determine the level of teachers' familiarity with types of logical fallacies and Dennett's philosophy. Objective: To assess the level of knowledge of civics teachers about logical fallacies and techniques for improving the quality of discussions. Research Question: To what extent are civics teachers familiar with the classification of logical fallacies and the specific philosophical frameworks of Daniel Dennett? Measurement: This tool measures the objective level of knowledge. Teachers had the same fallacy identification test as students. In the 8 short scenarios, they had to identify the Straw Man fallacy present. Next part was the Dennett familiarity scale (Likert-type), where teachers rate their familiarity with a specific term: "I can define and apply Rapoport's Rules in a classroom setting."



3 METHODS

In order to achieve the set goals, quantitative and qualitative research was chosen because it offers a deeper exploration of how CT manifests in specific contexts. In addition to the test, we used methods like interviews and observations to gather detailed information.

The target participants for this case study research included students within their teachers. The selection of participants respects these criteria: grade level, students of third and fourth year of studying in upper secondary education, subject area, student who have at least one hour of civics per week in that year and the type of school, only students of gymnasiums and secondary vocational schools with a high school diploma.

The study was conducted within an authentic school environment, allowing for observation and assessment of CT in real-world educational contexts. The classes involved were traditional classes, had students of varying academic achievement, and each class had at least one boy and one girl, although the number of boys in the study was higher due to the focus of the schools involved.

All research procedures adhered to ethical guidelines to protect the rights of participants. We applied key ethical considerations. Obtaining voluntary informed consent from adult participants and parental consent for student participants under eighteen years old, along with student assent, ensuring they understand the study's purpose, procedures, and their right to withdraw at any time. We ensured them that all collected data remains confidential and anonymised to protect their identities. We obtain institutional approval, to secure ethical approval from the management of each participating school and meet personally with a representative of each school before commencing the study.

3 RESULTS

The study involved 108 students and 3 educators from three different schools. All three teachers had finished university education in civics or philosophy, none of them teaches civics in addition to its two main subjects. A preliminary assessment revealed a significant philosophical vacuum. 0% of students were familiar with the specific logical fallacies (e.g., Straw man, False dilemma) or the work of Daniel



Dennett. Also, 0% of teachers reported prior training in Dennett's intuition pumps or Rapoport's rules. This lack of prior exposure establishes an opportunity for the intervention to measure just the teaching strategy rather than outside influence. Despite the initial complexity of the philosophical concepts, the qualitative inquiry revealed an overwhelmingly positive reception. Of the 108 participants, a vast majority described the lessons as "enjoyable" and "mentally stimulating." Students reported that these tools were "practical for life." They specifically identified social media as an area where they felt more empowered to use what they learnt. Students reported that the framework of "Rapoport's rules" forced them to listen longer than they usually would. The qualitative interviews with the 3 participating teachers highlighted a significant shift in pedagogical outlook. All 3 teachers considered the philosophical tools as highly important and expressed a desire to integrate them permanently into their civics lessons. Teachers as well as students want to reduce snap judgments.

The most striking finding of this study was the zero-baseline awareness of both students and teachers regarding Daniel Dennett and formal logical fallacies. This suggests a significant gap in the current civics education curriculum. This fact can be explained by the fact that none of the schools participated in the Critical Thinking Olympiad, which was revealed during the qualitative research and is considered to be a coincidence. The schools were not surveyed or specifically selected for participation. If the study had been conducted at another school whose students participate in the Critical Thinking Olympiad, the awareness of logical fallacies would certainly be greater among both students and teachers.

CONCLUSION

Some teachers complain about the amount of philosophy in the upper secondary school curriculum. They argue that philosophy is too abstract for high school students. However, the results of this case study contradict this. The high levels of enjoyment reported by the 108 participants suggest that philosophy and logic, when presented as a tool for deconstruction, could be inherently engaging. The data suggest that philosophical tools are not too abstract for students, they are viewed as highly relevant, enjoyable, and necessary for modern civic participation. Students who enjoy the process of analysis are far more likely to apply it outside the classroom when scrolling through social media.



The secondary goal of reducing polarised discourse through Rapoport's Rules provided a social technology for the classroom. By forcing students to slow down and summarise their opponent's view fairly, the intervention disrupted the us vs. them way of thinking. This may support the idea that polarised discourse is often a failure of listening, not a failure of intelligence. When students were given a structured method to listen (Rapoport), the defensive hostility naturally decreased.

The positive feedback from the three teachers suggests that educators are looking for practical frameworks to handle CT in civics.

Teaching CT is often a vague instruction; however, teaching, for example, 8 logical fallacies and 4 Rules of Rapoport is a concrete mission. The teachers' desire for permanent integration suggests that Dennett's philosophy provides a neutral, logic-based ground for teachers.

The primary takeaway from this research is that philosophy is the ultimate antidote to polarisation. By requiring students to summarise their opponents' views, the intervention moved discourse in a positive way. This proves that the skills required for a healthy democracy, empathy, logical rigour, and the questioning of self-evident prejudices, are teachable and highly effective, and philosophy could help with that.

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THEORETICAL APPROACHES TO CROSS-BORDER COOPERATION IN THE CONTEXT OF EUROPEAN INTEGRATION

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ABSTRACT

Cross-border cooperation is an important tool for regional development and European integration, helping to reduce administrative, political, and social barriers between countries. However, its functioning and effectiveness cannot be explained by a single theoretical approach, as it is a complex process influenced by multiple levels of governance, institutional frameworks, and territorial specificities. The aim of this article is to systematize the main theoretical approaches to cross-border cooperation in the context of European integration and to identify their contributions and limitations in interpreting current cross-border processes.

The article is based on a theoretical analysis and synthesis of professional literature focusing on functionalist and neo-functionalist approaches, as well as institutional concepts and the approach of multi-level governance. Attention is paid to the ways in which individual theoretical frameworks explain the emergence, stabilization, and long-term functioning of cross-border cooperation in the European Union. The analysis highlights the need for theoretical plurality, which allows cross-border cooperation to be understood not only as a technical tool for solving common problems, but also as a dynamic process shaped by political, institutional, and spatial factors, especially in the context of Central Europe.

Key words: cross-border cooperation, European integration, theoretical approaches, multi-level governance, institutional frameworks

1 INTRODUCTION

In recent decades, cross-border cooperation has become an important tool for supporting regional development and deepening integration processes in the European Union. Especially in border areas, it creates space for mitigating administrative and institutional barriers that traditionally result from the existence



of national borders. Cooperation between regions located in different countries is implemented in various areas of public policy, with the aim of strengthening economic competitiveness, increasing social cohesion, and promoting sustainable development.

The importance of cross-border cooperation in the context of European integration is also linked to the gradual transformation of the function of borders, which in many cases have ceased to serve exclusively as barriers and have taken on the character of contact areas. However, this development does not mean that differences between individual territories have been eliminated, as cross-border initiatives are influenced by different legal, administrative, and institutional frameworks. The functioning of cross-border cooperation is therefore the result of the interaction of several factors that manifest themselves at the local, regional, national, and supranational levels.

For these reasons, cross-border cooperation cannot be interpreted through a single theoretical approach. Social science research uses various conceptual frameworks that focus on the technical, political, institutional, and spatial aspects of cooperation. This article focuses on outlining the main theoretical approaches to cross-border cooperation in the context of European integration.

2 THEORETICAL BACKGROUND

Cross-border cooperation represents a complex research problem in contemporary social sciences, the interpretation of which requires the use of multiple theoretical approaches. Its emergence, functioning, and long-term sustainability are the result of the interaction of political, economic, institutional, and territorial factors, which manifest themselves differently in different geographical and historical contexts. For this reason, cross-border cooperation cannot be explained through a single universal theoretical framework, but it requires a pluralistic approach that captures its multidimensional nature in the context of European integration and border transformation (Paasi, 2022; Scott, 2023).

The basic theoretical foundations of cross-border cooperation research include functionalist and neo-functionalist approaches, which emphasize the pragmatic nature of cooperation between actors on both sides of the border. Functionalism is based on the assumption that cooperation arises as a response to specific technical



and practical problems that transcend the framework of nation states and cannot be effectively solved in isolation. In this view, borders are seen primarily as administrative barriers whose significance can be weakened through coordinated cooperation in the areas of regional development, transport, and environmental protection (Mitrany, 1966; Medeiros, 2021).

Neo-functionalist approaches build on functionalism, but extend its analytical framework to include the political and institutional dimensions of integration. The key concept is spillover, whereby successful cooperation in one area is transferred to other areas. In this context, cross-border cooperation is understood as a process that can lead to the gradual institutionalization of relations and deeper integration. Transnational institutions, especially the European Union, play an important role in creating formal and financial frameworks for cooperation (Haas, 1958; Scott, 2022).

However, functionalist and neo-functionalist approaches face a number of limitations. Their main weakness is a tendency to underestimate political conflicts, power asymmetries, and the historical experiences of border regions. The assumption of automatic and linear expansion of cooperation often does not materialize in practice, especially in times of political, security, or economic crises. For this reason, these approaches need to be supplemented with additional analytical perspectives (Paasi, 2022; Scott, 2023).

Institutional approaches respond to these limitations by emphasizing the analysis of formal and informal rules, structures, and procedures through which cross-border cooperation is stabilized and reproduced in the long term. In this framework, borders are understood not only as geographical lines but also as the result of different legal and administrative systems. The success of cooperation is therefore conditioned by the quality of the institutional environment and the ability of actors to coordinate their activities (Paasi, 2022; Scott, 2022).

A key concept of institutional approaches is multi-level governance, which refers to the division of competences between the supranational, national, regional, and local levels. In the European Union, cross-border cooperation is implemented through a complex system in which strategic frameworks are formed at the supranational level, while implementation takes place at the regional and local levels. This model increases the legitimacy of cooperation, but at the same time places increased



demands on coordination and administrative capacity (Marks, Hooghe, 2004; Scott, 2023).

The application of these theoretical approaches is of particular importance in Central Europe, where cross-border cooperation takes place in an environment of historically changing borders and varying experiences with political integration. The integration mechanisms of the European Union encounter persistent territorial notions of borders as instruments of sovereignty protection, which influences the dynamics of cooperation in border regions (Scott, 2023; Medeiros, 2021).

In summary, research on cross-border cooperation requires a combination of several theoretical perspectives. Functionalist, neo-functionalist, and institutional approaches provide complementary views on the mechanisms of cooperation, its limits, and its potential. This theoretical framework provides a starting point for the following sections of the article, which focus on the objectives, methodological approach, and interpretation of results (Paasi, 2022; Scott, 2023).

Cross-border cooperation is also increasingly interpreted through the lens of spatial and territorial theories, which emphasize the role of space, scale, and proximity in shaping cooperative practices. From this perspective, borders are not static dividing lines but socially constructed and continuously negotiated spaces where different actors interact. Territorial approaches highlight the importance of local and regional contexts, arguing that spatial embeddedness significantly influences the form and intensity of cross-border initiatives. Cooperation is thus shaped not only by institutional frameworks but also by socio-spatial relations and territorial identities that develop over time (Paasi, 2022; Scott, 2023).

From a relational perspective, cross-border cooperation can be understood as a process of building networks and social relations across national boundaries. Network-based approaches emphasize the importance of trust, reciprocity, and repeated interaction among actors involved in cooperation. Rather than focusing solely on formal institutional arrangements, these perspectives highlight informal ties and social capital as key factors influencing the effectiveness and durability of cross-border initiatives. Cooperation is thus shaped by the density and quality of cross-border networks, which may either compensate for institutional weaknesses



or, conversely, amplify existing asymmetries between regions (Perkmann, 2003; Granovetter, 1985).

Another influential strand of literature conceptualizes cross-border cooperation within the broader framework of regionalism and new regionalism theories. These approaches argue that regions increasingly function as active political and economic actors beyond the nation-state, particularly in the context of globalization and European integration. Cross-border regions are viewed as spaces where new forms of governance, identity, and economic interaction emerge. This perspective underscores the role of regional agency and highlights how cross-border cooperation can contribute to the re-scaling of governance and the reconfiguration of territorial power relations (Keating, 1998; Perkmann, 2007).

From a constructivist perspective, cross-border cooperation is understood as a socially constructed process shaped by shared meanings, identities, and discourses. These approaches emphasize that cooperation does not emerge solely from material interests or institutional incentives, but also from the ways actors perceive borders, neighbours, and common problems. Through repeated interaction, actors may develop shared interpretations and collective identities that facilitate cooperation across borders. Constructivist theories thus highlight the importance of norms, values, and discursive practices in shaping the depth and durability of cross-border cooperation (Checkel, 1998; Wendt, 1999).

Another relevant theoretical contribution stems from political economy approaches, which focus on the relationship between cross-border cooperation and broader economic structures. These perspectives argue that cooperation is embedded in unequal economic relations between regions and states, which shape both opportunities and constraints for collaboration. Cross-border initiatives may therefore reflect existing patterns of economic dominance and dependency, particularly when wealthier regions possess greater administrative and financial capacity. Political economy approaches draw attention to the distributional effects of cooperation and question assumptions about its universally positive outcomes (Brenner, 2004; Jessop, 2002).

A further analytical lens is provided by border regime approaches, which conceptualize borders as dynamic systems of governance involving multiple actors,



regulations, and practices. Rather than viewing borders as fixed lines, these approaches emphasize their ongoing production through legal, political, and administrative processes. In this framework, cross-border cooperation is shaped by the interaction between control mechanisms and practices of mobility and collaboration. This perspective is particularly useful for understanding how cooperation adapts to changing political conditions, security concerns, and regulatory environments within the European Union (Newman, 2006; Rumford, 2006).

3 GOALS

The aim of this article is to comprehensively analyze and systematize the main theoretical approaches to cross-border cooperation in the context of European integration and border transformation. The article focuses on identifying key concepts and analytical frameworks through which the social sciences interpret the emergence, functioning, and long-term sustainability of cross-border initiatives. Particular attention is paid to functionalist, neo-functionalist, and institutional approaches, as well as the concept of multi-level governance. The article also aims to highlight the importance of theoretical plurality in research on cross-border cooperation, particularly in the context of Central Europe.

4 METHODS

The article is based on qualitative theoretical analysis and synthesis of professional literature in the field of social sciences, focusing on research into borders and cross-border cooperation. The methodological approach is based on a critical examination of relevant theoretical sources dealing with functionalist, neo-functionalist, and institutional approaches, as well as the concept of multi-level governance in the context of European integration.

In the first phase, a systematic analysis of selected theoretical approaches was carried out in order to identify their basic principles, conceptual apparatus, and interpretative potential. In the second phase, a comparative method was applied to compare the individual approaches in terms of their contributions and limitations in explaining current cross-border processes. The result of the methodological approach is a synthetic analytical framework that allows for a more comprehensive



understanding of cross-border cooperation as a dynamic and multi-level phenomenon.

5 RESULTS

The results of theoretical analysis point to the fact that cross-border cooperation cannot be interpreted through a single analytical framework, as different theoretical approaches emphasize different aspects of this complex process. Functionalist and neo-functionalist approaches provide an explanation for the emergence and development of cross-border cooperation based on the resolution of practical problems and the gradual deepening of integration ties. Their contribution lies mainly in their ability to clarify the dynamics of cooperation in technical and project-oriented areas, but their limiting factor is their insufficient consideration of political and institutional inequalities between border regions.

Institutional approaches and the concept of multi-level governance allow for a more comprehensive understanding of the mechanisms through which cross-border cooperation stabilizes and reproduces itself in the long term. The analysis shows that the quality of the institutional environment, the degree of coordination between different levels of government, and the administrative capacity of actors significantly influence the outcomes of cross-border initiatives. At the same time, the theoretical synthesis points to the importance of combining multiple approaches, which allows cross-border cooperation to be understood as a dynamic, multi-level, and context-dependent process, particularly in the Central European environment.

6 SYNTHESIS OF THEORETICAL APPROACHES TO CROSS-BORDER COOPERATION

The synthesis of the analyzed theoretical approaches points to the complementary nature of the individual conceptual frameworks used in research on cross-border cooperation. Functionalist and neo-functionalist approaches make it possible to identify the mechanisms through which cooperation arises and develops on the basis of solving specific problems and gradually deepening integration ties. Institutional approaches complement this view by emphasizing the importance of formal and informal rules, organizational structures, and multi-level governance, which determine the stability and sustainability of cooperation.



The results of the analysis suggest that the success of cross-border initiatives is determined not only by the content of cooperation, but also by the quality of the institutional environment and the ability of actors to coordinate their activities across different levels of government. The combination of several theoretical perspectives thus allows for a more comprehensive understanding of cross-border cooperation as a dynamic process whose form and intensity are significantly influenced by the political, historical, and territorial context, especially in Central Europe.

CONCLUSION

Cross-border cooperation represents a multifaceted phenomenon that reflects broader processes of European integration, territorial transformation, and changing modes of governance. The analysis presented in this article demonstrates that no single theoretical approach is sufficient to explain the emergence, functioning, and long-term sustainability of cross-border cooperation. Instead, functionalist, neo-functional, institutional, and related theoretical perspectives provide complementary insights into different dimensions of this complex process.

The findings highlight that cross-border cooperation is shaped not only by practical problem-solving and institutional frameworks, but also by political contexts, territorial specificities, and historical experiences of border regions. In particular, the Central European context illustrates how integration mechanisms interact with persistent perceptions of borders and varying institutional capacities. The article therefore emphasizes the importance of theoretical plurality, which allows for a more nuanced and comprehensive understanding of cross-border cooperation as a dynamic, multi-level, and context-dependent process. Such an approach provides a valuable analytical foundation for future research and contributes to more informed interpretations of cross-border initiatives within the European Union.

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CITIZENSHIP AND THE MEDIA: HOW ARAB CHRISTIANS IN THE MIDDLE EAST BECAME CITIZENS

Lukáš DE LA VEGA NOSEK, CZ

ABSTRACT

This case study will attempt to describe the transformation of the social status of Arab Christians in the Middle East. It will submit the dynamic transformation of the status of these Christian communities from a tolerated religious minority to recognized participation in society as full citizens. The paper will begin by presenting the methodology and problems involved in studying these topics (generalization, theoretical basis, etc.). The paper uses historical methods and qualitative text analysis and attempts to present several key elements of the modern history of the Arab Christian community living in the Middle East. It will then attempt to interpret these elements from a specific perspective, mapping their entry into the public sphere in the 19th and 20th centuries (the founding of periodicals and daily newspapers, the establishment of universities, educational institutions, etc.). It will proceed in four steps. First, it will present a series of historical facts related to the Christian community and its entry into the public sphere. Then, it will present the reception of the terms citizen and citizenship in Muslim societies. In the third step, it will map today's Muslim perception of the Christian community as full-fledged citizens. Finally, paper will attempt to synthesize the dynamics presented here and will try to answer the reasons behind them. One of the key findings is visible and full participation in society. Thus, education for citizenship is apparently the way to overcome all types of sectarian violence and discriminatory division in society.

