

# ENHANCING UNIVERSITY EDUCATION IN SLOVAKIA

PIONEERING AI TOOLS  
FOR ACHIEVING EXCELLENCE  
IN THE EDUCATIONAL PROCESS  
OF ENGLISH LANGUAGE  
AND ANGLOPHONE CULTURES



IVANA PONDELÍKOVÁ

2025



**University of Ss. Cyril and Methodius in Trnava  
Faculty of Arts**



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*Dedicated to my husband,  
without whom this book, or any other,  
would never have been written.*

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## INTRODUCTION

Artificial Intelligence (AI) is a transformative force that is reshaping education globally, including in Slovakia, where its integration into university education presents both challenges and opportunities. This monograph explores the role of AI in fostering innovation in British and American studies programs, addressing its impact on teachers, students, and the educational landscape as a whole. The advancement of AI has been likened to the advent of electricity in its transformative potential. As Ng proclaimed, “AI is the new electricity” (Mitchell, 2020, p. 145). As AI continues to integrate into every aspect of life, it is reshaping not only workplace practices but also education, forcing schools and universities to adapt to the digital age and incorporate 21st-century skills into their curricula (Gocen – Aydemir, 2020).

The integration of AI in education has demonstrated tangible benefits. For instance, studies show that students engaging with AI platforms exhibit improved academic performance, particularly in language proficiency (Huang, 2024). However, its use is not without controversy. Concerns among teachers about distinguishing AI-generated work from human-created outputs highlight ethical and practical dilemmas. In a study conducted by the Faculty of Mass Media Communication at the University of Ss. Cyril and Methodius in Trnava, 37% of teachers admitted to fears about identifying AI-assisted work, and students disclosed their frequent use of AI for tasks like information retrieval, text translation, and assignment writing (VysokeSkoly, online). In this context, pressing societal questions such as: *How will schools adapt to this new technology in the long term?*, and *How should its application in completing assignments be managed in the present?* emerged. The answers remain uncertain. This monograph addresses these concerns, offering insights and proposed solutions by teachers, who are uniquely positioned to contribute their expertise on the matter.

To find this out, five specific objectives were outlined. The first objective was to assess the opinions of students and teachers regarding the technical infrastructure available at universities for integrating AI into the teaching process. The second objective examined the knowledge, emotional perceptions, and practical utilization of AI by both students and educators. The third objective

focused on identifying and comparing differences in the enhancement of language skills among students as a result of incorporating AI into English language and Anglophone cultures study programs at Slovak universities. The fourth aim examined the attitudes of students and teachers toward the use of AI in the creation of academic essays and final theses, analyzing the methods, forms, and extent to which AI has been traditionally employed. Finally, we investigated the perspectives of both groups on the ethical implications of using AI for producing school assignments or scientific texts. Together, these objectives provide a comprehensive framework for understanding the integration of AI into educational settings. The study surveyed 302 students from five Slovak regions, enabling the monograph to examine AI literacy levels among students from Comenius University in Bratislava, the University of St. Cyril and Methodius in Trnava, the University of Constantine the Philosopher in Nitra, the University of Matej Bel in Banská Bystrica, and the University of Prešov in Prešov. Additionally, 32 teachers participated in the research. While both groups completed online questionnaires, teachers also provided their expert insights through in-depth interviews, providing a comprehensive perspective on attitudes toward AI.

The monograph is structured into seven distinct chapters. The first chapter explores the history and development of AI, from its beginnings to its current multifaceted applications. It provides definitions of AI across various contexts, highlights technological advancements, and discusses topics such as AI literacy and ethics. The second chapter examines the role of AI in education, with a particular emphasis on specific AI tools and applications used within British and American Studies in Slovak universities. The third chapter delves into the theoretical and methodological foundations of AI literacy research, while the fourth chapter outlines the rationale for selecting the research sample. Chapters five and six present findings from studies conducted among Generation Z university students enrolled in British and American Studies programs and university teachers specializing in English language and Anglophone cultures. The final chapter synthesizes the research findings, identifying key trends and challenges. It provides recommendations for integrating AI into educational practices while addressing ethical and practical considerations.



AI's role in education extends beyond enhancing learning outcomes. It promises to make education more accessible, particularly for marginalized groups such as individuals with disabilities, refugees, and out-of-school learners. However, it also raises ethical issues, such as data privacy, potential biases in AI-generated content, and its implications for human creativity and critical thinking. Zlatica Puškárová aptly remarked, "*artificial intelligence will test our natural intelligence*" (2024), underlining the complex interplay between AI and human intelligence.

Furthermore, Peter Šabo and Gabriel Tóth, founders of digital marketing agencies, discussed the practical benefits of AI on the podcast *Mozgová atletika* (2024). They argue that AI does not steal jobs, however, those who fail to learn how to use it might lose their jobs. Following the principle, "AI took the job - to the next level," they emphasize that AI proficiency allows individuals to save time for other meaningful tasks. They add that while many people have reduced their workload, no one has been left without employment. The generational shift in technological adaptation adds another layer of complexity. Generation Z has embraced AI as a tool for enhancing skills but calls for training in soft skills to complement its use (TalentLMS). Meanwhile, Generation Beta, born post-2025, is prepared to grow up in a world where AI integration is the norm. This generational evolution underscores the urgency for educational institutions to adapt and prepare students for a future dominated by AI.

# 1 The Evolution and Definition of Artificial Intelligence

## 1.1 Exploring the Meaning of Artificial Intelligence

Artificial Intelligence (AI) has been defined in many ways over the years, reflecting both its interdisciplinary nature and evolving applications. AI was first defined as “*the science and engineering of making intelligent machines*” in 1956 (McCarthy, 2007, p. 2). Since then, it has evolved significantly, transitioning from simple intelligent machines to advanced algorithms capable of reasoning, learning, and adapting based on rules and interactions with their environment, mimicking human intelligence (McCarthy, 2007). Building on this foundation, Wang (2019) broadened the definition of AI by highlighting its ability to perform cognitive tasks, such as learning and problem-solving. This extended view encompasses exciting advancements like machine learning, natural language processing, and neural networks (Zawacki-Richter et al., 2019). Moreover, Turing (1950), contributed to this understanding by proposing that machines could think like humans and defined AI as systems that demonstrate human-like reasoning, learning, and perception.

In recent years, AI has often been described as a system or program with the capacity to learn and adapt. Modern AI advancements are largely driven by machine learning algorithms, which develop data-based models to solve problems adaptively (Kim – Kim, 2022). AI is also commonly viewed as intelligent agents, which are machines designed to perceive their surroundings, make decisions, and act in ways that maximize their chances of success (Shabbir – Anwer, 2018). According to Russell and Norvig (2010, p. 34), an intelligent agent is “*anything that can be viewed as perceiving its environment through sensors and acting upon that environment through actuators.*” These intelligent systems often evoke images of advanced supercomputers equipped with sensors and other components, enabling them to behave and interact with people in ways that resemble human cognition (Chen et al., 2020). Baker and Smith (2019, p. 10) offer a broad definition of AI, describing it as “*computers which perform cognitive tasks, usually associated with human minds, particularly learning and problem-solving.*” They emphasize that AI is an umbrella term that includes a range of

technologies and methods, such as machine learning, natural language processing, data mining, neural networks, and algorithms. Among these, machine learning stands out for its ability to recognize patterns, make predictions, and apply those patterns to new situations (Popenici – Kerr, 2017). In education, AI has shown its transformative potential by supporting innovative research methods, streamlining administrative tasks, and enabling personalized learning experiences (Holmes et al., 2019).

The challenge of defining AI lies in its constantly evolving nature. As its scope expands, so do the definitions. AI research spans a wide array of disciplines, including computer science, philosophy, anthropology, biology, psychology, linguistics, neuroscience, and more (Pokrivčáková, 2019). Some definitions focus on AI as systems that mimic human cognitive abilities like learning and problem-solving (Russell – Norvig, 2010). Others define it more narrowly, as a set of specialized computer skills (Baker – Smith, 2019). Encyclopaedia Britannica (online) describes AI as “*the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings,*” where intelligence involves the ability to adapt to changing circumstances. Stone et al. (2016) broaden the perspective, defining AI as a science and a set of technologies inspired by how humans perceive, learn, reason, and act, though these technologies often function differently. Similarly, the Oxford Dictionary (online) describes AI as “*the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.*” In addition, Merriam-Webster’s (online) definition combines these perspectives, defining AI as: (a) a branch of computer science focused on simulating intelligent behaviour in computers, and (b) a machine’s ability to imitate intelligent human behaviour. Luckin et al. (2016, p. 14) expand on this by describing AI as “*computer systems designed to interact with the world through capabilities and intelligent behaviours that we would consider essentially human.*” One of the most widely used advanced conversational artificial intelligence models ChatGPT defines AI as a “*multidisciplinary field of science and technology that focuses on designing and creating systems capable of performing tasks typically associated with human intelligence. These tasks include, but are not limited to, learning, reasoning, problem-*

*solving, understanding and generating natural language, perceiving and interpreting sensory input (such as vision and sound), decision-making, and adapting to changing environments” (ChatGPT 4o).* AI encompasses a diverse array of definitions, ranging from its foundational description as the science of creating intelligent machines to its current interpretation as a multidisciplinary domain involving advanced computer-based technologies. This diversity underscores AI’s potential to transform various fields, including education, by mimicking and enhancing human intelligence in increasingly sophisticated ways.

## **1.2 The Birth and Evolution of Artificial Intelligence**

The concept of creating an intelligent machine, one as smart as or smarter than humans, has captivated minds for centuries but emerged as a scientific pursuit with the advent of digital computers (Mitchell, 2020). The official birth of artificial intelligence is usually dated to a summer 1956 workshop on the campus of Dartmouth College, led by John McCarthy, a brilliant young mathematician with training in psychology and computer science. Intrigued by the idea of building a thinking machine, McCarthy had previously connected with Marvin Minsky of Princeton, a fellow who shared his enthusiasm for intelligent computers. After a short period at Bell Labs and IBM, where McCarthy collaborated with notable figures like Claude Shannon, the father of information theory, and Nathaniel Rochester, an early innovator in electrical engineering, he organized the Dartmouth workshop. McCarthy convinced Minsky, Shannon, and Rochester to join him in leading a two-month, ten-person study on artificial intelligence during the summer of 1956. McCarthy himself coined the term “artificial intelligence” to distinguish the field from related efforts in cybernetics.

The four organizers submitted a funding proposal to the Rockefeller Foundation for their planned summer workshop. The proposal was founded on the hypothesis that every aspect of learning or any other feature of intelligence could, in principle, be precisely described and simulated by a machine. It outlined a series of topics for discussion such as natural language processing, neural networks, machine learning, abstract concepts and reasoning, and creativity, which have



since become enduring pillars of the field of artificial intelligence (Mitchell, 2020).

The Dartmouth summer workshop on AI produced several pivotal outcomes. The field was officially named, and its overarching goals were established. The workshop also brought together the soon-to-be “big four” pioneers of AI – John McCarthy, Marvin Minsky, Allen Newell, and Herbert Simon – who began strategizing for the field’s future (Mitchell, 2020). In the early 1960s, McCarthy founded the Stanford Artificial Intelligence Project, ambitiously aiming to create a fully intelligent machine within a decade. Around the same time, Simon, a future Nobel laureate, predicted that within two decades, machines would be capable of performing any task a human can accomplish (Mitchell, 2020). Shortly thereafter, Minsky, founder of the MIT AI Lab, predicted that within a generation, the challenges of developing “artificial intelligence” would be largely resolved.

Before McCarthy and his fellows, foundational research in artificial intelligence was conducted in 1943 by Warren McCulloch and Walter Pitts. Their work combined insights from neuron physiology, propositional logic, and computation theory. They introduced a model of artificial neurons capable of switching between “on” and “off” states in response to specific stimuli (Palm, 1986). This groundbreaking study demonstrated that networks of interconnected neurons could compute any calculable function and perform basic logical operations through simple network structures. They also suggested that properly designed networks could possess learning capabilities. Building on their advancements, Donald Hebb introduced a pivotal concept in 1949 known as Hebbian learning, a rule for adjusting neural connections, which continues to shape AI research today (Russell – Norvig, 2010).

Alan Turing, a British mathematician, laid the foundation for programmable computers in the 1930s and later introduced a groundbreaking approach to evaluating a model’s intelligence in his 1950 paper *Computing Machinery and Intelligence*. In this work, Turing posed the profound question: *Can machines think?* To investigate this, he introduced the “imitation game,” now widely known as the Turing Test, as a way to evaluate a machine’s capacity to demonstrate intelligent behaviour indistinguishable from that of a human. Anticipating skepticism, Turing identified nine possible objections to

the concept of machines thinking and systematically addressed and refuted each one. These objections ranged from theological arguments, such as the claim that thinking is exclusive to humans because God endowed them with immortal souls, to parapsychological claims, like the belief that humans can use telepathy while machines cannot. Turing ultimately reframed the question to ask whether it is conceivable for digital computers to excel at the imitation game (Mitchell, 2020). Turing's predictions have proven remarkably accurate. Over the years, Turing Tests have been conducted using chatbots as the machine participants. In these tests, a human interrogator engages in text-based interactions with both a human and a machine, unaware of which is which. The interrogator's goal is to identify the human respondent solely based on their answers. If the interrogator cannot reliably distinguish the machine from the human more often than by chance, the machine is considered to have passed the Turing Test (Muthukrishnan et al., 2020).

Between 1958 and 1974, artificial intelligence experienced significant milestones. In 1958, Frank Rosenblatt introduced the perceptron, a computational model inspired by neural processes, which became a foundational element for neural networks and deep learning (Rosenblatt, 1958). In 1966, Joseph Weizenbaum developed ELIZA, an early natural language processing program designed to emulate a Rogerian psychotherapist. ELIZA's interactions, based on pattern matching and substitution, highlighted both the potential and limitations of AI in mimicking human conversation (Weizenbaum, 1966). Notably, some users were initially convinced they were conversing with a human, until the program's limitations became evident, leading to nonsensical exchanges (Delipetrev et al., 2020).

The history of artificial intelligence includes two significant periods of stagnation and decline, often referred to as the "AI Winters." The first AI Winter emerged in the 1970s, driven by unfulfilled expectations, overly ambitious goals, and financial challenges, compounded by technological limitations such as inadequate computing power, memory, and processing speed (Delipetrev et al., 2020). In 1968 Minsky and Papert published *Perceptrons*, a seminal work that provided a rigorous mathematical analysis of perceptrons, a class of artificial neural networks. Their analysis demonstrated specific limitations, notably that single-layer perceptrons were incapable of solving certain

problems. This revelation highlighted the inadequacy of single-layer perceptrons for complex pattern recognition tasks and led to a significant decline in interest and funding for neural network research during that period (Minsky – Papert, 2017). Furthermore, in 1973 Sir James Lighthill authored a report titled *Artificial Intelligence: A General Survey*, commonly known as the *Lighthill Report*. Commissioned by the British Science Research Council, the report critically evaluated the progress and future prospects of AI research in the United Kingdom. Lighthill concluded that, apart from advancements in areas such as automated reasoning and specific aspects of pattern recognition, AI had largely fallen short of delivering meaningful practical applications (Lighthill, 1973). He emphasized the disparity between the high expectations and the actual achievements in the field, leading to a substantial reduction in government funding for AI research in the UK and contributing to the onset of the first “AI Winter.” In response to the setbacks of the 1970s, researchers in the 1980s shifted their focus to rule-based expert systems. While these systems demonstrated proficiency in narrow, domain-specific tasks, their limitations became apparent by the mid-1980s. They lacked general common sense, adaptability, and the ability to handle complex or dynamic tasks, further tempering enthusiasm for AI development (Muthukrishnan et al., 2020).

The second AI winter, spanning from 1987 to 1993, was marked by excessive expectations about neural networks’ potential, which were not matched by advancements in computing power (Muthukrishnan et al., 2020). After this period, the importance of “expert systems” within the IT community began to decline. A major challenge in the development of expert systems has been knowledge acquisition; the process of extracting and symbolically representing specialized knowledge from experts. This task is not only time-consuming but also complicated by the difficulty of obtaining input from experts. In response, researchers have shifted their efforts toward creating tools to automate the development, troubleshooting, and maintenance of rule-based structures defined by experts (Delipetrev et al., 2020).

Innovative approaches like neural networks and machine learning gained popularity, offering transformative solutions to longstanding challenges in artificial intelligence. These techniques enabled AI systems to learn and adapt autonomously, reducing the need for

explicit programming for every scenario. Instead of manually encoding comprehensive world knowledge, AI could now analyze data, refine its performance, and continuously improve through learning. A landmark moment came in 1997 when Deep Blue, an AI program developed by IBM, defeated world chess champion Garry Kasparov, showcasing AI's capacity for complex reasoning (Mitchell, 2020). This event left Kasparov so shaken that he accused the IBM team of cheating, believing the machine must have been aided by human experts to perform at such a high level (Hoffman, 2003). Ironically, during the 2006 World Chess Championship matches, the roles were reversed when one player accused the other of cheating by using assistance from a computer chess program (McClain, 2006). Following this achievement, AI applications expanded into diverse fields, with notable advancements by the early 2000s in language translation, image captioning, and question-answering. In the 2010s, deep learning emerged as an advanced branch of machine learning, enabling AI to address increasingly complex problems and achieve unprecedented capabilities (Roy, 2023).

Until recently, AI's popular image was shaped largely by its portrayal in movies and TV shows like *2001: A Space Odyssey* or *The Terminator*. In reality, AI was neither a significant part of our daily lives nor a frequent topic of discussion in mainstream media. For those who came of age in the 1990s or earlier, memories of AI might include frustrating interactions with customer-service speech-recognition systems, the robotic word-learning of Furby, or the infamous Microsoft Clippy; the animated paperclip assistant that many found more annoying than helpful (Mitchell, 2020). Well before the time of fully realized AI, it seemed distant and unlikely. But then, starting in the mid-2000s and continuing up to today, AI achievements began to infiltrate discreetly into our lives until they started to expand at an extraordinary pace. In the meantime, Google introduced its automated language Google Translate. Personal virtual assistants such as Apple's Siri (2010) and Amazon's Alexa (2016) have been integrated into our devices and homes, capable of dealing with many of our spoken requests. YouTube began offering impressively accurate automatic subtitles for videos, while Skype added real-time translation for video calls in multiple languages. Social media platforms also began to use AI. For instance, Facebook started recognizing faces in uploaded photos with remarkable accuracy, and Flickr began automatically tagging photos



with descriptive text. In 2016, Elon Musk founded Neuralink, an organization focused on developing brain-machine interfaces to create a symbiotic relationship between humans and AI. This initiative aims to enhance human capabilities while benefiting those with neurological conditions (Armstrong – Michael, 2020). Furthermore, in July 2023, Musk launched xAI, a company with the ambitious mission to “*understand the true nature of the universe*” (xAI online). Closely collaborating with his other ventures, such as Tesla, xAI works to enhance Tesla’s Full Self-Driving technology and other AI-driven innovations. Hanson Robotics introduced the world to one of its most advanced humanoid robots, Sophia, back in 2016. This robot resembles humans and is integrated with highly advanced AI, which can naturally communicate intuitively with people. During the Future Investment Initiative in Riyadh, Saudi Arabia in October 2017, Sophia became the first ever robot to be granted legal citizenship by any country (Fernandes, 2022). In the 2020s, generative AI chatbots gained prominence, with OpenAI launching ChatGPT in 2022, Google introducing Gemini (formerly Bard) in 2023, and Perplexity was also released in 2022. These tools used advanced machine learning and extensive datasets to assist users in drafting emails, summarizing conversations, and generating social media content (Karjian, 2023).

The excitement surrounding artificial intelligence quickly became impossible to ignore. Major technology companies have invested billions into AI research and development, either by hiring top AI talent or acquiring smaller start-ups to secure their skilled teams. The prospect of instant wealth through acquisitions has sparked a wave of new start-ups, many led by former university professors, each bringing their own unique vision to the field of AI innovation (Michell, 2020). The era of AI spring is in full bloom.

### **1.3 AI Literacy**

Literacy encompasses specific approaches to understanding and engaging with reading and writing, enabling individuals to comprehend or convey ideas and thoughts within a particular context (Keefe – Copeland, 2011). Digital literacy, on the other hand, refers to the capacity to effectively utilize, evaluate, and apply digital tools, resources, and services to support lifelong learning (Falloon, 2020).

