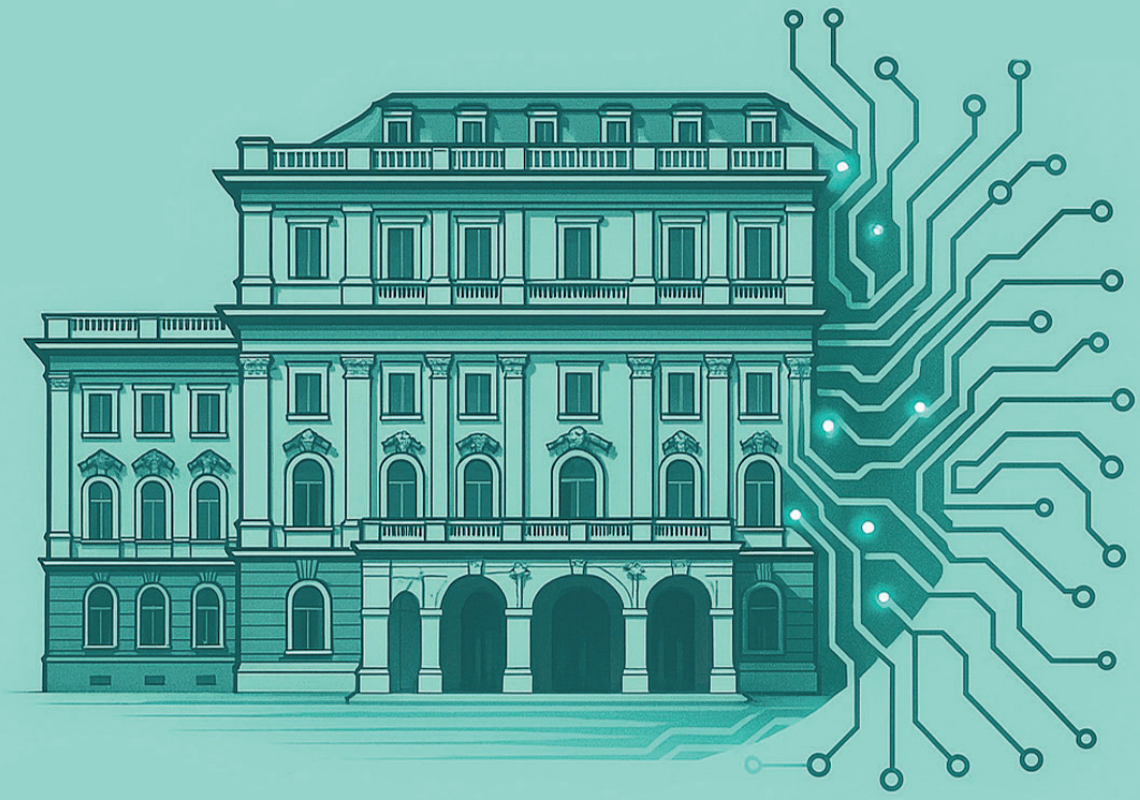

DH_BUDAPEST_2025
YOUNG RESEARCHERS
November 19-21, 2025
Budapest

CeLISR elte.dh DH National Laboratory for Digital Heritage MNMKK NATIONAL SZÉCHÉNYI LIBRARY NATIONAL RESEARCH, DEVELOPMENT AND INNOVATION OFFICE HUNGARY PROGRAM FINANCED FROM THE NRDI FUND

PROGRAM

NOVEMBER 19 (WEDNESDAY)
WORKSHOP DAY, SOCIAL GATHERING

Large Laboratory, Department of Digital Humanities (ELTE, Museum Boulevard 6–8., Main building, 2nd floor, room 206)

16:00 Promp engineering for researchers

NOVEMBER 20 (THURSDAY)

ELTE BTK Faculty Council Room (Museum Boulevard 4/A. Room 39 / Building A, 1st floor)

8:30 Regisztráció
9:15 Áron Badinszky keynote presentation
10:00 Bettina Trixler: Artificial Intelligence in Autism Support: Challenges and Opportunities for Inclusive Education
Nor Amalina Rusli: Artificial Intelligence in Autism Education: From Virtual Assistants to Personalized Learning Pathways
Meyly Kheng: Reimagining teacher education: Embracing digital innovation, inclusivity, and global collaboration
Discussion

11:00 coffee break

11:30 Boglárka Fanni Tóth: Technological Competence in Interpreter Training
Manal Hamarsha: The Invisible Co-Teacher: Teachers' Acceptance of AI as a Collaborative Partner in Adaptive Educational Systems
János Ujlaki: Fostering creativity through digital and AI literacy in the language classroom
Discussion