Key words: citizenship; religious minority and majority; media; Islam; Arab Christianity

INTRODUCTION

In this article, we want to describe the relationship between public space and religious identity. We will map the transformation of the social status of Arab Christians in the Middle East, especially in the last 200 years. We will ask how the



perception of Christians shifted from that of an often-intolerated religious minority to that of recognized citizens.

This dynamic is explicitly present in the public sphere. We will not attempt to prove it at length. We will only point it out in fragments and try to show its internal dynamics. Nor will we present a complete history of the highly heterogeneous group of Arabic-speaking Christians. Rather, we will focus on mapping their establishment in public life. To this end, we will follow all Christians living in the Middle East.

At the beginning of the paper, we want to present the methodology and problems in studying these topics (generalization, theoretical basis, etc.). The study uses historical methods and qualitative text analysis and attempts to present several key elements of the modern history of the Arab Christian community living in the Middle East. We will then attempt to interpret these elements from a specific perspective, mapping their entry into the public sphere in the 19th and 20th centuries (the founding of periodicals and daily newspapers, the establishment of universities, educational institutions, etc.). We will proceed in four steps. First, we will present a series of historical facts related to the Christian community and its entry into the public sphere. Next, we will introduce the reception of the terms citizen and citizenship in Muslim societies. In the third step, we will map today's Muslim perception of the Christian community as full citizens. Finally, he will attempt to synthesize the dynamics presented and try to answer the reasons behind them. One of the key findings is visible and full participation in society. Thus, education for citizenship is apparently the way to overcome all types of sectarian violence and division in society.

1 METHODOLOGY AND INTRODUCTORY ISSUES

Our contribution uses historical methods and the conclusions of previously conducted qualitative research and text analyses. Our conclusions are also based on a literary review of key documents from history and the present. The key elements of modern history of the Arab Christian community living in the Middle East that we studied are primarily elements of establishment in the public sphere in the 19th and 20th centuries (the founding of periodicals and daily newspapers, the establishment of universities, educational institutions, contemporary Muslim interpretations, etc.).



This is an exemplary study that must be followed up and supplemented. The study certainly does not claim to be complete. It only notes a certain spectrum of complex social realities. It also does not avoid generalisation, especially in contemporary Muslim interpretation, where the key texts come from Morocco or Egypt. We have omitted Syria, the contemporary Israeli-Palestinian conflict, Iraq, Iran, Turkey, Pakistan, Malaysia, African countries, etc.

We also tend to describe theory or official and publicly available sources. These naturally differ from everyday reality.

We will also give preference to religious texts and representatives. This is, of course, also misleading. And again, there is the possibility of researching politics and political events.

2 HISTORICAL OVERVIEW OF THE MODERN ESTABLISHMENT OF ARAB CHRISTIANS

Our overview will focus only on the modern history of Arab Christians (Samir Khalil, 2004, pp. 17-55; Samir Khalil, 2016, pp. 39-57). We must then focus on the establishment of connections with the West in the public sphere. Not because Western influence has been entirely positive—it has often been very negative, as we shall see, because it has often been linked to colonialism. However, the West has played an important role in education and in contributing to infrastructure (establishing printing presses, schools, etc.), and in this respect its role is irreplaceable.

Samir Khalil Samir (born 1938), a doyen of studies on Arab Christianity, sees this merit in the context of post-Tridentine Christian reforms. He notes both the missionary efforts focused on the Levant and, above all, the establishment of a number of ecclesiastical institutions (the Angelicum and Gregorianum universities in Rome). These institutions not only encouraged deeper theological reflection on the missions, but above all brought students from missionary areas to Rome. This soon resulted in the cultural rise of Arabic-speaking Christians. As we shall see, it was precisely these educated people who later had an undeniable influence on the flourishing of the Arab Renaissance in the 19th century (known as the Nahdah).



Samir Khalil ranks the founding of the Pontifical Greek College in Rome (in 1576; Raquez, 2008, pp. 672-674), and the Pontifical Maronite College in the same city (in 1584) (Poggi, pp. 670-671).

It was in the 16th century that the first typographies and printing presses were established as part of missionary activities, including translations from Latin into Arabic. For example, Thomas Aquinas' *Summa Theologica* (d. 1274) appears here in Arabic translation, published in Beirut by the famous *Imprimeria Catholique* (where it has 5,000 pages). During the pontificate of Gregory XV (1621-1623), the *Congregation de Propaganda Fidei* was established, the *Tipografia Poliglotta* printing house was founded, and the *Pontificio Collegio Urbano de Propaganda Fide* (in 1627) was established, a seminary for missionaries and priests from missionary areas (Pizzorusso, 2004, pp. 471-498). The second half of the 17th century also saw the first bilingual Latin-Arabic edition of the Bible (in 1671), which is a key publication in the Arab world (*Biblia Sacra Arabica*, 1671).

In addition, researchers also note the influence of prominent figures. These included, for example, the Jesuit Giovanni Battista Eliano (1530-1589), who was gifted in Semitic languages (Girard, 2015, pp. 724-731), or the Aleppo Maronite bishop Germānos Farhāt (1670-1732) (Sahin, 2015, pp. 135-142). The latter was responsible for the re-Arabization of the Christian population in order to withstand the onslaught of Turkish. It was Farhāt who wrote an Arabic grammar book full of examples from the Gospels (Arabic: *Baht al-matālib*). He also wrote Christian-inspired poems in classical Arabic (*Dīwān*), often in the rhythmic format of *saj'*, which is also used in the *Qur'an*. Alongside him, we must mention the family of Lebanese Maronites, the *Assemans* (Arabic: *al-Simānī*), especially Joseph Simon (1687-1786) (Lavenant, 2008, pp. 117-118), who brought a huge collection of manuscripts to the Vatican Library and published a catalogue of the *Biblioteca Orientalis Clemetino-Vaticana*, dedicated to Syrian Catholics, Orthodox Christians, and Nestorians (Assemanus, 1719, 1721a, 1721b, 1728). We may question the legality of this transfer. However, it was an important event for the future of the manuscripts.

It was also in the 19th century that key works such as *Patrologia Syriaca* (Paris), *Patrologia Orientalis* (Paris/Rome), and *Corpus Scriptorum Christianorum Orientalium* (Louvain) began to be published (Starowieyski, 2012, pp. 21-34).



In addition, we could mention a number of academic and theological institutions and seminaries that train pastors, priests, and pastoral workers. Here are just a few examples. In 1832, a seminary was established in Balaband, Lebanon (now a university) by the Antiochian Orthodox Church. In 1846, the Jesuits founded a seminary in Ghazīr, Lebanon. In 1863, the Evangelical Theological Seminary was established in Cairo under the leadership of Presbyterian missionaries (today it has expanded to Alexandria). The Jesuits founded St. Joseph's University in Beirut in 1875, where a theological faculty was also established in 1881. A group of Jesuits settled here, who from the beginning engaged in Orientalist, mainly linguistic research in the fields of Syrian studies, Coptic studies, and Ethiopian studies, and later also in Christian Arabic studies (Luisier, 2008, pp. 27-48). Also in 1875, the Université la Sagesse was founded in Beirut in close connection with the Maronite Church. In Cairo, the Faculty of Humanities and Theological Studies was established in 1879 within the Catholic Church. In 1893, the Orthodox Theological College was founded in Alexandria (today it has branches in Cairo, Tanta, Šibīn, Port Said, Mahalla, Luxor, etc.). In the same year, the Baptists also arrived with their first institutions for the formation of missionaries. Later, a seminary was established in Beirut under the leadership of Finlay Graham. In 1930, a theological seminary of the Armenian Church was established in Bikfaya, Lebanon. In 1936, the St. Paul Institute for Philosophy and Theology was established in Haris, Lebanon, within the Melkite Antiochian Church. The Middle East School of Theology of the Evangelical Church in Lebanon was founded in 1932. The Arab Baptist Theological Seminary in Beirut was founded in 1960 and remains very productive to this day (Hasbany, 2019, pp. 137-142).

3 MEDIA AND CHRISTIANS IN THE 19TH AND 20TH CENTURIES

One of the key arguments for our interpretation of the establishment of Christians in Middle Eastern society is their press activity (Pizzi, 2020, pp. 11-83; Pizzi, 2017).

First, in general terms: according to the Leibniz Zentrum Modern Orient, over 800 periodicals began to be published in the Middle East during the 19th century. They were published in Arabic, Hebrew, Turkish, Ottoman Arabic, but also in French, German, and English. Of these, only five hundred began publication between 1890 and 1900! And many of these periodicals were published by Christians. As we have already indicated, not only by Catholic but also by Protestant missionaries.



For example, the Protestant Akhbār al-qāsīd was published in Malta from 1833, al-Akhbār in Algiers from 1839, and al-Mubaššir in the same place from 1849. In 1858, Hadīqat al-akhbār was published in Beirut.

In 1866, the Protestant al-Našrat al-šahrīya was published under the leadership of Cornelius Van Alen Van Dyck (1818-1895), who was behind the translation of the Bible into Arabic, which is still one of the most widely used today (Grafton, 2015). Lebanese Christians were also active during this period, notably Nāsīf al-Yāzījī (1800-1871) and, above all, Butrus Bustani (1819-1883). The latter was a Lebanese revivalist and lexicographer who converted from Maronite to Protestantism (Budelli, 2019, pp. 161-181). In 1863, Bustani initiated the establishment of the National School (Madrasat al-watanīya), which was open to everyone (Muslims, Christians of all denominations). The aim of the school was to educate students to love culture, history, and language.

From 1870, al-Bašīr, edited by the Jesuits, was published again in Beirut. A year later, Protestant missionaries published Kawkab al-subh al-munīr there. Catholic priest Luwīs Sabūnī encouraged the publication of al-Najāh and, above all, al-Nahlah (Wouter Visser, 2013). In 1876, the popular science magazine al-Muqtataf was founded under the patronage of two Christians, Ya'qūb Sarrūf (1852-1927) and Fāris Nimrah (1856-1951) at the Syrian Protestant College (now the American University of Beirut). Another Lebanese Christian revivalist, Jurjī Zaydān (1861-1914), began publishing the periodical al-Hilal in 1892.

The founding of the periodical al-Mašriq (1898-1998) was crucial for historical research (Héchaïmé, 2008, pp. 49-65; Samir Khalil, 2008, pp. 67-121). Above all, the arrival of a new generation of Jesuits, such as Louis Cheikho (1859-1927), Constantin Bacha (1870-1948), Louis Malouf (1867-1946), and others (f.e. Enrico Gismondi, 1850-1912). Revue al-Mašriq published a number of biblical, patristic, theological, historical, liturgical, hagiographic, and spiritual studies. It dealt with the unity of churches and interreligious dialogue. Its greatest contribution, however, is its careful transcriptions of medieval manuscripts from available libraries (mainly from monasteries in what is now Lebanon, Syria, Iraq, Turkey, Jordan, Palestine, Israel, etc.). Sometimes they even ventured into independent monographic works. At the beginning of the 20th century, texts by major Arabic-writing Christian writers from the 8th century to the present day began to appear. Louis Cheikho not only



published the journal *al-Mašriq*, but also devoted himself to his own research, which was pioneering in many respects (Cheikho, 1920; Hechāimé, 1967). Let us recall his three-volume work on Christian literature before Islam (Cheikho, 1912-1923), on Christian poets allegedly from the same era (Cheikho, 1924-1927), on Christian officials in Muslim organizations (Cheikho, 1987), and on Christian scholars from the 7th to the 14th centuries (Cheikho, 2009). We do not mention all this by chance. This has long demonstrated and proven the active affiliation of Christians with Arab culture and the building of a "national identity." After all, it was Christians who were the pillars of the Arab Renaissance in the 19th century. They advocated a return from dialects to standard Arabic as a key element of unity. They were the ones who created the first political parties.

In 1910, one of the most famous periodicals, Lebanese *al-Massarrah*, began to be published, dealing much more systematically with the unification of Christian churches, but also with Christian theology and Christian-Muslim dialogue. It is on these pages that we can see a typical image. From the outset, *al-Massarrah* boasted a truly high-quality graphic style and clear, modern printing, including photographs (of buildings, industry, abbots, popes, bishops, statues of saints, etc.). At the same time, the pages of this periodical also give considerable space to Muslims, book reviews, and criticism of Islam and society as a whole (Boloyan, 2000).

However, this enormous cultural revival also had a downside, typical of the time. Two Arab historians, Mustafā Khālīdī (from the American University of Beirut) and Omar A. Farrūkh (Arab Academy of Sciences in Damascus) published an interesting analysis of missionary periodicals written in Arabic, English, and French, which were published in the Middle East in the 19th and 20th centuries. Their conclusions revealed the extent to which Protestant and Catholic missionaries of the time were influenced by colonialist ideas. In their religious texts, they often emphasized the economic hegemony of the West and the need to cooperate with Western powers. The missionaries then subordinated their narratives to this narrative, justifying the construction and management of schools, hospitals, libraries, but also general ideas about the involvement of the West in the emancipation of the Ottoman provinces, and later in the politics of the newly formed states (Khālīdī, Farrūkh, 1953). It is worth adding that the book by Mustafā Khālīdī and Omar A. Farrūkh itself was



subject to these influences. It was soon translated into Russian and received considerable attention in the USSR.

Another perspective on Protestant missions and their influence on local social events is provided by the American Joseph L. Grabill (Grabill, 1971). However, he too is somewhat subject to the political clichés of the 1970s, when he wrote his book.

This is where we should also include Palestinian culture and the growing nationalism that Christians are clearly entering into (Mattar, 2005). Let us mention Khalīl al-Sakākīnī (1878-1953), a Palestinian revivalist and member of the Orthodox Church. In 1910, he founded the magazine *al-Dustūr* (The Constitution) and the *al-Dustūrīyah* school, where he not only taught modern political ideas, but also taught the Arabic language in a modern way without memorization, using humor and storytelling (Pizzo, 2020, pp. 56-64). Or the Palestinian Orthodox Christian and prominent anti-Zionist Najīb al-Khūrī Nassār (1865-1947), who made a name for himself in the pages of his magazine *al-Karmil* (Beška, 2011, pp. 167-192; Khalidi, 1997, pp. 124-144). We can also include two cousins, Yūsuf (1870-1948) and ʿĪsā Dāwud (1878-1950) from the Christian al-ʿĪsā family from Jaffa, who founded the periodical *Filastīn* here in 1911 (Beška, 2016; Bracy, 2010). Another notable figure is the communist and Anglican Christian Emīl Habībī (Emile Habiby, 1922-1996), known for his bitterly humorous novella *The Peso-Optimist*, which is a Palestinian variation on the Czech literary character Švejk (Habībī, 1974; Habiby, 1989).

4 CITIZEN AND CITIZENSHIP IN MUSLIM SOCIETIES

The next step we want to take is to map out how Muslims approach the terms citizen and citizenship. The whole issue is quite extensive, and we have dealt with it elsewhere (de la Vega Nosek, 2022, pp. 226-300). Now we will reduce it to the essentials.

A key text for Muslim tradition is the so-called Medina Charter (from around 623 AD). It is a very interesting document that appears in the oldest biographies of Muhammad (Ibn Hišām, 2001, pp. 353-355; *The Constitution of Medina*, 2016, pp. 51-59). The historicity of the document is disputed. Its content is linked to the first period after the so-called Hijrah (exodus from Mecca to Medina in 622), when



Muhammad attempted to define the rights and obligations of all members of Medinan society. The document deals with the *modus vivendi* between Muslims from the Qurayš tribe (*muhājirūn*), Muslims from Medina (*ansār*), and other Arab and Jewish tribes. The document is crucial because it states that all inhabitants of Medina are a single society, a single community (Arabic: *ummah wāhidah*), regardless of religious or tribal affiliation.

In the name of God, the Merciful, the Compassionate, this is a document from Muhammad, the Prophet [...], between the believers and Muslims of Qurayš and Yathrib [i.e., Medina], and those who follow them, join them, and fight alongside them, that all of them [form] a single society unique among [other] peoples (Ibn Hišām, 2001, p. 353).

It is precisely this text that is fundamentally referred to in the so-called Marrakesh Declaration of 2016 (The Marrakesh Declaration, 2016, pp. 61-66). It is a statement by 250 Muslim religious leaders and politicians who responded in January 2016 to the rampage of the so-called Islamic State (ISIS) and its crimes against Christians and Yazidis in Iraq and Syria. A number of representatives of religious minorities, including Iraqi Chaldean Christians, also participated.

The published declaration, including working materials and a summary, constantly refers to the Medina Charter we have already mentioned. In Article 13, the signatories write:

For Muslims, the contemporary societal context makes the “Charter of Medina” the ideal foundation for the institution of citizenship. It provides contractual citizenship and is a just constitution that serves as a model for any society with multiple ethnicities, religions, and languages. It guarantees equal rights for all members of society, whereby all individuals, despite their differences, also bear the same responsibilities, thus forging national unity (The Marrakesh Declaration, 2016, p. 64).

The declaration is then summarized in six calls:

1. Muslim scholars and intellectuals around the world to develop a jurisprudence of the concept of “citizenship,” which is inclusive of diverse



- groups. Such jurisprudence shall be both rooted in Islamic tradition and its principles, as well as be mindful of global changes and dynamics today.
2. Muslim educational institutions and religious authorities to courageously conduct a critical review of educational curricula that addresses, honestly and effectively, any material that instigates aggression and extremism, leads to war and chaos, and results in the destruction of our shared societies,
 3. Politicians and policymakers to take the political and legal steps necessary to establish a constitutional contractual relationship for its citizenry and to support all institutions and initiatives that aim to strengthen relationships and understanding between the various religious groups in predominantly Muslim lands.
 4. Intellectuals, creative thinkers, and private social organizations to establish a broad movement for the just treatment of religious minorities in Muslim countries in order to raise awareness of their rights, and to work together to ensure the success of these efforts.
 5. The various religious groups bound by the same national fabric to address their mutual state of selective amnesia, caused by focusing solely on cycles of mutual oppression, that has led them to forget centuries of living together harmoniously on the same land. We call upon them to restore the foundations of the past through a renovation of the tradition of conviviality and a restoration of the mutual trust that has been eroded by extremists using acts of terror and aggression.
 6. Representatives of the various religions, sects, and denominations to prevent and counter any advocacy of national, racial, or religious hatred that constitutes incitement to discrimination, hostility, or violence.

5 CHRISTIANS EQUAL TO CITIZENS TODAY

A year later, in 2017, a conference was held at al-Azhar University in Cairo in response to sectarian violence in Egypt, which was an unfortunate echo of the political and social unrest following the fall of Hosni Mubarak in 2011 (Samir Khalil, 2013; Jiráňková, 2013, pp. 23-65; Hesová, 2013, pp. 114-141; Ťupek, 2013, pp. 142-165; Mendel, 2015, pp. 199-224). The conference was entitled Freedom, Citizenship, Diversity, and Integration and was attended by several hundred representatives of religious, ethnic, and political groups and movements. Pope



Francis was also present and gave an important speech on rejecting conflict and promoting peace (Francis, ... link). At the end, a declaration entitled 'I'lān al-Azhar li-l-muwātinah wa-l-'ajš al-muštarak (Al-Azhar Declaration on Citizenship and Coexistence, original on the Al-Azhar website) was published. In it, Al-Azhar professes to bear witness to the unique experience of religious plurality.