The concept of digital competence goes beyond technical skills using devices and software. It incorporates the ability to communicate effectively through technologies and responsible and healthy use of digital skills. This includes a balanced understanding of technology, as well as awareness of privacy, security, legal and ethical considerations, and the societal impact of digital technologies (Falloon, 2020). Knowledge is essentially related to literacy since it deals with understanding. Competency, on the other hand, reflects the extent to which this knowledge is effectively and successfully applied in real-world situations. It involves confidence, attitude, and performance, highlighting how well an individual achieves specific tasks, such as using AI tools effectively. Literacy, in general, centres on knowing, while competency prioritizes applying that knowledge in meaningful and beneficial ways (Chiu et al., 2024).

Artificial intelligence has spread across various fields, enhancing user experiences, improving work efficiency, and creating numerous future job opportunities. However, public understanding of AI technologies and the definition of AI literacy remains underexplored, posing challenges for the next generation to effectively engage with AI. In response, Ng et al. (2021) conducted an exploratory review to conceptualize the emerging concept of AI literacy, aiming to establish a theoretical foundation for defining, teaching, and evaluating it. The authors utilized Bloom's Taxonomy, a framework for categorizing levels of reasoning skills and ordered thinking required in various learning contexts. The taxonomy comprises six hierarchical levels, each demanding increasingly complex cognitive skills, with the understanding that one level must be mastered before progressing to the next (Bloom, 1956; Huitt, 2011). They mapped three aspects of AI literacy, which are "know and understand," "use and apply," and "evaluate and create," to the cognitive levels of Bloom's Taxonomy. "Know and understand AI" corresponds to the foundational levels of knowledge and comprehension. "Use and apply AI" aligns with the application level, focusing on the practical implementation of concepts. Finally, "evaluate and create AI" is associated with the top three levels, which involve analysis, evaluation, and creation of AI (Figure 1).

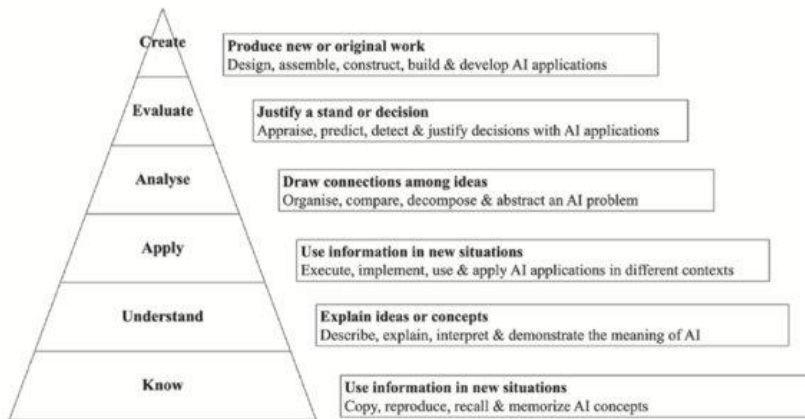


Figure 1: Bloom's Taxonomy and AI  
 Source: Ng et al., 2021

In addition, Selber (2004) divided AI literacies into three core areas: functional, critical, and rhetorical (Figure 2). *Functional literacy* focuses on understanding AI tools and their applications, navigating AI platforms, operating AI-driven software or devices, and recognizing the limitations and potential of AI technologies. *Critical literacy* emphasizes evaluating the accuracy and reliability of AI-generated content, assessing the quality and relevance of AI sources, identifying biases and ethical implications, and fostering critical thinking for AI analysis. *Rhetorical literacy* involves recognizing rhetorical patterns in AI-generated text, analyzing style, tone, and voice, comparing AI-generated content to human-created content, and understanding the interplay between prompts and AI outputs. This framework highlights the diverse competencies required to effectively engage with AI in various contexts.

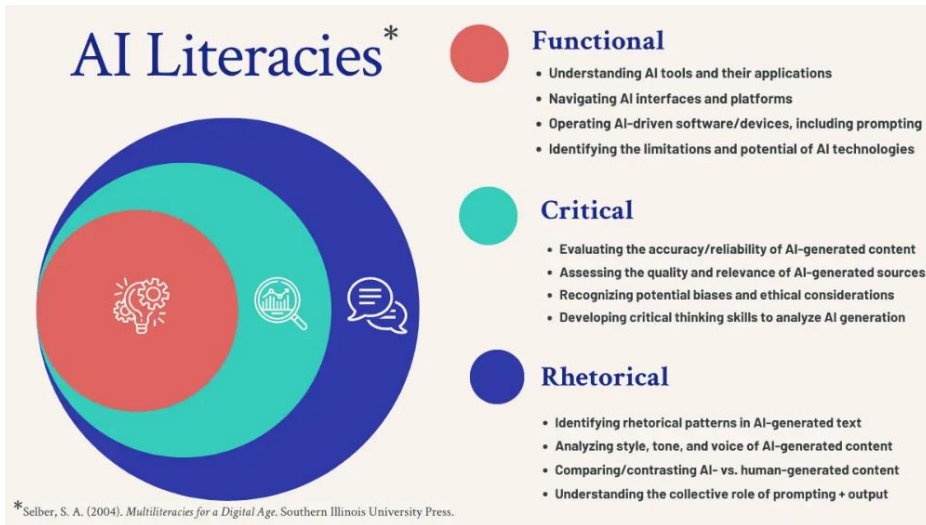


Figure 2: AI Literacies  
Source: Selber, 2024

Moreover, Kennedy (2023) developed the *AI Literacy Framework*, a comprehensive guide for understanding and effectively using AI tools, aligned with UNESCO’s Digital Literacy Global Framework. It highlights seven key areas essential for AI competency (Figure 3). The first, *Hardware & Software*, focuses on selecting appropriate AI tools and using them across various devices. *Information & Data Literacy* emphasizes accessing, evaluating, and organizing information using AI, along with optimizing AI performance. *Communication & Collaboration* involves engaging with AI systems, managing AI-generated content, and working collaboratively with others through AI tools. *Content Creation* explores the use of AI to develop, personalize, and adapt content while addressing ethical and legal considerations. *Safety* stresses the importance of understanding risks, adhering to privacy policies, and using AI responsibly and ethically. *Problem Solving* focuses on recognizing AI-related errors, solving issues, improving processes, and bridging skill gaps. Finally, *Career Competencies* highlight the application of AI tools in specific industries, analyzing AI content, and integrating AI with professional expertise.



# AI LITERACY FRAMEWORK



CREATED BY MAPPING AI SKILLS ONTO THE UNESCO DIGITAL LITERACY GLOBAL FRAMEWORK  
DR. KARA KENNEDY | KENNEDYHQ.COM | 2023  
SHARE VIA CREATIVE COMMONS (CC-BY)

Figure 3: AI Literacy Framework  
Source: Kennedy, 2023

AI literacy is broadly defined as equipping learners with the fundamental concepts, skills, knowledge, and attitudes needed to engage with AI, requiring no prior experience. Burgsteiner et al. (2016) and Kandlhofer et al. (2016) describe AI literacy as the ability to understand the foundational techniques and concepts underpinning AI technologies in various products and services underlying AI technologies in various products and services. Additionally, they emphasize the importance of teaching learners how to apply AI concepts across different contexts and everyday applications. Long and Magerko (2020, online) expand this definition, describing AI literacy as a “*set of competencies that enables individuals to critically evaluate AI technologies, communicate and collaborate effectively with AI, and use AI as a tool online, at home, and in the workplace.*” AI literacy emerges as a multifaceted concept, encompassing a range of skills, knowledge, and competencies necessary to navigate, understand, and apply AI technologies effectively. It bridges foundational literacy, digital literacy, and broader competencies such as critical evaluation and ethical considerations. As AI becomes increasingly integral to our lives, fostering AI literacy is critical to preparing individuals to adapt, innovate, and address the challenges and opportunities presented by AI technologies in both personal and professional spheres.

## **1.4 AI Ethics and Concerns**

Machine intelligence raises a wide range of ethical concerns, leading to extensive discussions that have been the subject of many books e. g. O’Neil’s *Weapons of Math Destruction: How Big Data Increases Inequality Threatens Democracy* (2016), Fry’s *Hello World: Being Human in the Age of Algorithms* (2018), and Spairs’s *Navigating AI Ethics: Building a Responsible and Equitable Future* (2024). In 2018, Pew analysts surveyed nearly a thousand technology pioneers, innovators, developers, business and political leaders, researchers, and activists, asking for their predictions on how advanced AI might enhance human capabilities by 2030 and whether the majority of people will be better off than they are today (Mitchell, 2020). The respondents were split into two groups, with 63% anticipating that advancements in AI would enhance human well-being by 2030, while the remaining 37% disagreed. Perspectives ranged widely, from optimistic views envisioning AI virtually eliminating global poverty, significantly

reducing disease, and providing universal access to quality education, to dystopian scenarios. These included mass job replacement due to automation, the erosion of privacy and civil rights through AI surveillance, the rise of unethical autonomous weapons, unaccountable decisions by opaque algorithms, reinforced racial and gender biases, media manipulation, increased cybercrime, and what one respondent described as the potential for “true, existential irrelevance” of humans (Mitchell, 2020). Given the risks associated with AI technologies, there is a growing demand for implementing regulations.

AI ethics encompasses a set of moral principles and values that guide the design, development, and deployment of AI technologies (Spair, 2024). It addresses the complex challenges posed by AI systems, particularly when they impact human lives directly. Ethical concerns emerge when AI systems make decisions, such as diagnosing medical conditions, evaluating job candidates, or navigating autonomous vehicles, where the outcomes can be significant and far-reaching. At its essence, AI ethics seeks to ensure that these systems are developed and used in ways that respect human rights, foster fairness, and maintain transparency (Spair, 2024). As AI becomes an integral part of daily life, ethical frameworks must tackle issues such as bias, privacy, accountability, and the broader societal implications of AI technologies.

*The Ethics Guidelines for Trustworthy AI*, developed in 2019 by the European Commission’s High-Level Expert Group on Artificial Intelligence, outline a framework to ensure AI systems are ethical, robust, and human-centric. The guidelines emphasize three core components for trustworthy AI. It must be lawful, adhering to all applicable regulations; ethical, respecting fundamental rights and values; and robust, both from a technical and social perspective (Ethics guidelines for trustworthy AI, online). Additionally, the guidelines identify seven key requirements for ensuring ethical and reliable AI systems. *Human agency and oversight* emphasize empowering individuals, safeguarding their rights, and maintaining human control through various oversight approaches. *Technical robustness and safety* focus on making AI resilient, secure, and reliable, with emergency mechanisms to minimize unintentional harm. *Privacy and data*

*governance* highlight the importance of respecting data protection laws and implementing strong governance practices to maintain data integrity and legitimate access. *Transparency* emphasizes that AI systems and decisions should be understandable, traceable, and clearly communicated, including their capabilities and limitations. *Diversity, non-discrimination, and fairness* aim to eliminate bias, promote inclusivity, and ensure accessibility for all, while involving stakeholders throughout the AI lifecycle. *Societal and environmental well-being* calls for AI to benefit humanity and future generations by being sustainable, environmentally friendly, and socially responsible. Lastly, *accountability* requires robust mechanisms for audit, responsibility, and redress to ensure ethical practices and compliance with societal values. This framework aims to guide developers, users, and policymakers in creating AI technologies that align with societal values and promote positive outcomes.

In November 2021, UNESCO's Member States adopted the *Recommendation on the Ethics of Artificial Intelligence* (online) establishing the first global standard for ethical AI governance. This comprehensive framework emphasizes human rights, inclusivity, and environmental sustainability, providing policy guidance across eleven areas (Figure 4) to ensure AI technologies are developed and utilized ethically (UNESCO, 2021). Key principles include promoting transparency, accountability, and fairness in AI systems while addressing challenges such as bias, data privacy, and the societal impacts of AI. To support implementation, UNESCO has developed tools like the *Ethical Impact Assessment* (online), aiding stakeholders in evaluating AI system's benefits and risks throughout their lifecycle. This initiative aims to foster responsible AI development that aligns with shared global values and ethical standards.





Figure 4: UNESCO Policy Areas  
 Source: UNESCO, 2021

In education, Richards and Dignum (2019) advocate for a value-centred design approach that incorporates ethical principles at every stage of developing and implementing AI systems in the teaching and learning process. This approach emphasizes that AI systems in educational contexts should: (a) identify relevant stakeholders, (b) determine the values and requirements of those stakeholders, (c) provide mechanisms to aggregate and interpret these values, (d) link values to system functionalities to inform implementation and ensure sustainable use, and (e) guide the selection of system components, whether internal or external, based on ethical principles. Additionally, Dignum (2017) integrates a wide range of ethical considerations into the ART principles, focusing on Accountability, Responsibility, and Transparency.

Furthermore, artificial intelligence in education (AIED) raises important ethical and privacy concerns, emphasizing the need to distinguish between acting ethically and adopting ethical methods (Holmes et al., 2021). As was stated by Russell and Norvig (2002, p. 1020) “all AI researchers should be concerned with the ethical implications of their work.” Studies have highlighted ethical themes in general AI and AIED, particularly regarding data liability across various contexts,

including higher education (Zawacki-Richter et al., 2019), schools (Luckin, 2017), and specific subjects (Hwang – Tu, 2021). Concerns have been raised about the impact of AI in areas such as surveillance, consent, student privacy (Sacharidis et al., 2020), identity, user confidentiality, integrity and inclusiveness (Deshpande – Rao, 2017). Additional concerns involve the use of data for educational purposes, as well as issues of autonomy, data ownership, access, and data collection.

It is crucial for both teachers and students to understand, evaluate, and familiarize themselves with the applications of generative artificial intelligence tools. Engaging with these AI tools requires a deliberate, critical, and ethical mindset to assess their potential advantages for assignments and assessments. It is equally important to consider how students might independently use these tools, whether in productive ways or in ways that could undermine academic integrity. This engagement includes understanding the contexts in which generative AI is used, assessing the reliability and validity of its outputs, examining the ethical and societal implications of its design and application, and interacting with these systems in an informed and appropriate manner.

## 2 Exploring Artificial Intelligence in British and American Studies at Slovak Universities

### 2.1 Artificial Intelligence in Education

Artificial intelligence presents a promising opportunity to address many challenges contemporary education faces today. AI can play a pivotal role in accelerating progress toward Sustainable Development Goal 4 (SDG 4) by transforming teaching and learning approaches. SDG 4 reflects a global commitment to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (UNESCO, online). As a cornerstone for positive change, this goal highlights the transformative power of education in fostering a more sustainable and equitable future. It comprises several specific targets that focus on various aspects of education, including:

- ensuring free, equitable, and quality primary and secondary education for all by 2030;
- increasing access to affordable and quality technical, vocational, and tertiary education, including university education;
- eliminating gender disparities and ensuring equal access to all levels of education and vocational training for vulnerable populations; and
- improving the quality of teaching and learning environments.

In 2020, the World Economic Forum identified eight essential transformations within its *Education 4.0 Framework* (Figure 5), aimed at improving education quality to meet the demands of the Fourth Industrial Revolution, which refers to the rapid technological advancements of the 21st century, following the Third Industrial Revolution, known as the “Information Age.” Before these, the First Industrial Revolution introduced steam-powered factories, while the Second Industrial Revolution applied scientific principles to mass production and manufacturing. The term itself was popularized in the 2016 book *The Fourth Industrial Revolution* by Klaus Schwab, the World Economic Forum founder and executive chairman, who discusses how emerging technologies are merging the physical, digital, and biological worlds, leading to unprecedented changes in society and industries. He argues that this revolution represents a significant shift in industrial capitalism, fundamentally altering how we live, work, and relate to one another (World Economic Forum, online).

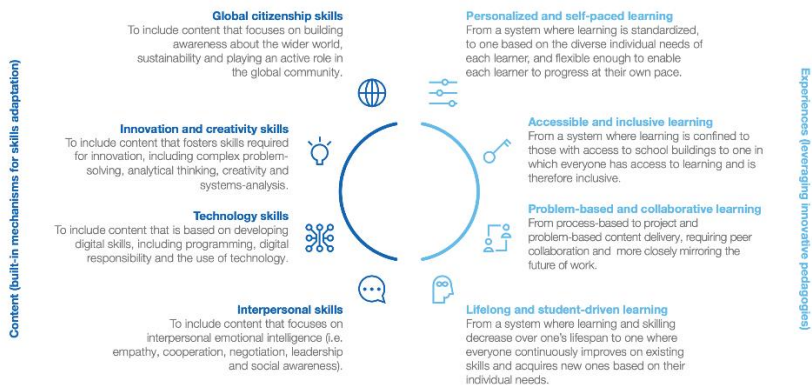


Figure 5: The World Economic Forum Education 4.0 Framework  
Source: World Economic Forum, 2020

Essential characteristics of high-quality learning content and experiences include:

**Content (built-in mechanisms for skills adaptation):**

- **Global Citizenship Skills:** Emphasizes the importance of understanding the global community, sustainability, and active participation in a worldwide context.
- **Innovation and Creativity Skills:** Promotes skills like complex problem-solving, analytical thinking, creativity, and systems analysis.
- **Technology Skills:** Focuses on building digital proficiency, including programming, digital responsibility, and the use of technology.
- **Interpersonal Skills:** Highlights emotional intelligence, empathy, cooperation, negotiation, leadership, and social awareness.

**Experiences (leveraging innovative pedagogies):**

- **Personalized and Self-Paced Learning:** Shifts from standardized learning to customizing education to individual learners' needs, allowing them to progress at their own pace.
- **Accessible and Inclusive Learning:** Moves from limiting education to physical school locations to creating inclusive systems where everyone has access to learning.
- **Problem-Based and Collaborative Learning:** Transitions from traditional process-based methods to project- and problem-based content delivery, fostering collaboration and reflecting real-world work environments.

- **Lifelong and Student-Driven Learning:** Encourages continuous skill development throughout life, focusing on adapting to individual learners' evolving needs.

Artificial intelligence in education has received a lot of attention in the last couple of years. Although the integration of AI into education has been gradual, research suggests a continued improvement in the role of AI in education through the adoption of various virtual assistant applications. On the other hand, Bates et al. (2020) describe AI as a “sleeping giant” in the field of education. Buckingham Shum and McKay (2018) add that practical application falls short of AI's anticipated potential. This gap is attributed to challenges such as insufficient organizational structures, lack of personnel, and inadequate technological infrastructure (Ifenthaler, 2017). Nevertheless, ongoing advancements in AI technologies and increasing investments in educational innovation suggest that the gap between potential and practical application may gradually narrow in the coming years.

AI-powered educational technologies, known as Intelligent Tutoring Systems (ITS), are designed to simulate the experience of interacting with human tutors (VanLehn, 2011). These systems use pedagogical agents to provide students with prompt feedback and guidance (Kay, 2012). As highlighted by Ma et al. (2014), an ITS typically comprises four essential components:

- **Interface:** Serves as the medium for interaction with learners, providing information, asking questions, assigning tasks, offering feedback, and addressing students' inquiries.
- **Domain Model:** Represents the knowledge or subject matter that the student is expected to learn.
- **Student Model:** Tracks key aspects of the student's knowledge and psychological state based on their reactions and interactions with the system.
- **Tutoring Model:** Customizes instructional strategies to align with the unique needs of each learner.

Moreover, ITSs can support students' cognitive development by enhancing their learning processes during homework or exercises, even in the absence of a teacher (VanLehn, 2011). When implemented effectively, ITSs can lead to significantly higher achievement outcomes

compared to other teaching methods, making them a valuable teacher's tool. For example, Verginis et al. (2011) demonstrated that the use of an open-learner model successfully re-engaged disengaged online students, leading to improved post-test performance. Similarly, Arroyo et al. (2014) found that learning companions positively influenced the motivation and emotional states of low-achieving students. These findings underscore the complementary role of ITSs in education, enhancing and supporting teachers' instruction (Chichekian – Benteux, 2022).