12:30 lunch break

13:30 Aurica Singeorzan: Some digital instruments used for the study of Border Guards Gymnasium of Nasaud
Anita Majorszki: Educational potential of AI-generated songs
Rebeka Mezőfi: Developing Foreign Language Skills with ChatGPT
Discussion

14:30 coffee break

15:00 Szilvia Baráth: Comparing curriculum trends in Digital Humanities: a cross-institutional ai-enabled topic modelling of digital humanities programs
Tamás Süle: The use of IT terminology in education: a paradigm shift in the age of Artificial Intelligence
Lilla Zboray: Examining the effectiveness of AI-based learning in teaching Hungarian as a Foreign Language
Discussion

NOVEMBER 21 (FRIDAY)

HNMPCC National Széchényi Library (Buda Castle, Szent György square 4–5–6., VII. floor north reading room)

8:30 Registration

9:15 Keynote: Judit Gerencsér: Librarians in the Age of Artificial Intelligence: New Roles, Evolving Competencies, and Educational Responsibilities
10:00 Nour Alkilani: AI tools in research
Mihály Nagy: Parsing and cleaning HTML fragments with lightweight models using AI assistance
Sfet Ingrid: AI competencies and the development of moral decision-making through gamification
Discussion

11:00 coffee break

11:30 Hadeel Endewy: Rewinding the Stage: AI, Perspective, and Temporal Displacement in Contemporary Theatre
Abdeslam El Adlouni: Resistance voices: The limits of Artificial Intelligence in Faïza Guène's work
Dorottya Szemigán: Generative and combinatorial poetry in hungarian literature
Discussion

12:30 lunch break

Gabriella Manzenreiter: The Possibilities of Applying Artificial Intelligence in Cultural Heritage Preservation
Yaren Varol: Perceptions of AI in the Digital Preservation of Cultural Heritage: a qualitative study among young researchers
Dario Baldini: Digitising an archival collection to create a web-accessible documentation centre based on advanced IT methods
Discussion

14:30 coffee break

15:00 Taulant Salihi: Multimodal Algorithms, Monomodal Epistemologies: AI and the Interpretation of Pictorial Meaning
Heejung Ryoh: AI for Education and Digital Heritage Engagement: A Case Study of Resilience at the National Museum of Korea
Ábel Hajas: The Use of Laser-Scanned Point Clouds for the Virtual Reconstruction of Medieval Hungarian Castles
Discussion

DH_BUDAPEST_2025 YOUNG RESEARCHERS

November 19-21, 2025
Budapest

NOVEMBER 20., THURSDAY

ELTE BTK Conference Hall, Budapest, Museum Boulevard 4/A. Building A, Floor 1, Room 39.

8:30–9:00 REGISTRATION

9:15–9:45 Áron Badinszky: keynote presentation

10:00–11:00 Bettina Trixler (Affiliation: University of Pécs, Faculty of Health Sciences, Doctoral School of Health Sciences, PhD student): Artificial Intelligence in Autism Support: Challenges and Opportunities for Inclusive Education

The heterogeneity of Autism Spectrum Disorders (ASD) poses significant challenges in both diagnosis and education. This study explores how Artificial Intelligence (AI) and robotics can support personalized interventions for individuals with ASD. International research highlights AI's potential in enhancing early detection, skill development, and inclusive education. AI-driven technologies – such as eye-tracking, machine learning, and social robots – offer adaptive solutions tailored to the diverse needs of autistic individuals. These tools not only facilitate social engagement but may also reduce diagnostic delays, and support teachers through data-informed strategies. Emphasizing an interdisciplinary approach, the paper reviews current AI applications in ASD-related contexts, and reflects on their implications for future educational practices and health equity. The findings underline the need for responsible, accessible, and ethically guided AI integration in both research and practical support settings.

Nor Amalina Rusli (Affiliation: University of Debrecen, PhD student): Artificial Intelligence in Autism Education: From Virtual Assistants to Personalized Learning Pathways

This study explores the many integrations of Artificial Intelligence (AI) in autism education that focus on virtual assistants and personalized learning pathways. The primary goal is to evaluate how AI-driven tools can enhance educational outcomes for individuals with Autism Spectrum Disorder (ASD). A mixed-methods approach was employed by combining quantitative assessments of learning performance with qualitative interviews among 10 teachers. The research implemented AI-powered virtual assistants and adaptive learning systems in selected special education settings over a 12-week period.

Results indicated significant improvements in student engagement, task completion, and individualized learning pace. Teachers reported enhanced ability to customize instruction to diverse needs using real-time data analytics. The findings suggest that AI can play a transformative role in autism education by supporting personalized and flexible learning environments. The study concludes that ethical implementation and continued collaboration between educators and technologists are critical to maximizing the potential of AI in inclusive education.