The introductory words to the declaration were provided by Ahmad al-Tayyib, Grand Imam of the Mosque and Rector of al-Azhar University. The key passage is the concluding paragraph, in which Ahmad al-Tayyib (born 1946) explicitly endorses the effort to replace the power- and discrimination-laden terms minority (vs. majority) with the term citizenship (muwātinah). He refers to the Medina Charter as the key source of this concept and, above all, to its emphasis on the idea of a single society (al-mujtami' al-wāhid) based on coexistence, full citizenship, and equality (al-'ajš al-muštarak, al-muwātinah al-kāmilah, al-musāwāt). The second point of the declaration begins with a rejection of discrimination and division in society, which contradicts the concept of citizenship.

The most important factor in strengthening national unity and common will is a national constitutional state, which is created in accordance with the principles of citizenship, equality, and the rule of law.

The fourth point of the declaration calls on politicians and the state to protect all citizens and their freedom, human dignity, and right to citizenship. All citizens share the same destiny (al-masīr al-wāhid). The final article calls for the renewal of partnership and cooperation between all Arab citizens (bayn al-muwātinīn al-'arab kāffatan). The fundamental values are to be mutual understanding, mutual recognition, citizenship, and freedom. The declaration adds very suggestively: we are people on the same boat, a single society, adding that Muslims and Christians are striving to rediscover their mutual brotherhood.

In February 2019, an interfaith conference on world peace was held in Abū Dhābī (in Czech see de la Vega Nosek, 2022, pp. 176-210). Pope Francis was a guest, as was Grand Imam of al-Azhar Ahmad al-Tayyib. In his opening speech, al-Tayyib addressed Christians as fellow citizens. He again referred to the danger of labeling oneself a minority and called on both Muslims and Christians to abandon this discriminatory label (al-Tayyeb, 2020, pp. 173-179; al-Tajjib, 2021, pp. 133-137).



Now I want to turn to my Muslim brothers. I ask you to continue to accept your Christian fellow citizens as your friends everywhere. We share one homeland with them, but they are also our closest brothers, according to our Holy Scriptures. The Qur'ān explains this friendship in the passage where Allah says: "And that is because among them are priests and monks, and they are not filled with pride" [i.e., Qur'ān 5:82]. The hearts of Christians, all Christians, are full of goodness, compassion, and love, and it was God who placed these good qualities in their hearts. The Holy Qur'ān recalls this in a verse from Surah al-Hadīd: "We sent Jesus, son of Mary, and gave him the Gospel and put gentleness and mercy in the hearts of those who followed him." [i.e. Qur'ān 57:27]...

...The next words are for my Christian friends: you are part of this nation, of which you are citizens. You are not a "minority," and I hope you will get rid of the habit of using this terrible term. You are citizens with all the rights and obligations that entails, and you know that our unity is the only defense that can withstand the intrigues that make no distinction between Christians and Muslims...

...To the Muslim inhabitants of the West, I say: integrate positively into your communities, preserve your religious identity within them, and at the same time respect the laws of those societies and know that you bear responsibility for their security—it is your religious duty, for which you will one day be accountable to God. If any law violates your principles, resort to legitimate means to restore your rights and preserve your freedom.

These words are fundamental. In the spirit of the Egyptian character, at-Tajjib presents citizenship (*muwātin – muwātanah*) as the primary concept. Religious affiliation (Muslim, Christian) is only secondary.

Let us recall that in the Arab world, the term minority is associated with the term *dhimmīs*, or protected persons. That is, Jews and Christians. This legal term, dating back to the 7th century, guaranteed a number of rights to a certain extent, but also imposed obligations and discriminatory norms on people of other faiths. These were primarily Christians of all denominations, Jews, but also Zoroastrians (Pirone, 2019). We do not want to delve too deeply into this issue here. However, it does have one interesting connotation. In his valuable monograph on the current persecution of Christians, Michal Řoutil (born 1973) discusses what is probably the



most pressing challenge facing Arab Christians in the Middle East. This challenge is none other than to rid themselves of the dhimmī mentality.

Overcoming the dhimmī mentality is perhaps the most pressing challenge for Middle Eastern Christians – perhaps it will also help them in the crucial decision of whether to remain in the countries where their communities have lived for centuries, despite oppression and persecution, or to leave them permanently (Řoutil, 2020, p. 412).

Dhimmī is therefore not only a jurisprudential term in Islamic law, but one that has had a very strong influence on the psychology of the Christian community. This could be compared to the nations in decolonized countries. But this takes us beyond the scope of our research.

Let us return to the words of the rector of al-Azhar, who was certainly not the first or the only one to consider the issue of full recognition of citizenship for Christians. Let us recall the essayistic analysis of similar ideas by Egyptian journalist and commentator Fahmī Huwaydī (born 1937), who reached similar conclusions in his lively book *Muwātinūn la-dhimmīyūn* (Citizens, Not Proteges) (Huwaydī, 1990). From the perspective of Muslim law, this was elaborated on by Muhammad Shahrur (1938-2019), a brilliant Syrian exegete and philosopher (Shahrur, 2009). However, this is the first time we have heard this from such a high-ranking Sunni – i.e., religious – thinker, which makes it all the more necessary to analyze it.

At the same conference in February 2019, a document on human brotherhood was signed (de la Vega Nosek, 2022, pp. 176-210), which states:

The concept of citizenship is based on the equality of rights and duties, under which all enjoy justice. It is therefore crucial to establish in our societies the concept of full citizenship and reject the discriminatory use of the term minorities which engenders feelings of isolation and inferiority. Its misuse paves the way for hostility and discord; it undoes any successes and takes away the religious and civil rights of some citizens who are thus discriminated against.

CONCLUSION

The visibility of a group in the public sphere is a key element for the social recognition and acceptance of that group. By visibility, we mean active involvement



in public affairs, first on a daily basis at a basic level, then culturally (daily newspapers, periodicals, magazines, publishing houses, and now also websites, online news, etc.), and later through political involvement.

In our research, we have seen that involvement in public affairs is highly valued by society, including religious leaders. This is one of the most frequently and clearly stated reasons for prioritizing citizenship over religious affiliation.

Our conclusions might suggest that the situation of Christians in the Middle East is developing in a positive direction. In Central Europe, Michal Řoutil addressed this issue by presenting an analysis of the situation of Christians living in the territory we mapped. He focused not only on the public sphere, but also on field research, migration statistics, conclusions, and statistics from non-governmental organizations.

These conclusions are very grim (Řoutil, 2020). And they add an important supplement to our study.

If we claim that public establishment is an important parameter for achieving recognition and full citizenship, then we must further ask what other factors contribute to equality before the law, enforceability of the law, or general respect for human rights. Our research is certainly not over; on the contrary, it requires correction and further study.

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THE HUMAN BEING, A HUMAN RESOURCE, OR A BEARER OF HUMAN CAPITAL?

Jan KARELA, CZ

ABSTRACT

The central question addressed in this paper is whether a person in today's society can be regarded not solely from the perspective of an economic definition as a human resource or as a bearer of human capital. Modern society is characterised primarily by media-driven and mediatised forms of communication. How, then, can a person be defined within the media environment if, from this perspective, they are viewed as an economic entity?

Through conceptual analysis and the collection of relevant definitions and contexts, the author delineates the concepts of human resource and human capital and subsequently offers an answer to the question posed.

Key words: human resource, human capital, education

INTRODUCTION

The human being is perceived in many different ways and is similarly represented in diverse forms within the media. When a physician speaks about a person, the focus is typically on illness, and the human being is defined as a patient. A psychologist or psychiatrist concentrates on the individual's mental state and conceives of the person as a set of psychological functions manifested emotionally. A priest approaches the human being as God's creation and assists in seeking a path toward the divine. This enumeration of professional perspectives on the human being could be extended further.

From the perspective of economics and andragogy, however, the human being is often conceptualized either as a human resource or as a bearer of human capital. Whether these concepts are equivalent, or how they relate to one another, is the subject of analysis in this paper.



1 THEORETICAL BACKGROUND

This analysis is based on two principal theoretical points of departure:

1. 1. A thesis derived from the publication *Učení pro pracoviště* (Learning for the Workplace) by Novotný (2009), according to which the use of the concept human capital is not uniform within andragogical discourse. Most andragogical authors prefer the term human resource over the human capital, and some even regard human capital as a vague concept.
2. 2. Preference theory developed by Becker (1997). Within the economic conception of the human being, the concept of human capital plays a key role. The individual is understood as the bearer of human capital, which can be defined as experience, skills, and competences acquired through education, life practice, reflection, and the evaluation and correction of one's own actions.

Kameníček (2012) describes human capital as inalienable individual wealth inherent in every human being, emphasizing that each individual should strive to build and cultivate this capital.

The philosophical framework underpinning these perspectives is provided by Kant's categorical imperative: Never treat a human being merely as a means, but always as an end (Kant 2014).

2 GOALS

The aim of this paper is to analyze the concept of human capital in relation to the concept of human resource as used in scholarly and professional texts. Based on this analysis, the paper seeks to determine whether these concepts can be considered equivalent within the economic designation of the human being as a variable, what their respective meanings are, and what relationship exists between them.

3 METHODS

The primary research method employed is conceptual analysis. The concepts human resource and human capital are examined across scholarly sources with an economic focus, while also drawing on andragogical and philosophical contexts.



3.1 HISTORICAL DEVELOPMENT OF THE CONCEPT OF HUMAN CAPITAL

In general, the basic factors of production are considered to include natural resources, human labour, and financial resources. An economic dictionary identifies three production factors: land, labour, and capital (Fialová 1999). In this fundamental economic conception, the human being and human labour are treated as basic production resources, later referred to as human resources. Contemporary authors increasingly recognize that the human being cannot be reduced to a “mere” human resource. Koubek (2015), for example, conceptualizes human resources as the driving force that activates all organizational processes. However, such a humanistic perspective was not historically common.

When Marx (1867) wrote *Capital*, it was far more usual to treat the human being as a purely instrumental production factor. Marx’s initial motive for *Capital* was described very aptly by Bocheński (1994): “Small children who are forced to work twelve hours a day, girls who die from overwork, the impoverishment of entire groups of the population, a shocking level of intellectual degradation. ... One understands that Marx said to himself: This must stop.” (author’s note: *Josef Maria Bocheński, a professor and Rector of the University of Fribourg from 1964 to 1966, described very well the motives that presumably led Marx to write Capital. The irony from today’s perspective, and a still-valid warning, lies in how easily the good intentions underlying our actions can result in catastrophic consequences.*) In the reality of this conception of the human being, the outcome of the degradation of the human being to a mere factor of production becomes evident.

The emergence of the concept of human capital is attributed by Koubek (2009) as well as Dudová (2011), as cited by Chudárková (2012), to Theodor William Schultz. According to these authors, T. W. Schultz used the term for the first time in 1961. It is necessary, Schultz argues, to take into account all human abilities, both innate and acquired, whereby those that are valuable and can be expanded through appropriate investment constitute human capital (Chudárková 2012). Chudárková, however, goes even further back in time and, in line with Matoušková (2007), identifies A. C. Pigou as the first to have used the concept of human capital. The definition through which Pigou allegedly brought the concept of human capital to light reads as follows: “If we admit that there is investment in human capital analogous to



investment in physical capital, then the boundary between investment and consumption becomes blurred. Consumption becomes an investment in individual productive capacity.” (Matoušková 2007, cited in Chudárková 2012)

Mazouch and Fischer (2011), as well as later Jílková (2016), go even further back into history and identify A. Smith (1776) as the originator of the concept of human capital. In *An Inquiry into the Nature and Causes of the Wealth of Nations*, A. Smith states: “the acquired and useful abilities of all the inhabitants or members of society always entail real costs for the maintenance of the individual who is to acquire them during the period of schooling, apprenticeship, or study; these costs therefore constitute a capital which may be said to be fixed and realized in his person.” (Smith 2001, cited in Jílková 2016)

Mazouch and Fischer (2011) further present, in historical order, the use of the concept of human capital by first A. Smith, followed by K. Marx, then A. C. Pigou, G. Becker, and J. Mincer. According to Mazouch and Fischer (2011), Becker’s theory is the most widely applied theory in contemporary discourse. The differentiation of human capital theory is attributed by Mazouch and Fischer primarily to P. Bourdieu. In the Czech Republic, authors addressing the concept of human capital include J. Kameníček (2012), who describes the importance of investment in human capital primarily for the individual themselves.

3.2 HUMAN RESOURCE VERSUS HUMAN CAPITAL

The term human resource is commonly used, and there exists a substantial body of literature on human resource management from which one can draw. A particularly comprehensive work is M. Armstrong’s *Human Resource Management* (2015). Armstrong does not define the term human resource directly; instead, he focuses on the definition of human resource management, which “encompasses activities relating to strategic human resource management, human capital management, knowledge management, ...” (Armstrong, 2015). In Armstrong’s framework, human capital is considered one of the processes that human resource management targets; thus, human capital is treated as a distinct component of the human resource that can be managed. In defining human capital, Armstrong draws on P. Wright and G. McMahan, who define human capital as the knowledge, skills, and abilities of people. They further conclude that “each individual in an organization possesses



attributes that can be regarded as human capital, and they propose grouping these individual attributes to form the foundation of an organization's or organizational unit's human capital" (Wright, McMahan, 2015). Within the context of human resource management, human capital therefore occupies a central role.

The Economic Dictionary does not provide a direct definition of human resource and is satisfied with noting that resources are categorized as "natural resources, human resources, and resources created by previous generations, which are referred to as capital" (Fialová 1999). Regarding the concept of human capital, it addresses it under the entry intangible resources: "Human capital refers to the qualifications, knowledge, and skills of individuals" (Fialová 1999). It is beyond dispute that, from this perspective, the development of qualifications, knowledge, and skills is subsequently facilitated in institutional education through pedagogy, and in further and lifelong education through andragogy. Workplace training, professional development, and other forms of continuing education not only foster the acquisition of new competencies but also mitigate the depreciation of previously acquired knowledge and abilities (see below, δp , in G. Becker's formula for human capital formation). Nevertheless, the Andragogical Dictionary does not recognize the term human capital and, in defining human resources, relies on the definition provided by M. Armstrong (Průcha 2007, Veteška 2014).

For a long time, economists avoided the notion of human capital. Until the 1950s, they were convinced—as G. Becker (1997) notes—that the workforce was a given quantity, incapable of expansion. Becker emerged as a pioneer of the concept with his work *Human Capital* (1964, 1975). Although the first edition appeared only in 1964, he later recalled (1997) that he had initially feared criticism for conceptualizing formal education as an investment in human capital, suggesting mechanistic treatment of people. At the time, schooling was primarily regarded as a cultural experience, and framing it as an investment was considered insensitive and overly reductive (Becker 1997). Analyses by Becker's predecessors, including A. Smith, A. Marshall, and M. Friedman, assumed that individuals decide on the scope of their education, medical care, and acquired skills by weighing costs against potential benefits. Individuals therefore "invest in themselves" if they perceive a favorable return from such investment.



Becker sought to quantify the returns on human capital at both individual and societal levels. The aim of these calculations was to compare investments across different educational levels, with distinctions between men, women, and ethnic groups (Becker 1997). His research yielded numerous compelling and, at times, unexpected findings. Notably, he explained the so-called “gender gap” in earnings. Becker observed that women of that era invested less in education, retraining, and the acquisition of professional skills because periods devoted to child-rearing rendered them economically less active. Many either remained at home or, upon re-entering the labor market, worked only part-time. For these women, investment in human capital often proved economically disadvantageous (Becker 1997). Becker suggested that this phenomenon has gradually diminished over time.

Becker (1997) distinguishes between personal and social human capital. He defines personal capital as follows: “Current behavior can increase future personal capital, while this capital may decline over time due to psychological and physiological ‘depreciation’ of the effects of prior actions. The capital stock in the subsequent period equals the personal capital formed during the current period plus the non-depreciated portion of the current stock” (Becker 1997). This relationship can be formally expressed as follows:

$$P_{t+1} = x_t + (1 - \delta p)P_t$$

P_{t+1} = the stock of human capital in the future period

P_t = the stock of human capital in period t

x_t = investment in personal capital during period t

δp = the depreciation rate of personal capital

A similar formula can also be expressed as $H_{t+1} = (1 - \delta)H_t + I_t$, with the specific form depending on the author and context. G. Becker employs the formula in the context of personal versus social capital, whereas the variant using the letter “H” corresponds to human capital considered without this distinction.

An individual who invests in their education, knowledge, and skills expects a return on these investments in the future. Investment occurs when the individual judges that the expected benefits outweigh the costs (see, for example, the previously



discussed “gender gap” in earnings). The formula also captures situations in which an individual discounts their own future—through behaviors such as smoking, substance abuse, or premature withdrawal from the educational system—or circumstances in which, despite investing in their future (i.e., in their human capital), the returns on investment may be reduced due to depression or other psychological or physical limitations. In everyday life, it is not uncommon to encounter highly capable individuals whose potential is constrained by mental health issues (depression, phobias, etc.) or physical impairments. Even if these predispositions limit the ultimate utilization of their human capital, they are still better positioned if they invest in it rather than neglecting their personal development.

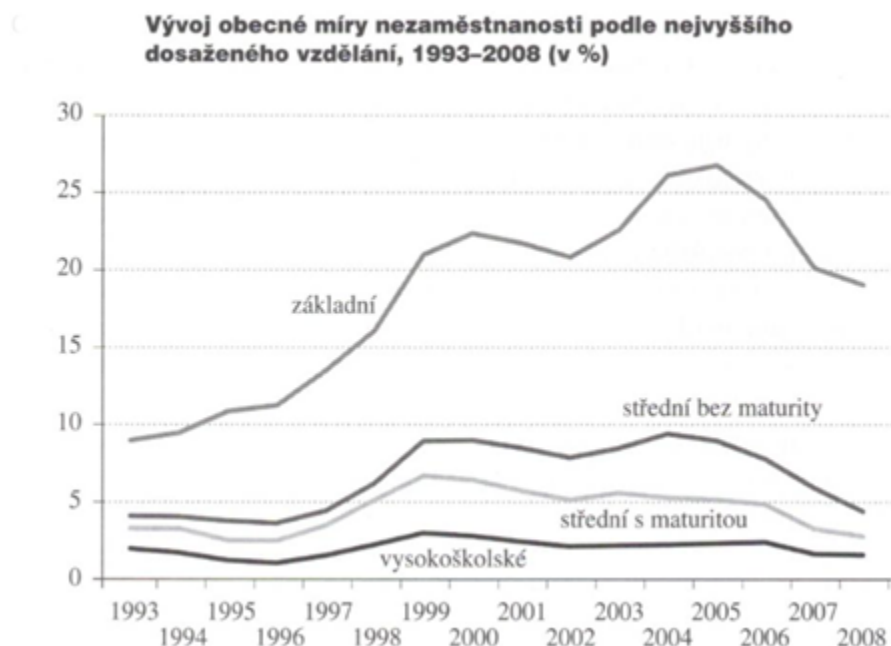
In the Czech context, the topic of investment in human capital has been addressed by J. Kameníček (2012), who draws upon Becker’s theory. Based on Becker’s framework, Kameníček defines human capital as “school education, language courses, or computing courses, expenditures on medical care, lectures on moral integrity and honesty, etc.” (Kameníček 2012). From the perspective of human capital, schooling and medical care are indisputable and fundamental components. However, from an andragogical standpoint, it is a reasonable critique that reducing lifelong learning, another essential component, to merely “etc.” is insufficient. Although Kameníček’s definition does not explicitly address the significance of further education for human capital formation, he discusses this issue in detail in the subsequent section on “Workplace Training,” thereby acknowledging the andragogical dimension of human capital development. Kameníček (2012) also offers an insightful observation in a footnote: “Most forms of capital can be alienated, yet no one can deprive us of our human capital.” This assertion remains relevant across time. While external factors may limit an individual’s ability to use their human capital, the capital itself is inherently unique and inalienable. The ability to utilize one’s human capital, however, is influenced by temporal orientation. Individuals who are myopically focused on the present (those who prioritize immediate interests over long-term consequences) tend not to accumulate human capital, effectively discounting their own future.