Furthermore, artificial intelligence has enormous potential to drive critical reforms in education by addressing various challenges and improving the learning experience. Singh (2024) outlines how AI can pave the way for a more inclusive, effective, and engaging educational system:

- **Personalized Learning:** AI can analyze students' data to identify learning styles, strengths, and areas for improvement.
- **Adaptive Assessments:** Traditional testing often falls short in accurately measuring a student's abilities. AI can revolutionize this through adaptive tests that adjust in real-time to a student's performance.
- **Intelligent Tutoring Systems:** AI-powered tutoring offers individualized support beyond the classroom. For example, a student without access to private tutors could benefit from AI-driven systems that provide explanations and guide them through challenging problems.
- **Enhanced Teacher Support:** AI not only benefits students but also supports teachers by automating tasks like grading and attendance tracking, giving teachers more time to focus on teaching and student engagement.
- **Reducing Educational Inequity:** AI can make education more equitable by offering high-quality, customized resources to underfunded schools.

The author highlights the need to shift from rote memorization to fostering critical thinking, creativity, and digital literacy. AI is presented as a tool to support these changes by providing students with customized educational experiences and enabling teachers to focus on mentoring.



Moreover, a systematic review by Zawacki-Richter et al. (2019) highlights several applications of AI in education:

- analyzing student data to predict academic performance;
- employing intelligent tutoring systems to deliver learning materials, assistance, and feedback;
- utilizing adaptive systems to guide learning processes and offer tailored support when needed, and
- automating examination systems to assess learning outcomes.

Additionally, AI supports pedagogical decision-making by teachers (Arthars et al., 2019) and the continuous improvement of course content and curriculum development (Ifenthaler et al., 2018), complementing the role of teachers who will continue to focus on cultivating students' affective intelligence, creativity, and communication skills. According to Manyika et al. (2017), advancements in artificial intelligence and automation have the potential to make individuals "more human." Haseski (2019) summarizes that AI in education can individualize learning, provide more effective learning experiences, help students discover their talents, foster creativity, and reduce teacher's workload. However, opposing perspectives also exist. Some studies highlight the potential risks of transferring teachers' roles to computers, which is viewed as a significant concern (Humble – Mozelius, 2022). To navigate this future, it is the responsibility of states and nations to develop a teacher profile that collaborates effectively with AI support systems (Wogu et al., 2018). The integration of AI into education presents significant potential to revolutionize the learning experience. Tools such as virtual assistants, intelligent tutoring systems, adaptive learning platforms, and generative AI applications are reshaping traditional teaching methods. These technologies enable personalized learning experiences, provide customized feedback, and automate administrative tasks, freeing teachers to focus on mentorship and cultivating critical thinking.

## **2.2 Overview of AI Tools and Applications Most Frequently Used in British and American Studies at Slovak Universities**

Generative AI applications have brought about a significant impact on teaching and learning (Zhu – Luo, 2022). AI models have evolved substantially, leading to remarkable advancements in their abilities across various domains, including question-answering, programming, and multilingual support. Consequently, GenAI is now capable of handling a diverse array of tasks such as translation, solving mathematical problems, generating stories, and writing code (Quek et al., 2024). The pedagogical role of GenAI tools continues to be a topic of active discussions and investigations, with teachers holding diverse perspectives on employing these tools in the educational process.

As part of a research study conducted among university teachers specializing in English language and Anglophone cultures, we investigated which generative AI applications they use most frequently and with which they have prior experience. The most popular application identified was ChatGPT, followed by Perplexity and Gemini. Translators primarily utilize Google Translate and DeepL. Additionally, respondents mentioned the use of Copilot and MagicSchool for lesson planning and assignment creation. For presentation development, they employ Curipod and Canva, with the latter also serving as a tool for creating various images and formats. For image generation, Freepik, or DALL-E are commonly used. Furthermore, for video creation, they utilize Vidnoz. Twee is used for writing stories, while Jenni is employed for producing specialized academic texts. Grammarly is widely used for grammar and stylistic checks. In their scientific work, teachers rely on tools such as SciSpace Copilot, DOAJ and Consensus, which facilitate the search and review of scholarly literature. For the detection of texts generated by artificial intelligence, tools such as ZeroGPT and JustDone are employed. However, their evaluations are often considered unreliable as they frequently misclassify human-written texts as AI-generated and vice versa.

### 2.2.1 ChatGPT

ChatGPT was developed by OpenAI in 2022. It uses a large language model (LLM) which has demonstrated significant effectiveness in generating text-based responses to prompts (Saduov – Gelvanovsky, 2024). This advanced AI chatbot is designed to deliver human-like conversational responses, comprehend and generate text, and facilitate natural language interactions for diverse purposes such as writing support, learning, and brainstorming. Since its launch, it has undergone several updates (Figure 6). ChatGPT initially entered the market with the GPT-3 model, offering a free, chatbot-only version accessible to all users. Over time, it advanced to the GPT-3.5 model, also referred to as the Legacy model (Mitchell, 2024). More recently, OpenAI introduced the GPT-4 model, available exclusively through the ChatGPT Plus subscription plan, which improved speed and accuracy compared to earlier versions, though it is not free. Additionally, the GPT-4o model, where “o” stands for “Omni,” demonstrates the ability to process various input types, including text, images, audio, and video, with exceptional proficiency in handling visual and auditory data, surpassing previous models. The latest addition to the lineup is ChatGPT 4o Mini, designed as a cost-effective and efficient alternative to the full GPT-4o model, offering notable affordability and versatility (Mitchell, 2024).

ChatGPT offers numerous benefits that make it a valuable tool for various applications. Its versatility allows users to tackle a wide range of tasks, including writing, drafting essays, answering test questions, translating, generating business ideas, providing sources, data analyzing, creating charts, etc. Additionally, its accessibility provides users with convenient access to information and assistance, enhancing productivity and creating valuable learning opportunities (OpenAI, online). The chatbot’s ability to understand and generate human-like text ensures natural and intuitive interactions, enabling seamless communication between users and the AI (Geeks for Geeks, 2024). Despite its many advantages, ChatGPT has notable limitations and raises important concerns. One significant issue is its accuracy. The chatbot can generate incorrect or nonsensical responses, often referred to as “hallucinations,” which may mislead users if not properly verified. Additionally, there are several ethical and privacy concerns. AI-generated content can be used for plagiarism, compromising data

security, or providing misinformation. There is also the risk of overreliance on ChatGPT for tasks that involve critical decisions, such as those involving health issues, without consulting professionals, which could result in potentially harmful consequences.

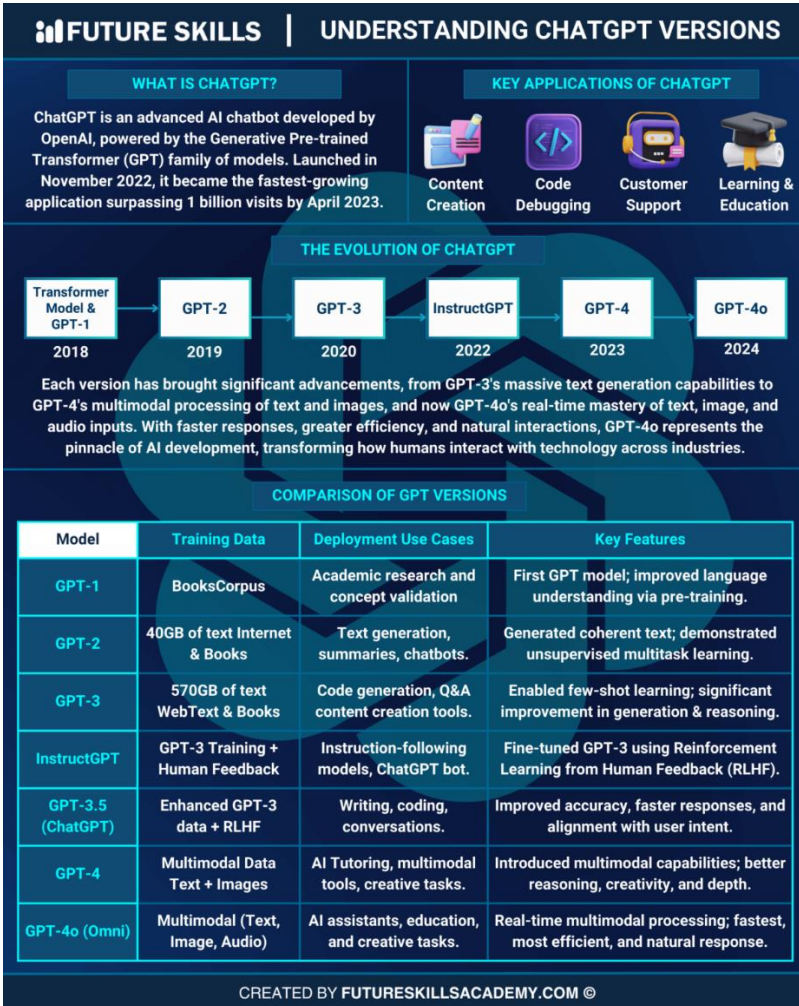


Figure 6: ChatGPT versions  
 Source: Future Skills, 2024

ChatGPT has had an immediate impact on education, as students quickly recognized the potential of chatbots to assist with completing assignments. The response from educational institutions and teachers, however, has been polarized. Some are against using chatbots such as

ChatGPT, Gemini, or Perplexity and are calling for a ban, while others are embracing and integrating the new technology into their practices.

### **2.2.2 Gemini**

Gemini, previously known as Bard, represents the culmination of extensive collaborative efforts by teams across Google. Designed as a multimodal AI application, it can effortlessly understand, process, and integrate various types of information, including text, code, audio, images, and video. It was launched in December 2023 with the aim to compete OpenAI's GPT-4. The different Gemini models are designed to run on almost any device, which is why Google is integrating it absolutely everywhere (Guinness, 2024). Up to now, Google offers Ultra, Pro, Flash, and Nano Gemini models. The Gemini 1.0 Ultra model is the most advanced, customized for handling highly complex tasks. Gemini 1.5 Pro optimizes scaling across various applications and tasks. Gemini 1.5 Flash is a lightweight, fast, and cost-efficient model, ideal for high-frequency tasks. Lastly, Gemini 1.0 Nano is designed to operate locally on smartphones and other mobile devices, ensuring portability and accessibility (Guinness, 2024).

Gemini offers a range of impressive benefits that enhance its functionality and user experience. Its multimodal capabilities allow it to process and generate text, images, and audio. The model's advanced architecture supports sophisticated reasoning and understanding, allowing it to handle complex tasks with accuracy and context-awareness, making it particularly valuable in areas such as coding, content creation, and data analysis (ChatGPT 4o). Additionally, Gemini ensures effortless accessibility and a consistent user experience across diverse devices and services. Its limits are comparable to those of ChatGPT.

### **2.2.3 Perplexity**

The third most frequently used AI application is Perplexity, which uses natural language processing and machine learning to deliver accurate and contextually relevant answers to user queries (Visibility, online). Unlike traditional search tools that provide lengthy lists of links, Perplexity AI distinguishes itself by generating direct answers, thereby enhancing the speed and efficiency of obtaining information.

Launched in 2022, Perplexity AI has since gained popularity as a viable alternative to other AI tools, such as ChatGPT or Gemini, particularly due to its ability to include sources and citations in its responses. By providing links to original sources, this tool enhances the credibility and reliability of its responses, allowing users to verify the information they receive. Furthermore, Perplexity combines speed and efficiency, enabling users to quickly access information without sifting through numerous web pages, thereby streamlining the search process and saving valuable time (ChatGPT 4o). Its natural and conversational response style further simplifies user interaction, making the search experience intuitive and engaging.

Despite its advantages, it exhibits several limitations that may affect its usability and accuracy in certain contexts. Key disadvantages include its dependence on data, a lack of deep understanding, and limited creativity, as the tool is primarily designed to provide factual responses. Additionally, there is a need for source verification; although Perplexity provides citations and references, the quality and reliability of these may vary. Tools like Perplexity, ChatGPT, and Gemini are powerful resources, but their limitations underscore the necessity of using them as supplementary sources of information rather than as sole authorities. Users should critically evaluate their responses and integrate them with other reliable sources to ensure accuracy and credibility, which is a skill that teachers must develop in their students.

#### **2.2.4 Grammarly**

Grammarly is an advanced writing assistant tool that helps users improve grammar, spelling, and style in English texts. Founded in 2009, this software uses artificial intelligence and machine learning to analyze written content and provide suggestions for corrections and enhancements (Wiggers, 2018). Grammarly automatically identifies grammatical errors, typos, and incorrect punctuation. The tool provides suggestions for synonyms, sentence structure improvements, and language adjustments. Additionally, it compares text against online content to detect potential plagiarism. It significantly enhances English writing skills and contributes to the improvement of the user's linguistic knowledge. Grammarly is available as an application, a browser extension, or an integration with

various text editors e.g., Microsoft Word, or Google Docs. Furthermore, it can be utilized across various devices, including computers, tablets, and mobile phones, ensuring accessibility and convenience for users.

### **2.2.5 DeepL and Google Translate**

DeepL is one of the leading machine translation services, operating on the basis of artificial intelligence, that produces translations of unprecedented quality. Founded in Germany in 2009, DeepL is trained on the Linguee corpus, which, in addition to human-translated sentences, includes translations of idiomatic expressions and text excerpts where specific words or phrases appear. In contrast, Google Translate is based on the parallel Europarl corpus, supplemented by various digital resources across multiple languages (Petráš – Munková, 2023). Both DeepL and Google Translate employ deep learning techniques to generate translations, which are widely regarded as more natural and accurate compared to traditional translation methods. In addition to text translation, they both offer the capability to upload and translate entire documents in various formats. DeepL can understand the broader context of words and phrases to produce more accurate and fluent translations and improve over time. It can be integrated into most browsers or software. DeepL's outputs can be customized through terminology databases, brand-specific glossaries, and other data sources to improve results. However, it still falls short of human-level skills such as understanding context, identifying errors in the source text, catching irony, translating creatively etc. (Phrase, online).

Google Translate is a free online service designed for translating text, documents, and websites between various languages. Developed by Google in 2006, it is one of the most widely used translation tools globally, supporting over 100 languages and their variants. The service is regularly updated to include new languages and improve translation quality. It uses advanced algorithms to produce more fluent and natural translations, focusing on the context of entire sentences rather than isolated words or phrases. Additionally, Google Translate can perform real-time spoken word translation, as well as images and handwritten text (Google Translate, online). However, the translations are not always fully accurate, particularly for specialized texts or



idiomatic expressions. The quality of translation often depends on the specific language pair and the nature of the text being translated. While Google Translate is ideal for quick and basic translations, professional review is recommended for critical or sensitive documents.

### **2.2.6 Canva**

Canva, launched in 2013, is a user-friendly online graphic design platform that simplifies the design process for users of all experience levels. With its intuitive interface and diverse set of tools, it enables the creation of various types of visual content. It has become a popular choice for individuals, teachers, students, businesses, and marketers looking to produce professional-quality graphics, presentations, and multimedia materials. Its extensive library of customizable templates makes it easy for users to create everything from social media posts and flyers to presentations, and infographics. It also offers tools for video creation, photo editing, photo generating, and brand management, helping businesses keep their visual content consistent. The platform is accessible across devices through its web-based interface and mobile applications, making it versatile and convenient for users. Additionally, Canva provides free access to many of its features, while a subscription to Canva Pro unlocks advanced functionalities.

The benefits of Canva are extensive, such as user-friendliness, and thematic templates that reduce time and effort needed to produce visually appealing materials. Moreover, it supports real-time collaboration, allowing teams to work together on shared projects. Its versatility across different media types makes it suitable for a wide range of purposes. Despite its advantages, Canva has certain limitations that users should consider. While its free version offers a broad range of features, some advanced functionalities, such as access to premium templates, elements, and advanced editing tools, require a subscription to Canva Pro, which may not be suitable for all users. However, for teachers, it provides resources for creating classroom materials, including lesson plans, worksheets, and presentations. As a tool that bridges the gap between simplicity and professional design, Canva continues to be a significant tool for visual communication.

### **2.2.7 Vidnoz**

Vidnoz is a video creation and communication platform designed to streamline the production and sharing of personalized, engaging video content, including talking photos, tutorials, lectures, etc. Initially launched in 2022, Vidnoz is targeted at professionals, teachers, marketers, and businesses seeking to enhance their communication strategies through video-based tools. The platform offers a variety of features to simplify video creation and foster audience engagement, emphasizing the use of asynchronous video communication and personalization.

One of its primary advantages is its user-friendly video recording interface, which allows you to create high-quality videos without the need for extensive technical knowledge. The platform also supports screen recording, video editing, and customizable templates, making it suitable for a wide range of applications, from marketing campaigns to how-to videos. Its asynchronous communication capabilities allow users to share video messages or tutorials without the need for live interaction, which is especially useful for remote work and online education. Additionally, the platform supports collaboration by enabling teams to work together on video projects in real time, enhancing overall productivity.

Despite its advantages, Vidnoz has some limitations. The platform's reliance on internet connectivity means that users in areas with poor or inconsistent internet access may face challenges in uploading or sharing videos. Furthermore, while Vidnoz offers a variety of free tools, some advanced features, such as premium templates or extensive analytics, are available only through paid subscriptions, which may not be affordable for all users. Another limitation is that Vidnoz primarily focuses on asynchronous communication, which may not fully replace the immediacy and interactivity of live video conferencing platforms for certain use cases. Despite its limitations, its versatility and user-friendly design make it an effective tool for enhancing communication and fostering collaboration across diverse settings.

### **2.2.8 Curipod**

Curipod is an interactive presentation and collaboration platform designed for teachers and students. It enables teachers to create engaging lessons, quizzes, polls, and discussions in a way that fosters active participation and collaboration. It incorporates gamified elements, making learning more interactive and fun for students. Curipod was launched in 2021 in Norway (Pitchbook, online) and the platform quickly gained popularity for its focus on interactive learning and teacher-friendly design. Curipod is a valuable tool for modern education, as it enables teachers to deliver innovative lessons, which shift away from traditional lecture-style approaches. The platform is well-suited for hybrid and online learning environments, demonstrating its effectiveness in both physical classrooms and remote settings. Furthermore, Curipod provides real-time feedback to teachers, offering immediate insights into student understanding through interactive activities.

This platform offers numerous benefits that enhance the teaching and learning experience. One of its key advantages is engagement, as it keeps students actively involved in lessons through the use of interactive tools, fostering greater participation and interest. It allows teachers to customize activities to specific learning objectives and adapt them to the diverse needs of their students. Its user-friendly design ensures ease of use, requiring minimal technical expertise for both teachers and learners. Curipod further encourages teamwork and problem-solving among students, making it a valuable tool for cooperative learning environments. Its versatility allows it to be effectively utilized across various subjects and age groups, accommodating a broad spectrum of educational contexts. Despite its numerous advantages, Curipod has certain limitations that may impact its usability in specific contexts. One notable challenge is the training for some teachers, particularly those who are less familiar with technology. These teachers may require additional time and support to become comfortable with the platform's features and functionalities. Another limitation is its reliance on online interactions, as most of its activities are designed for live, internet-based usage. This focus on online functionality reduces its effectiveness in offline contexts, which can be a significant drawback in areas with limited

internet access or in situations where digital connectivity is not possible.

### **2.2.9 MagicSchool**

MagicSchool AI is an advanced educational platform based on artificial intelligence to enhance and optimize various aspects of teaching and learning. Designed specifically for teachers and students, it offers over 60 AI-powered tools aimed at simplifying tasks such as lesson planning, assessment creation, Individualized Education Program (IEP) development, and communication (MagicSchool, online). With a user base exceeding 4 million teachers globally, MagicSchool AI ranks among the most widely adopted AI platforms in education. It is designed to significantly reduce the time teachers spend on administrative tasks, enabling them to dedicate more attention to direct student engagement and instructions (MagicSchool, online). The platform offers a free version with essential tools and a premium subscription that unlocks advanced features, ensuring accessibility for a diverse audience regardless of financial resources. MagicSchool AI emphasizes responsible AI usage, incorporating safeguards to ensure data privacy and ethical application within educational settings. By integrating AI into the educational workflow, MagicSchool AI aims to revolutionize the teaching experience, making it more efficient and customized to individual needs, ultimately enhancing educational outcomes for students.

### **2.2.10 SciSpace Copilot**

SciSpace Copilot, previously known as Typeset, was rebranded and launched in 2022 as an AI-powered platform designed to enhance the literature review process for researchers and students. It simplifies the search for relevant scientific literature, facilitates understanding of complex papers, and supports efficient research workflows. The platform's features include customizable search results, intelligent reading assistance, and multi-language support, making it a valuable tool in academic settings (SciSpace Copilot, online).