Meyly Kheng (Affiliation: University of Debrecen, PhD student): Reimagining teacher education: Embracing digital innovation, inclusivity, and global collaboration

This study examines the transformation of teacher education in response to digital innovation, globalization, and evolving pedagogical needs. Drawing on qualitative interviews with educators and supervisors, it explores the integration of ICT, digital literacy development, and professional identity formation. Key themes include aligning assessment with technology, fostering digital resilience, and addressing ethical

governance and social inclusion. The research also considers sustainable practices and labor market preparedness. Highlighting the convergence of innovation, collaboration, and ethics, the study advocates for an interdisciplinary approach to teacher training that embraces technological change while promoting inclusivity and reflective practice in a rapidly evolving educational landscape.

DISCUSSION

11:00–11:30 COFFEE BREAK

11:30–12:30 Boglárka Fanni Tóth (Affiliation: Eötvös Loránd University, Faculty of Humanities, PhD School of Linguistics, Translation Studies Doctoral Programme, PhD student): Technological Competence in Interpreter Training

While constantly developing technologies have fundamentally changed the practice of language mediation, empirical research on their impact on interpreting remains limited, especially compared to the strong focus on technology-driven changes in translation studies, such as the use of machine translation tools. In my presentation, I will introduce the results of a quantitative questionnaire survey on 'Interpreter Training and Technology', conducted as part of my PhD research. The international survey involved 132 respondents from 13 different countries, including interpreter trainees, trainers, and practicing interpreters. The questionnaire explored participants' familiarity with computer-assisted interpreting (CAI) tools, the specific technologies they use – many of which are AI-based – and their general attitudes towards the use of technology in interpreting.

I will also discuss how these findings can be integrated into interpreter training curricula. As a practical example, I will present a pilot project launched at the Department of Translation and Interpreting Studies at ELTE, a seminar entitled 'Technology for Interpreters', which aims to develop interpreter students' technological competence to enhance their employability after graduation.

Manal Hamarsha (Affiliation: Eötvös Loránd University, Faculty of Education and Psychology, PhD student): The Invisible Co-Teacher: Teachers' Acceptance of AI as a Collaborative Partner in Adaptive Educational Systems

The integration of artificial intelligence (AI) into adaptive educational systems is transforming the traditional teaching landscape, presenting new opportunities and challenges for educators. This qualitative study investigates teachers' acceptance of AI as a collaborative partner, termed here as the "invisible co-teacher", within adaptive learning environments. Drawing on semi-structured interviews with higher education faculty, the research explores how teachers perceive AI's role in supporting instructional processes, influences on their professional identity, and the factors that facilitate or hinder their acceptance of these technologies.

Findings reveal a complex interplay between trust, perceived usefulness, and concerns about autonomy, highlighting that acceptance is contingent on both technological affordances and socio-professional considerations. By illuminating teachers' nuanced experiences, this study contributes to a deeper understanding of human-AI collaboration in education and offers practical implications for the design and implementation of AI systems that align with educators' pedagogical values.

János Ujlaki (Affiliation: Eötvös Loránd University, University of Pannonia, PhD student): Fostering creativity through digital and AI literacy in the language classroom

As artificial intelligence (AI) becomes increasingly integrated into education, its potential to foster creativity, particularly in language learning, has gained interest in research. This talk explores how AI can support creative and critical digital engagement in the language classroom. Drawing on frameworks such as the Digital Intelligence Framework (DQ Institute, 2019) and the Digital Competency Framework (Conseil supérieur de l'éducation, 2019), the study redefines creativity as a socially situated, context-sensitive skill (Walia, 2020; Runco, 2023). It synthesizes key theoretical perspectives, including the 4C (Kaufman & Beghetto, 2009) and 6P (Runco, 2023) models of creativity, and connects these to language learning research (Kormos & Suzuki, 2024; Lin et al., 2024).

Practical AI-enhanced classroom strategies are recommended, such as AI-generated storytelling and multimodal idiom interpretation, which align with both frameworks and foster learner agency. The talk provides a pedagogical bridge between digital literacy and creative practice, supporting AI as a co-creative partner in developing language learners' digital skills.

DISCUSSION

12:30–13:30 LUNCH BREAK

13:30–14:30 Aurica Singeorzan (Affiliation: Babeș-Bolyai University, Faculty of History and Philosophy, Doctoral School of Population Studies and History of Minorities, PhD student): Some digital instruments used for the study of Border Guards Gymnasium of Nasaud

The use of historical research represents a contemporary method through which the past can be rediscovered in a more rigorous and objective way. This paper aims to highlight the use of some digital instruments in historical research through a case study focused on the students of Border Guards Gymnasium of Nasaud during the second half of the nineteenth century. First of all, we will use a database which comprises the students from the founding of the school in 1863 until 1899, which will allow us to analyze their geographical position, their confessional structure, academic progress and others relevant aspects. Furthermore, we will use the coding systems of historical occupational data to analyze the social mobility to a part of the students registered in the database, by tracking down their parents' professions (recorded in the student's matriculation registers) and comparing them to the professions these students pursued in adulthood.