Is it worthwhile for individuals to invest in their human capital? G. Becker has already addressed this question positively in his analysis. As Mazouch and Fischer (2011) note: “It should be recognized, however, that it is not entirely accurate to



equate occupational position solely with the wage an individual receives for their work.” Not all individuals share the same preferences regarding the balance between leisure time and time devoted to work. This issue is closely related to considerations of quality of life (Macáková 2005, Mazouch 2011).

Figure 1 Development of the General Unemployment Rate by Highest Educational Attainment, 1993 to 2008 in %



Source: Mazouch, Fischer 2011

For illustration of the returns on investment in human capital, I selected a graph depicting the development of general unemployment. The graph indicates that the highest benefit from human capital acquired through formal education occurs between basic and secondary education, where the difference in unemployment rates is most pronounced. The difference between secondary education without and with graduation is less marked; nevertheless, there is still a measurable reduction in risk. A further decrease in unemployment risk is observed when comparing tertiary and

secondary education, although the effect is less substantial. Considering these data in the context of years spent in secondary school or vocational training relative to years in higher education, the reduction in unemployment risk associated with a university degree is proportionally lower than the reduction achieved by completing secondary education compared to basic education. Nonetheless, as Mazouch and Fischer (2011) note, there is a noticeable decline in unemployment risk with higher levels of education.

A recent noteworthy contribution to research on the efficiency of investments in human capital is the study *Multidimensional Skills on LinkedIn Profiles: Measuring Human Capital and the Gender Skill Gap* (Dorn, Schoner, Seebacher, Simon, Woessmann 2025). This study examined the LinkedIn profiles of nearly nine million university graduates, focusing on the skills and knowledge that users reported themselves. A limitation of the study lies in the reliance on self-reported data. Users may omit skills they consider self-evident, and some profiles are incomplete, introducing potential bias. Nevertheless, the findings offer valuable insights into the significance of human capital formation. The authors observed that the number of reported skills and knowledge increases with age. The growth curve of skills is concave, indicating a deceleration in skill acquisition at higher ages. Users who report a larger number of specific skills tend to occupy statistically better-paid positions. Early in their careers, skill levels are relatively similar between men and women; however, as age increases, skill growth among women slows, creating a so-called “gender gap,” which the authors attribute, among other factors, to maternity. A comparable anomaly in the gender wage gap was addressed by G. Becker in his analysis, and by the end of his career, he believed this phenomenon had disappeared. In the present study, however, it reappears in a different form, measured by the accumulation of human capital.

The foregoing demonstrates that the concept of human capital is not confined to formal schooling. Additional education, including vocational, professional, and lifelong learning, plays a significant role in the development of human capital. Nevertheless, in recent years, andragogical scholars in the Czech context have struggled with the concept. For example, J. Mužík (2004) identifies the problem as a lack of precise specification. In another work, Mužík (2004) reflects on professional discourse regarding the appropriate terminology, debating whether to

use “labor force, human resources, human factor, or human potential” (Mužík 2004). From an andragogical perspective, he distinguishes between the labor force employed in the economy and human capital. Human capital represents the value of capabilities developed through investment.

P. Novotný (2009) refers to Mužík (2004) when he adopts the term human resource for consistency with contemporary andragogical authors, rather than using human capital. However, he presents both terms as possible equivalents, which is essentially in line with Mužík’s view. The evidence suggests, however, that human resource and human capital are not fully equivalent concepts. Economists have developed detailed analyses showing that the general term human resource designates one of the fundamental economic resources. Yet, as a concept, human resource is imprecise. It cannot distinguish the properties of a human resource that constitute human capital. For instance, in personnel management, a contract may be concluded with an individual whose skills are minimal as well as with a highly educated specialist. The content of the contract, remuneration, and work duties always depend on the specific attributes of the human resource, that is, on their human capital.

Novotný (2009) understands the significance of the term human resource partly in its sociological conception, as opposed to the economic conception of human capital. Although economists have contributed substantially to defining human capital, I disagree with framing it purely as an economic concept. I maintain that, due to its individualizing nature, human capital is a concept that socializes the individual. By contrast, the term human resource is excessively general, rendering the person a mere data point (for instance, the number of employment contracts a personnel officer must manage). The uniqueness of an individual lies precisely in their human capital, which is inherently inalienable and completely individual since two people hardly possess identical knowledge, skills, or health conditions.

From this perspective, human capital should provide the individual, as its holder, with tangible benefits and returns. At the same time, it enables the person to function effectively and, often, to be recognized as a valued member of their social group. The utilization of human capital depends on its structure and extent. There is always the risk of reducing a person to a “mere” human resource, a concern already raised by Kant (Barabas 1785, Eds 2014) in his categorical imperative: Act with humanity as an end in itself, not as a means. To avoid becoming merely an instrument of



production, individuals must actively demonstrate a willingness and effort to create and enhance their own human capital.

CONCLUSION

The analysis demonstrates that the concepts human resource and human capital cannot be regarded as equivalent. While human resource functions as a broad economic category, human capital captures the individual, non-transferable qualities that make each human being unique. First and foremost, it is essential to perceive the human being as a living individual, as an original entity. It is precisely the uniqueness of the individual within our own identity that enables us to exist as a person with intrinsic value, rather than as a mere means or instrument of production.

According to economic research, the concept of human capital captures this very individuality, highlighting a person's irreplaceable uniqueness in terms of their personal knowledge and skills. Although not all andragogues have questioned the concept of human capital, it is precisely the field of andragogy, following pedagogy, that provides individuals with the opportunity to acquire knowledge and skills. Human capital represents the objective of educational activity for both pedagogues and andragogues, as well as for the individual themselves. In the media environment, it is important to promote an accurate understanding of the human being as the bearer of human capital. Efforts should support the subconscious recognition of the need to develop one's own individual human capital, through which a person can better position themselves in the labor market. As recent research has demonstrated, human capital is precisely what allows an individual to gain a competitive advantage in the workforce.

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DAVID VS. GOLIATH? THE LIMITS OF MEDIA LITERACY UNDER STATE MEDIA CAPTURE: A CASE STUDY OF HUNGARY

Martin VAHANČÍK, SK

ABSTRACT

Media literacy is widely regarded as a key instrument for building societal resilience against disinformation and propaganda. However, current research insufficiently addresses the effectiveness of this competence within the context of "media capture," where the state systematically distorts the media market and restricts media plurality. Through a case study of Hungary, this article examines the extent to which individual media literacy can mitigate the impact of authoritarian interventions in the media environment. The analysis employs secondary data from various research studies to identify audience behavior patterns in a highly polarized and state-controlled information ecosystem. The findings suggest that under conditions of media capture, media literacy encounters systemic limitations. High levels of competence do not necessarily lead to the rejection of government narratives but often result in news avoidance or cynical resignation. The study also identifies the paradox of the "skeptical voter," who, despite the ability to recognize propaganda, continues to support the illiberal regime, challenging the straightforward causality between media literacy and political resilience.

Key words: media literacy, media capture, Hungary, disinformation, media policy, polarization

INTRODUCTION

Media literacy is widely promoted as essential infrastructure for democratic resilience against disinformation and propaganda. This conventional framing assumes that individual competence - the ability to critically evaluate information, identify bias, and verify sources - serves as a primary defense mechanism against authoritarian manipulation. However, this article challenges that assumption through a case study of Hungary, where this framework demonstrably fails.



Hungary presents an empirical puzzle: citizens possess above average individual media literacy competences in the EU context, yet the country ranks 25th of 27 EU on the Media Literacy Index composite measure, making it one of the least resilient against disinformation and propaganda among the EU societies. This dramatic gap between individual competence and systemic resilience thus cannot be explained through cognitive deficit. Instead, it reflects the effects of state media capture - the systematic deformation of media markets through concentrated ownership, political interference, and monopolized advertising resources (Dragomir 2019).

The core question is whether individual media literacy can function effectively under conditions of media capture. The evidence suggests it cannot. When the state controls approximately 500 media outlets through the KESMA conglomerate, creating the illusion of plurality while maintaining unified editorial control, traditional media literacy practices - source comparison, bias detection, cross-checking - become functionally disabled. Ownership structures prevent the information plurality upon which these practices depend (Dragomir 2024).

This article argues that media literacy is fundamentally a context-dependent competence requiring specific institutional preconditions: information plurality, competitive media markets, editorial independence, and shared epistemic frameworks. When media capture dismantles these preconditions, even highly competent citizens cannot effectively deploy their competence. The Hungarian case demonstrates that competence-based policy interventions alone cannot secure democratic resilience when structural conditions have been compromised.

The findings identify three mechanisms through which media capture neutralizes media literacy: (1) asymmetric polarization preventing genuine source comparison, (2) identity-motivated reasoning subordinating factual accuracy to tribal loyalty, and (3) news avoidance as rational withdrawal from exhaustingly corrupt information environments. These findings point toward a fundamental reorientation of media literacy policy from individual skill-building toward institutional design.

1 METHODS

This article employs secondary data synthesis to examine media literacy effectiveness under media capture. The research integrates findings from established



longitudinal surveys and institutional indices to construct a multidimensional view of the Hungarian information ecosystem. The analytical framework positions individual-level competence metrics (reading literacy, digital skills) against system-level resilience indicators (institutional pluralism, democratic health). This comparative contextualization reveals the gap between what citizens are capable of and what captured institutional environments permit them to accomplish.

Primary data sources include the Digital News Report 2024 (Reuters Institute 2024), Mérták Media Monitor on Hungarian information patterns (Polyák, Urbán, Szávai 2022), the Media Pluralism Monitor 2024 (Bleyer-Simon, Polyák, Urbán 2024), and the Media Literacy Index 2023 (Lessenski 2023). Supporting data derives from PISA 2022 reading literacy assessments (OECD 2023), EU DESI 2024 digital skills indices (European Commission 2024), and peer-reviewed research on news consumption patterns, voter behavior and media economics.

The analysis proceeds through three layers: (1) comparing competence metrics against resilience indicators to identify structural explanations; (2) documenting specific media market structures that disable competence deployment; and (3) analyzing audience behavioral adaptations to corrupted information environments.

2 RESULTS

2.1 THE COMPETENCE-RESILIENCE PARADOX

Hungary demonstrates a sharp empirical contradiction between individual competence and systemic resilience. While 59% of the population possesses basic digital skills - exceeding the EU average of 56% (European Commission 2024), and Hungarian PISA reading literacy scores average 473 points - equivalent to OECD mean of 476 (OECD 2023), the country ranks 25th of 27 EU states on the composite Media Literacy Index with a score of 31/100 (Lessenski 2023). This gap indicates that individual competence alone does not determine systemic resilience.

The Media Pluralism Monitor 2024 confirms this pattern. On media literacy policy capacity - measuring institutional support for public media education - Hungary registers 73% risk, classified as "High Risk" and ranking among the three worst EU performers, far below Austria (31%) and Finland (7%). The contradiction is stark: competent citizens operate within an institutional environment actively hostile to



media literacy support and characterized by media market deformation (Bleyer-Simon, Polyák, Urbán 2024).

2.2 STRUCTURAL BARRIERS: MARKET CONCENTRATION AND ASYMMETRIC POLARIZATION

The primary structural barrier is extreme ownership concentration. The KESMA conglomerate controls approximately 500 media outlets spanning television, radio, print, and online platforms. While these outlets appear formally diverse, they maintain unified editorial control through state-affiliated networks. This creates what Mérták Media Monitor (Polyák, Urbán, Szávai 2022) identifies as asymmetric polarization:

Opposition-aligned audiences access genuinely diverse sources (independent portals Telex, 444.hu) but simultaneously encounter unavoidable state-controlled messaging through public broadcasting and government advertising. Their information bubble is porous.

Government-supporting audiences perceive diverse sources (TV2, Hír TV, regional papers, Origo.hu) but receive identical centrally-controlled narratives across all outlets, as these are KESMA-affiliated entities. The appearance of plurality masks underlying editorial unity (Krekó 2022).

This structure directly disables core media literacy practices. The instruction to "cross-check multiple sources" becomes inoperative when ostensibly independent sources derive from unified ownership. Polyák et al. document sophisticated "gray zone" media - outlets formally appearing independent yet functionally operating as propaganda vehicles - specifically designed to capture undecided voters who would reject overtly partisan messaging (Polyák, Urbán, Szávai 2022).

Finding: Media literacy practices depend on information plurality. When ownership concentration eliminates genuine source diversity, competent citizens cannot effectively deploy comparative evaluation.



2.3 PSYCHOLOGICAL MECHANISMS: IDENTITY OVER ACCURACY

Beyond structural barriers, media capture activates psychological mechanisms subordinating factual accuracy to identity protection. LSE Arena research identifies approximately 9% of voters as "skeptical Fidesz voters" – individuals who demonstrate media literacy through consuming independent media, recognizing propaganda, and understanding ownership structures, yet continue supporting the government (Pomerantsev, Walshe, Gaston, Urszuly, Montague 2021).

This paradox contradicts linear assumptions that propaganda recognition produces propagandist rejection. Instead, Faragó et al. find that government-supporting voters exhibit not lower intelligence but reduced motivation to apply critical analysis to identity-aligned information (Faragó, Krekó, Orosz 2023). Research by Sommer & Fábíán documents that regime narrative construction emphasizes existential national threats (migration, cultural displacement), which activate defensive mechanisms and tribal loyalty that suppress critical evaluation (Sommer, Fábíán 2023).

The question shifts from "Is this factually accurate?" to "Does this protect my community?" Media sources become identity signals rather than information channels.

Finding: Media literacy can be cognitively present (recognizing propaganda) while behaviorally absent (voting for the propagandist). Identity protection supersedes epistemic accuracy.

2.4 BEHAVIORAL WITHDRAWAL: NEWS AVOIDANCE

The Digital News Report 2024 shows only 23% of Hungarians trust news media - equivalent to Greece and drastically below Finland (69%), Sweden (64%), and Spain (42%). This collapse of trust correlates with systematic news avoidance: citizens withdraw from consumption to protect psychological well-being (Reuters Institute 2024).

News avoidance is not driven by incompetence but by rational adaptation to exhaustion. Media-literate individuals recognizing all major outlets as delegitimized (government sources as propaganda, even independent sources as polarized) face



unsustainable cognitive costs to remain informed. Withdrawal becomes preferable to sustained engagement in a corrupted information landscape (Štětka, Mihelj 2024).

Mass news avoidance represents a victory condition for captured media regimes: not persuasion toward false belief, but depoliticization through disengagement. A population of news avoiders cannot recognize or resist authoritarianization.

Finding: Media literacy without sustainable engagement conditions becomes psychologically untenable. News avoidance signals systemic information failure, not individual incompetence.

2.5 THE MEASUREMENT GAP: TECHNICAL VS. STRUCTURAL LITERACY

Traditional indices (PISA, DESI) measure technical media literacy - capacity to access and decode information technologies. They measure "pipes" but not "water quality." In response, the OSCE proposes Media Freedom Literacy (MFL) - understanding ownership structures, the distinction between formal and functional editorial independence, and media plurality's role as a democratic structural requirement (Chapman, Rokša-Zubčević 2024).

Hungary reveals a critical gap: citizens score well on technical measures but poorly on MFL. Hungarians are digitally skilled yet institutionally naive regarding how ownership concentration deforms perceived reality.

Finding: High technical competence coexists with low systemic literacy when institutional understanding is absent. Measurement frameworks focusing solely on technical skills obscure structural vulnerabilities.

3 DISCUSSION

3.1 WHY MEDIA LITERACY ALONE CANNOT SECURE DEMOCRATIC RESILIENCE

The Hungarian evidence reveals a fundamental problem with dominant media literacy frameworks: they treat competence as an autonomous variable whose efficacy depends primarily on individual skill level. The results instead demonstrate



that competence is context-dependent - its protective effects presuppose institutional preconditions that media capture systematically destroys.

Hungary's paradox - adequate individual competence alongside acute systemic vulnerability - is not paradoxical but predictable. A media-literate citizen in a captured system resembles a skilled navigator in a landscape where all signposts point in contradictory directions. The skill remains valid; the environment has become incompatible with its application.

3.2 THE FAILURE OF THE DEFICIT MODEL

International media literacy policy has operated from an implicit deficit model: vulnerability to propaganda results from insufficient individual competence; therefore, increasing competence through education enhances resilience (Szebeni, Lönnqvist, Jasinskaja-Lahti 2021). This framework has produced billions in EU funding for media literacy initiatives and school curriculum reforms.

The Hungarian evidence undermines this model. Despite adequate individual competence levels, resilience has declined as media capture intensified. This inverse relationship demonstrates that competence is not the binding constraint - institutional conditions are. More troublingly, the deficit model may serve captured regimes by attributing media vulnerability to citizen incompetence rather than institutional failure. When competence-building interventions fail to improve resilience (as the evidence suggests), failure is attributed to insufficient implementation rather than theoretical inadequacy. The regime can claim investment in "civic education" while avoiding necessary structural reform.

3.3 THREE MECHANISMS OF NEUTRALIZATION

3.3.1. MECHANISM 1: COLLAPSE OF INFORMATION COMPETITION

Media literacy presupposes an "epistemic market" - multiple credible sources presenting competing interpretations. When 500 nominally independent outlets are functionally unified under state control, this market collapses. Source triangulation – a foundational media literacy practice – becomes inoperative because sources are not independent alternatives but variations on centralized narratives. Media literacy,



correctly applied, may accelerate polarization by making citizens more effective at defensive argumentation rather than collaborative truth-seeking.

3.3.2. MECHANISM 2: IDENTITY-MOTIVATED REASONING

The "skeptical Fidesz voter" demonstrates that accurate information about propaganda does not necessarily produce propaganda rejection. Instead, in conditions of prolonged polarization and existential threat framing, reasoning shifts from epistemically-motivated (seeking truth) to identity-motivated (protecting tribal belonging). Media literacy practices become instrumental tools for defending preferred narratives rather than paths to shared truth. In defensive states, higher competence can produce stronger attachment to tribal positions.