One of the standout functionalities is assisting users in engaging with dense academic texts by providing answers to questions, summarizing content, and clarifying complex terminology. This feature is

particularly beneficial for those new to academic research or working across interdisciplinary fields, as it simplifies comprehension and facilitates a deeper understanding of intricate concepts. Furthermore, it offers reading research papers using tools for highlighting, annotating, and bookmarking essential sections, thereby streamlining the reading process. The platform also significantly saves time by automating repetitive tasks, such as reformatting documents for journal contributions, allowing researchers to focus on content creation rather than formatting issues. Its wide compatibility with numerous journal formats and citation styles enhances its versatility across various disciplines, making it an invaluable resource for researchers. Additionally, it supports collaboration through features that allow for sharing annotations and feedback, which are especially useful for group projects or academic discussions. Collectively, these capabilities not only enhance comprehension but also foster a more efficient and collaborative research environment, positioning SciSpace Copilot as a pivotal tool in modern academic research practices.

The integration of artificial intelligence into teaching and learning within British and American Studies at Slovak universities has opened new pathways for innovation and engagement. While the discussed applications illustrate the transformative potential of AI in education, they represent only a fraction of the tools available for enhancing the studies of the English language and Anglophone cultures. Countless AI-driven applications, ranging from language-learning platforms to cultural simulation tools, offer opportunities to deepen linguistic proficiency, foster intercultural understanding, and enrich the academic experience. These emerging technologies underscore the need for ongoing exploration and experimentation, ensuring that teachers can use the full potential of AI to address diverse learning needs and academic objectives.

### **3 Theoretical and Methodological Foundations of AI Literacy Research in British and American Studies Programs at Slovak Universities**

#### **3.1 Theoretical Background of the Research and Literature Review**

The rapid advancement of artificial intelligence has significantly impacted various fields of study, prompting a growing need for AI literacy across academic disciplines for both students and teachers. While AI has traditionally been associated with fields such as computer science and engineering, its relevance extends far beyond these domains. In particular, programs in the humanities, such as British and American Studies, are increasingly recognizing the importance of AI literacy to equip students with the skills necessary for navigating a technologically driven world. Integrating AI literacy into British and American Studies programs can significantly improve language skills and cultural understanding, which are essential to these fields. AI tools like natural language processing and intelligent tutoring systems help students grasp complex linguistic details, while virtual reality and chatbots create immersive cultural experiences to prepare them for a globalized world (Pokrivčáková, 2019). In addition, AI-based tools also support teachers' research in literature and cultural studies. To make this work, teachers need training to understand AI tools, learn how to use them in teaching, and address ethical issues like data privacy. This ensures AI literacy is effectively included in the curriculum, benefiting both students and teachers.

Research on the application of artificial intelligence in education has grown significantly in recent years, with numerous studies exploring its impact across various fields. However, the majority of this research is concentrated in the natural sciences, focusing on areas such as mathematics, engineering, and computer science (Mohamed et al., 2022; Kandlhofer et al., 2016; Núñez – Lantada, 2020; Mosly, 2024; Firda et al., 2024; Bravo et al., 2024). These studies often emphasize the potential of AI to enhance analytical skills, streamline complex computations, and personalize learning in STEM disciplines (Zhai et al., 2023, Kim – Kim, 2022). In contrast, there remains a relative lack of

research on AI's role and impact in the humanities, particularly in language and cultural studies, where its application could offer equally transformative possibilities. For instance, Pokrivčáková (2019) explores the transformative role of artificial intelligence in language education. She discusses the integration of AI technologies like machine learning, adaptive learning, and natural language processing into Intelligent Computer-Assisted Language Learning (ICALL), which enhances traditional methods by offering personalized and adaptive experiences. AI-powered tools such as personalized learning materials, machine translation, writing assistants, chatbots, language learning platforms, intelligent tutoring systems, collaborative learning aids, and virtual reality environments provide customized support, immediate feedback, and greater learner autonomy. These innovations facilitate motivation, self-regulation, and effective progress tracking. However, challenges such as insufficient teacher training, lack of ICT skills, and discomfort with technology restrict widespread adoption. The author emphasizes the need for teacher preparation programs to address these barriers by equipping them with the technical and pedagogical skills required to integrate AI tools effectively. Building on Pokrivčáková's findings, the presented research emphasizes AI's potential as a powerful tool for fostering personalized and engaging learning experiences while underscoring the importance of understanding its pedagogical implications, addressing ethical issues, and improving teachers' and students' training.

To foster AI literacy among both teachers and students, the establishment of a robust technical infrastructure is crucial. Omenka et al. (2024) conducted research in Northern Nigeria, revealing challenges that closely mirror those faced in the Slovak academic environment. These include outdated infrastructure, the absence of AI integration in curricula, and insufficient political support. These difficulties are financial resources limitation, bureaucratic obstacles, and restricted access to advanced technologies. However, the authors emphasize the potential of promising initiatives, such as collaborations with industry partners and the creation of specialized research centres. Such initiatives represent pivotal steps toward overcoming these barriers and advancing AI literacy within academic institutions.



While AI in education offers significant benefits, including personalized instruction, continuous assessment, real-time feedback, virtual classroom environments, and support for students with special needs, Kaya and Bulut (2022) emphasize its dual nature by addressing both its advantages and disadvantages. They note that AI often lacks social and emotional elements crucial for fostering motivation, confidence, and human connections in the learning process. Furthermore, systemic challenges such as data security risks and potential technical failures raise additional concerns. The fear of AI replacing human teachers also contributes to resistance; however, the authors advocate for viewing AI as a supportive tool that complements rather than replaces human teachers, the aspect we focused on in the presented research. Moreover, our study addresses concerns highlighted by Velandia (2024), including over-reliance on AI, the potential loss of critical and creative skills, and the need for balanced integration to maintain meaningful student-teacher interactions.

AI tools used in education were designed to reduce teachers' time for preparation, workload by automating administrative tasks, and supporting research. Katonane Gyonyoru (2024) emphasizes the importance of balancing AI integration with human-centred teaching practices to address emotional, social, and holistic aspects of learning. She envisions a future where AI-powered tools, such as virtual tutors, gamification, and intelligent content creation, coexist with traditional teaching methods to create inclusive, dynamic, and highly personalized educational environments. This vision closely resonates with the objective of our study.

Trust in AI-generated content has emerged as one of the key dilemmas facing both teachers and students in the modern educational landscape. Teachers struggle to balance using these tools to enhance instruction while ensuring academic integrity and critical thinking. At the same time, students must navigate their dependence on AI and determine how much they can trust the accuracy and quality of AI-generated content. This dual challenge highlights the urgent need for frameworks that support the responsible use of AI and build trust in its applications in education. Research shows that large language models (LLMs) appear to offer a promising solution to the rapid creation of learning materials at scale, reducing the burden on teachers (Denny et al., 2023). In addition, Amoozadeh et al. (2023)

investigated the dynamics of trust in generative AI tools like ChatGPT and GitHub Copilot among students in computer science education. They explored the extent to which students use these tools, their perceived benefits and drawbacks, and their overall trust in AI for programming tasks. The study found that most students who use generative AI reported increased motivation, engagement, and task completion, while non-users exhibited more skepticism. Trust in AI correlates with perceived benefits such as improved knowledge and confidence. Furthermore, in recent years, artificial intelligence has been increasingly integrated into K-12 education in the USA and Canada, yet limited research exists on teachers' trust and attitudes toward adopting AI-based Educational Technology (EdTech). Nazaretsky et al. (2022) developed a new instrument to measure teachers' trust in AI-based EdTech, validated its internal structure, and utilized it to explore secondary school teachers' perspectives on AI. A survey of 132 high-school biology teachers identified eight factors shaping trust, including perceived benefits, lack of human-like attributes, transparency concerns, usage anxieties, self-efficacy, necessary pedagogical adjustments, preferred trust-building methods, and comparisons with human advice. The study made two key contributions. It introduced a reliable tool to examine the role of trust in adopting AI-based EdTech and provided insights to guide professional development programs and policy decisions aimed at fostering teachers' trust and readiness to embrace AI-based EdTech in K-12 education.

Advocates of AI highlight its potential to enhance education by providing adaptive, personalized learning environments and improving knowledge retention (Kadaruddin, 2023). However, concerns persist about the ethical implications of AI, its potential negative impact on assessment practices, scientific integrity, and students' higher-order thinking skills (Farrokhnia et al., 2023). Questions regarding the reliability and validity of AI-generated content remain unresolved, as both teachers and students often lack the expertise to evaluate its trustworthiness (Wach et al., 2023). The presented study explores teachers' and students' attitudes toward AI, examining whether it inspires learning, fosters creative thinking, or undermines critical thinking and academic integrity. Additionally, the research investigates their perspectives on the use of AI in academic writing. AI generative tools have attracted hundreds of millions of

users and become a prominent topic in public discourse. Many believe these models will disrupt society, leading to transformative changes in education and information generation (Herbold et al., 2023). However, such claims are frequently grounded in anecdotal evidence or performance benchmarks supplied by model developers, both of which fail to meet the standards of scientific rigor. To address this gap, Herbold et al. (2023) conducted a large-scale study comparing human-written and ChatGPT-generated argumentative student essays, systematically evaluating the quality of AI-generated content. Their findings revealed that ChatGPT produced essays rated higher in quality than those written by humans. The AI-generated essays exhibit distinctive linguistic features, such as fewer discourse and epistemic markers but increased nominalizations and greater lexical diversity. These results highlight the superior performance of models like ChatGPT in producing argumentative essays. Given the accessibility of this technology, teachers and institutions must respond promptly by rethinking homework assignments and developing teaching strategies that integrate AI tools, much like how calculators revolutionized mathematics education (Herbold, 2023).

In addition, Pondelíková and Luprichová (2024) explored the integration of AI tools, such as ChatGPT, Perplexity, and Gemini, in history and literature courses focused on Anglophone cultures. The authors emphasize how these tools enhance students' reading comprehension, critical thinking, and gender awareness by providing personalized explanations and fostering diverse text analysis. The study utilized design thinking principles in workshops to actively engage Generation Z students, often perceived as a "non-reading" generation, and aims to address digital biases and promote independent learning. Notable outcomes include improved vocabulary and writing style among participants, although grammar improvements were limited. By addressing gender and transgender themes, the study demonstrates the potential for AI to contribute to inclusive and effective educational practices while preparing students for the evolving digital landscape. Furthermore, the study by Rui and Badarch (2022) emphasizes that AI technologies can transform students from passive recipients of information to active problem-solvers, thereby enhancing their overall learning experience. Moreover, the authors propose an information-based teaching model

that leverages AI to present knowledge more intuitively, enriching the teaching process and reducing learning difficulties.

Continuous efforts have been made to integrate AI into teaching and learning; however, the effective adoption of new instructional technologies largely depends on the attitudes of the teachers leading the lessons. Quek et al. (2024) conducted a survey focusing on the perceptions and readiness of university teachers in integrating generative artificial intelligence (GenAI) into educational practices. The study revealed that while teachers exhibited a high level of readiness and favourable attitudes toward the potential benefits of GenAI tools in enhancing teaching and learning experiences, they expressed lower confidence in their practical ability to utilize these tools effectively. Furthermore, teachers perceived minimal threat from GenAI to their professional roles but raised concerns regarding its implications for teaching methodologies and ethical issues. The findings highlight the necessity for targeted training and support to strengthen teachers' competencies, focusing on both practical application skills and addressing ethical considerations to ensure effective integration of GenAI tools in education.

However, research on teachers' perceptions of AI usage in classrooms remains limited, largely due to their lack of experience with AI tools and limited understanding of how such tools function (Kim – Kim, 2022). In their study, Kim and Kim (2022) explored teachers' perceptions of an AI-enhanced scaffolding system designed to support students' scientific writing in STEM education. The findings indicated that most STEM teachers viewed AI positively, recognizing it as a valuable source of advanced guidance. However, concerns were raised about the changing role of teachers in classrooms and the transparency of AI decision-making processes. This research provides a foundation for our study, offering insights from Slovak university teachers into their experiences with integrating AI into British and American studies programs.

The author of the monograph has previously explored the development of digital skills and the formation of digital identity in response to advancing technology. Her research, published in *The Journal of Teaching English for Specific and Academic Purposes*. Vol. 11. No 3. (2023), revealed differing challenges faced by Gen Z students and

teachers. While Gen Z students demonstrate natural proficiency with digital tools due to their early immersion in technology, teachers often struggle with significant barriers resulting from insufficient training in this area. However, the rise of AI and the increasing prevalence of online or hybrid education have gradually reduced these challenges, as both groups are now compelled to engage with technology and AI applications on a daily basis.

The studies presented serve as a vital theoretical framework for our research, which focuses on pioneering the use of AI tools to achieve excellence in the educational processes of English language learning and Anglophone cultural studies. They offer valuable insights into the diverse applications of AI in education, including the creation of personalized learning environments, improvement of reading comprehension, and promotion of critical thinking while addressing ethical considerations. Additionally, these studies underscore the challenges of AI integration, such as the necessity for teacher training, infrastructure improvements, and fostering trust in AI-generated content. Building on these insights, our research is centred on examining the attitudes and perspectives of both students and teachers regarding the integration of AI tools. This investigation is grounded in the three dimensions of the human mind – cognitive, affective, and conative – defined by Hilgard (1980), Huitt (1996), and Tallon (1997). Cognition refers to the process of coming to know and understand; of encoding, perceiving, storing, processing, and retrieving information. Affect refers to the emotional interpretation of perceptions, information, or knowledge. It is generally associated with one's attachment (positive or negative) to people, objects, ideas, etc. Conation refers to the connection of knowledge and affect to behaviour (Huitt – Cain, 2005). It is the personal, intentional, planful, deliberate, goal-oriented, or striving component of motivation, the proactive (as opposed to a reactive or habitual) aspect of behaviour (Baumeister et al., 1998; Emmons, 1986). By exploring the cognitive aspects, we aim to understand what knowledge of AI teachers and students have and if they are able to identify ethical boundaries. The affective dimension examines the emotional perception and attitudes toward confidence in using AI tools, trust in AI-generated outcomes, moral reservations of using such content and threats of AI. Meanwhile, the conative dimension focuses on the behavioural intentions and actions of students and teachers in adopting and utilizing AI tools

effectively. These three dimensions interact dynamically. Cognitive processes can influence affective responses (e.g., understanding a situation may alleviate fear), while affective states can shape cognitive evaluations (e.g., feeling happy may enhance creative thinking). Similarly, conative actions are often driven by both cognitive assessments and emotional reactions. Understanding this interplay is essential in fields like education and psychology, where insights into human behaviour can inform strategies for engagement and learning.

By synthesizing these foundational insights, our research aims to advance the educational potential of AI by using its capabilities to enrich the study of the English language and Anglophone cultures. We specifically investigate how advanced AI tools can not only optimize instructional strategies but also foster immersive learning experiences that enhance linguistic proficiency and cultural understanding. This approach aims to address existing research gaps by focusing on the humanities, highlighting the innovative application of AI to address complex pedagogical challenges in language and cultural education. Through this work, we aspire to contribute to the broader discourse on AI's role in education while offering practical solutions for its effective integration into English language programs and Anglophone studies.

## **3.2 Research Methodology Essentials**

Scientific research is a systematic and empirical process aimed at acquiring knowledge and understanding of a studied phenomenon. It serves as the foundation of human progress, driving innovations, technological advancements, and insights into the world around us. However, this quest for knowledge comes with substantial ethical responsibilities and a need for transparency. Adherence to ethical standards and ensuring transparency in scientific research are essential for preserving the integrity of the scientific community, strengthening public trust, promoting collaboration, and promoting responsible decision-making. Compliance with these principles not only protects the integrity of research but also improves knowledge in various disciplines (Pondelíková, 2023a), thus enhancing the quality and reliability of both qualitative and quantitative research methodologies.

These methodologies represent two key approaches, distinguished by the type of data they gather and analyse. **Qualitative research** focuses on understanding the nuances of human behaviour and experiences, using methods like interviews, focus groups, ethnographic research, and case studies to explore subjective perspectives and social contexts (McLeod, 2023). Although this approach provides rich insights and reveals complex phenomena, it is time-consuming, challenging to replicate, and harder to generalize due to smaller sample sizes and context-specific data (Hendl, 2008; Denscombe, 2010).

**Quantitative research**, in contrast, collects numerical data to examine patterns and relationships, utilizing methods such as surveys, structured interviews, and statistical analysis (McLeod, 2023). It seeks to confirm hypotheses and allows findings to be generalized, especially with large sample sizes (Carr, 1994; Denscombe, 2010). However, this method's reliance on statistical analysis and large samples can be limiting when researchers lack statistical expertise. Small-scale studies may also struggle with generalizability (Black, 1999; Denscombe, 2010).

The presented research was conducted as an online survey among university students from select Slovak universities, specifically, those studying in departments of British and American Studies or related departments within the fields of philology and pedagogy. The study spans three regions: western, central, and eastern Slovakia. To assess AI literacy, the research also included university teachers from departments of British and American Studies, English Language and Literature, and Translation Studies in all regions in Slovakia. These faculty members participated not only in the survey but also in in-depth interviews, offering valuable insights into their personal proficiency with AI tools and their institutions' overall readiness to integrate AI into academic settings.

In the western Slovak region, students participated in programs including *English Language and Culture*, as well as the *Teacher Training in English Language and Literature* at the Faculty of Arts of Comenius University in Bratislava. Additionally, the participating students are enrolled in the *Teacher Training in English Language and Literature* program at the Faculty of Pedagogy, Comenius University in Bratislava. Furthermore, participants in the west are enrolled in



*English Language and Culture in Professional Communication* and in *Teacher Training in English Language and Literature* at the Faculty of Arts of the University of St. Cyril and Methodius in Trnava.

In Nitra, the Faculty of Arts of Constantine the Philosopher University contributed students from multiple programs, such as *English Language and Culture* at the Department of Translation Studies. Also represented were programs such as *Teacher Training in English Language and Literature*, *English Language in Professional Communication*, and *English Studies*. Additionally, students from the Faculty of Pedagogy of Constantine the Philosopher University in Nitra, studying *Teacher Training in English Language and Literature*, took part in the survey.

In central Slovakia, the research participants are students from the Faculty of Arts at Matej Bel University in Banská Bystrica, enrolled in one of four distinct programs: *Teacher Training in English Language and Literature*, *English Language and Culture* (in combination), *English Language and Culture* (interdisciplinary study), and *English Language for Translation in Economic Practice*. In the eastern region, students from the Faculty of Arts at the University of Prešov in Prešov were also engaged in the research, specifically those studying in the *Teacher Training in English Language and Literature* and *English Language and Anglophone Cultures* programs.

This research employed a questionnaire, a widely used quantitative research method. As noted by Ondrejko (2007), questionnaires are among the most common research tools due to their efficiency, speed, and affordability in gathering data from large samples. However, a potential limitation lies in the reliability of responses. There is no assurance that respondents complete questionnaires themselves, and social desirability bias may influence answers as individuals often strive to present a favourable self-image.

The questionnaire administered to students was organized into six distinct sections. The first section gathered demographic information, including respondents' age, gender, and educational background. The second section, titled "Experience with AI at University," explored students' participation in AI workshops – whether organized by the

university or attended independently – as well as their perceptions of institutional readiness to integrate AI into teaching practices. The third section, “Knowledge about AI,” assessed students’ understanding of artificial intelligence and their awareness of the ethical boundaries associated with AI technologies. In the fourth section, “Emotional Perception of AI,” the focus shifted to students’ feelings regarding the use of AI applications and their trust in the outcomes generated by these technologies. The fifth section, “Practical Use of AI,” examined how AI has facilitated greater flexibility in completing academic tasks and identified students’ needs for further education in this area. Finally, the sixth section, “Use of AI Text and Audiovisual Applications,” investigated improvements in students’ English vocabulary, grammar, stylistics, and digital skills. It also assessed whether they utilize AI tools for writing academic essays and theses.