Anita Majorszki (Affiliation: Eötvös Loránd University, Faculty of Humanities, Language instructor): Educational potential of AI-generated songs

Songs have long been recognised as beneficial tools in the EFL classroom (Adnyani & Dewi 2020; Kumar et al., 2022). However, a recurring challenge occurs in the selection of appropriate songs. Educators often struggle to find a piece of music that features grammatically correct lyrics, possesses catchy melodies, and has a convincing topic at the same time. Moreover, some songs contain the desired structures and phrases, only few times throughout their lyrics. Recent advances in generative artificial intelligence (e.g., SunoAi, iLoveSong.ai) offer promising solutions to these challenges by enabling the creation of customised and personalised songs. With the help of AI assistance, teachers and learners can generate materials that support autonomy (Szabó & Szőke, 2024) and cater to specific linguistic goals. My presentation will explore the educational potential of AI-generated songs, with a special focus on their practical executions in EFL classrooms.

Rebeka Mezőfi (Affiliation:ELTE, DELP, PhD student): Developing Foreign Language Skills with ChatGPT

This current exploratory study applied mixed methods to investigate how ChatGPT 3.5, an upgraded version of Natural Language Processing (NLP), can support teachers of English as a Foreign Language (EFL) in improving students' five foreign language skills. In addition to the review of the literature, data were gathered through semi-structured in-depth interviews (N=6) with randomly selected participants from a preceding online questionnaire survey (N=52). The qualitative data were analyzed with constant comparative method. Descriptive statistics were calculated for the questionnaire data.

Based on the results, teachers mostly use ChatGPT to improve reading and writing skills through generating adaptive texts and sample essays to assist students in structuring their ideas. By generating debate topics and arguments, they develop speaking skills. Nonetheless, ChatGPT's lack of voice recognition function confines teachers to develop listening skills only indirectly. Instead of simulating intercultural conversations, teachers resort to generate culture-based texts to improve students' intercultural competence.

DISCUSSION

14:30–15:00 COFFEE BREAK

15:00–16:00 Szilvia Baráth (Affiliation: University of Bologna. Digital Humanities and Digital Knowledge Programme; Eötvös Loránd University, Young Researcher): Comparing curriculum trends in Digital Humanities: a cross-institutional ai-enabled topic modelling of digital humanities programs

Digital Humanities occupies the intersection of computational methods and humanities scholarship, applying techniques such as text mining and data visualization to cultural artifacts and archives. This paper will present a comparative curriculum analysis of the University of Bologna and Eötvös Loránd University DH programs spanning 2017–2025. Program syllabi, module descriptions, and related job advertisements will be processed using Latent Dirichlet Allocation (LDA) to identify core thematic areas – including computational text analysis, digital archive management, cultural heritage preservation, data visualization, and AI-enhanced pedagogy. Temporal mapping of topic prevalence will highlight each institution's distinctive strengths and curricular gaps.

The analysis will conclude with targeted recommendations for DH program designers on achieving an optimal balance of technical training, theoretical grounding, and adaptive teaching tools, thereby preparing graduates with the methodological versatility and critical sensibilities required for advanced research and professional practice.

Tamás Süle (Affiliation: Eötvös Loránd University, Faculty of Humanities, Department of Media and Communication, Young Researcher): The use of IT terminology in education: a paradigm shift in the age of Artificial Intelligence

Informatikai terminológia használata az oktatásban: paradigmaváltás a mesterséges intelligencia korszakában

Kutatásom elsődleges célja az informatikai terminológia, különösen a „statikus" és a „dinamikus" fogalmak pedagógiai kontextusban való újraértelmezése. E kategóriák az informatikában a rendszerek működésének alapvető leírására szolgálnak, ugyanakkor hasznos keretet kínálnak az oktatáselméleti megközelítések összehasonlításához is. A statikus modell a rögzített, előre meghatározott tananyagra és a frontális ismeretátadásra utal, míg a dinamikus modell az interaktív, rugalmas és adaptív tanulási folyamatokat emeli ki. Fontosnak érzem ezen metafora használatát az oktatásban, mivel napjainkban újabb paradigmaváltás figyelhető meg: a World Wide Web korszakát, majd a digitális átalakulás időszakát követően az oktatási rendszerünk jelenleg a mesterséges intelligencia integrálásával küzd meg. Ez az átmenet nem csupán technológiai, hanem fogalmi és módszertani változásokat is hoz, amelyek a tanítási gyakorlat egészét alakítják át.