3.3.3. MECHANISM 3: COGNITIVE EXHAUSTION AND STRATEGIC WITHDRAWAL

News avoidance represents rational adaptation to unsustainable information environments. Even highly competent citizens have finite cognitive resources. When all major institutional sources are delegitimized, the cost of remaining informed becomes prohibitively high. Citizens rationally withdraw to protect psychological well-being.

Critically, this is not a failure of media literacy but a victory condition for captured regimes. Propaganda regimes need not persuade citizens to believe in falsehoods - they need only make truth-seeking sufficiently costly that rational citizens abandon the attempt. Mass news avoidance produces depoliticization and regime consolidation without active resistance.

3.4 INSTITUTIONAL PREREQUISITES FRAMEWORK

The findings suggest media literacy functions effectively only under specific structural preconditions:

- Information plurality (multiple genuinely independent sources)
- Competitive media markets (preventing single entities from controlling information flow)



- Institutional independence (editorial decisions by journalists, not political masters)
- Shared epistemic frameworks (basic agreement on what counts as evidence)

Media capture dismantles these preconditions. When absent, media literacy becomes an isolated competence in an incompatible environment - like possessing navigation skills where all signposts contradict.

This necessitates fundamental policy reorientation: from individual skill-building toward institutional design. Rather than asking "How do we teach citizens to better evaluate information?", the prior question becomes "How do we create conditions in which information evaluation remains meaningful?" Institutional conditions, not individual competence, are the binding constraint on democratic resilience.

CONCLUSION

This article examined why Hungary exhibits a paradoxical relationship between individual media literacy competence and systemic democratic resilience. Citizens possess competitive reading literacy scores (473 PISA points) and digital skills (59% basic proficiency) yet rank 25th of 27 EU states on composite Media Literacy Index measures (31/100). The research demonstrates this paradox reflects not cognitive deficiency but fundamental limitations in how media literacy functions as a protective mechanism under conditions of state media capture.

The core finding is that media literacy is fundamentally context-dependent. Its efficacy presupposes specific institutional preconditions - information plurality, competitive media markets, editorial independence, and shared epistemic frameworks - that media capture systematically dismantles. When these preconditions are absent, individual competence cannot produce its conventional protective effects.

The analysis identified three distinct mechanisms through which media capture neutralizes media literacy: (1) structural elimination of information plurality that collapses the epistemic basis for comparative source evaluation; (2) activation of identity-motivated reasoning that subordinates factual accuracy to tribal loyalty, particularly under existential threat framing; and (3) cognitive and emotional



exhaustion that produces news avoidance as rational individual adaptation but systemic depoliticization at population level.

These mechanisms operate not by suppressing individual competence but by creating environmental conditions rendering competence deployment impossible or unsustainable. This finding challenges the dominant "deficit model" framework in media literacy research, which attributes vulnerability to disinformation primarily to individual cognitive or educational inadequacies. The Hungarian case instead demonstrates that structural institutional factors constitute the binding constraint on collective media literacy efficacy.

The implications extend beyond Hungary. The framework tested here - that competence effectiveness is fundamentally context-dependent and requires specific institutional preconditions - suggests broader theoretical limitations in how media literacy scholarship conceptualizes the relationship between individual skills and systemic democratic outcomes. Future research should explicitly investigate whether other captured or polarized media environments demonstrate similar neutralization mechanisms, and whether restoration of institutional preconditions actually restores competence efficacy as the framework predicts.

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THE REDUCTION OF SOCIAL DISCUSSION TO A POLITICAL CONFLICT

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ABSTRACT

Topics affecting everyday life in the country are often the target of manipulative or biased attempts in the field of political communication. Broad public discussion on fundamental topics is slowly fading into the background, and instead, we are witnessing political rivalry that gradually replaces conversation with argumentation. The reduction of social discussion to a purely political conflict has become a reality; the debating parties have become rivals in an imaginary ring, and arguments have turned into attacks. The media space has turned into a battlefield where, instead of weapons, videos clash on social networks. Rivals are confronted face-to-face in the media space and on neutral ground only exceptionally, and thus the political discourse of leading players resembles the drone war in Ukraine. Opponents are often hundreds of kilometers apart, and yet they are equally successful in dividing families living under the same roof. How is a citizen, who *de jure* and *de facto* is supposed to be the decisive factor in this scheme, to orient themselves in such a situation? What are the solutions for the media space to enable it to deliver balanced content intelligible to a wide spectrum of the population? How can it be ensured that, despite the conflict, the degradation of communication, and the narrowing of topics, the voter can make qualified or at least informed decisions?

Keywords: political communication, political conflict, social networks, public discussion, communication crisis

1 THE MEDIA SPACE AS A BATTLEFIELD

Public political discussion undeniably represents one of the fundamental pillars of the functioning of democratic societies. In a normative ideal model, it is intended to serve as a space for the rational exchange of arguments, the confrontation of differing opinions, and the search for socially acceptable compromises. However, in the current media environment, we increasingly observe a shift from deliberative



discussion to a permanent political conflict, which is not merely mediated by the media but, in many cases, actively constructed and amplified by them.

This trend is particularly pronounced in the digital media environment and on social networks, where political communication becomes part of a struggle for attention and where conflict functions as an effective tool for increasing audience reach and engagement. The digital space, the media space, and the public sphere have transformed from a platform for the exchange of opinions and arguments into a battlefield. Moreover, the participants seem uninterested in the opponent; the conflict itself is staged for the spectator and to gain attention. It is as if the outcome does not even matter in the conflict. The desired result is the conflict itself.

Exact data confirm that the polarization of society in Slovakia reaches an extraordinarily high level within the European context. According to the V-Dem project implemented in cooperation with the DEKK Institute (Dekk, 2025), Slovakia is currently the second most polarized country in Europe, immediately following Hungary, with Poland in third place. In the same measurement, the Czech Republic ranked eighteenth out of twenty-nine monitored European countries. Similar results are provided by the Edelman Polarization Score, which works with data from a global public opinion survey. According to this methodology, Slovakia also ranks second, between Argentina and Colombia, while the Czech Republic occupied the seventh position out of thirty evaluated countries.

A high degree of polarization has significant negative social consequences. It leads to the weakening of social cohesion and trust, hinders cooperation and the ability to set common priorities, disrupts interpersonal relationships, and negatively affects the mental health of the population. Research findings indicate that up to 36% of the inhabitants of Slovakia personally know one or more people whose political views have shifted so significantly in recent years that they have begun to condone the use of violence against ideological opponents. Although the majority of respondents (71.3%) declare that they have never severed a personal relationship due to political differences, a non-negligible part of the population admitted to ending contact with friends, colleagues, members of the extended family, and in rare cases, even with parents or siblings.



While family relationships appear to be relatively the most resilient, this resilience is often conditioned by the conscious avoidance of controversial political topics, as more than half of the respondents state that they do not discuss sensitive issues at home to prevent the deterioration of relationships. Thus, the conflict shifts from the media space into households and the lives of voters.

At the same time, a significant part of the population demonstrates a high level of distrust towards political actors. Approximately half of the respondents believe that the opposition intentionally harms the country, while a similar proportion holds the same view regarding the coalition. A quarter of those surveyed consider both sides of the political spectrum to be harmful, even in cases involving their own electoral preference. These attitudes suggest a degree of resignation and cynicism towards the political system. Closely related to this is the widespread anti-system sentiment – the conviction that the system in which individuals live does not reflect their needs or even intentionally harms them. More than half of the population identifies with this conviction. Anti-system moods also translate into attitudes towards social change, where a segment of the population inclines towards radical solutions, revolutionary changes, or total resignation regarding the possibility of positively influencing the functioning of society. This attitude is further reinforced by nostalgia for the socialist period, with almost two-thirds of respondents believing that the quality of life was higher in that period than it is at present.

2 IS CONTENT OR FORM THE ARCHITECT OF THE CONFLICT?

Political leaders, for whom conflict represents one of the key communication strategies and starting points, systematically work with a wide range of tools and techniques to achieve their goals. However, polarization as a phenomenon that significantly contributes to the exacerbation of public discussion is not an exclusive feature of the Central or Eastern European region. Data from the Bertelsmann Stiftung survey of 2025 indicate that content distributed through social networks contributes significantly to deepening social divides, particularly as a result of the algorithmic mediation of political information. And here enters the targeted selection of topics that amplify the conflict and push it closer to the recipient.

Research conducted within the framework of the Potsdamer Social Media Monitor at the University of Potsdam analyzed video posts on the platforms TikTok,



YouTube, Instagram, and X. Methodologically, the research was based on so-called sock-puppet audits, which represent an established approach in the field of algorithmic auditing studies. Within the research, user profiles of young people aged 21 to 25 were created and managed automatically; these profiles were assigned specific characteristics, such as political interest, gender, or thematic preferences. The content that the algorithms of individual platforms distributed to these profiles was subsequently systematically collected via web scraping and analyzed.

The results show that on all monitored platforms, content published by the extremist political party AfD was algorithmically distributed to information feeds the fastest and with the highest frequency. For instance, on the TikTok platform, the first video with content related to the AfD appeared after an average of only 11 to 12 minutes of use, whereas content associated with social democracy was recommended to users only after approximately 70 minutes. When looking comprehensively at all partisan political content that young users on TikTok received within the study, videos with a link to the AfD made up half of the content, followed by the CDU/CSU with fifteen percent. Other political entities, including Die Linke, the Greens, and the SPD, were represented significantly less. Similar patterns appeared on the other analyzed platforms.

A detailed analysis of typical political posts on TikTok and X simultaneously showed that individual political parties use very similar strategies aimed at maximizing audience engagement. In terms of content tonality, positive emotionality and appeals to the seriousness of topics dominate, while negative communication is directed primarily against direct political competitors. However, fundamental differences appear between platforms. On TikTok, critical and informative communication styles prevail, while on the platform X, emotional and aggressive forms of communication dominate.

The research also confirms a significant disparity between the volume of published content and the number of its views. Extremist entities achieve a significantly higher reach than would correspond to their share of the total number of published videos. Conversely, political parties of the so-called center achieve poor results in the TikTok environment, suggesting that conflict-oriented and emotionally heightened communication is significantly favored in an algorithmically managed environment.



3 THE BAN ON ADVERTISING WITH A PARADOXICAL EFFECT

Leaders of the countries of the so-called Global West, in an effort to improve the situation on social networks, pushed through a regulation that set more precise parameters for the functioning of global players such as Meta Inc., which operates the social networks Facebook and Instagram, and the communication platform WhatsApp. However, instead of more consistent content control or enforcing accountability for breaking the law, they resolved the situation in a highly questionable manner. At the end of 2025, a ban on paid advertising with political content and from political actors entered into force across the entire EU region. The largest global digital platform thus "washed its hands" of the issue, created a paradoxical argument about the non-profitability of the segment, and left the development of the situation to the spontaneous actions of the actors. The results, however, were surprising.

The ban on political advertising on Meta platforms, which took effect on October 6, 2025, created a unique opportunity to observe the behavior of Slovak political actors in an environment without paid reach. While prior to the introduction of the ban, political profiles had the option to increase their visibility through advertising, after the rule change, the sole decisive factor for success became the content itself and its organic performance.

An analysis of the development of the number of followers, published posts, interactions, and total engagement shows that the consequences of the ban were significant but unevenly distributed. Some political profiles managed to maintain or even increase their performance, while others recorded a palpable decline. The research focused on the ten politicians with the highest number of followers in the period from August 21 to November 20, 2025. In this time interval, Milan Mazurek, Peter Pellegrini, Tomáš Taraba, Andrej Danko, and Branislav Bečik did not use political advertising.

Regarding the growth of followers, it turned out that advertising was not the decisive factor. The highest increase was recorded by Robert Fico, followed by Milan Uhrík and Erik Tomáš. However, Milan Mazurek achieved extraordinarily significant growth; even without the use of advertising, he recorded the highest increase in followers among all analyzed politicians.



After the ban on political advertising, some politicians significantly increased the number of published posts, which can be interpreted as an effort to compensate for the loss of paid reach through higher activity. Other actors, conversely, slowed down their pace of publishing. The development of interactions was extremely varied. While some profiles recorded a significant drop in total interactions, others managed to strengthen their performance in a purely organic environment. A more detailed analysis shows that the sheer volume of interactions can distort the real picture. A much more accurate indicator is the average performance of a single post, which better reveals the difference between paid and organic reach and allows for a more precise assessment of the impacts of the rule change.

The analysis suggests that the ban on political advertising fundamentally changed the dynamics of growth and visibility of political profiles on social networks. Accounts did not grow at the same pace before and after the introduction of the ban, and an increased volume of published content after the ban did not automatically lead to a higher audience response. The most significant slumps were recorded by profiles that were long accustomed to using paid support, wherein the decline in their performance can be directly linked to the loss of advertising. Conversely, for purely organic profiles, changes in performance are primarily the result of audience development and content strategy.

The transformation of public political discussion into a permanent political conflict has fundamental consequences for the quality of democratic communication. It leads to the weakening of trust in the media and political institutions, reduces society's ability to conduct a rational debate on complex problems, and contributes to the growth of cynicism, apathy, or conversely, the radicalization of parts of the audience. In the Central European context of Slovakia and the Czech Republic, these tendencies additionally intertwine with historical experiences of polarization and a traditionally low level of trust in the political system, which increases the risk of further fragmentation of the public space.

4 DISCUSSION IS DEAD, LONG LIVE DISCUSSION

The analysis of the presented data and empirical findings points to three fundamental tendencies that collectively illustrate a deep transformation of public political communication.



The first key finding is the practical demise of deliberative public discussion and its replacement by permanent political conflict. The public space, which in the democratic model was intended to serve as a forum for the rational exchange of arguments, has been reduced to an arena of mutual attacks, defamation, and the discrediting of political opponents. The content of political communication is increasingly less oriented towards factual problem-solving and increasingly more towards the mobilization of emotions, inciting fear, anger, and distrust. Research from social networks unequivocally shows that conflict-oriented, polarizing, and emotionally heightened content is algorithmically favored and achieves an incomparably higher reach than moderate, argumentative communication. Political actors who avoid conflict and attempt to communicate through rational arguments are systematically disadvantaged in this environment, leading to the further weakening of public discussion as such.

The second fundamental finding is the spillover of political conflict from the media and digital space into interpersonal relationships. Polarization does not manifest solely at the level of political elites or media outputs but increasingly affects everyday social life. Data show that political differences are becoming a reason for the disruption of friendships, professional relationships, and family ties, with a part of the population feeling the need to avoid political topics to prevent conflicts. This phenomenon signals a deep fragmentation of society, in which political identity becomes superior to other forms of social identity. The normalization of conflict and hostile rhetoric simultaneously leads to a shift in the boundaries of acceptable behavior – including the legitimization of verbal aggression and, in extreme cases, the approval of violence against ideological opponents. Public discussion thus not only loses its integrative function but actively contributes to the weakening of social cohesion and trust between individuals.

The third, particularly serious finding is the similarity of current developments to historical patterns that accompanied the rise of authoritarian and totalitarian regimes in the first half of the 20th century. Historical analyses of the period before the Second World War show that one of the first steps towards totalitarianism was the systematic destruction of public discussion. In Italy during the rise of fascism, there was a gradual replacement of pluralistic political debate with aggressive propaganda, personalized attacks on political opponents, and the portrayal of the



opposition as an enemy of the state and the nation. Similar tendencies can be observed in Germany during the period of the Weimar Republic, where the escalation of political conflict, the radicalization of language, and the normalization of hatred contributed significantly to the collapse of democratic institutions. Historical sources unequivocally confirm that when political communication is reduced to conflict and public discussion is delegitimized as a weakness or futility, a favorable environment arises for authoritarian solutions and the concentration of power.

In this context, findings regarding the high rate of anti-system sentiment and nostalgia for authoritarian forms of government acquire extraordinary significance. The conviction that the political system does not work, does not represent the interests of citizens, or even intentionally harms them, weakens the legitimacy of democratic processes and increases the willingness to accept radical, undemocratic solutions. If public discussion is perceived exclusively as a space of conflict, lies, and mutual defamation, the motivation for active civic participation is lost, and resignation, cynicism, or conversely, a desire for a "strong hand" grows.

Upon evaluating the stated findings, a relatively unambiguous conclusion presents itself: public political discussion in its current form has practically ceased to exist. It has been replaced by a permanent conflict fed by media logic, the algorithmic mechanisms of digital platforms, and the strategic behavior of political actors. This conflict is not limited to the media space but penetrates deeply into the social structure of society and exhibits signs of development typical of periods preceding the onset of totalitarian regimes. If there is no fundamental reflection and restoration of the importance of public discussion as a basic democratic principle, there is a real risk of further erosion of democratic culture and the normalization of authoritarian tendencies in political communication and the broader social context.

CONCLUSION

Humanity is experiencing epochal changes; the maps of countries, patterns of behavior, and the basic principles of interpersonal relationships are changing. Politics as a method of administering communities has turned into a battlefield, the goal of which is to entertain, distract attention, widen the opinion gap, or deepen distrust in the system.



The problem of today is not "merely" polarization as a statistical indicator, but primarily the transformation of the public sphere into a mechanism that manufactures, maintains, and monetizes polarization through attention. Public discussion – normatively understood as a deliberative space for the rational exchange of arguments – is shifting in the digital environment into a regime of permanent conflict, where the goal is not to convince the opponent nor to reach a compromise, but to generate emotion, mobilize one's own audience, and constantly confirm the identity of "us" against "them."

This logic is substantiated on two levels: firstly, by the social consequences of high polarization, which penetrates into interpersonal relationships, legitimizes aggression, and normalizes the idea of violence; secondly, by the technical architecture of platforms, where algorithms systematically favor heightened content and thus push actors into a spiral of increasingly sharp communication. Even the empirical "natural experiment" following the ban on political advertising on Meta platforms suggests that the removal of the paid amplifier does not restore balance by itself: content and its ability to organically gain attention are decisive – and it is precisely here that conflict-oriented and extremist strategies have a structural advantage.

However, this diagnosis does not imply resignation regarding discussion, but rather an urgent need for its restoration in a new form. The vision of future public debate cannot be a return to an idealized past, but must build upon the most valuable things that the historical experience of European societies has brought: the ability to maintain plurality even in times of tension, to build institutional checks and balances, and to create rules that protect the weaker against the power of momentary passion. It is precisely the history of the 20th century, which our text recalls, that shows that the disintegration of discussion was not a side effect, but a prerequisite for an authoritarian rupture.

The positive lesson is that when a democratic community decided to protect the framework of rules – freedom of speech, transparency, professional media, the rule of law, and the legitimacy of dissent – it was able to reverse even very unfavorable trends. Future public discussion must therefore be resilient: less dependent on immediate emotional response, more based on intelligible facts, the verifiability of claims, fair moderation rules, and a socially supported culture of dissent. In other



words, discussion can return – not as a spontaneous product of platforms, but as a civilizational project.