A comparable questionnaire was distributed among university pedagogues who teach subjects related to the English language and Anglophone cultures. This questionnaire mirrored the structure of the one administered to students, comprising six sections. The first section, titled “Personality,” collected demographic information alongside details regarding participants’ academic experience, including their current position, years of teaching experience, and the specific study programs they instruct. The second section, titled “Experience with AI at University,” examined teachers’ participation in AI workshops, whether organized by the university or attended on their own initiative. It also explored their perceptions of the institution's readiness to incorporate AI into teaching practices. Additionally, this section assessed whether participants had the skills to train students to use AI tools effectively within the educational process. In the third section, “Knowledge about AI,” the focus was on evaluating teachers’ understanding of artificial intelligence, their awareness of potential challenges associated with its use in education, and their familiarity with the latest AI applications and their functionalities. The fourth section, “Emotional Perception of AI,” explored teachers’ confidence in using AI, ethical considerations surrounding its use, potential negative impacts, and concerns that AI might threaten the complex nature of their work as educators. The fifth section, “Practical Use of AI,” monitored whether teachers actively follow developments in AI, their intuitive use of AI tools, and any resulting increases in productivity along with time and energy

savings. The sixth section, “Use of AI Text and Audiovisual Applications,” investigated enhancements in teachers’ research, teaching, and project work. It also evaluated their ability to recognize students’ use of AI tools, their acceptance of these tools for thesis writing, and their perspectives on maintaining valid writing standards in light of AI advancements.

The reliance on online questionnaires proved inadequate for the objectives of this research, prompting us to engage university teachers through in-depth interviews to gather their insights on the integration of artificial intelligence into the educational process. These interviews comprised five sections. In the first one, the teachers’ backgrounds, including their positions, teaching experience, academic programs, and subjects taught were explored. The second section focused on their perceptions of institutional attitudes towards AI adoption, while the third delved into their personal experiences with AI implementation in their teaching practices. In the fourth section, we examined the perceived impact of artificial intelligence on student learning and engagement. Finally, we sought to understand teachers’ predictions regarding the future of education in an era increasingly characterized by AI. This combined approach allowed us to gain a detailed insight into teachers’ attitudes toward AI at Slovak universities, with qualitative and quantitative methods complementing each other to provide a well-rounded perspective on the research questions.

In alignment with methodological principles, it was essential to design valid and reliable questions that effectively addressed the research objectives. The research aimed to explore the attitudes and perspectives of both students and teachers regarding the integration of artificial intelligence in higher education, along with assessing universities’ preparedness for this emerging trend. To achieve this, we established five specific objectives:

1. Determine the opinions of students and teachers on the technical equipment of universities for implementing AI in the teaching process.
2. Assess the knowledge, emotional perceptions, and practical use of AI among students and teachers.

3. Identify and compare differences in language skill improvement among students resulting from the integration of AI into English language and Anglophone cultures study programs at Slovak universities.
4. Examine the attitudes of teachers and students toward the use of AI in writing academic essays and final theses, considering the manner, form, and extent traditionally used.
5. Investigate the perspectives of students and teachers on the ethical considerations of using AI in creating school assignments or scientific texts.

In designing questions for both questionnaires, the researcher concentrated on all three human dimensions: cognitive (knowledge), affective (feelings, emotions, and relationships), and conative (action). The questions were organized in a purposeful sequence, and responses were standardized using a consistent scale (strongly agree, agree, neutral, disagree, strongly disagree). To gain a more comprehensive understanding of the phenomenon being studied, the researcher conducted in-depth interviews with university teachers, whose professional insights provided valuable context to the questionnaire responses. Based on the study's objectives, ten research questions were raised, forming the foundation for the hypotheses.

**Research Question 1 (RQ1):** *What is the technical readiness of universities in Slovakia for the implementation of artificial intelligence (AI) in teaching English language and Anglophone cultures from the perspective of teachers and students?*

**Hypothesis 1 (H1):** Slovak universities lack sufficient technical preparedness for implementing artificial intelligence (AI) in teaching English language and Anglophone cultures, however, both teachers and students express positive interest and support, provided that infrastructure and professional training are improved.

**Research Question 2 (RQ2):** *What are the attitudes of students and teachers toward the implementation of artificial intelligence (AI) in teaching the English language and Anglophone cultures?*

**Research Question 3 (RQ3):** *What factors influence teachers' readiness and willingness to use these technologies?*

**Hypothesis 2 (H2):** While students and teachers generally perceive the implementation of artificial intelligence (AI) in teaching the English language and Anglophone cultures positively, significant differences exist among university teachers in their readiness to incorporate AI, influenced by disparities in technical infrastructure, access to professional training, and levels of institutional support across universities.

**Research Question 4 (RQ4):** *What is the level of knowledge among students and teachers about AI programs and applications?*

**Hypothesis 3 (H3):** Students and teachers demonstrate varying levels of knowledge about AI programs and applications, with students generally being more familiar due to frequent interaction with technology, while teachers' knowledge is limited by a lack of formal training and access to resources.

**Research Question 5 (RQ5):** *How well do students and teachers identify the ethical boundaries of artificial intelligence in education?*

**Hypothesis 4 (H4):** Teachers are better equipped than students to identify ethical boundaries of artificial intelligence in education due to their greater experience, exposure to ethical training, and responsibility in shaping educational practices.

**Research Question 6 (RQ6):** *How do confidence in using AI tools and the perception of their intuitive and natural usability differ between students and teachers?*

**Hypothesis 5 (H5):** Teachers generally exhibit lower confidence and less intuitive or natural use of AI tools compared to students, which affects their willingness to integrate AI into teaching practices.

**Research Question 7 (RQ7):** *What are the differences in trust levels regarding AI-generated outcomes between students and teachers?*

**Hypothesis 6 (H6):** Teachers exhibit lower level of trust in AI-generated outcomes compared to students.

**Research Question 8 (RQ8):** *Does AI improve language skills among students studying English language and Anglophone cultures?*

**Hypothesis 8 (H8):** AI is an effective tool for enhancing students' English vocabulary and stylistics, regardless of their region of study; however, similar progress is not observed in grammar.

**Hypothesis 9 (H9):** Students who engage in university-provided AI training programs demonstrate significantly greater improvements in vocabulary acquisition and stylistics compared to those who do not participate.

**Hypothesis 10 (H10):** AI is an effective tool for enhancing students' productive skills, regardless of their region of study; however, similar progress is not observed in receptive skills.

**Research Question 9 (RQ9):** *What is the attitude of teachers and students toward the use of AI-generated content, and what are the most common concerns regarding its use?*

**Research Question 10 (RQ10):** *Does the use of AI tools diminish the purpose of writing final theses in the form, manner, and extent currently required within English language and Anglophone cultures study programs?*

This study utilized a quantitative approach aimed at gathering and analyzing numerical data to provide insight into the perception and application of AI in the educational process. Complementing this, qualitative data from in-depth interviews with university teachers offered nuanced professional perspectives to enrich the quantitative findings. By integrating quantitative methods with qualitative perspectives, this study offers a holistic view of how AI is being implemented in the teaching and learning of English language and Anglophone cultures at universities in Slovakia. This dual approach not only highlights statistical trends but also captures the lived experiences and attitudes of teachers, thereby enriching the overall analysis and contributing to a more comprehensive understanding of AI's role in modern education.

### 3.3 Research Sample

The research sample consists of 302 participants, comprising both undergraduate and doctoral students who study English language and Anglophone cultures. In order to achieve a diverse range of responses and a high return rate for the questionnaires, five universities were strategically chosen for participation. These institutions include Comenius University in Bratislava, University of Ss. Cyril and Methodius in Trnava, Constantine the Philosopher University in Nitra, Matej Bel University in Banská Bystrica, and University of Prešov in Prešov. The selection of these universities is particularly significant as the researcher has established strong collaborative ties with them.

To maintain the confidentiality of respondents, the survey was conducted anonymously, ensuring that there was no direct interaction between the researcher and the participants. The data collection process spanned a two-month period, from September to October 2024. A standardized questionnaire, featuring identical questions across all universities, was developed to facilitate a meaningful regional comparison of the findings. This questionnaire was crafted using Google Forms, which provided an integrated mechanism for efficient data collection and processing. Once prepared, the survey was disseminated through email and various networking platforms to reach the intended participants effectively.

The goal of this study is to investigate how Gen Z, often called “digital natives” due to being born during the widespread adoption of the internet, is literate in AI. As the first generation to have the internet embedded in their daily lives, the study will examine their relationship with AI and the implications this has for their literacy. Generation Z is reshaping workplace norms by rejecting the “hustle culture” (Henderson, 2023) and long hours in favour of a more balanced and intentional approach. While they may be labelled as lazy, Gen Z demonstrates a remarkable ability to set healthy boundaries. For them, success is not defined by overwork, but by a slower, healthier, and more holistic version of achievement. This mindset has sparked a broader movement toward prioritizing work-life balance. When it comes to education, Gen Z holds distinct views on how it should function in their lives. They advocate for schools to bridge the gap

between academic learning and real-world professional experience, integrating digital tools and AI (Pondelíková, 2023b). To engage this generation, the traditional classroom dynamic must shift, empowering students to contribute to their learning process, while teachers transition into roles as mentors and coaches.

The study sample (Figure 7) comprised 58 students from Comenius University in Bratislava, of whom 51 were female, 4 male, and 3 identified as other. Additionally, 61 students from the University of Ss. Cyril and Methodius in Trnava participated, with a gender distribution of 50 females, 8 males, and 3 identifying as other. The sample also included 65 students from Nitra, of whom 48 were female, 15 male, and 2 identified as other. From Matej Bel University in Banská Bystrica, 63 students participated, with 41 females and 22 males. Lastly, 55 students from the University of Prešov in Prešov participated, consisting of 45 females and 10 males.

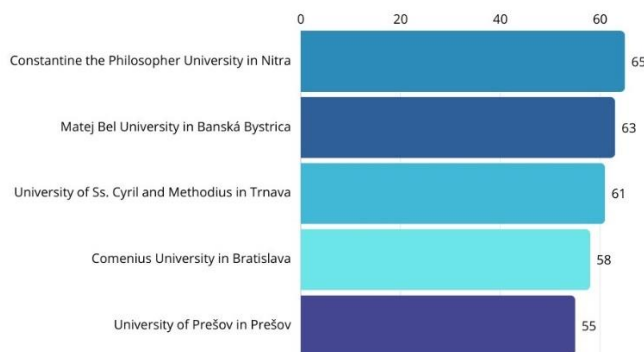


Figure 7: Amount of participating students  
 Source: own processing based on the obtained data

The age distribution across universities shows variations. Each institution exhibits a unique age distribution pattern among its students (Figure 8). Notably, the age group 21 – 23 is the most prevalent across most universities, indicating that a majority of students fall within a traditional university age range, with percentages ranging from 29.2% to 58.2%. Constantine the Philosopher University in Nitra diverges from this trend, showing a substantial proportion (56.9%) of younger students aged 18 – 20. Conversely, older age groups, particularly those aged 27 – 29 and 30 and above, represent a minority at each institution, typically comprising less than 10% of the student population. This distribution underscores a predominantly youthful demographic in Slovak higher education, with only a modest



proportion of more mature, primarily enrolled in external study programs. Such age dynamics reflect common entry age standards for students attending these universities.

university/age range	18 - 20	21 - 23	24 - 26	27 - 29	30 and more
<b>Comenius University in Bratislava</b>	17 (29.3%)	<b>24</b> <b>(41.4%)</b>	8 (13.3%)	3 (5.2%)	6 (10.3%)
<b>University of Ss. Cyril and Methodius in Trnava</b>	7 (11.5%)	<b>30</b> <b>(49.2%)</b>	11 (18%)	3 (4.9%)	10 (16.4%)
<b>Constantine the Philosopher University in Nitra</b>	<b>37</b> <b>(56.9%)</b>	19 (29.2%)	7 (10.8%)	0	2 (3.1%)
<b>Matej Bel University in Banská Bystrica</b>	20 (31.7%)	<b>21</b> <b>(33.3%)</b>	13 (20.6%)	2 (3.2%)	7 (11.1%)
<b>University of Prešov in Prešov</b>	10 (18.2%)	<b>32</b> <b>(58.2%)</b>	10 (18.2%)	1 (1.8%)	2 (3.6%)

Figure 8: Age range of participating students

Source: own processing based on the obtained data

The level of education attained serves as a key indicator in defining the research sample, affirming its composition as Gen Z. Across all five universities, the largest proportion of participants consisted of students in undergraduate programs who had completed secondary education. The second-largest group comprised students enrolled in master's programs who had completed a bachelor's degree. Some students had already completed their master's studies in a different field and were pursuing additional or supplementary higher education. In Prešov, Banská Bystrica, and Nitra, doctoral candidates also participated in the research (Figure 9).

university/ achieved level of education	secondary	bachelor	master
<b>Comenius University in Bratislava</b>	32 (55.2%)	22 (37.9%)	4 (6.9%)
<b>University of Ss. Cyril and Methodius in Trnava</b>	38 (62.3%)	19 (31.1%)	4 (6.6%)
<b>Constantine the Philosopher University in Nitra</b>	52 (80%)	8 (12.3%)	5 (7.7%)
<b>Matej Bel University in Banská Bystrica</b>	34 (54%)	21 (33.3%)	8 (12.7%)
<b>University of Prešov in Prešov</b>	27 (49.1%)	22 (40%)	6 (10.9%)

Figure 9: Achieved level of education among participating students

Source: own processing based on the obtained data

These demographic details offer a comprehensive overview of the age range, gender composition, and educational background of the participating students, affirming that the research sample represents Gen Z.

In addition to the student participants, the research also involved university teachers who work in the Departments of English Language and American Studies. In this instance, we did not limit our reach to selected universities; instead, we distributed the survey to all British and American Studies departments, as well as language departments specializing in the teaching of English language and Anglophone cultures across Slovakia. A total of 32 teachers completed the questionnaire, comprising 22 women (68.8%) and 10 men (31.3%). In terms of age distribution, the largest group of respondents (50%) was aged between 41 and 50 years. The second largest group (18.8%) consisted of teachers aged 31 to 40 years. Additionally, 15.6% of respondents fell within the age range of 51 to 60 years. The smallest representation was among teachers aged over 61 years (9.4%) and those under 30 years (6.3%). Regarding professional roles, the majority of participants were employed as assistant professors, accounting for 47% of the sample. The second largest group comprised associate professors (40.6%), while both professors and lecturers represented an equal share of 6.3% (Figure 10).

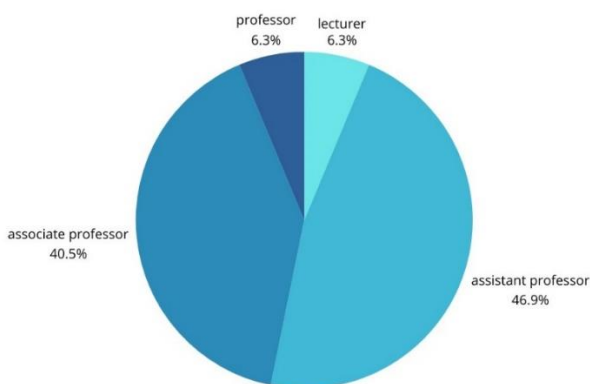


Figure 10: Job positions among participating teachers  
Source: own processing based on the obtained data

In relation to age and professional roles, experience in higher education (Figure 11) is also a significant factor. The majority of respondents have been active in the academic field for 10 to 15 years, accounting for 34.4% of the sample. This suggests that there is a relatively stable group of employees within higher education who possess substantial experience. A notable proportion of respondents (25%) have 21 years or more of experience, followed by those with 16 to 20 years of experience (15.6%). Additionally, 18.8% of respondents have worked in this field for up to 9 years, while the least represented group consists of individuals with less than 3 years of experience (5.6%). The presence of these groups with shorter tenure may indicate a generational shift within the workforce.

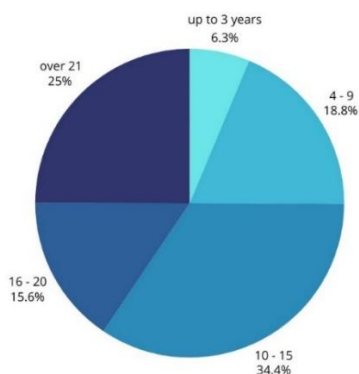


Figure 11: Years of experience in an academic field among participating teachers  
 Source: own processing based on the obtained data

Many higher education teachers engage in multiple study programs (Figure 12), with the Teacher Training in English Language program being the most prominent, involving 46.9% of the respondents. Following closely, 43.6% of teachers participate in the English Language and Culture in Professional Communication program, which shows a notable concentration of participants from western Slovakia. Programs such as English for Specific Purposes (ESP) and Foreign Languages and Intercultural Communication have similar levels of representation, with 25% and 28.1% of teachers, respectively. Meanwhile, British and American Studies involve 12.5% of the teaching staff. Teachers specializing in Literary Studies and Translation Studies were the least represented in the research, accounting for just 6.3% of the respondents.

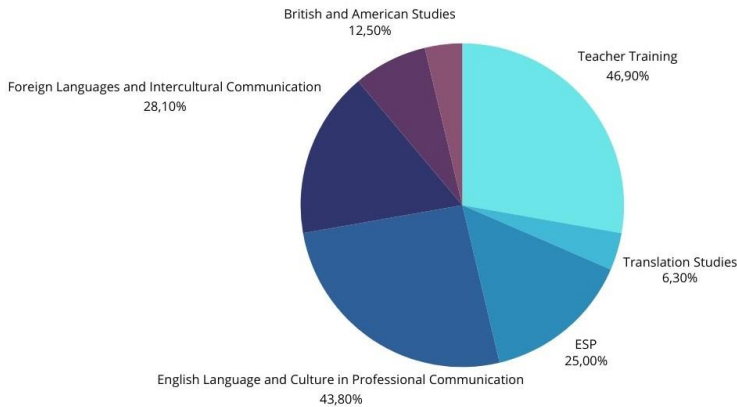


Figure 12: Representation of teachers across academic programs  
 Source: own processing based on the obtained data

In addition to an online survey, we also engaged these teachers in in-depth interviews focused on the implementation of artificial intelligence in the teaching of the English language and Anglophone cultures. These interviews were conducted with 15 teachers (Figures 13 and 14), providing valuable insights into their perspectives and experiences regarding the integration of AI into their educational practices.

	R1	R2	R3	R4	R5	R6	R7	R8
age	70	63	52	43	67	48	38	51
sex	F	F	F	F	M	F	M	F
region	Bratislava	MTF Trnava	MTI Trnava	Trnava	Trnava	Trnava	Trnava	Trnava
job position	professor	associate professor	lecturer	associate professor	associate professor	associate professor	assistant professor	lecturer
practice in higher education	over 30	25	24	9	35	24	9	20
study programs involved in	Teacher training	ESP	ESP	English language and culture in professional communication, Teacher training	English language and culture in professional communication, Teacher training, ESP	English language and culture in professional communication, Teacher training, Translation studies	English language and culture in professional communication, Teacher training	English language and culture in professional communication
key subjects	Educational psychology	Receptive and productive skills, Business English, Presentation skills development	Technical English	American history, American culture, History and culture of English speaking countries	Didactics, Professional communication in science and technology, Professional communication in cyberspace, ICT in English teaching	English syntax, Tools and technologies to support translation, Fundamentals of translation theory and practice	British literature, Introduction to literature, Contemporary British and American literature	Professional communication in business English, Professional communication in tourism

Figure 13: Profile of the teachers involved in in-depth interviews  
 Source: own processing based on the obtained data

	R9	R10	R11	R12	R13	R14	R15
age	53	29	48	36	50	43	45
sex	M	M	F	F	F	F	F
region	Nitra	Nitra	Nitra	Banská Bystrica	Banská Bystrica	Prešov	Prešov
job position	assistant professor	assistant professor	assistant professor	associte professor	professor	assistant professor	assistant professor
practice in higher education	over 15	5	24	9	over 20	18	21
study programs involved in	Translation studies	Translation studies	Teacher training, Translation studies	Teacher training, Translation studies	Teacher training, Translation studies	ESP	ESP
key subjects	CAT tools, Translation Project Management, Praxeology, IT for translators	Literature, History, realities and culture of English-speaking countries, Translation of artistic texts	Receptive and productive skills, Translation seminar	Intercultural communication	Literature, Intercultural communication, English and critical thinking	Business English	Applied foreign language

Figure 14: Profile of the teachers involved in in-depth interviews

Source: own processing based on the obtained data

The interviewee group consisted of individuals affiliated with higher education institutions in the Bratislava, Trnava, Nitra, Banská Bystrica, and Prešov regions of Slovakia. Representing a broad spectrum of professional experiences, the participants included professors, associate professors, assistant professors, and lecturers. Their years of practice in higher education varied significantly, ranging from 5 to over 30 years. The majority of respondents were female, and the age of interviewees ranged from 29 to 70 years old. Academically, their expertise centred on areas such as Teacher Training, English Language and Culture in Professional Communication, English for Specific Purposes, Translation Studies. This diversity of specialization and their involvement in various study programs reflected the multifaceted nature of their academic backgrounds.