Az előadás hangsúlyozza, hogy a fogalmi transzfer nem pusztán nyelvi analógia, hanem olyan értelmezési keret, amely hozzájárulhat a digitális pedagógia módszertani gazdagításához és az AI használatának kritikai vizsgálatához.

Lilla Zboray (Affiliation: Eötvös Loránd University, Faculty of Humanities, MA student): Examining the effectiveness of AI-based learning in teaching Hungarian as a Foreign Language

Az MI-alapú tanulás hatékonyságának vizsgálata a magyar mint idegen nyelv oktatásában

A mesterséges intelligencia (MI) térnyerése új kihívások és lehetőségek elé állítja a nyelvoktatást (Dietz 2020: 60). Jelen kutatásom célja annak feltárása, hogy milyen szerepet tölthet be az MI – különösen a nagy nyelvi modellek (pl. ChatGPT) – a magyar mint idegennyelv tanulási és tanítási folyamatában, és milyen attitűdökkel viszonyulnak ehhez a tanulók. Az empirikus kutatás során kvalitatív és kvantitatív módszereket ötvözők: Stipendium Hungaricum-os (A1 szint) tanórákon végzett megfigyeléseken keresztül vizsgálom, hogy hogyan használják a diákok az MI-eszközöket a nyelvtanulás során, illetve miként értékelik ezek hatékonyságát és megbízhatóságát. Mindemellett reflektálok arra is, hogy milyen didaktikai szempontokat érdemes figyelembe venni az MI alkalmazása során. A kutatás rávilágít arra, hogy az MI hasznos támogató eszközként funkcionálhat a magyar mint idegen nyelv tanulásában, ám integrálása tudatos pedagógiai tervezést igényel (Espinosa 2008: 43). Eredményeim segíthetnek kialakítani egy olyan szemléletet, amely nemcsak technológiai újításként, hanem didaktikai lehetőségként is tekint az MI-re.

DISCUSSION

DH_BUDAPEST_2025
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NOVEMBER 21., FRIDAY

HNMPCC National Széchényi Library
Buda Castle, Szent György Square 4–5–6. Floor VII., North Reading Room

8:30–9:00 REGISTRATION

9:15–9:45 KEYNOTE: Judit Gerencsér (HNMPCC NSZL, Deputy Director-General; Association of Hungarian Librarians, President): Librarians in the Age of Artificial Intelligence: New Roles, Evolving Competencies, and Educational Responsibilities

In the age of artificial intelligence, libraries and librarians face a profound transformation in their traditional missions, competencies, and roles. This presentation explores how 21st-century trends reshape the ways libraries support education, research, knowledge creation, and community engagement. It examines librarians' attitudes towards technology and their growing responsibility in fostering digital literacy and critical thinking within educational ecosystems. Through the lens of technology acceptance and professional adaptation, the lecture highlights how AI-based tools can enhance learning experiences and improve access to knowledge. Best practices from around the world will illustrate how libraries integrate intelligent technologies to support students, educators, researchers and lifelong learners alike. The presentation aims to inspire dialogue on redefining librarianship in an AI-driven world – balancing innovation with the core human values of the profession.

10:00–10:15 Nour Alkilani (Affiliation: John von Neumann University, PhD student): AI tools in research

AI is quickly transforming how research is done by providing tools that make operations more efficient and give way to new knowledge. Across all academic fields, people are using AI to automate literature reviews, analyze data and help them write manuscripts (Heidt, 2024). Even so, there are some challenges that come with this integration. Because AI is used more often, important questions about the quality, ethics and openness of research results are being asked. In the article AI for Research: The Ultimate Guide to Choosing the Right Tool (2024) by Amanda Heidt, choosing the exact right AI tool is highlighted as key for researchers depending on the specific part of their research: hypothesis formulation, text generation or data processing. She believes you should recognize what every tool does best and worst to get the most out of them and prevent wrong use.

But the American Psychological Association (2023) reminds readers in its article that using AI for research and writing can be dangerous. The article points out issues including data truthfulness, using too much automated help and chances of breaking academic guidelines. It proposes that all stages of research be overseen by people who make critical judgments.

With AI getting better, it is now assumed that researchers help us make use of its positives and guide us on its challenges and moral dilemmas. Ensuring that AI does not limit researchers means each of these areas have to be well understood.