At this point, the paradoxically slow decision-making of Europe, which is often criticized as ineffective, also acquires significance. In a historical perspective, however, precisely this "slowness" has repeatedly proven to be an advantage: it enabled the avoidance of hasty reactions which, in the name of a quick answer, would have weakened one's own principles. European political culture – even if often frustratingly procedural – has the experience that lasting solutions are not born in a regime of panic, but in a regime of rules, negotiation, and the gradual building of consensus.

Today's era of algorithmic acceleration pushes us into a reflex to react immediately, to ban, to punish, to "win" in the media cycle. European caution can be a counterweight to this dynamic: it gives space for the assessment of consequences, for legal precision, for the proportionality of interventions, and for resilience against the temptation to solve a problem through illiberal means. If digital conflict is an industry of attention, then European proceduralism can be a consciously cultivated form of braking – not a weakness, but a democratic technology of self-control.

From this follows a normative conclusion: the only solution is not to yield to tendentious pressures, but to persistently insist on valid rules and liberal standards of public communication. This means not yielding to the pressures of extremists or fascists who systematically try to push the boundaries of the acceptable, relativize the truth, and dehumanize the opponent. It means resisting the temptation to answer with the same weapons – with shortcuts, hysteria, collective guilt – and instead remaining in a position that is systemic, calm, and effective precisely thanks to "soft power": the power of institutions, trust, the culture of argument, transparency, and predictability.

If democratic communication is to have a chance, it must be legible, fair, and publicly controllable; it must rely on clear rules that apply to everyone equally, and on the willingness to apply them without selectivity. After all, we are not witnessing a fight in the romantic sense of the word, but a metaphorical (and in some cases real, author's note) test of resilience. A test of whether we can avoid falling into the logic of permanent conflict imposed on us by algorithms, the media economy, and cynical



actors. We will stand the test only if our attitude is firm, sustainable, and long-term – not reactive, not one-off, not dependent on the current wave of outrage.

Victory, indeed, will not be a single successful intervention, a single election round, nor a single regulatory change. Victory is a change in the paradigm of functioning: a new, more mature way of working with enemies who are both outside and inside – and who do not try to win an argument, but to destroy the conditions in which an argument can exist at all. If we manage to restore public discussion as a culture, not merely as a format, then conflict will cease to pay off. And that is the only sustainable answer to an era in which attention has become a currency and democracy a target.

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PARTICIPATORY CULTURE AND REMEDIATION: HOW PLAYERS CREATE THEIR OWN NARRATIVES

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ABSTRACT

Digital games represent an important space for participatory culture in which players are not merely consumers but actively co-create meanings, content, and narrative structures. The aim of this study is to analyze the mechanisms of player narrative creation in two different gaming communities – the online strategy game Travian and the cult fantasy game Heroes of Might & Magic III (HoMM3). The theoretical framework of the article is the concept of participatory culture, remix culture, and remediation, which enable us to understand the ways in which players reinterpret original game content and transform it into new forms.

Key words: participatory culture, player-generated narratives, game modding, remediation and remix, digital game communities

INTRODUCTION

Digital games currently represent a significant space for media participation, in which players are not only passive consumers of content, but increasingly active producers of meanings, narratives, and game artifacts. The development of digital technologies, online communities, and game modification tools has enabled the emergence of an environment in which users co-create the gaming experience and transform original media products into new forms. This shift from consumer to active creator is closely linked to the concept of participatory culture, which emphasizes the involvement of users in the production, distribution, and interpretation of media content (Jenkins, 2006). Participatory culture in digital games manifests itself through game modifications, fan fiction, community rules, strategies, and humor that go beyond the original scope of game design. Players thus enter the game world not only as recipients of the narrative, but as its co-creators and interpreters. The gaming environment provides specific conditions for the emergence of such activities, as it allows for interactive manipulation of rules, visual elements, and game mechanics. In this context, we can talk about the transformation



of the player into a so-called prosumer, i.e., a subject who simultaneously consumes and produces media content (Toffler, 1980; Jenkins, 2006). However, it should not be forgotten that in the digital environment, the technical proficiency of users can create an illusion of competence that does not always correspond to the actual abilities of a professional (Kubala and Pál, 2025).

The study focuses on analyzing participatory culture and remediation mechanisms in two different but complementary gaming communities – the online strategy game *Travian* and the cult fantasy strategy game *Heroes of Might & Magic III*. The selection of these cases is not random. *Travian* is a long-running online game based on social interaction, diplomacy, and collective strategy, in which extensive community narratives, internal alliance legends, and player identity stories emerge. In contrast, *Heroes of Might & Magic III* is an example of a game with an exceptionally strong modding community that develops new game worlds, factions, and stories through technical and aesthetic interventions. Both environments thus offer suitable material for exploring various forms of player creation and remediation.

The study of player narratives is important not only for game studies, but also for broader media and cultural research. Player stories often complement, modify, or challenge the official narratives of games and create alternative interpretations of game worlds. At the same time, they provide a better understanding of the dynamics of gaming communities and the processes of identity building and collective memory in the digital environment. Gaming communities can thus be understood as a space for the emergence of digital folklore and collective meaning-making that transcends the boundaries of the game itself.

1 METHODOLOGY

This study is designed as a qualitative case study focused on the analysis of participatory culture and remediation mechanisms in the environment of digital gaming communities. A qualitative research approach was chosen due to the nature of the phenomenon under investigation, which concerns the creation of meanings, narrative practices, and cultural processes in the digital environment. Such phenomena cannot be adequately captured by quantitative methods, as they are



based on interpretation, symbolism, and social interaction between community members (Hine, 2015).

The research uses a comparative design that allows for the comparison of two different types of gaming environments and the identification of common and specific features of participatory culture. Case studies provide a suitable methodological framework for analyzing complex sociocultural phenomena in their natural context, allowing for a detailed interpretation of the relationships between technological, cultural, and community factors (Yin, 2018). The aim of the methodological part is to identify forms of player narratives, analyze mechanisms of remediation and remixing, and interpret the ways in which players transform original game content into new cultural artifacts. The research focuses on the qualitative interpretation of player creation and community practices, emphasizing a contextual understanding of gaming communities. A complementary method is the interpretive analysis of digital artifacts, which focuses on game modifications, maps, visual elements, and other products of player creation. This method allows us to examine how players transform original game content and what meanings they attribute to these transformations.

The research is based on an analysis of two gaming environments – the online strategy game Travian and the fantasy strategy game Heroes of Might & Magic III. These cases were selected on the basis of contrasting comparison, which allows us to observe different forms of participation in different gaming and technological conditions. Travian is a long-running online strategy game based on player interaction, diplomacy, and collective strategy. The game creates an environment for the emergence of community stories, internal alliance narratives, humor, and strategic reports that transcend the game mechanics themselves. Player narratives in Travian arise primarily through social communication and the collective experience of game events. Heroes of Might & Magic III is an example of a game with a strong modding community and long-term cultural longevity. The player community creates new maps, campaigns, visual elements, and modifications that expand the original game world and reinterpret its narrative structures. The modding scene for this game is a significant example of digital craftsmanship and community creation.

The aim of this study is to analyze the ways in which players create, remix, and remediate game narratives in selected digital games, and to interpret the mechanisms



of player storytelling in the context of participatory culture. The study seeks to show that player communities represent an active cultural environment in which new narrative forms and meanings emerge that transcend the original game design.

To achieve its stated goal, the study poses the following research questions:

- How does participatory culture manifest itself in the Travian and Heroes of Might & Magic III gaming communities?
- What types of player narratives arise in these gaming environments?
- What role do remediation and remixing play in the creation of player content, especially in the Heroes of Might & Magic III modding community?
- How do player narratives contribute to the formation of identity and collective memory in gaming communities?

2 PARTICIPATORY CULTURE AND PROSUMER AUDIENCES

The concept of participatory culture represents one of the key theoretical frameworks for understanding contemporary media and gaming communities. Henry Jenkins defines participatory culture as an environment in which individuals are not merely passive recipients of media content, but actively participate in its creation, interpretation, and dissemination. Such an environment is characterized by low barriers to entry into creation, support for creativity and sharing, the existence of informal mentoring, and a strong sense of community among participants (Jenkins, 2006).

Digital games represent one of the most prominent spaces of participatory culture. Gaming communities create their own rules, interpretations, and narratives that complement or transform the original game worlds. In this context, the player becomes a so-called prosumer, i.e., a subject who simultaneously consumes and produces media content (Toffler, 1980). In the gaming environment, prosumer activity manifests itself through game modifications, fan fiction, community strategies, video content, and humorous forms of communication.

Participatory culture is closely linked to the concept of convergent culture, which describes the intertwining of traditional and digital media and the active role of the audience in creating meaning (Jenkins, 2006). Players thus become co-creators of



the media ecosystem, with their activities extending beyond the game itself and creating new forms of digital culture. These processes are reinforced by the development of online platforms, discussion forums, social networks, and tools that allow for the modification of game content. From the perspective of media and cultural studies, participatory culture in digital games is also significant because it allows us to examine the emergence of collective identity and community memory in the digital environment. Gaming communities create their own stories, legends, and interpretations of game events, which function as a form of digital folklore. This process confirms that the gaming environment is not only a technical or entertainment medium, but also a cultural space for the production of meanings and social relationships.

2.1 REMEDIATION AND REMIX CULTURE IN DIGITAL GAMES

Understanding the creation of player narratives also requires reflection on the concept of remediation and remix culture. Remediation, as defined by Bolter and Grusin, refers to the process by which new media take over, transform, and reinterpret the content of older media, creating new hybrid forms of media representation (Bolter and Grusin, 1999). Digital games are a typical example of this process, as they combine elements of literature, film, visual arts, and interactive media.

In the gaming community environment, remediation takes on a specific form. Players take the original game mechanics, visual elements, and narratives and transform them into new forms through modifications, fan projects, or community interpretations. This process can be understood as a dynamic exchange between official game design and unofficial player creation. The result is the emergence of parallel narrative worlds that exist alongside the original game text (Jenkins, 2006).

Closely related to remediation is the concept of remix culture, which refers to the creative reworking of existing media content into new forms (Lessig, 2008). Remix in the gaming environment includes modifications to game mechanics, the creation of new visual elements, alternative stories, and reinterpretations of the game world. Players thus function as creators of secondary content that builds on the original game, but at the same time transforms and expands it. Remixing and remediation in digital games also have a transmedia character. Game narratives move between



different media and forms—from game maps and modifications to text stories to visual or audiovisual adaptations. This process leads to the emergence of a complex media ecosystem in which players actively participate in the creation of meanings and identities. Digital games thus become a platform for the creation of new cultural artifacts that arise at the intersection of official production and community creativity.

2.2 DIGITAL CRAFTSMANSHIP AND CREATIVE INTERVENTIONS BY PLAYERS

The creative activities of players can also be interpreted through the concept of digital craftsmanship, which refers to a combination of technical skills, aesthetic sensitivity, and community collaboration in the creation of digital content. In the gaming environment, this phenomenon is particularly evident in modding communities, where players create new game elements, visual modifications, maps, or entire game campaigns. These activities require a high degree of expertise, creativity, and collaboration, bringing them closer to traditional forms of craftsmanship.

Digital craftsmanship also emphasizes the value of informal learning and community mentoring. More experienced players and creators pass on their knowledge to new members of the community, creating a dynamic ecosystem of knowledge sharing. Gaming communities thus function as environments for informal education and creative production, blending entertainment, technical creation, and cultural participation. From the perspective of digital humanities, it is important to perceive these activities as a legitimate form of cultural production. Game modifications, community stories, and fan projects can be understood as digital artifacts that document users' creative practices and expand on the original media texts. Analyzing these processes allows us to better understand how new forms of authorship, identity, and collective creation are taking shape in the digital environment.

3 RESULTS - SOCIAL AND TECHNICAL-AESTHETIC NARRATIVES: A COMPARISON OF GAMING COMMUNITIES

An analysis of the game environments examined points to the existence of two distinct but complementary models of participatory culture and player-generated



narrative creation. While social and community-oriented narratives dominate the Travian game environment, the Heroes of Might & Magic III community is characterized by technical and aesthetic creation and systematic improvement of the game itself. Both environments thus represent different approaches to the creation of player stories and the remediation of game content.

3.1 TRAVIAN: SOCIAL STORIES AND COMMUNITY NARRATIVE

In Travian, narratives arise primarily through social interaction and collective experiences of game events. The game functions as a long-term strategic simulator of social relationships, in which players form alliances, establish diplomatic ties, and coordinate military operations. These activities generate extensive community stories, often in the form of alliance chronicles, war reports, or humorous interpretations of game situations.

Participatory culture in this environment manifests itself primarily through the creation of closed thematic groups of players that function as autonomous communication and organizational units. Players form selective collectives coordinated through external platforms such as Discord, Travco, or Toolbox for Travian. These platforms allow for detailed categorization of communication into thematic channels and threads, often numbering in the dozens. The thematic structure of communication includes, for example, strategic planning, attack logistics, economic support, diplomatic negotiations, and informal community communication. This creates a complex coordination system that goes beyond the game itself and creates a parallel social space. Within this space, players are divided according to their game roles and competencies, with more experienced players taking on the role of mentors and coordinators.

An important aspect is the transfer of knowledge between players. More experienced members of the community systematically pass on strategic and tactical knowledge to less experienced players, creating a form of informal community education. This process strengthens collective identity and contributes to the more effective functioning of alliances. Based on long-term participation in the gaming environment, it can be concluded that these forms of organization represent a stable and recurring part of gaming practice, which is also confirmed by the author's own research experience. Travian can thus be characterized as an environment of social



stories in which narrative creation focuses on interpersonal relationships, collective conflicts, and community memory. Game events are interpreted and archived through communication channels, creating dynamic digital folklore.

Figure 1: View the list of players in a closed alliance in travian with a thematic focus on names - "profession"

1.		 TheButcher				5608 8
2.		 Brawling Brewer				5302 9
3.		 The Pimp				3870 6
4.		 Engineer				3493 7
5.		 De Floperator				3489 6
6.		 The Lab-Rat				3456 6
7.		 Snake Milker				3359 6
8.		 Tax Collector				3329 6
9.		 The Food taster				3249 6
10.		 The Surgeon				3175 5
11.		 The Judge				3122 5
12.		 CivilEngineer				2977 5

Source: Own Processing

3.2 HEROES OF MIGHT & MAGIC III: TECHNICAL AND AESTHETIC

Unlike Travian, the HoMM3 community is primarily focused on the gaming experience and systematic improvement of the game itself. The participatory culture is manifested through modding, technical modifications, and aesthetic enhancements to the game world. The community functions as a collective "development ecosystem" that maintains and develops the game in the long term, even after the original producers have ended their official support.

One of the key manifestations of this participation is regular updates and modifications to game mechanics, which in their scope resemble official developer interventions. The community systematically identifies and eliminates game bugs, unbalanced mechanics, and shortcomings in game design. An example is the modification of the Necropolis faction algorithm, where the ability to revive fallen first-level units caused significant game imbalance. Similarly, the economic parameters of the Tower faction were modified, as its original building price settings



led to an unreasonable disadvantage for players. In addition to balancing game mechanics, the community creates new game elements that did not exist in the original version. These mainly include new playable characters, hero specializations, abilities, and artifacts. New artifacts can often be combined into more complex units using so-called recipes, thereby expanding the strategic possibilities of the game. These interventions are implemented with an emphasis on graphic and aesthetic compatibility with the original game. New visual elements are designed to be almost indistinguishable from the original graphic style for the player and at the same time fully acceptable in terms of game balance.

This creates a form of technical-aesthetic narrative in which players develop stories primarily through the game design itself, rather than through communication. Each modification, map, or game campaign represents a new narrative and aesthetic intervention in the game world. The HoMM3 community thus functions as a collective of digital craftsmen who develop the game universe through technical and visual creation.

Figure 2: Comparison of the graphic design of the original castle by the official creator (left) and the new one created by the players themselves (right).



Source: Own Processing

3.3 COMPARISON: SOCIAL VS. TECHNICAL-AESTHETIC NARRATIVES

A comparison of both gaming communities shows that participatory culture in digital games takes different forms depending on the nature of the game and the community. Travian represents a model of socially oriented participation dominated



by communication and community narratives. Player stories arise primarily through interaction between players, coordination of alliances, and collective experiences of game events. Narrativity is closely linked to social dynamics and the building of community identity. In contrast, HoMM3 represents a model of technical-aesthetic participation, in which player creation focuses on modding, balancing game mechanics, and expanding the game world. Narratives arise through design interventions in the game and aesthetic production, which create new game possibilities and alternative versions of the game universe. However, both environments confirm that digital game players act as active producers of meanings and cultural artifacts. Participatory culture and remediation enable the emergence of complex narrative structures that transcend the original game design and transform digital games into dynamic cultural ecosystems.

Player narratives in both environments can also be interpreted as a form of digital folklore. These are spontaneously emerging stories, legends, internal labels, and collective memories that circulate within the community and are constantly reinterpreted by its members. In the case of Travian, this folklore is mainly oral and textual, linked to specific game events and social interactions. In the Heroes of Might & Magic III community, digital folklore manifests itself more through modifications, maps, and aesthetic interventions in the game world. The artifacts created in this way represent the collectively created cultural memory of the community, which transcends the game itself and confirms its status as a living digital cultural environment.

Based on this comparison, it can be concluded that participatory culture in digital games does not create a uniform model of player creation, but rather differentiated forms of narrative and creative participation. While online strategies primarily give rise to social and situational stories, communities with open modding infrastructure are dominated by technical and aesthetic creation. However, both forms confirm the transformation of the player from a passive consumer to an active producer of meanings and cultural artifacts in the digital environment.



4 CONCLUSION

The analysis of the two selected gaming environments confirms that participatory culture in digital games manifests through diverse forms of player-generated narratives and creative practices. In the online strategy game Travian, narrative production is primarily socially oriented and emerges from interaction among players. Alliance coordination, diplomacy, collective planning and shared experiences of conflict generate extensive community stories that extend beyond the formal structure of the game. Players create internal chronicles, humorous interpretations and strategic narratives that contribute to the formation of collective identity and community memory. Communication platforms such as Discord and specialised external tools further support the creation of coordinated groups in which knowledge transfer and collaborative storytelling occur. These practices demonstrate that narrative creation in Travian is closely linked to social interaction and the collective interpretation of game events.

In contrast, the community of Heroes of Might & Magic III demonstrates a form of participatory culture focused on technical and aesthetic transformation of the game itself. Player activity is largely expressed through modding, map creation and the continuous improvement of game mechanics and visual elements. Community-driven updates, balance adjustments and the introduction of new heroes, artefacts and scenarios illustrate a sustained effort to expand and refine the original game world. These activities create what can be described as technical-aesthetic narratives, where storytelling is embedded in the design and modification of gameplay systems. While Travian represents a model of socially driven narrative production, Heroes of Might & Magic III exemplifies participatory culture based on digital craftsmanship and creative reinterpretation of the game environment. Together, both cases demonstrate that player communities function as active cultural agents shaping and extending digital game worlds.