## 4 Rationale Behind the Research Sample Selection

In Slovakia, British and American Studies programs are offered by several universities, aiming to provide students with comprehensive knowledge of the language, literature, culture, and history of English-speaking countries. These programs typically integrate interdisciplinary approaches, combining linguistics, cultural studies, history, and literary science to give students a well-rounded education. Furthermore, the Departments of British and American Studies, or the Departments of English Language and Literature resp. Culture, also prepare future teachers. Beyond emphasizing language and cultural studies, these programs prioritize pedagogical disciplines. Many of these departments are dedicated to translation studies, focusing on the education of future translators and interpreters. Their curricula emphasize interdisciplinarity while fostering a heightened sensitivity to linguistic nuances.

In western Slovakia, five universities offer programs in British and American Studies. At Comenius University in Bratislava (Figure 15), the Faculty of Arts presents various programs, including bachelor's and master's degrees in Translation and Interpreting, as well as Teacher Training with an academic subject specialization. Advanced studies are available through two doctoral programs focused on General Linguistics and Literary Science. Additionally, the Faculty of Education offers bachelor's and master's programs in Teacher Training and Education Science, with the primary mission to prepare teachers of English language and literature for the second stage of primary schools and all types of secondary schools.<sup>1</sup> Students also have the option to advance their studies at the doctoral level, specializing in the Didactics of Foreign Languages and Literature. The University of Economics in Bratislava (Figure 15) provides unique offerings through its Faculty of Applied Languages, focusing on practical applications of the English language withing the Foreign Language and Intercultural Communication study program.

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<sup>1</sup> Department of English language, literature and didactics, Faculty of Education, Comenius University in Bratislava, online

University	Faculty	Department	Degree	Field	Study Program
Comenius University in Bratislava	Faculty of Arts	Department of British and American Studies	Bachelor	Translation and interpreting	English Language and Culture in the specialisation of Translating and Interpreting
			Bachelor	Training of Teachers with Academic Subject Specialisation	English Language and Literature in the specialisation of Teaching Academic Subjects
			Master	Translation and interpreting	English Language and Culture in the specialisation of Translating and Interpreting
			Master	Training of Teachers with Academic Subject Specialisation	English Language and Literature in the specialisation of Teaching of Academic Subjects
			Doctoral	General Linguistics	General Linguistics
			Doctoral	Literary Science	Literary Science
	Faculty of Education	Department of English Language Literature and Didactics	Bachelor	Teacher Training and Education Science	Teaching English Language and Literature in combination
			Master	Teacher Training and Education Science	Teaching English Language and Literature in combination
			Doctoral	Teacher Training and Education Science	Didactics of Foreign Languages and Literature
University of Economics in Bratislava	Faculty of Applied Languages	Department of the English Language	Bachelor	Philology	Foreign Language and Intercultural Communication
			Master	Philology	Foreign Language and Intercultural Communication

Figure 15: Overview of English language and Anglophone cultures studies programs at Universities in Bratislava

Source: own processing based on the data obtained from official web pages of particular departments

At the University of St. Cyril and Methodius in Trnava (Figure 16), students can pursue bachelor's and master's degrees in Philology, with specializations in English Language and Culture for Specialized Communication, as well as Teacher Training in English Language and Literature. Graduates are equipped to excel in roles involving international client engagement, contributing to the development of cultural and economic relations with foreign partners. They are also prepared for careers as translators and interpreters, proficient in specialized translations, consecutive and simultaneous interpreting, and facilitating intercultural communication across diverse contexts. Additionally, graduates are well-qualified for positions in international companies, particularly in customer service, client care, advertising, and public relations.<sup>2</sup> On the other hand, Trnava University in Trnava (Figure 16) emphasizes teacher training through its programs that combine English Language and Literature with educational methodologies. Additionally, the university offers a program in English Language and Anglophone Cultures within the field of Philology, equipping graduates to teach foreign languages or pursue careers in translation and interpreting.<sup>3</sup>

<sup>2</sup> Department of British and American Studies, Faculty of Arts, University of St. Cyril and Methodius in Trnava, online

<sup>3</sup> Department of English Language and Literature, Faculty of Education, Trnava University in Trnava, online

University	Faculty	Department	Degree	Field	Study Program
University of St. Cyril and Methodius in Trnava	Faculty of Arts	Department of British and American Studies	Bachelor	Philology	English Language and Culture in Specialised Communication
			Bachelor	Teacher Training and Education Science	English Language and Literature in combination
			Master	Philology	English Language and Culture in Specialised Communication
			Master	Teacher Training and Education Science	English Language and Literature in combination
Trnava University in Trnava	Faculty of Education	Department of English Language and Literature	Bachelor	Philology	English Language and Anglophone Cultures
			Bachelor	Teacher Training and Education Science	Teaching English Language and Literature in combination
			Master	Philology	English Language and Anglophone Cultures
			Master	Teacher Training and Education Science	Teaching English Language and Literature in combination

Figure 16: Overview of English language and Anglophone cultures studies programs at Universities in Trnava

Source: own processing based on the obtained data

Constantine the Philosopher University in Nitra (Figure 17) also provides similar academic paths, including interdisciplinary studies in Translation and Interpreting. Department of Translation Studies offers bachelor's and master's degrees in accredited study programs of Translation and Interpreting Studies in combinations of two foreign languages (English, German, Russian, French, and Spanish) or of a foreign language and Slovak language.<sup>4</sup> Additionally, the department provides a PhD program in Translation and Interpreting Studies, fostering advanced expertise in the field. The Faculty of Arts offers students the option to specialize in either the Department of British and American Studies, which focuses on English Studies and Teacher Training, or the Department of Translation Studies, which provides bachelor's and master's programs in English Language and Culture. Additionally, a doctoral program in Translation Studies is available. The Faculty of Education offers programs in Teacher Training and Education Science at both the bachelor's and master's levels, with a doctoral program dedicated to the Didactics of English Language and Literature.

<sup>4</sup> Department of Translation Studies, Constantine the Philosopher University in Nitra, online



University	Faculty	Department	Degree	Field	Study Program
Constantine the Philosopher University in Nitra	Faculty of Arts	Department of British and American Studies	Bachelor	Philology	English Studies
			Bachelor	Teacher Training and Education Science	Teacher Training in English Language and Literature
			Master	Philology	English Language in Professional Communication
			Master	Teacher Training and Education Science	Teacher Training in English Language and Literature
		Department of Translation Studies	Bachelor	Philology	English Language and Culture in combination
			Master	Philology	English Language and Culture in combination
			Doctoral	Philology	Translation Studies
	Faculty of Education	Department of English Language and Culture	Bachelor	Teacher Training and Education Science	Teacher Training in English Language and Literature
			Master	Teacher Training and Education Science	Teacher Training in English Language and Literature
					Didactics of English language and literature
			Doctoral	Teacher Training and Education Science	

Figure 17: Overview of English language and Anglophone cultures studies programs at Constantine the Philosopher University in Nitra

Source: own processing based on the obtained data

In the central region of Slovakia (Figure 18), Matej Bel University in Banská Bystrica offers a comprehensive academic curriculum, including bachelor's and master's degree programs in English Language and Culture, alongside Teacher Training programs designed for aspiring teachers. Additionally, the university provides a bachelor's degree in English Language for Translation in Economic Practice. For those seeking advanced study, the institution also offers a doctoral program with a focus on Translation Studies. In the northern part of Slovakia, Catholic University in Ružomberok specializes in English and American Studies, providing graduates with a deep understanding of the cultural, social, and historical contexts of English-speaking countries. Graduates of this program are well-prepared for careers such as cultural agents, cultural officers, specialists in international relations within public administration, experts in cultural affairs, or professional text proofreaders.<sup>5</sup> Additionally, the Department of English Language and Literature also offers a program in Teaching English Language and Literature, designed to provide graduates with comprehensive education and training. The program equips them with the didactic, methodological, and practical skills essential for a successful career in teaching. Moreover, they are prepared for roles

<sup>5</sup> Department of English Language and Literature, Faculty of Arts and Letters, Catholic University in Ružomberok, online

requiring proficiency in spoken and written English within cultural and economic contexts. They possess the competence to professionally design, plan, organize, manage, evaluate, and assess the educational process. Furthermore, they are capable of presenting their empirical research findings, analyses, interpretations, and generalizations to the professional community with confidence and expertise.<sup>6</sup> In the southern part of Slovakia (Figure 18), J. Selye University in Komárno places significant importance on the training of teachers.

University	Faculty	Department	Degree	Field	Study Program
Matej Bel University in Banská Bystrica	Faculty of Arts	Department of British and American Studies	Bachelor	Translation and interpreting	English Language and Culture in combination
			Bachelor	Teaching academic subjects	Teacher Training in English Language and Literature
			Bachelor	Translation and interpreting	English Language for Translation in Economic Practice
			Bachelor	Translation and interpreting	English Language and Culture (interdisciplinary study)
			Master	Translation and interpreting	English Language and Culture in combination
			Master	Teaching academic subjects	Teacher Training in English Language and Literature
			Doctoral	Philology	Translation Studies
Catholic University in Ružomberok	Faculty of Arts and Letters	Department of English Language and Literature	Bachelor	Philology	English and American Studies
			Bachelor	Philology	English and American Studies in combination
			Bachelor	Teacher Training and Education Science	Teaching of English Language and Literature in combination
			Bachelor	Teacher Training and Education Science	Teaching of English Language and Literature in combination
			Master	Teacher Training and Education Science	Teaching of English Language and Literature in combination
J. Selye University in Komárno	Faculty of Education	Department of English Language and Literature	Bachelor	Teacher Training and Education Science	Teaching of English Language and Literature in combination
			Master	Teacher Training and Education Science	Teaching of English Language and Literature in combination

Figure 18: Overview of English language and Anglophone studies cultures programs at Universities in Central and Southern Slovakia

Source: own processing based on the obtained data

In the eastern region of Slovakia (Figure 19), the Institute of British and American Studies at the University of Prešov in Prešov offers programs in English Language and Anglophone Cultures, along with Teacher Training and Education Science. Additionally, the institute provides two doctoral programs; one in English Language and Anglophone Cultures; and another in Language Didactics within the Teacher Training and Education Science fields. Graduates of these study programs find diverse career opportunities across various sectors. These include roles as teachers, researchers in the humanities, editors

<sup>6</sup> Department of English Language and Literature, Faculty of Arts and Letters, Catholic University in Ružomberok, online

for newspapers and magazines focused on the realities of Anglophone countries, staff in publishing houses specializing in Anglophone literature, language editors, professionals in the mass media industry, diplomats, and employees in government departments at both state and local levels involved in project management and international cooperation. Graduates also pursue careers in a wide range of private sector and commercial fields.<sup>7</sup> Pavol Jozef Šafárik University in Košice offers similar programs that provide a comprehensive approach to English Studies, especially in the fields of law and economics. Additionally, the university provides a Teacher Training and Education Science program, focusing on the English language, linguistics, literature, and the culture of English-speaking countries, often combined with another major.<sup>8</sup> Furthermore, the university offers a Philology program with a concentration on British and American literary studies, cultural studies, and linguistics. Graduates of this program are well-prepared to pursue careers in international and global organizations.

University	Faculty	Department	Degree	Field	Study Program
University of Prešov in Prešov	Faculty of Arts	Institute of British and American Studies	Bachelor	Teacher Training and Education Science	Teaching of English Language and Literature in combination
			Bachelor	Philology	English Language and Anglophone Cultures
			Master	Teacher Training and Education Science	Teaching of English Language and Literature in combination
			Master	Philology	English Language and Anglophone Cultures
			Doctoral	Philology	English Language and Anglophone Cultures
			Doctoral	Teacher Training and Education Science	Language Didactics
Pavol Jozef Šafárik University in Košice	Faculty of Arts	Department of British and American Studies	Bachelor	Translation and interpreting	English Language for the European Institution and Economy
			Bachelor	Philology	British and American Studies
			Bachelor	Teacher Training and Education Science	British and American Studies in combination
			Master	Teacher Training and Education Science	English Language and Literature in combination
			Master	Philology	British and American Studies
			Master	Translation and interpreting	English Language for the European Institution and Economy

Figure 19: Overview of English language and Anglophone cultures studies programs at Universities in Eastern Slovakia

Source: own processing based on the obtained data

<sup>7</sup> Institute of British and American Studies, Faculty of Arts, University of Prešov in Prešov, online

<sup>8</sup> Department of British and American Studies, Faculty of Arts, Pavol Jozef Šafárik University in Košice, online

Collectively, these universities contribute to a rich academic landscape that prepares students for diverse careers in education, translation, linguistics, and cultural studies. The emphasis on both theoretical knowledge and practical application across all levels of study ensures that graduates are well-equipped to meet the demands of an increasingly globalized world.

#### **4.1 Teacher Training of English Language and Literature Study Programs**

The study programs in Teacher Training and Education Science are the most widely offered. They are designed to deliver professional education in the field of English language and literature teaching. Most universities offer two main levels of study which include the bachelor's and master's level. The bachelor study programs provide students with a solid base of theoretical knowledge and practical skills, particularly in the areas of English language proficiency and the interpretation of literary texts from Anglophone cultures. Additionally, these programs foster the development of competencies essential for advanced studies in the discipline. A key focus of these programs is experiential learning, emphasizing the interplay between learning and teaching processes, education and individual development, and the dynamics within social groups.<sup>9</sup> Graduates of the program are expected to achieve advanced level of language skills in written and spoken English, and a basic understanding of the didactic of the English language and literature. Furthermore, students develop essential skills for independent creative work and collaborative problem-solving in professional language education projects. With these qualifications, graduates are well-prepared to pursue further studies at the master's level.

Master's programs aim to enhance theoretical knowledge, practical skills, and competencies through an integrative approach to linguistic and literary disciplines, alongside the core principles of educational processes and pedagogical-didactic methods in English language and

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<sup>9</sup> Department of British and American Studies, Faculty of Arts, Constantine the Philosopher University in Nitra, online

literature teaching.<sup>10</sup> These programs foster critical thinking, support personal and professional development, and equip students with the tools to effectively plan, manage, and evaluate the educational process. Graduates demonstrate advanced proficiency in the English language and possess a deep understanding of the literature from Anglophone cultures. They acquire a robust theoretical foundation complemented by practical applications of English language theory and the analysis and interpretation of literary texts. Moreover, graduates are adept at designing, organizing, and leading the educational process, with a nuanced understanding of the complexities of teaching diverse student populations. They are prepared to take on leadership roles and address professional challenges comprehensively within the field of language education.

The courses offered in bachelor's and master's degree programs in English teaching are structured to align with the *European Profile for Language Teacher Education: A Frame of Reference* (Kelly et al., 2004). The Profile contains 40 items describing important elements in foreign language teacher education in Europe. It is divided into four sections: Structure, Knowledge and Understanding, Strategies and Skills, and Values (Figure 20). This model emphasizes the importance of a well-structured curriculum, a strong foundation in language and teaching methodologies, the development of practical teaching skills, and the promotion of ethical and socially responsible teaching practices, all that is essential for preparing effective language teachers.

<p><b>Structure</b> This section contains items describing the different constituent parts of language teacher education and indicates how they could be organised.</p>	<p><b>Strategies and Skills</b> This section contains items relating to what trainee language teachers should <i>know how</i> to do in teaching and learning situations as teaching professionals as a result of their initial and in-service teacher education.</p>
<p><b>Knowledge and Understanding</b> This section contains items relating to <i>what</i> trainee language teachers should know and understand about teaching and learning languages as a result of their initial and in-service teacher education.</p>	<p><b>Values</b> This section contains items relating to the values that trainee language teachers should be taught to promote in and through their language teaching.</p>

Figure 20: European Profile for Language Teacher Education: A Frame of Reference  
Source: Kelly et al., 2004

<sup>10</sup> Department of British and American Studies, Faculty of Arts, Constantine the Philosopher University in Nitra, online

Graduates of the Teacher Training and Education Science programs are qualified to teach English in a variety of educational settings, including lower secondary schools, grammar schools, secondary vocational schools, language schools, and other institutions offering foreign language instruction at various levels. Moreover, these programs prepare graduates for advanced studies and careers in diverse fields requiring a second-cycle university degree. These study programs are designed to cultivate knowledge, skills, and competencies.<sup>11</sup>

### **Knowledge:**

#### **1. Linguistic Knowledge**

- **English language proficiency:** advanced proficiency in English across all four skills (listening, speaking, reading, and writing), including grammar, vocabulary, and pronunciation
- **Applied linguistics:** understanding of phonetics, phonology, morphology, syntax, semantics, and pragmatics, as well as sociolinguistics and discourse analysis
- **Language acquisition:** knowledge of how people learn languages, including first and second language acquisition theories
- **Contemporary English:** awareness of current trends in English language and literature

#### **2. Pedagogical Knowledge:**

- **Teaching methodologies and didactics:** familiarity with various teaching approaches, including the innovative ones
- **Pedagogical diagnostics:** understanding the individual needs of the students and their abilities
- **Psychodidactics and neurodidactics:** awareness of how psychological and neurological processes influence language learning
- **Literary text in language teaching:** strategies for using literature in English language instruction

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<sup>11</sup> Based on the description of the Teacher Training and Education Science master's degree program of the Department of English Language, Literature and Didactics, Faculty of Education; Comenius University in Bratislava, and Teaching of English Language master's study program of the Department of English Language and Literature, Faculty of Arts and Letters, Catholic University in Ružomberok; *Teaching Excellence through Professional Learning and Policy Reform* published by OECD in 2016.

### 3. Cultural Mastery and Intercultural Competence:

- **Cultural awareness:** understanding the role of culture in language learning and teaching
- **History of Anglophone cultures:** understand broader cultural and historical context of forming English speaking countries
- **Literature:** American and British literature, literary theory, interpretative techniques, literary analysis

### 4. Technological Knowledge:

- **Digital technologies:** knowledge of digital tools and platforms for language teaching, such as learning management systems, applications, AI tools, and online teaching resources

### 5. Understanding Educational Contexts:

- **Curriculum design:** knowledge of syllabus design and curriculum development principles
- **Language policy:** awareness of language education policies, including local and global trends
- **Learner motivation:** knowledge of strategies to engage and motivate learners effectively
- **Ethical considerations:** awareness of ethical issues in education, including inclusivity, equity, and respect for student diversity

### Skills:

- **Language skills:** ability to communicate fluently in English at a high level
- **Lesson planning:** ability to design effective lesson plans customized to diverse learning objectives and student needs
- **Classroom management:** strategies for creating an engaging, inclusive, and disciplined classroom environment
- **Assessment and evaluation:** skills to provide effective feedback to help students improve without discouraging them
- **Inclusive education:** ability to adapt teaching methods for students with special needs
- **Intercultural communication:** ability to foster cultural sensitivity and global awareness in students
- **Online and hybrid/blended teaching strategies:** skills to adapt teaching methods for virtual or hybrid classrooms
- **Digital literacy:** ability to effectively and critically use digital technologies
- **Research methodology:** applying research methods in education and related fields

- **Material development:** skills to create and adapt teaching materials, such as worksheets, visual aids, and multimedia content

### **Competencies:**

- **Critical thinking:** engage in reasoned, reflective, and independent thinking
- **Creative thinking:** generate original, innovative, and valuable ideas by exploring possibilities beyond conventional approaches
- **Analytical thinking:** systematically and logically evaluate information, situations, or problems
- **Pedagogical competencies:** design, implement, and assess teaching strategies, create an engaging learning environment and respond to the diverse needs of an individual student
- **Linguistic competencies:** effectively understand, produce, and interpret language in a variety of contexts
- **Life-long learning:** continue growing, learning, and evolving throughout their lives, enhancing personal fulfillment and professional success
- **Collaboration:** teamwork and cooperation in groups to achieve set goals
- **Argumentative competencies:** argue, present, and defend opinions
- **Problem-solving:** identify, analyze, and find effective solutions to challenges or issues
- **Teaching competencies:** effectively teach and facilitate learning in students

The comprehensive knowledge, skills, and competencies outlined in the teaching of English language and literature study programs are essential for developing proficient, adaptable, and effective teachers. A solid foundation in linguistic, pedagogical, cultural, and technological knowledge equips teachers with the tools needed to understand language acquisition and foster an engaging learning environment. Alongside these, skills in lesson planning, classroom management, and assessment ensure that teachers can customize instruction to meet diverse student needs. Competencies such as critical thinking, creativity, collaboration, and problem-solving empower teachers to enhance their practices and support students in their language learning journeys. Together, these elements shape well-rounded teachers who are “culturally competent, talented, innovative and creative problem-solvers, skilled and critical thinkers”



(Nessipbayeva, 2012, p. 148) and equipped to succeed in 21st century educational process.