10:15–10:30 Mihály Nagy (Affiliation: Eötvös Loránd University, Faculty Of Humanities, PhD student): Parsing and cleaning HTML fragments with lightweight models using AI assistance

10:30–10:45 Sfet Ingrid (Affiliation: Babeș-Bolyai University, Ecumene Doctoral School, PhD student): AI competencies and the development of moral decision-making through gamification

The latest edition of DigComp 2.2. highlights the educational potential to develop AI competences and skills in the educational processes. Hence, the aim of the present study is to investigate how these competences and skills can be developed in religious education through gamification. By comparing the AI competences and skills development opportunities of DigComp 2.2 and the V-VIII-grade Romanian religious education curriculum, this study seeks and assesses the possibilities of how religious education can develop these abilities. As far as the development of students' AI skills is essential, it is the task of religious education to go deeper and to lay the foundations for the development of moral decision-making through gamification in the face of the challenges of the digital world.

DISCUSSION

11:00–11:30 Coffee break

11:30–12:30 Hadeel Endewy (Affiliation: Eötvös Loránd University, Faculty of Humanities, Modern English and American Literature and Culture Doctoral Programme, PhD student): Rewinding the Stage: AI, Perspective, and Temporal Displacement in Contemporary Theatre

This paper imagines a hypothetical form of AI-driven theatre where temporal displacement enables real-time rewinds, replays, and alternate versions of scenes, shaped by audience interaction. Through direct engagement – such as mobile devices or app-based voting – the audience dynamically influences narrative direction and perception of character. The theoretical framework combines Gilles Deleuze's theory of time and perception, particularly his concepts of becoming and temporal multiplicity, with Richard Schechner's Performance Theory, which emphasizes co-creation and audience agency.

Together, these frameworks illuminate how AI disrupts linear storytelling while enabling a participatory model of theatre. Works by Samuel Beckett, Caryl Churchill, and Sarah Kane are used as speculative examples of how AI could unlock alternative character perspectives and narrative paths. Ultimately, the paper explores how merging algorithmic responsiveness with live performance opens up a fluid, recursive theatrical space where meaning is continually reshaped by audience interaction.

Abdeslam El Adlouni (Affiliation: Doctoral School of Literary and Cultural Studies, French and Francophone Literatures and Cultures PhD student): Resistance voices: The limits of Artificial Intelligence in Faïza Guène's work

As digital humanities increasingly rely on artificial intelligence, literary works from the margins, particularly those marked by the intersection of gender, race and class, make visible the epistemic limits of these tools.

Drawing on Faïza Guène's Kiffe Kiffe Tomorrow (2006) and Discretion (2022), I propose to examine the formal and political resistance of these texts to algorithmic legibility. Guène's writing functions as a linguistic, social and cultural intercession, which AI devices struggle to grasp, often built on normative corpora and models.

By mobilizing the work of Safiya Noble (2018), Roopika Risam (2019) and Lauren Klein (2021), this paper participates in debates on intersectional Artificial Intelligence, capable of taking into account the critical density of minoritized literatures, and argues for responsible and situated methodologies in computational cultural studies.

Dorottya Szemigán (Affiliation: Eötvös Loránd University, Faculty Of Humanities, Doctoral School of Literary Studies, PhD student): Generative and combinatorial poetry in Hungarian literature

Digital literature has developed at the intersection of technological innovation and literary experimentation, giving rise to new textual forms shaped by computation, interactivity, and algorithmic logic. Within this broader field, generative and combinatorial poetry constitute a distinct lineage whose roots long precede the digital age, from Ramon Llull's Ars Magna to the 20th-century avant-garde and early computer-based text generators. Despite this rich history, combinatorial poetry remains an under-researched area – particularly from a quantitative perspective – due to its inherently variable, potentially indefinite corpora and the difficulty of analysing texts that exist as sets of possibilities rather than stable objects.

My research addresses this gap by combining close reading with digital humanities-based distant reading methods to analyse the first Hungarian poetry generator, Papp Tibor's Disztichon Alfa (1993). As a culturally significant work of Hungarian digital heritage, Disztichon Alfa offers a unique opportunity to examine rule-based generativity prior to probabilistic, AI-driven text production. I propose a methodological framework suited to the quantitative analysis of combinatorial textual systems. This dual approach aims to contribute both to the historiography of digital literature and to the methodological development of computational literary studies.

DISCUSSION

12:30–13:30 Lunch break

Gabriella Manzenreiter (Affiliation: University of Pécs, Doctoral School of Philosophy, PhD student): The Possibilities of Applying Artificial Intelligence in Cultural Heritage Preservation

Digital technologies, including the increasingly prevalent artificial intelligence (AI)technologies, offer opportunities in creative and art mediation practices while also raising questions regarding their application. The application of artificial intelligence presents challenges for cultural professionals, particularly in light of the ethical and social issues surrounding AI-generated art. When shaping institutional practices, decision-makers must consider societal processes that influence audience preferences. Alongside the evolution of art mediation methods, digital technologies also play a crucial role in cultural heritage preservation and conservation. In terms of application goals, AI tools enable the reconstruction or reinterpretation of cultural assets more accurately and rapidly than ever before. The aim of my presentation is to highlight current practices in art projects at both international and national levels, as well as to explore problems that shape artistic discourses in the context of AI implementation.