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DIGITAL ADAPTATION OF WORLD MYTHOLOGIES IN THE GAME WUTHERING WAVES

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ABSTRACT

Digital games represent a modern medium for reinterpreting and disseminating cultural heritage, as they combine visual, narrative, and interactive elements that enable deep player engagement. This article examines how the mobile RPG game *Wuthering Waves* adapts elements of world mythologies and transforms them into a complex fantasy game environment. The analysis focuses on character storylines, mythical creatures, environmental symbolism, and game mechanics that allow players to actively explore and interact with mythical motifs. The game uses a combination of visual design, narrative layers, and gameplay to create an immersive experience that encourages the discovery of cultural traditions and myths. The article also shows how *Wuthering Waves* allows players to independently discover connections between different mythologies while offering interactive storytelling that deepens understanding and interest in world myths. The game also experiments with various genre elements, expanding the traditional boundaries of RPG and digital narrative creation. This approach shows that modern digital games not only entertain but also educate and promote cultural interpretation in the digital age.

Key words: digital games, mythology, *Wuthering Waves*, interactive storytelling, game design.

INTRODUCTION

Digital games have now established themselves as an important part of media culture and the creative industry. They are no longer just a form of leisure activity, but function as complex multimodal systems that combine image, sound, text, and interactivity (Juul, 2005). Thanks to this combination, they have become a relevant space for conveying cultural meanings, values, and social structures that were traditionally linked to literature, visual arts, or film (Manovich, 2001).



One of the areas that digital games significantly reflect and transform is mythology. As fundamental narrative models of cultural memory, myths provide universal archetypes, symbols, and story patterns that have been repeatedly reinterpreted throughout history in new historical and cultural contexts (Campbell, 2004). In contemporary media, mythology rarely appears in the form of literal adaptation; more often, it serves as a flexible source of inspiration that allows for the creation of hybrid worlds combining different cultural traditions (Eliade, 1998).

Digital games bring a specific element to the process of mythological reinterpretation: interactivity. The player is not just a passive recipient of the story, but an active participant who enters the narrative world through decision-making, exploration of the environment, and game mechanics (Murray, 1997). Mythological motifs thus become not only part of the narrative, but also part of the player's personal experience, which strengthens their interpretive and educational potential (Ryan, 2001).

This article focuses on the mobile RPG game *Wuthering Waves* as a case study of the digital adaptation of world mythologies. The aim is to analyze the ways in which the game works with mythological elements at the level of story, characters, and game world, and to highlight the potential of digital games as an important tool for cultural interpretation in the contemporary media environment.

1 THEORETICAL BACKGROUND

The theoretical framework of the article is based on the intersection of media studies, narrative theory, and game studies. In this context, digital games are understood as specific media artifacts that combine fictional worlds with formal rules and interactivity, creating a hybrid space between storytelling and play (Juul, 2005).

From the perspective of narrative theory, games represent a shift from linear storytelling to interactive storytelling. Janet H. Murray (1997) points out that digital media enable the emergence of participatory narratives in which the story unfolds through the actions of the user. In games, the narrative is not created exclusively through text or images, but also through game mechanics, decisions, and exploration of the game world (Ryan, 2001).



Mythology in this media environment functions as an open system of symbols and archetypes. According to Campbell (2004), myths convey universal patterns of human experience that recur across cultures and media. Digital games do not adopt these archetypes literally, but adapt them to new contexts, creating hybrid mythological systems that reflect global culture and contemporary social issues.

The process of digital adaptation of mythology can be understood as a form of cultural reinterpretation. Instead of preserving the original mythological structure, meanings are transformed through visual design, narrative layers, and interactive mechanics (Manovich, 2001). Mythological beings, deities, and sacred spaces are transformed into game characters, enemies, or environments with which the player actively interacts.

Another important aspect is the educational and interpretive potential of digital games. Thanks to the active participation of the player, games allow for a deeper understanding of symbolic structures and cultural meanings than passive consumption of content (Eliade, 1998). The player thus becomes not only a consumer of mythological content, but also its interpreter, transforming mythology into a personal experience anchored in the gaming experience.

2 GOALS

The main objective of this article is to analyze the ways in which the mobile RPG game *Wuthering Waves* adapts and reinterprets elements of world mythologies in a digital gaming environment. Emphasis is placed on identifying mythological motifs and archetypes and their transformation through narrative, visual design, and game mechanics.

The sub-objectives of the article are:

- to identify selected mythological motifs and archetypal patterns present in the game world,
- to analyze the storylines of selected characters in terms of mythological parallels,
- to examine the symbolism of game environments and their relationship to mythological ideas,



- to evaluate the role of game mechanics in mediating and interpreting mythological content.

3 METHODS

The article uses a qualitative research approach based on content and interpretative analysis of the digital game *Wuthering Waves*. The game is examined as a complex media text that includes narrative, visual, and interactive levels.

The methodological procedure includes:

- repeated playing of the game with a focus on the main and secondary storylines,
- analysis of story sequences and character profiles of selected characters,
- interpretation of the visual design of environments, mythical creatures, and symbolic elements,
- comparison of identified motifs with selected elements of world mythologies (e.g., ancient, Norse, and East Asian mythology).

The emphasis is not on the historical or textual accuracy of the mythological models, but on the way they are transformed and their function within the game system. The analysis focuses on the meaning-making processes that arise through the player's interaction with the game world.

4 RESULTS

The mobile and desktop RPG game *Wuthering Waves*, developed by Kuro Games, is set in a post-apocalyptic fantasy world in which humanity faces the consequences of a catastrophic event known as Lament. The game world combines elements of science fiction, fantasy, and mythological storytelling, with the player, in the role of the character Rover, gradually uncovering fragments of the world's past through story missions, interactions with characters, and exploration of the environment. Mythological motifs are implicitly present in the game and scattered across multiple game levels.

The storylines of both main and secondary characters reflect archetypal patterns known from world mythologies. The character of Rover represents the archetype of



the "lost hero" who comes into the world with no memory of his own origins. The gradual revelation of his identity and past deeds corresponds to the mythical pattern of rebirth and the search for one's place in the world.

The character of Jiyan acts as an archetype of a military leader and protector of the community. He bears the burden of responsibility for the safety of others, and his inner conflict between duty and personal loss is reminiscent of the mythological image of the warrior king known from ancient and Norse myths.

The enemies, known as Tacet Discords, are hybrid beings combining organic and abstract forms. They are not direct adaptations of specific mythological monsters, but rather symbolic reinterpretations of them. Their chaotic appearance and connection to the destroyed world evoke mythical ideas of chaos and disruption of the cosmic order, known for example from Mesopotamian or Greek mythology. Bosses and elite enemies are often tied to specific locations, giving them an almost sacred or demonic character, and their defeat symbolizes a temporary restoration of balance.

In the game world, there is a location called Polythemos Windmills, where there is a cave with a one-eyed enemy. This is a clear reference to the *Odyssey*, specifically to the character of the cyclops Polyphemus. Near the cave is a small island where the player can collect lotus seeds, which is another reference to the episode with the so-called lotus eaters, where consuming lotus caused memory loss and a desire to return home (Zero, 2025).

The game also features a mythical whale called Cetus, which can be interpreted as a reference to Greek mythology. In ancient myths, Ketos is a sea monster killed by Perseus while rescuing Princess Andromeda (Est, 2025).

The character Phoebe refers to the Greek titan of intellect and prophecy. The name Phoebe means "bright" or "radiant" and in mythology was associated with the sun, moon, and Delphic oracle. These attributes are also carried over into her gaming identity and abilities (Kranis, 2025).

Zani, whose name can be translated as "gift from God," is visually stylized in a way that evokes a fallen angel. Her horns and tail refer to demonic symbolism, whereby



the game works with an ambivalent image of a being moving between the divine and demonic principles.

A striking example of targeted mythological adaptation is the Septimont region, whose architecture and aesthetics refer to ancient Rome. Monumental buildings, arches, and urban structure evoke the idea of an imperial center of power. The mythological dimension of the location is reinforced by the figures of Augustus and Juno, whose names and functions refer to Roman imperial and religious symbolism. Septimont thus functions as a digital reinterpretation of the myth of the eternal city and its civilizational superiority.

The game environments in *Wuthering Waves* function as carriers of mythological meaning. Ruins, abandoned cities, and fragmented landscapes suggest the existence of an ancient advanced civilization whose fall became the fundamental myth of the game world. Through environmental storytelling, the player gradually reconstructs the narrative of the past, with the environment serving as a "silent narrator."

An important finding is the role of game mechanics in conveying mythological content. The mechanics of gradual story revelation and fragmentary storytelling lead the player to actively interpret meanings. Mythological motifs are not explicitly explained but encoded into the game system, thereby promoting a personal and participatory experience with mythology.

CONCLUSION

The presented analysis of the mobile and desktop RPG game *Wuthering Waves* shows that digital games are an important medium for adapting and reinterpreting world mythologies in the contemporary media environment. The game works with mythology as an open system of symbols, archetypes, and narrative structures that are transformed through interactive design and game mechanics.

The results of the analysis show that mythological elements are present in the game on several levels—in the stories of the characters, in the design of the creatures, in the symbolism of the environments, and in the very structure of the game system. Interactivity allows the player to actively engage in the process of interpretation, transforming mythology from passive content into a personal experience.



The article also points out that modern digital games can convey cultural heritage in a way that is accessible to a global audience, without the need for in-depth knowledge of specific mythological traditions. Wuthering Waves thus demonstrates the potential of digital games not only as entertainment, but also as an interpretive and educational medium.

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THE PARADOX OF EXISTENCE AND THE LEAP OF FAITH: THEOLOGICAL IMPLICATIONS OF SØREN KIERKEGAARD'S PHILOSOPHY

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ABSTRACT

Søren Kierkegaard (1813–1855) is a central figure in existential philosophy, which integrates philosophy, theology, and psychology in order to examine authentic human existence in relation to God. His thinking is based on biblical figures and philosophical models, especially Socrates, St. Augustine, Pascal, and Lessing. Kierkegaard's interest lies in the confrontation between faith and reason, whereby his indirect, pseudonymous, and introspective method is intended to lead the individual to self-reflection and authentic living. Within his existential concept, he distinguishes three stages: aesthetic, ethical, and religious, whereby religious existence involves a "leap of faith" and the overcoming of paradox. Kierkegaard criticizes the idealistic philosophies of the 19th century and points to the neglect of existence in favor of abstract philosophy. His ideas had a significant influence on 20th-century theology, where they contributed to a renewed emphasis on individual existence, the transcendence of God, and the ethical engagement of the individual, while also sparking a discussion about the relationship between Christianity and culture and the social and communal dimensions of faith. Kierkegaard's work remains an inspirational source for reflection on the paradoxes of human existence and authentic religious life.

Key words: Søren Kierkegaard, existence, faith, philosophy, theology

INTRODUCTION

The authors of this article introduce Søren Kierkegaard, who integrates philosophy, theology, and psychology in his work, with his main focus being the examination of authentic human existence in relation to God. The basis of his thinking is the biblical tradition, which he interprets together with philosophical models such as Socrates, St. Augustine, Pascal, and Lessing. Kierkegaard reacts critically to the idealistic philosophy of the 19th century, especially Hegel, and draws attention to



the "forgetting of existence" that arises in abstract philosophizing. Through an indirect, pseudonymous, and introspective method, he seeks to lead the reader to self-reflection and an authentic experience of life. He distinguishes three stages of existence—aesthetic, ethical, and religious—and emphasizes that religious existence requires a "leap of faith" that overcomes the paradox between the rational and the supra-rational.

1 THEORETICAL BACKGROUND

1.1 STARTING POINTS

This study is based on the existential philosophy of Søren Kierkegaard, whose thinking represents an integration of philosophy, theology, and psychology in an effort to reflect on authentic human existence in relation to God. The basic hermeneutical framework is the tension between faith and reason, which Kierkegaard addresses as an irremovable paradox of human existence. The anthropological starting point of the work is the understanding of man as a synthesis of the finite and the infinite, the temporal and the eternal, freedom and necessity, whereby existence is a dynamic, historical, and decisive reality. At the same time, the study draws on the biblical-Christological horizon of Kierkegaard's thinking, in which paradigmatic figures such as Abraham and Jesus Christ represent a model of religious existence realized through a "leap of faith." Another important starting point is the critical confrontation with German classical idealism, especially with the Hegelian system, which Kierkegaard accuses of "forgetting existence" in favor of abstract speculative rationality. The reflection also takes into account the reception of his thinking in 20th-century Protestant and Catholic theology and examines its methodological and systematic significance for the renewal of the emphasis on the transcendence of God and the existential dimension of faith.

1.2 KIERKEGAARD'S INSPIRATIONS AND PHILOSOPHICAL METHOD

Søren Kierkegaard is a thinker who seeks to develop philosophy, theology, and psychology simultaneously in his works. These three aspects of thought are united in Kierkegaard's characterization as a religious philosopher. His thinking is influenced primarily by the biblical tradition, which presents and interprets the



content of God's revelation, and at the same time by the philosophical tradition, which is the message of the "revelation" of reason in history. His thinking is inspired by and confronted with the two most important constitutive sources and traditions on which the whole of Western civilization is built. As part of his intellectual endeavor, Kierkegaard undertook to rethink the traditional problem of the relationship between reason and faith.

Among biblical figures, he was particularly interested in Abraham, Job, the prophets, and God's Son Jesus Christ. He liked the patriarch Abraham for his attitude as a genuinely believing man. The interpretation of Abraham's experience on Mount Moriah plays a decisive role in characterizing human existence in Kierkegaard's philosophical concept. For Kierkegaard, Job is a representative of heroic patience because, despite his rebellion caused by immense physical and mental suffering, he remained faithful in his humble trust in God's will and did not accept the "cheap" explanations of his situation offered by his friends. The prophets, who focused all their activities on criticizing the formal way in which the Israeli people practiced their religion and demanded a change of heart from the people instead of rigid adherence to the rules of the law, were also close to Kierkegaard, because he too reflected critically on the ossified and somehow taken-for-granted Christianity in Copenhagen. The prophets did not hesitate to point out the mistaken understanding of faith by kings and high priests, and Kierkegaard did not hesitate to take a radical stand in opposition to the hierarchy of the Danish church and to criticize the prevailing attitudes of the public.

Kierkegaard's greatest inspiration is the person of Jesus Christ; indeed, it can be said that his entire work is essentially Christocentric. Kierkegaard was inspired in his work primarily by the Gospel message of Jesus Christ and the writings of the New Testament. He was also inspired by the Church Fathers, the experience of martyrs and mystics, and Pietism.

Among the thinkers who were similar in type and who influenced Kierkegaard, Socrates, St. Augustine, B. Pascal, and G. E. Lessing deserve special mention. Socrates in Athens led people to the true knowledge of truth through his maieutic method by showing them their own ignorance. In a similar way, Kierkegaard in Copenhagen, by applying his indirect method, which is analogous to Socratic maieutics, led people to a truer knowledge of themselves and their faith in God.



Socrates used his own irony in his dialogues with the Athenians, and Kierkegaard applied it in a very sophisticated way in his writings. Moreover, Socrates was a role model for Kierkegaard in that he tried to act as he spoke. He undertook to bring this maxim to the greatest possible perfection and did not hesitate to sacrifice his life for the truth he was inwardly convinced of. Kierkegaard found this appealing because he considered suffering to be characteristic of those who take their existence and faith in God seriously. However, he did not accept Socrates' teachings uncritically—he disagreed with several of his theses and argued with them, especially with regard to ethical issues. This does not change the fact that Socrates was Kierkegaard's spiritual teacher par excellence.

Kierkegaard used the indirect method mainly in his aesthetic writings, which were written exclusively under pseudonyms. This was not only an expression of the complexity of his nature, but also an implication of a certain more fundamental intention. In these aesthetic works, Christianity only shines through and seems to determine their content from the background. The main intention is only present in an implicit form. The turning point in his literary and philosophical work was the work *The Final Non-Scientific Appendix*. Its publication was followed by a series of writings dealing exclusively with Christian issues. Some of them were published under his own name. He wrote directly and explicitly professed that he was primarily a religious writer and that his main concern was to bring existence closer to the Christian sense: "I was and am a religious writer; all my writing relates to Christianity, to the problem of becoming a Christian, with a direct and indirect polemical focus on the enormous sensory deception: Christianity, or rather, that we are all Christians in this country." (Kierkegaard, 2003).

The instrumentalization of the indirect method served two purposes. Through this method, it was possible to approach the most diverse types of life attitudes, leaving it up to the reader to freely draw axiological conclusions for their own life from the content. In the author's words: "Maeitučnosť depends on the relationship between aesthetic activity as a beginning and religious activity as *Télos*. It begins with the aesthetic, in which perhaps most people have their lives: but then religiosity is introduced so quickly that people moved by aesthetics decide to enter into it, so that they suddenly find themselves in the midst of the decisive determinations of



Christianity, and at least have the opportunity to be made aware of it" (Kierkegaard, 2003).

St. Augustine was close to Kierkegaard in that he used the method of introspection in his philosophical conception. Pascal influenced him by emphasizing the philosophical interpretation of human emotional states, and it is therefore not without reason that he is referred to as the philosopher of the heart. In his works, G.E. Lessing interpreted the tense relationship between the rational and the supra-rational in a stimulating way, formulating this relationship into various paradoxes, which later led Kierkegaard to reflect on the spiritual leap of man.

Kierkegaard lived and worked as a thinker in the first half of the 19th century, a period when German classical idealism, represented mainly by I. Kant, and J.G. Fichte, F.W.J. Schelling, and G.W.F. Hegel. It is quite evident that he confronted these "giants of the spirit." Kierkegaard's main concern was his reaction to the panlogistic system of Hegel's philosophy, whose interpretative scheme of thesis-antithesis-synthesis dominated not only philosophy and theology, but also all the humanities. Hegel's philosophy was clearly the most popular during Kierkegaard's lifetime, and it can be said that our philosopher's entire work is based on radical opposition to it. "Modern philosophy floats abstractly in metaphysical uncertainty. Instead of explaining itself and referring people (individuals) to ethics, religion, and existence, philosophy has suggested that people could, as it is quite prosaically put, speculate themselves into pure opinion." We can see that Kierkegaard's thinking goes against the mainstream of philosophy up to that point. The most serious problems of modern philosophy related to the problem of consciousness and cognition and the rationalism-empiricism dispute remain on the periphery of his interest. He formally confirms this difference in opposition to idealistic philosophy by the fact that his works are not written using a rigid argumentative approach, as is the case with Kant or Hegel, for example, but rather philosophical argumentation forms the implicit background of his literary texts. Despite his preference for unsystematic argumentation, this does not detract from the philosophical consistency and originality of his works (Kierkegaard, 1996).

Kierkegaard seemed to sense that the problems raised by modern philosophy are very important and their solutions are useful in many ways, but they still bypass something essential, namely the problem of human existence. Kierkegaard therefore



characterizes the era in which he lived as a time of forgetfulness of existence. Kierkegaard therefore wants to return to existence in his philosophical endeavor, and he begins to do so by positively deconstructing the preferred themes and solutions of Hegel's idealistic concept and, within this "deconstruction," he formulates and raises new problems, which he believes are much more essential. He considers a return to existence to be essential. He also takes a close look at life as we experience it in its everyday movement, in a specific situation. These are all topics that previous philosophical traditions left unnoticed or that were not considered worthy of philosophical reflection.