## **4.2 Translation Studies Program**

A Translation Studies program is an academic field that focuses on the theory, practice, and research of translation and interpreting. It trains students to become professional translators or interpreters and equips them with the knowledge and skills needed to work across languages and cultures. Translation Studies programs vary depending on the institution, but they should share certain core characteristics. As Pym and Torres-Simón (2016) suggested, these programs should not be overly focused on “theory.” Instead, they should prioritize the production and dissemination of knowledge, ensuring that research on translation aligns, at least indirectly, with students’ interests. This is particularly important for students who are keen on developing practical, marketable skills for the professional world.

Translation and interpreting studies at universities provide a comprehensive education that prepares students for careers in the global language industry (Washbourne, 2012). These programs are typically offered at various levels, including bachelor’s and master’s degrees, with doctoral programs focusing on academic research in translation studies. Many universities provide dual-track programs that allow students to study both translation (written communication) and interpreting (oral mediation), reflecting the unique skill sets required for each field. Students gain proficiency in essential translation techniques, such as text analysis, cultural adaptation, and linguistic precision, while interpreting courses emphasize real-time language mediation and effective communication.

Universities frequently include specialized courses within their Translation Studies programs, customized to diverse professional and academic interests. Literary translation delves into creative adaptation, stylistics, and the cultural intricacies of translating literary works. Technical and business writing equips students with the skills needed for industries that demand precise and effective documentation. Audiovisual and multimedia translation, encompassing subtitling and dubbing, has gained prominence with the

rise of digital media and technological advancements. Legal translation courses tackle the challenges of transferring legal texts accurately across languages. Additionally, these programs emphasize the critical importance of translator ethics.

Nowadays, technology plays a central role in translation studies. Students are trained in computer-assisted translation (CAT) tools, translation memory systems, and terminology management. They also explore machine translation (Welnitzová, 2023), gaining insights into the cutting-edge technologies driving the industry. Additionally, the integration of artificial intelligence tools has transformed this field, enabling students to work with advanced machine translation systems, AI-generated content, and automated quality assessment tools. These tools not only enhance the efficiency of the translation process but also help students appreciate how AI contributes to maintaining consistency and quality in translated texts. Nevertheless, it is crucial to emphasize that the human element remains the ultimate determinant of success.

By achieving C1-C2 level proficiency in English, students gain comprehensive knowledge, skills, and competencies essential for high-level translation and interpretation. They develop expertise in methods, techniques, and strategies used in practical translation, as well as in both consecutive and simultaneous interpretation.<sup>12</sup> Students acquire the ability to accurately transfer concepts from the source language to equivalent concepts in the target language, ensuring precise and effective communication. They are trained to compile specialized glossaries and terminology databases, enhancing their ability to work with technical terms in translation.<sup>13</sup> Fluency in at least two languages, one of which is English, is a core outcome, empowering students to speak, read, and write with proficiency in both languages. They master the art of conveying the original style and tone of texts while ensuring the clear, accurate, and prompt delivery of spoken messages. The curriculum integrates theoretical knowledge through courses on translation studies, where students explore

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theoretical frameworks and their practical applications. An interdisciplinary approach links translation with linguistics, literature, cultural studies, and technology, broadening students' perspectives and enhancing their analytical skills.<sup>14</sup> Ethical considerations are integral to the program, providing students with a solid professional foundation that prepares them for real-world challenges. Additionally, students deepen their understanding of the morphological, syntactic, lexical, and stylistic features of English and other languages, equipping them with advanced language analysis skills. They also acquire extensive knowledge of the culture, history, and societal contexts of Anglophone cultures, enriching their ability to translate and interpret within cultural frameworks. This comprehensive training ensures that graduates are not only linguistically proficient but also culturally and professionally prepared for careers in translation and interpretation.

### **4.3 British and American Studies Programs within the Field of Philology**

Philology, often described as the study of language in historical and literary contexts, is a multidisciplinary field that bridges linguistics, history, and literature. It focuses on the development, structure, and meaning of languages, as well as the cultural and historical significance of texts. Rooted in the analysis of ancient manuscripts and classical languages, philology provides valuable insights into the evolution of human thoughts, communication, and society. This field not only fosters a deep understanding of linguistic intricacies but also encourages the appreciation of diverse literary traditions and cultural heritages, making it a cornerstone of the humanities. As an independent academic discipline, "*philology became the queen of the sciences in the nineteenth-century European university*" (Pollock, 2015, p. 2). Modern philology encompasses a diverse range of scholarly pursuits, including textual philology and interpretation, which critically analyze texts to uncover their meanings, historical context, and cultural significance. This scope extends beyond literary works to include historical records, legal documents, and other forms of written communication (Didukh et al., 2020). It also integrates linguistic studies, exploring the origins and nature of language, theories of

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<sup>14</sup> The European Master's in Translation. Competence Framework 2017. online

literary criticism, and the comparative analysis of linguistic structures. Additionally, it examines the historical evolution of languages and their families and maps their genealogical relationships (Naudé – Miller-Naudé, 2020).

Slovak universities offer a variety of programs such as English Studies, English Language and Culture in Professional Communication, and British and American Studies. These programs provide comprehensive specializations in the English language, linguistics, literature, and the culture of English-speaking countries. The linguistic training equips graduates with the skills needed for roles in speech recognition, text-to-speech synthesis, and natural language processing. Students are introduced to advanced methods of scientific inquiry and gain experience collaborating on research projects spanning various linguistic and language studies fields.<sup>15</sup> A significant focus is also placed on British and American literature, offering students a solid foundation in literary theory, the history of literature, and stylistics. They learn to interpret and analyze texts across genres. The cultural studies component bridges English language and literature with broader disciplines such as culture, philosophy, politics, economics, science, religion, aesthetics, law, history, sociology, and anthropology. Special attention is given to media and translation, enriching students' ability to connect linguistic and cultural insights to real-world applications.<sup>16</sup> This multidisciplinary approach ensures graduates are well-equipped with knowledge, skills, and competences.

Graduates of these study programs achieve a high level of proficiency in the English language, along with a comprehensive understanding of the history, culture, and social contexts of English-speaking nations. This expertise equips them to foresee and guide the behavioural nuances of both international and local cultures, enhancing their ability to engage effectively. They are skilled at applying specialized strategies and techniques for translation and interpretation, addressing both general and professional communication

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requirements.<sup>17</sup> In addition to their linguistic capabilities, graduates excel in both team-based and independent work, utilizing modern technologies to handle tasks in everyday and specialized professional settings. They have mastered the terminology of linguistics, literary studies, and technical language, alongside foundational expertise in intercultural communication.<sup>18</sup> Their competencies extend to organizing business meetings, professional conferences, symposia, and seminars, often involving multiple working languages. They are competent at managing teams and collaborating on activities such as interpreting, while also anticipating and designing solutions for potential communication challenges between individuals from diverse cultures.<sup>19</sup> By doing so, they aim to eliminate barriers and prevent conflicts. These graduates are distinguished by their creative and critical thinking skills, persuasive communication, and ability to articulate well-founded arguments. They are proficient in preparing organizational documents, developing informational materials, and creating specialized texts across various academic and professional fields. Equipped with modern technological tools, they effortlessly perform tasks in both general and specialized environments, making them invaluable assets in a globalized workplace.

Graduates of the philological study programs are well-equipped to thrive in international and global institutions where English serves as an official language. Their knowledge and skills open doors to diverse opportunities in the global job market, particularly those requiring interaction with international clients and the promotion of cultural and economic connections. These graduates are qualified for careers where advanced communication and English proficiency are essential, such as media, advertising, marketing, publishing, and public relations. They are also proficient translators and interpreters, skilled in delivering specialized translations and adept in both consecutive and simultaneous interpreting techniques.<sup>20</sup> They are adept at facilitating

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intercultural communication across various contexts, bridging cultural gaps, and promoting understanding. Additionally, graduates are highly suited for roles in international or foreign companies, excelling in customer service, client care, advertising, and public relations. Their skills make them valuable contributors to organizations seeking to navigate and succeed in a globalized world.

Slovak universities offering British and American Studies programs provide students with a well-rounded education that integrates advanced language skills, cultural studies, and interdisciplinary training. An overview of these study programs justifies the selection of the research sample. Nowadays, a key highlight of these programs lies in the integration of cutting-edge technologies, particularly artificial intelligence. Students need to be trained to utilize AI tools across various applications, from translation and language processing to educational methodologies and intercultural communication. This technological emphasis ensures that graduates are not only equipped with linguistic and cultural expertise but also prepared to engage with AI-driven innovations, making them highly adaptable and competitive in the global job market.

## 5 Analysis of the Research Findings among Gen Z University Students

In the 21st century, higher education in Slovakia is undergoing significant transformation, aimed at aligning with the needs of today's workforce. This evolution is reflected not only in introducing new and innovative study programs but also in curricular reforms designed to better prepare graduates for the demands of the modern job market. Educational methods are shifting toward student-centred learning, integrating modern technologies to enhance interactivity and engagement, and meeting the expectations of Generation Z. This generation, particularly impacted by the COVID-19 pandemic, experienced Emergency Remote Teaching (ERT), a temporary shift to a fully remote educational process, adopted out of necessity during the crisis (Pondelíková – Tökölyová, 2022a). Unlike structured online learning, ERT primarily aims to provide temporary access to education during emergencies, requiring rapid adaptation and creative problem-solving from teachers. However, the fast-paced shift to online instruction often impacted the quality of the content delivered, as teachers prioritized immediacy over long-term course design. In contrast to ERT, effective online education ensures equal access for all students, enabling them to meaningfully engage with course materials, assignments, and activities.

Furthermore, Gen Z has experienced blended or hybrid learning, which combines the advantages of online and in-person learning. In an academic setting, blended learning is defined as *“a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace, and at least in part at a supervised brick-and-mortar location away from home”* (Staker – Horn, 2012, p. 3). This model empowers students with control over their learning experience, allowing them to set their own pace and study environment, unbound by traditional classroom constraints. Enhanced by interactive and adaptive technology, blended learning enables students to personalize their educational paths, providing flexibility that aligns well with individual learning needs. Post-COVID, artificial intelligence is becoming increasingly prominent in higher education, reshaping how institutions approach personalized learning and

educational support. Thus, the research focuses on evaluating the readiness of universities to implement AI tools in the educational process, examining their technical infrastructure, and comparing AI literacy levels between students and teachers. It further monitors improvements in language skills and knowledge of academic subjects and explores the practical applications of AI tools in the educational process.

## **5.1 Experience with AI at the University from the Students' Perspectives**

Generation Z has a unique relationship with technology, which is evident in their passion for gaming, especially on smartphones. Unlike older generations who often play games primarily to relax, Gen Z sees gaming as a means of interaction and socialization (Pondelíková, 2023a). This desire for digital connectivity extends beyond gaming into other virtual environments, highlighting their preference for engaging in online communities. When it comes to gathering information and advice, they often rely more on social media platforms like TikTok than traditional search engines like Google. Many are also turning to anonymous, social media platforms like Snapchat and Whisper, where they can limit their audience and send disappearing messages while enjoying privacy in a digital space. For universities, this digital nature means that keeping up with technology is essential to align with Gen Z's preferences and expectations. They seek educational environments that are technologically advanced, which feels natural to them and matches the digital fluency that defines their interactions, learning styles, and lifestyles.

However, students from all five surveyed Slovak universities reported that their departments are inadequately equipped to incorporate AI into educational processes (Figure 21). The University of Prešov in Prešov shows the highest level of perceived inadequacy, with over 60% of respondents citing insufficient technical infrastructure. Matej Bel University in Banská Bystrica and Comenius University in Bratislava follow closely, with up to 60% of students indicating inadequate equipment, highlighting similar challenges in integrating AI. At the University of Ss. Cyril and Methodius in Trnava and Constantine the Philosopher University in Nitra, around 50% of respondents also



reported a lack of necessary resources. These results revealed a widespread issue across these institutions, confirming the hypothesis **(H1)**. None are viewed as fully prepared, from a technical standpoint, to support AI integration in education, though levels of inadequacy vary slightly among universities.

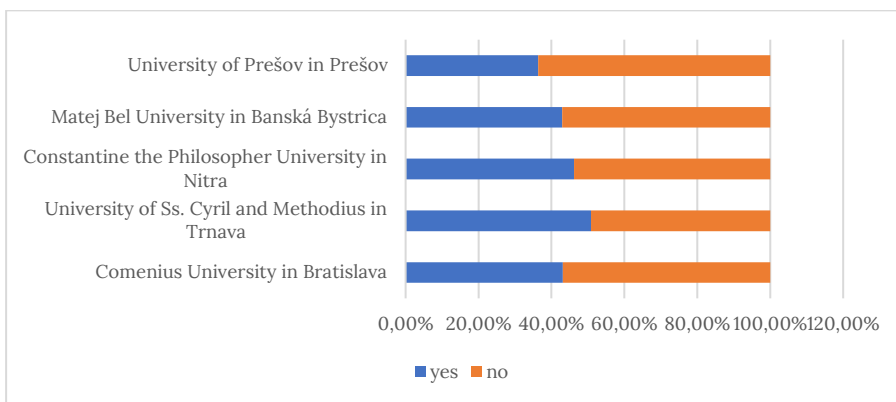


Figure 21: Students' perspective on technical readiness for implementing AI into the educational process

Source: own processing based on the obtained data

To foster an environment that supports AI integration, it is essential to invest in modernizing technical infrastructure, expanding internet access, and securing a reliable power supply (Usman, 2020. In: Omenka et al., 2024). Additionally, without qualified staff to oversee these infrastructure initiatives, institutions may struggle to implement and sustain technological advancements effectively. In this context, we were interested in how universities provide training for teachers and students, whether they organize any workshops, and how they are adapting to the new trend of using AI in teaching English language and Anglophone cultures. The research revealed that nearly 90% of respondents indicated that universities do not provide training in this area, with the notable exception of the University of Ss. Cyril and Methodius in Trnava, where 34% of respondents reported having received such training. Additionally, some students have independently attended seminars or workshops on AI; 28% of students from the University of Ss. Cyril and Methodius in Trnava, 12.7% from Matej Bel University in Banská Bystrica, and 9% from the University of Prešov in Prešov confirmed participation in these independent initiatives. Hypothesis **(H1)** was confirmed as Generation Z students

generally expect universities to offer this type of training, as indicated by approximately 70% of respondents across all five universities surveyed.

Such training may be independently offered by teachers who have pursued additional education in this area. To assess this, we surveyed students on whether they had opportunities to participate in such seminars or workshops and if their teachers incorporate AI tools in the educational process. Responses varied and can be classified into three distinct groups. The first group comprises students from Constantine the Philosopher University in Nitra and Matej Bel University in Banská Bystrica, with only about 10% indicating awareness of training opportunities provided by teachers. The second group includes students from Comenius University in Bratislava and the University of Prešov in Prešov, where approximately 20% reported knowledge of such initiatives. The third group consists of students from the University of Ss. Cyril and Methodius in Trnava, where 52.5% confirmed awareness of teachers offering training on AI application use in their studies.

Subsequently, we investigated if teachers of English language and Anglophone cultures incorporate AI into their teaching (Figure 22). The successful implementation of new technologies is closely related to the attitudes of the teachers who lead the lesson (Fernández-Batanero et al., 2021). At the University of Ss. Cyril and Methodius in Trnava, a strong majority (over 80%) of students reported that their teachers incorporate AI tools in their classes, making it the highest among the surveyed universities. This suggests a relatively advanced adoption of AI-enhanced teaching methods at this institution. In contrast, Comenius University in Bratislava has the lowest rate of AI adoption in teaching, with over 70% of students reporting that their teachers do not use AI tools in their classes. Constantine the Philosopher University in Nitra and Matej Bel University in Banská Bystrica follow a similar pattern, with approximately 65% of students reporting that their teachers do not use AI in classes. The University of Prešov in Prešov presents a more balanced distribution, with a closer split between students reporting teachers who do and do not use AI in teaching English and Anglophone cultural studies. These findings confirmed hypothesis **(H2)**, as they demonstrate that the readiness of teachers to incorporate AI varies significantly across universities.

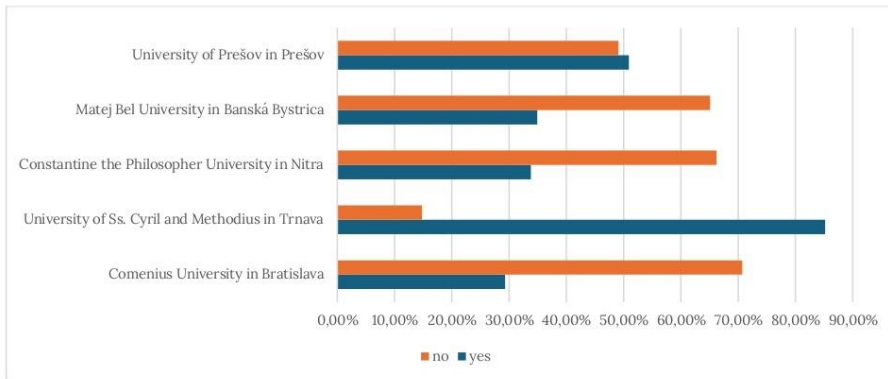


Figure 22: Students' perspective on teachers implementing AI tools into the educational process

Source: own processing based on the obtained data

The rise of artificial intelligence has sparked concerns regarding the preparedness of Slovak universities to embrace this phenomenon. Educational institutions have the potential to leverage AI to enhance creative research methods, optimize administrative tasks, and personalize learning experiences (Holmes et al., 2019). Gen Z university students assessed the readiness of Slovak universities to adopt AI, highlighting challenges such as insufficient infrastructure, a lack of training, and a shortage of qualified staff. However, there are signs of progress at the individual level. Approximately 50% of students across four universities expressed concerns that their institutions are not yet equipped to integrate AI into English language and Anglophone culture study programs. In contrast, the University of Ss. Cyril and Methodius in Trnava appears to be better positioned, with 64% of respondents noting that the university is actively adapting to these emerging trends. To enhance AI readiness, policymakers, teachers, and institutions must collaborate on university development initiatives, infrastructure investments, and strategic policy reforms. Achieving greater AI preparedness in higher education will require a unified approach from all stakeholders, enabling Slovakia to thrive in an AI-driven future and play a significant role in global innovation and competitiveness.

## 5.2 Students' Cognitive Perception of AI

Human thinking can be understood through three interconnected dimensions: cognitive, affective, and conative. Each dimension plays a crucial role in shaping how individuals process information, experience emotions, and engage in goal-oriented behaviour. In the survey among students, the third, fourth, and fifth sections of the questionnaire were divided according to these dimensions, with students responding to an equal number of questions in each section. Initially, we examined their general knowledge of AI, followed by their emotional perceptions of this phenomenon, and finally, their practical usage of AI.

In the third section, we focused on how students are familiar with AI programs and applications, whether they understand the purpose of using AI, their awareness of the challenges involved in learning through AI, and their ability to identify ethical boundaries related to its use. Across the different regions, there appear differences in the level of knowledge about AI applications, with knowledge being higher than that of teachers, which confirms hypothesis **(H3)**. The highest level of knowledge was observed among students from Constantine the Philosopher University in Nitra (89.2%) and the University of Ss. Cyril and Methodius in Trnava (86.9%). The University of Prešov in Prešov (80%) and Matej Bel University in Banská Bystrica (79.4%) followed closely behind, while Comenius University in Bratislava reported the lowest level of knowledge about AI (65.5%).