Yaren Varol (Affiliation: Pázmány Péter Catholic University, PhD student): Perceptions of AI in the Digital Preservation of Cultural Heritage: a qualitative study among young researchers

This article examines how young researchers in the humanities perceive the role of artificial intelligence (AI) in the digital preservation and processing of cultural heritage. Through qualitative interviews with early-career researchers in history, art history, archaeology, and cultural studies, the study explores how AI tools such as Optical Character Recognition (OCR), AI-supported cataloging, and other accessible applications are understood, applied, and evaluated within research and archiving practices.

The findings reveal both optimism regarding AI's potential to enhance accessibility, preservation, and the efficiency of archival work, as well as concerns related to accuracy, the quality of digitized outputs, ethical considerations, and the potential loss of traditional research and archival skills.

Additionally, the study highlights varying levels of familiarity and confidence among young researchers in adopting AI tools within their workflows, illustrating the need for targeted training and institutional support in the integration of AI into heritage preservation practices. By analyzing these perceptions, this article contributes to ongoing discussions about the evolving role of AI in shaping the future of cultural heritage studies, digital humanities, and archival work, and considers how AI can complement traditional research methods while raising new questions about the relationship between technology and the preservation of cultural memory.

Dario Baldini (Affiliation: Giannino Bassetti Foundation; University of Rome Tor Vergata, PhD student): Digitising an archival collection to create a web-accessible documentation centre based on advanced IT methods

This PhD project involves digitising an archival collection to create a web-accessible documentation centre based on advanced IT methods, including web and artificial intelligence technologies. Initially, documents are scanned and processed by IIIF Image API programmed in a Python-Flask application which processes files, manage data exchange and send responses to users' requests. The scans' visualisation is enabled through Presentation APIs and Mirador 3, dynamically configured using Jinja2 templates. Texts are transcribed with OCR, semantically encoded in XML/TEI, and styled for web display via XSLT, CSS, and JavaScript.

The digitisation process is framed as formal document modelling to support online representation and data extraction. Collections of letters, notes, and key texts are gathered in the same IIIF manifests or TEI document, while more important texts have dedicated files. IIIF collections are used to organise hierarchically documents and groups of documents related to the same topic or subtopic. A web portal provides information and access to digital documents, allowing users to search some default thematic threads, or run complex queries on term or metadata. A TimelineJS-based timeline aids chronological navigation.

The next research phase explores applying AI to TEI documents and metadata. Using platforms like Hugging Face or Ollama, the project will assess the feasibility of topic extraction (e.g. via NLTK), interactive summarisation and translation, RAG-based retrieval, and fine-tuning for automated encoding. At UNIL, the focus will be on using NLP and NER to automate semantic annotation and maintain a dynamic ontology, improving both document consultation and search functionality.

DISCUSSION

14:30–15:00 Coffee break

15:00–16:00 Taulant Salihi (Affiliation: Eötvös Loránd University, Faculty Of Humanities, Doctoral School of Philosophy, Analytic Philosophy Programme, PhD student): Multimodal Algorithms, Monomodal Epistemologies: AI and the Interpretation of Pictorial Meaning

AI models increasingly claim to perform multimodal interpretation across text, image, and sound. However, such systems often rely on monomodal epistemologies, privileging textual or statistical representation, thereby reducing the richness of pictorial meaning. Drawing on Kress and van Leeuwen's (2006) theory of multimodal discourse and Mitchell's (1994) critique of the pictorial turn, this paper examines how AI-driven visual analysis fails to account for the symbolic, cultural, and contextual layers of images. Machine vision systems like CLIP or DALL·E translate visual data into text-like embeddings, reflecting what Hayles (2012) calls "cognitive nonconscious" processing, devoid of interpretive intentionality.

This abstract critiques the computational flattening of visual content and argues for a semiotic reassessment of how meaning operates across modalities. Ultimately, the paper challenges the notion of AI as a true "interpreter" of culture and proposes that digital humanities must develop frameworks that recognize the irreducibility of visual meaning in algorithmic culture.