1.3 KIERKEGAARD'S DEFINITION OF EXISTENCE IN THREE STAGES

It is clear that human existence is not static, but essentially dynamic. "Man is spirit. But what is spirit? Spirit is 'I'. But what is 'I'? I is a relationship that has a relationship to itself, that is, it is in a relationship in which the relationship has a relationship to itself. The self is not the relationship itself, but the fact that the relationship has a relationship to itself. Man is a synthesis of the infinite and the finite, of temporality and eternity, of freedom and necessity, in short, a synthesis...However, in this way, man is not yet any self... If a relationship is in relation to itself, then this relationship is something third and positive, and that is man's self." Finitude, temporality, and necessity point to the immanent determinations of our existence. In contrast, infinity, eternity, and freedom refer to transcendent determinations. The relationship between immanent determinations and transcendent determinations is synthesis. Synthesis is a relationship that relates to the self as a relationship and, from its determinations, subsequently generates the conditions for the possibility of continuous tension in existence itself. Furthermore, another dimension of it is revealed, which is the relationship to the temporal modalities of the past, present, and future, as well as the relationship to eternity. Existence, being dynamic in its essence, is also historical in its essence (Kierkegaard, 1993).

Three lines run through Kierkegaard's entire work: aesthetic, ethical, and religious stages of existence understood as concrete existential determinations rather than abstract logical moments (Gardiner, 1996). These stages of existence represent a kind of paradigmatic conglomerate of preferred values of different attitudes to life,



through which a person relates to himself, to other people, and to God as the absolute Being.

Kierkegaard describes in detail and in a psychologically compelling way the aesthetic stage of human existence, using the example of the seducer Johannes' experience of love. It turns out that the deepest motivation for aesthetic existence is the overcoming of boredom. In a letter in which he reflects on life, the seducer Johannes therefore admits to the hidden motive behind his actions: "I am not afraid of comic or tragic difficulties, I am only afraid of boredom." (Kierkegaard, 2003).

Aesthetic existence is therefore inherently egocentric and acts accordingly. In his prosaic interpretation of capricious love, Kierkegaard attempts to introduce the reader to the essential characteristics that determine aesthetic existence, which undoubtedly include the category of interest, the importance of experimenting not only with one's own feelings and thoughts, but also with the feelings and thoughts of other people. Experimentation is focused on manipulating ourselves and other people.

A person who lives aesthetically develops their unique relationship to the existence that belongs to every human being by not accepting it, rejecting it, and not wanting to bear the burden of responsibility for their own decisions. They are therefore prone to trivializing and simplifying their situation by activating various sophisticated forms of concealment, which manifest themselves, for example, in a preference for stereotypes and habitual behavior. Kierkegaard therefore warned readers about the dangers that arise from our habits and bad habits: "Habit is not like other enemies that show themselves and against which we can defend ourselves—we must resist ourselves in order to notice habit. In its wickedness, it is like a familiar beast approaching a sleeping person and, while sucking their blood, fanning them and making their sleep more pleasant." (Kierkegaard, 1996).

The salvation for an aesthetic existence living in false and fantastical opinions about itself is the ability—suppressed and sedimented but still present in its depths—to decide for itself, to choose its own self and thus confirm the spiritual dimension of its existence. At this point, the individual emerges from a merely imagined world of possibilities, and truth becomes something that is existentially internalized as an ethical determination.



According to Kierkegaard, people can only become more authentic individuals by accepting and assimilating ethical laws, norms, and principles. They transform them into their specific personal lives in such a way that it cannot be said that they act from outside. Ethical laws are universal in nature. They are valid and binding for every human being. An individual who accepts the ethical form of existence becomes resistant to the various personal turbulences they encounter in life and, at the same time, is much more stable in their ethical self-determination than in aesthetic existence with regard to external conditions and circumstances of life. By accepting the ethical dimension of their existence, people achieve a certain form of detachment from their immediate experience of themselves and the world, creating space for the necessary self-reflection in which they can critically reevaluate their relationship to themselves and other people. This self-reflective activity is the beginning, the foundation, and at the same time the condition for the acceptance of universal ethical norms that ensure a more positive relationship between people and themselves and others. The aforementioned self-reflection is not an abstract-theoretical exercise or contemplation detached from the experience of a specific person, but an expression of an authentic attitude and action that is a response to a problematic situation in aesthetic life.

We can see that the ethical dimension, within which a person accepts ethical and social moral norms and principles, allows them to live their life in a way that is clearly more fulfilling than an aesthetic attitude, even though these rules naturally entail certain obligations that must be fulfilled. It can be said that it is precisely these obligations towards oneself and others that significantly influence one's selfish passions and motives and improve one's existence in the world. An ethically living person and their actions are, as a whole, tuned to practical rationality. Their potential can only be realized within the limits determined by reason.

In his philosophy, Kierkegaard constantly emphasizes the qualitative difference between man and God, as well as between reason and faith. Man and God are separated by an ontological chasm, and it is only thanks to this difference that a relationship can be established. This relationship cannot be realized dialectically through the acceptance of some form of rational mediation. There is an insurmountable hiatus between rational and supra-rational reality, which can only be bridged by a leap of faith, understood by Kierkegaard as the greatest paradox of



human existence. From the perspective of faith, which relates to God as something completely "other," beyond any rational-ethical experience, it is possible to suspend the validity of ethics as a whole with its own teleology. "Faith is a paradox precisely because in it the individual stands above the general, justifiably stands above it, is superior to it, not subordinate to it. Only if the individual was previously subordinate to the general does he now, through the general, become superior to the general, which means that the individual is in an absolute relationship with the absolute." (Kierkegaard, 2005).

An explicit expression of this fundamental discord between the ethical and religious planes of human existence is the oppressive situation of the patriarch Abraham. God tested him on Mount Moriah, and the condition for passing this divine test was the sacrifice of his only beloved son, Isaac. When someone hears this biblical story condensed into a few sentences, they may not be able to perceive it carefully and miss the deep meaning it carries. Kierkegaard invites his readers to reread this story thoroughly so that its meaning becomes clearer. From a strictly ethical perspective, Abraham's actions can be considered significantly unreasonable. After all, it is essentially murder, motivated by irrational motives, which is why such an act is synonymous with a certain form of madness. If we look at Abraham's decision to sacrifice Isaac through the eyes of a believer, it is clear that his actions are not only worthy of admiration, but that we ourselves should follow his example. In this context, it is also very important to note that Abraham's sacrifice of Isaac—if we want to avoid various misinterpretations—must be viewed in the context of his entire life. His life is permeated with a deep and humble faith in God's will, which he has patiently followed since he was called to leave his home and relatives. He thus left the security of his existence for the promised land of Canaan, which represented for him the uncertainty of something new. Despite the risks and difficulties that this challenge entailed, Abraham found enough strength and courage in his existence to take this step toward his God, who was calling him. He unwaveringly hoped in God's promises even when his wife Sarah stopped believing in them.

This understanding of the relationship between man and God culminates in Kierkegaard's understanding of God's Son, Jesus Christ, as the absolute Paradox of faith. God, who became man out of love for man, himself told his followers that



blessed is he who does not take offense at him. Faith in Jesus Christ, whom Kierkegaard understands as the Moment—the revelation of eternity in history, is certainly not a walk in the park, but is tested to the limits of its possibilities, and so a religiously existing person must struggle for it daily in anguish. Kierkegaard clearly sees the fact that, despite their infinite ontological difference, we cannot think of man and God as if there were no connection between them. The relationship between the anthropological and religious levels in his work can be described as correlative. This bond between man and God is intrinsically connected and confirmed by the incarnation of God Jesus Christ into human form.

The beginning of authentic religious existence is a pause, a moment, in which a radical re-evaluation of life takes place within a person, that is, of the attitudes they take towards themselves, towards others, and towards God. At the same time, they accept the fact that they are sinners and express remorse, not as a sudden emotional outburst, but as a permanent attitude towards their existence.

2 GOALS

The aim of the study is to systematically analyze Kierkegaard's understanding of existence in its three basic stages—*aesthetic, ethical, and religious*—and to point out their internal dynamics and qualitative differences. Particular attention is paid to clarifying the concept of paradox and the "leap of faith" as a key moment of religious existence, which transcends the boundaries of pure rationality and enters into an absolute relationship with God. The study also aims to examine Kierkegaard's reinterpretation of the relationship between faith and reason and to evaluate the theological implications of his philosophy, especially in the areas of theological methodology, the concept of transcendence, and the understanding of the subjectivity of faith. Last but not least, it seeks to highlight the relevance of his thinking for contemporary reflections on authenticity, individual responsibility, and spiritual engagement.

3 METHODS

Methodologically, the work is based on a hermeneutic analysis of Søren Kierkegaard's primary texts, with an emphasis on their existential, anthropological, and theological dimensions. The interpretation is supplemented by a comparative



approach that allows Kierkegaard's thinking to be confronted with 19th-century idealistic philosophy as well as with selected representatives of 20th-century theology. The methodological approach also includes systematic theological reflection, through which the basic theological implications of his existential concept are identified and thematized. The analytical-conceptual approach allows for the clarification of key concepts such as existence, subjectivity, paradox, transcendence, and the individual, while the historical-critical perspective ensures that Kierkegaard's thinking is placed in its contemporary context and its subsequent reception in the theological tradition.

4 RESULTS

Kierkegaard's discussion of the existential relationship between man and God had a great impact on theological methodology in both Protestant and Catholic circles. The reception of his thinking in 20th-century theological methodology can be described on four levels (Šajda, 2022): (1) engaged Christianity as thinking bound to existence, (2) a corrective to modern immanentization of theology, (3) affirmation and criticism of the relationship between Christianity and culture, and (4) the ambiguity of Kierkegaard's concept of the individual.

4.1 ENGAGED CHRISTIANITY

The first level of Kierkegaard's reception for the methodology of theology presents him as a thinker of committed Christianity. Kierkegaard is a representative of authentic Christianity, consistently based on biblical (especially New Testament) thinking, who critically holds up a mirror to mass bourgeois Christianity, which has become secularized under the influence of modern times and abstract idealistic philosophy. Kierkegaard's existential understanding of man in relation to God is literally prophetic in nature. The influence of his committed Christianity can be compared to that of Francis of Assisi or Leo Tolstoy. Paul Tillich highlights Kierkegaard's distinction between holistic religious thinking, which touches on the depth of his existence and the meaning of life, and partial thinking, which is significant for empirical sciences that do not require existential engagement. Dietrich Bohoeffler and Emil Brunner emphasize Kierkegaard's existential concept of truth, which relates to Jesus Christ and represents a fundamental question not only on a theoretical level, but especially on a practical level of human action and the



choice between good and evil. According to John Alexander Mackay, the main goal of Kierkegaard's concept is primarily the conversion of individuals and communities, and his literary work thus also has a missionary character. In Catholic circles, Kierkegaard was appreciated by representatives of the new theology: Yves Congar emphasized that it is necessary to draw inspiration from Kierkegaard's formative writings, which deal with lived spirituality. Henri de Lubac says that Kierkegaard's thinking is focused on practice so that the individual becomes a living witness to faith. Hans Urs von Balthasar drew attention to the spiritual depth of Kierkegaard's existential thinking through its connection with prayer. In this, Kierkegaard is similar to Blaise Pascal and John Henry Newman.

4.2 CORRECTIVE TO IMMANENTIZATION

The second level of reception of Kierkegaard's existential thinking for methodology Theology is developed primarily by Karl Barth and touches on the corrective of modern immanentization in theology. According to Barth, philosophical and theological thinking has been overly focused on human activity, subordinating even the relationship between man and God to it. In this way, Christianity could have dissolved into cultural processes. Barth was therefore inspired by Kierkegaard's concepts of "God's incognito," "infinite qualitative difference," and "absolute paradox," which emphasize God's transcendence and resist the immanentization of theology. God is the primary source of activity, and man follows him. Emil Brunner found support in Kierkegaard for emphasizing the paradoxical side of Christianity dependent on God's revealed initiative against the tendencies of anthropologizing theology. According to Dietrich Bonhoeffer, God is the first to address man; his self-revelation is earlier, so man follows him in his search. God precedes human activity. Hugh R. Mackintosh appreciated Kierkegaard's concepts that emphasized the discontinuity between the divine and human spheres, the infinite and the finite, the transcendent and the immanent, thereby preserving man's free relationship to the mystery of God. Stanley Grenz, Roger Olson, and Henri de Lubac agreed with Kierkegaard's diagnosis that the immanentization of theology, which occurred mainly under the influence of the Enlightenment, led to a reduction and weakening of the sense of understanding the mysterious transcendence of God.



4.3 CHRISTIANITY AND CULTURE

The third level of reception of Kierkegaard's existential concept concerns issues of affirmation and criticism of Kierkegaard's philosophy of the relationship between Christianity and culture. Ernst Troeltsch criticized Kierkegaard for separating the ideal of Christian life from natural human creativity in his work, thereby devaluing the realm of cultural activity. Similarly, Tillich distanced himself from Kierkegaard's non-dialectical separation of Christianity from culture. Christianity, which is confined to the private sphere, is incapable of expressing the existential breadth of man, which also implies public life. Romano Guardini, who popularized Kierkegaard's work in German Catholic circles, also perceives some of his ideas as burdened by dualism. Kierkegaard's dualistic vision separates supernatural-Christian reality, which is opposed to natural-cultural reality. Guardini acknowledges the need for a qualitative distinction between these areas, but rejects their opposition. Culture is a means of expressing the Christian content of faith. According to Przywara and Congar, Kierkegaard renewed the emphasis on the personal conversion of the individual, thus avoiding the reduction of Christianity to a cultural and civilizational entity. Balthasar rejects Kierkegaard's radical opposition between the aesthetic and the religious, because it misses the phenomenon of beauty in the relationship between man and God.

4.4 AMBIGUITY OF THE INDIVIDUAL

The fourth level of reception of Kierkegaard's existential concept in theology represents the ambiguity of understanding the individual. According to Emil Brunner, Kierkegaard's legitimate rejection of anonymous collectivism leads to a weakening of community life. John Macquarrie appreciates Kierkegaard's sharp social criticism presented in the concept of "publicity," but he himself does not offer constructive proposals for transforming society. According to Dietrich Bonhoeffer and Jürgen Moltmann, by emphasizing the unique relationship between man and God, Kierkegaard subordinated the commandment of love for one's neighbor to it. As a cosmically oriented individual who enters only into a dialogical relationship with God, he contributes little to the more intensive building of interpersonal and social relationships. Karl Barth says that by emphasizing the individual and subjectivity, Kierkegaard neglected the communal, ecclesiological dimension of passing on the faith. Similar views are expressed by other theologians, such as



Stanley J. Grenz, Ed. L. Miller, and Roman Guardini, who argue that by focusing all his intellectual efforts on the relationship between the individual and God, Kierkegaard neglected the communal, social, and relational dimension of faith in God. As Radovan Šoltés notes, faith in God cannot be separated from its relationship to other people: "Christianity cannot conceive of God as separate from man; on the contrary, relationship with others is the only way to understand this mystery of God's revelation in man." (Šoltés, 2017)

CONCLUSION

Kierkegaard's philosophy emphasizes the concrete, lived experience of the individual and his relationship with God. Through ethical principles and religious faith, it promotes authentic living and self-reflection. His concepts have significantly influenced 20th-century theology, drawing attention to the transcendence of God, individual subjectivity, and the paradoxical nature of Christian faith. Kierkegaard's thinking also criticizes anonymous collectivism and the immanentization of theology, sparking discussion about the relationship between Christianity and culture and the social dimension of faith. His work remains an inspirational source for reflection on human existence, ethics, and spiritual engagement in the modern world.

With his existential philosophy of the relationship between man and God, Kierkegaard positively inspired 20th-century theology, both Protestant and Catholic, although there were also critical reflections on his work. In our opinion, a thinker such as Kierkegaard undoubtedly was, emphasizes in his work the phenomena that are of primary concern to him and may neglect other aspects that these phenomena imply. Ultimately, however, we can conclude that Kierkegaard became a global thinker whose primary concern was to lead the reader to conversion and following Jesus Christ. In our opinion, he succeeded in this, and it is precisely in this way that he also positively influenced theology.

Kierkegaard's thinking is characterized by three basic lines: the examination of aesthetic existence, ethical maturity, and religious faith. Aesthetic existence is characterized by egocentrism, the desire to escape a boring life, and the manipulation of one's own and others' feelings. Ethical existence represents the acceptance of universal moral norms and self-reflection, which allows the individual



to realize their potential in accordance with reason. Religious existence, focused on the relationship with God, transcends ethical and rational boundaries through a paradoxical "leap of faith." Kierkegaard criticized the anonymity of public life, rigid adherence to cult rules, and the reduction of Christianity to a cultural entity, while emphasizing the individual responsibility of each person towards themselves, others, and God. His philosophy of authentic existence influenced 20th-century theology, where it served as a corrective to immanentism, emphasized the paradoxical nature of Christianity, and sparked a debate about the relationship between culture and faith.

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Media literacy

in the Context of Science and Research

Mediálna gramotnosť

v kontexte vedy a výskumu

ENGLISH

The present volume focuses on the issue of media literacy in the context of science, research, and evidence-based public discourse. It brings together papers presented at the MedGRAM 2025 conference and examines the ways in which scientific information is produced, disseminated, interpreted, and, at times, distorted within the contemporary media environment. Particular attention is devoted to the phenomena of misinformation and disinformation, the assessment of the credibility of sources and data, the influence of algorithmic systems and digital platforms, as well as the ethical dimensions of scientific communication. In addition to its theoretical foundations, the volume offers current research findings, methodological approaches, and practical tools applicable to researchers, educators, students, journalists, and science communicators. Its ambition is to contribute to the development of critical thinking and to the responsible handling of scientific knowledge in a media environment that often privileges attention over accuracy.

SLOVENČINA

Predkladaný zborník sa zameriava na problematiku mediálnej gramotnosti v kontexte vedy, výskumu a verejnej diskusie založenej na dôkazoch. Prináša príspevky prezentované na konferencii MedGRAM 2025 a analyzuje spôsoby, akými sa vedecké informácie v súčasnom mediálnom prostredí vytvárajú, šíria, interpretujú, ale aj skresľujú. Pozornosť venuje najmä fenoménu misinformácií a dezinformácií, otázkam hodnotenia dôveryhodnosti zdrojov a dát, vplyvu algoritmických systémov a digitálnych platforiem, ako aj etickým dimenziám vedeckej komunikácie. Okrem teoretických východísk ponúka zborník aj aktuálne výskumné zistenia, metodologické prístupy a praktické nástroje využiteľné pre výskumníkov, pedagógov, študentov, novinárov i popularizátorov vedy. Jeho ambíciou je prispieť k rozvoju kritického myslenia a k zodpovednému narábaniu s vedeckým poznaním v mediálnom prostredí, ktoré často zvyhodňuje pozornosť pred presnosťou.

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