Heejung Ryoh (Affiliation: Eötvös Loránd University, Faculty of Humanities, Film, Media and Culture Theory Doctoral Programme, PhD student): AI for Education and Digital Heritage Engagement: A Case Study of Resilience at the National Museum of Korea

Defying post-pandemic museum decline, the National Museum of Korea (NMK) surged in global rankings (15th in 2019 to 6th in 2023), increasing visitors by 25%. It investigates how NMK's resilience stems from integrating AI and digital experiences, addressing AI in Education, AI & Digital Heritage, and Digital Cultural Studies. Key applications illustrating AI in Education include the 'QI' physical AI robot docent and the mobile app-based AI-curated XR tour-service. AI & Digital Heritage engagement is enhanced through these, alongside Immersive Digital Galleries (virtual access to inaccessible heritage), and AI barrier-free kiosks ensuring inclusive access (e.g., sign language, Braille).

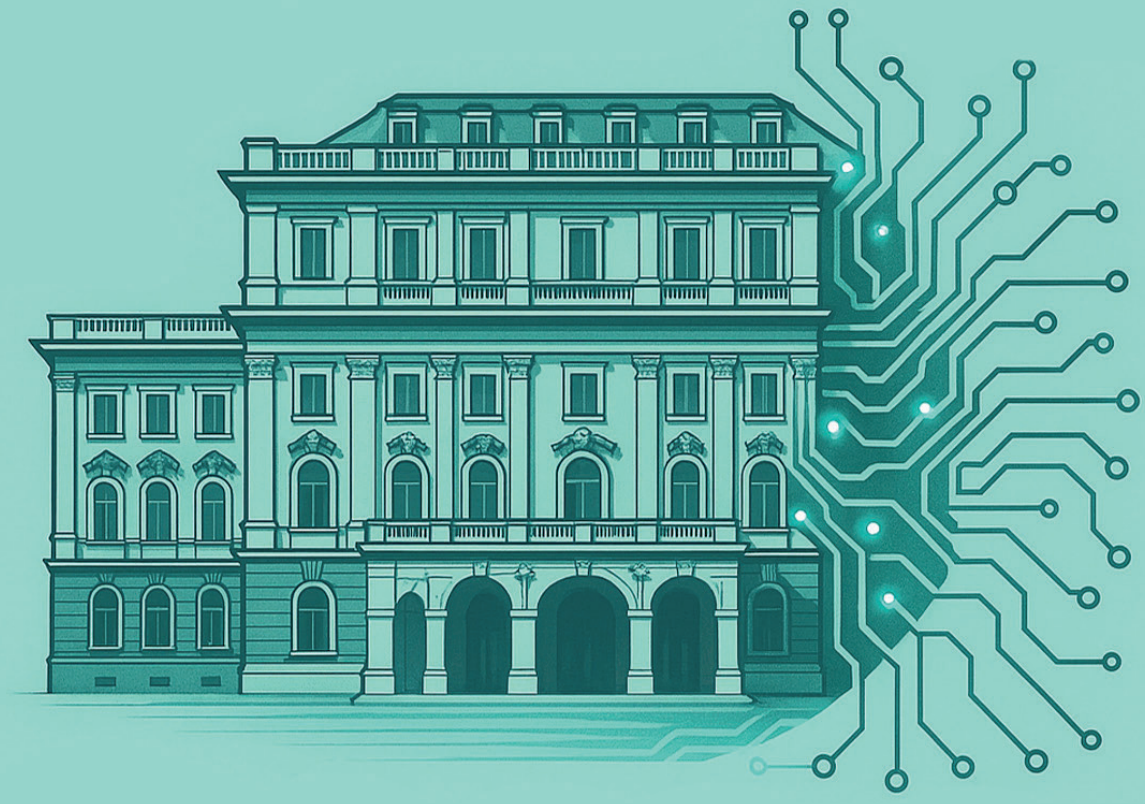
Employing a mixed-methods approach, this research analyzes quantitative data (visitor statistics, digital engagement metrics) and qualitative insights from NMK's AI service design, platform features, and user feedback. It assesses how this synergy fosters personalized learning, democratizes heritage access, and builds institutional sustainability, offering practical insights for AI adoption in cultural heritage.

Ábel Hajas (Affiliation: Budapest University of Technology and Economics, History of Architecture and of Monuments Doctoral School, PhD student): The Use of Laser-Scanned Point Clouds for the Virtual Reconstruction of Medieval Hungarian Castles

In Hungary today, there is significant public interest in historical castles. However, existing reconstructions are often inaccurate or overly simplified, and the available floor plans are frequently inadequate due to incomplete surveys. Somoskő Castle currently lacks an accurate floor plan, and no large-scale analyses have yet been carried out on its walls. In my conference presentation, I will use Somoskő Castle as a case

study to demonstrate how point clouds can address these issues and enable more precise analysis of the site. Due to the nature of the surveying technique, point clouds provide highly accurate data that reflects the original geometry. This makes it possible to analyze sites in ways that were previously impossible because of survey inaccuracies. Point clouds also allow for more accurate reconstructions of the historical state and offer improved ways to present the current state to visitors.

DISCUSSION



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