Based on their knowledge of artificial intelligence, students indicated an understanding of its purpose, with over two-thirds of respondents affirming this comprehension. Specifically, 77.6% of students from Comenius University in Bratislava and Matej Bel University in Banská Bystrica confirmed this awareness. Similarly, 78.2% of respondents from the University of Prešov in Prešov reported understanding the purpose of AI use. A slightly higher proportion, 83%, was observed among students at Constantine the Philosopher University in Nitra, and the highest percentage was recorded at the University of Ss. Cyril and Methodius in Trnava, where 88.5% of students indicated their comprehension of AI applications.

Education supported by artificial intelligence offers numerous advantages, yet it also presents certain challenges that must be addressed to ensure it remains effective and ethically sound. Key challenges identified in the literature (Tambuskar, 2022; Ge, 2024; Akinwalere – Ivanov, 2022; Bailey, 2023) include, for example, the inequality in access to education, dependence on technology, lack of students' and teachers' training, data security, bias, AI quality, AI-content quality, loss of personal interaction and the human element. While AI can assist with the automation of many tasks, it cannot replace the human connection and emotional support that teachers provide. Interaction between students and teachers is essential for the development of critical thinking, empathy, and communication skills, all of which may be diminished when there is an over-reliance on technology.

Another challenge involves AI's limited capacity for customization. Although AI technology continues to advance, its ability to adapt to the complex and specific needs of students remains constrained, underscoring the irreplaceable role of the human factor. Only a qualified teacher can adequately adjust to a student's individual needs, which is increasingly seen as a crucial competence, especially for Generation Z students. Additionally, there is a risk of superficial learning. AI often provides quick answers and solutions, potentially promoting a shallow learning approach. Students relying on AI may not engage deeply with the content, risking a lack of depth in their understanding and a weakened development of analytical thinking – a concern our study has also highlighted.

Research findings indicate that students' awareness of these challenges varies. Students from Comenius University in Bratislava (48.3%) and Constantine the Philosopher University in Nitra (53.8%) are the least aware of AI-related educational limitations. In contrast, over 60% of students from Matej Bel University in Banská Bystrica and the University of Prešov in Prešov reported awareness of these challenges. The highest awareness was observed among students from the University of Ss. Cyril and Methodius in Trnava, where 72.2% of respondents acknowledged understanding these limitations.

The integration of artificial intelligence in educational processes raises several ethical questions that teachers, policymakers, and stakeholders must address to ensure responsible use. Key ethical considerations include bias and discrimination, privacy and data protection, transparency and accountability, and the impact on human activities (Porayska-Pomsta et al., 2024). The research examined whether current university students of the English language and Anglophone cultures are able to identify the ethical boundaries of AI. The results regarding students' ability to identify the ethical boundaries of AI usage at various Slovak universities revealed some noteworthy trends and variations in awareness and certainty about this issue. A comparison of the data from five universities presents a diverse landscape in terms of both understanding and uncertainty regarding AI's ethics (Figure 23).

At Comenius University in Bratislava, approximately 53.4% of students reported being able to identify the ethical boundaries of AI usage, while 24% admitted to lacking this knowledge. This suggests a moderate level of awareness among the students, with a significant portion unsure about the ethical implications of AI. Students from Matej Bel University in Banská Bystrica showed a slightly higher level of understanding, with 57.2% of students able to identify AI's ethical boundaries. Notably, 23.8% of students expressed uncertainty, and 19.1% acknowledged having no knowledge of AI's ethical boundaries. The students of the University of Prešov in Prešov demonstrated a somewhat more confident grasp of AI's ethics, with 64.2% of students able to identify these boundaries. However, there remain students who are unsure, as 16.3% do not know, and 16.4% have no clear opinion on the issue. This highlights that while awareness is generally higher, ambiguity remains a significant factor.

Constantine the Philosopher University in Nitra shows a higher percentage of students able to identify AI's ethical boundaries, with 70.7% demonstrating clear understanding. Nonetheless, approximately 30% of students are uncertain or undecided on the matter, and only 1.5% are completely unaware. This suggests a relatively high level of awareness, however with a notable portion of students who are unsure or lack a firm stance. At the University of Ss. Cyril and Methodius in Trnava, the percentage of students able to identify ethical boundaries is the highest across all institutions, with

73.8% reporting awareness. The percentage of students who are unsure is almost 20%, while only 6.6% of students do not know. This indicates a strong overall awareness, though uncertainty remains present.

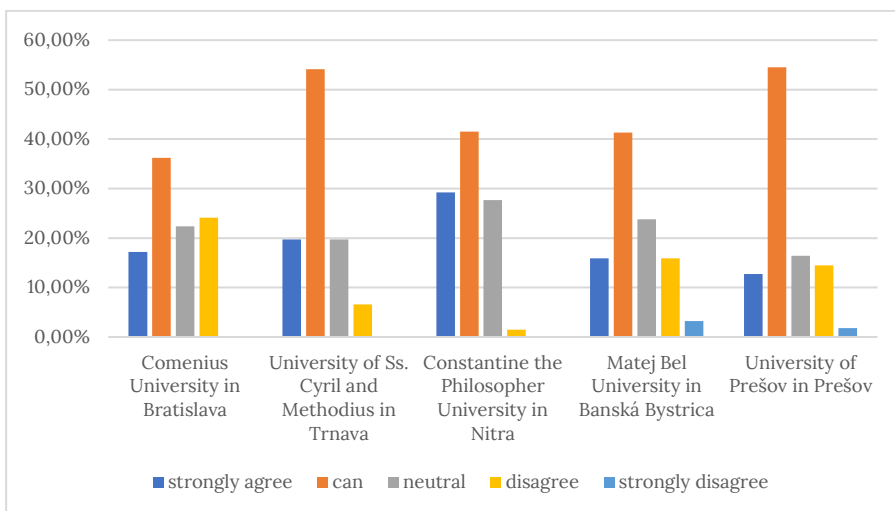


Figure 23: Students' ability to identify the ethical boundaries of AI

Source: own processing based on the obtained data

The data from these five Slovak universities reflect a general trend of increasing awareness of AI ethics as we move from Comenius University to the University of Ss. Cyril and Methodius in Trnava. However, the level of uncertainty and lack of knowledge remains significant across all institutions, ranging from 16% to 30%, indicating that AI ethics is still an area requiring further education and clarification. Furthermore, hypothesis **(H4)** is refuted as the level of ability to identify ethical boundaries varies among students, and at some universities, the percentage of students able to identify ethical boundaries is even higher than that of teachers. These findings underscore the need for continued efforts in raising awareness and educating students about the ethical dimensions of AI usage in academic and practical contexts.

### 5.3 Students' Affective Perspective on AI

The fourth section of the questionnaire focused on assessing the affective dimension of students' attitudes toward AI. Specifically, it examined students' confidence in using AI, their level of trust in AI-generated outcomes, and whether they had reservations about using such content. Additionally, it explored students' concerns about the potential negative societal impacts of AI development, including the possible replacement of certain job positions due to AI's increasing integration into various sectors. The findings indicate that students' confidence in using AI varies by institution. The lowest confidence levels were observed among students from Matej Bel University in Banská Bystrica, with only 34.8% of respondents reporting a sense of self-assurance in their AI usage. Students from Constantine the Philosopher University in Nitra reported slightly higher confidence levels, with 43% indicating self-trust in using AI. At Comenius University in Bratislava and the University of Prešov in Prešov, 46.5% of students in both institutions expressed confidence in their ability to use AI effectively. The highest confidence was observed among students from the University of Ss. Cyril and Methodius in Trnava, where 59% of respondents affirmed their self-confidence with AI. Furthermore, approximately one-third of respondents, with the exception of students from the University of Ss. Cyril and Methodius in Trnava (where only 18% reported discomfort), indicated that they do not feel entirely comfortable using AI tools. These findings refute hypothesis (H5), as teachers also exhibit comparable confidence in using AI tools.

As AI technology rapidly advances, the prospect of intelligent robots integrating into our society grows closer. A common view is that AI has to align with our values and social norms to earn our trust (Sutrop, 2019). As Kuipers (2018, p. 90) notes, *“Since society depends on cooperation, which depends on trust, if robots are to participate in society, they must be designed to be trustworthy.”* According to Coeckelbergh (2012), our cultural attitudes toward technology, especially robots, significantly influence how much we trust AI. On the other hand, Taddeo (2010) offers another perspective, arguing that trust-based interactions with AI are already possible. She suggests that the traditional anthropocentric requirements of freedom and language



can be substituted with AI's operational autonomy and interactivity. With these insights in mind, we asked our students whether they trust content generated by AI (Figure 24). Research results show that at Comenius University in Bratislava, 25.8% of students expressed trust in AI-generated content, while 36.2% were undecided, and 37.9% indicated they did not trust it. Comparable findings were observed across other Slovak universities. For instance, 37.7% of students at the University of Ss. Cyril and Methodius in Trnava reported trusting AI-generated content, with an equal percentage unsure, and 24.6% expressing distrust. At Constantine the Philosopher University in Nitra, 27.7% of students trusted AI-generated content, 35.4% had no clear opinion, and 36.9% were distrustful. Similarly, at Matej Bel University in Banská Bystrica, 31.8% trusted the content, 27% were undecided, and 41.3% did not trust it. The University of Prešov in Prešov demonstrated the highest level of trust, with 47.3% of students expressing confidence in AI-generated content, 20% undecided, and 32.7% indicating distrust. These results suggest a mixed perception of AI-generated content among students at Slovak universities, with a general trend of skepticism or uncertainty, except for the University of Prešov, where a higher percentage of students expressed trust. These findings validate hypothesis **(H6)**, highlighting that the level of distrust toward AI-generated content among students falls within the range of 24.6% to 41.3%. Furthermore, a significant proportion of teachers surveyed (46.9%) reported a lack of trust in such content

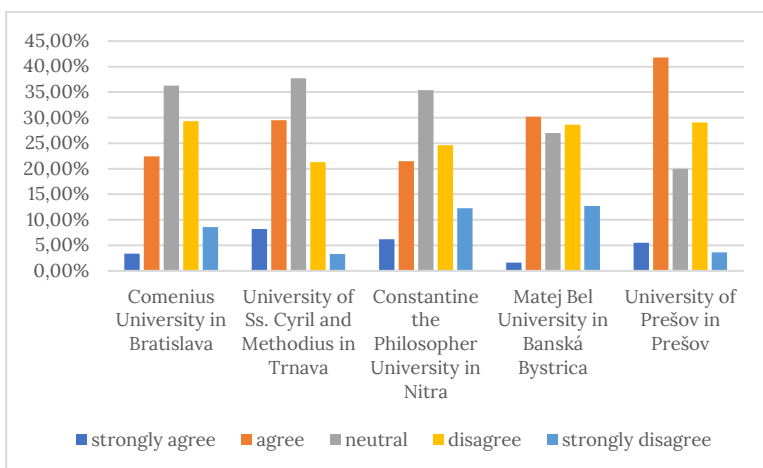


Figure 24: Students' trust in AI-generated content  
Source: own processing based on the obtained data

A comparable study conducted in the United States involved 130 undergraduate and graduate students from a large public university, focusing on trust in generative AI tools among students, particularly those in computer science education (Amoozadeh et al., 2023). The research revealed significant differences in trust between students who had used generative AI tools and those who had not. Among non-users, 44% expressed distrust in generative AI, while only 41% reported trust. Conversely, 48% of students who had experience with these tools reported trusting them, compared to 35% who expressed distrust. Both the Slovak and American studies underscore a complex relationship between trust, usage, and perceptions of generative AI tools among students. These findings emphasize the need for deeper research to inform and improve the integration of AI technologies in educational settings.

The use of AI-generated content also raises a moral dilemma regarding its application. While more than half of the students reportedly recognize the ethical boundaries of AI, questions remain about their practical approach to these boundaries (Figure 25). Approximately one-third of students at Matej Bel University in Banská Bystrica (33.4%), the University of Prešov in Prešov (36.4%), and Constantine the Philosopher University in Nitra (33.9%) indicated no moral objections to using AI-generated content. This percentage is slightly higher among students at Comenius University in Bratislava (44.9%) and the University of Ss. Cyril and Methodius in Trnava (42.7%). Similarly, around one-third of respondents expressed moral reservations about using AI-generated content, including 32.8% of students from Comenius University in Bratislava, 36.5% from Matej Bel University in Banská Bystrica, and 34.5% from the University of Prešov in Prešov. Responses indicating moral objections were lower by approximately 10% among students from the University of Ss. Cyril and Methodius in Trnava (23%) and Constantine the Philosopher University in Nitra (24.6%). These results provide insight into **(RQ9)**.

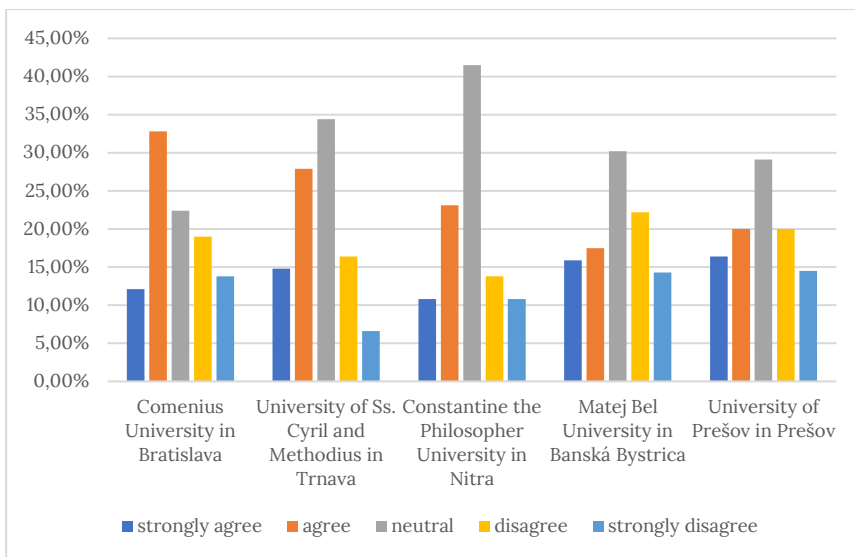


Figure 25: Students' moral dilemma in using AI-generated content  
 Source: own processing based on the obtained data

Despite the skepticism surrounding trust in AI-generated content, and moral dilemmas of using it, students find the use of these technologies convenient and efficient. This sentiment was affirmed by approximately 60% to 70% of students across all five universities. The study also explored students' perceptions of AI development, specifically examining whether they are concerned about the potential negative impacts of advancements in these technologies. Approximately 70% of respondents expressed concerns about potential negative impacts. This apprehension was highest among students from Constantine the Philosopher University in Nitra (78.6%), Matej Bel University in Banská Bystrica (74.6%), and the University of Ss. Cyril and Methodius in Trnava (72.1%). Students from the University of Prešov in Prešov (63.7%) and Comenius University in Bratislava (58.6%) demonstrated slightly lower levels of concern. These findings underscore and are consistent with students' trust in the content generated by AI. The fear of the negative impact of AI development is also linked to the potential displacement of jobs by these modern technologies. The research revealed that a significant percentage of students are concerned about this trend, with over 80% of students from universities in western and central Slovakia expressing such concerns. An exception was found in eastern Slovakia, where students from the University of Prešov in Prešov confirmed this fear at a rate of

70.9%. While students recognize the practical benefits of AI technologies in terms of convenience and efficiency, a significant proportion also express reservations about the broader implications of AI advances. Concerns about potential negative impacts, particularly in terms of job losses, reflect a fundamental caution about the role AI can play in reshaping society. Building on these insights, we now turn our attention to the conative dimension, which examines how students' attitudes toward AI influence their behavioural intentions and actions.

#### **5.4 A Conative Approach to AI from the Students' Viewpoints**

The fifth section of the questionnaire focused on students' conative approach to the application of AI in their studies. This section investigated whether students actively follow AI developments, find AI tools intuitive to use, experience improved productivity in completing academic tasks and assignments, achieve time and cost efficiencies through AI utilization, and respond more flexibly to changes due to the integration of AI into their studies. Monitoring the development of AI is not a priority for Generation Z, as various applications naturally reach them without the need for active engagement. This is supported by research, which revealed that less than a third of students express interest in this field. However, an exception was found among students at the University of Prešov in Prešov, where nearly half (45.5%) confirmed that they actively follow developments in AI.

For Generation Z, the use of new technologies is effortless, as they are digital natives. More than half of the students from Comenius University in Bratislava (56.9%), the University of Ss. Cyril and Methodius in Trnava (67.3%), and the University of Prešov in Prešov (54.6%) confirmed this. This viewpoint is also shared by 44.6% of students from Constantine the Philosopher University in Nitra and 46% of students from Matej Bel University in Banská Bystrica. For nearly 20% of students in western Slovakia, using AI is considered challenging, with the exception of students from Constantine the Philosopher University in Nitra, where this percentage is approximately 30%. In central and eastern Slovakia, the results are comparable to those in Nitra. These findings contradict hypothesis

**(H5)**, as a higher percentage of teachers compared to students from certain universities reported using AI in an intuitive and natural manner.

Artificial intelligence offers significant benefits to students by enhancing their learning experience, improving skill development, and saving valuable time. AI-driven tools enable personalized learning, adapting to each student's individual needs and progress. This customization allows for more effective skill acquisition, as students can work at their own pace and receive real-time feedback. Furthermore, AI enhances productivity in completing school assignments by offering instant access to resources, generating research suggestions, and assisting with organization and time management. This finding was supported by research, which showed that approximately 50% of respondents at each university reported experiencing these benefits (Figure 26). In addition to increasing productivity, AI also significantly saves time, as confirmed by more than 60% of students. Artificial intelligence has revolutionized the way individuals and organizations operate, offering unparalleled flexibility across various domains. In education, AI enhances flexibility through features like language translation, search for information, drafting or editing texts, brainstorming, voice recognition, or gamified learning, making educational resources accessible and engaging for diverse learning styles and backgrounds. Approximately 40% of students from Comenius University in Bratislava, the University of Prešov in Prešov, and Constantine the Philosopher University in Nitra reported increased flexibility. The highest increase in flexibility was observed among students from the University of Ss. Cyril and Methodius in Trnava (49.1%), while the lowest was recorded at Matej Bel University in Banská Bystrica (34.9%).

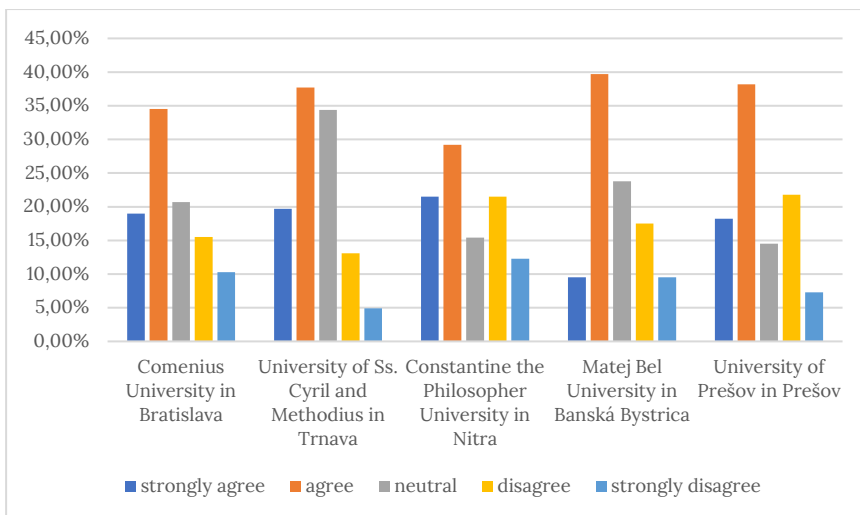


Figure 26: Improvement in students' productivity in completing school assignments  
 Source: own processing based on the obtained data

AI tools are designed with intuitive user interfaces and features, making them easy to learn without extensive training. This user-friendly approach aligns with Generation Z's inherent tech-savviness, shaped by their upbringing in a digital world. As a result, Gen Z often feels little need to educate themselves about AI due to its development, focusing instead on its practical applications, which is a view supported by students at three out of five universities. Their ability to quickly adapt to new platforms and use AI for different tasks underlines the seamless integration of these tools into their daily lives. However, approximately 50% of students from the University of Ss. Cyril and Methodius in Trnava noted that the rapid advancement of AI requires them to continuously educate themselves in this field. This sentiment was echoed by students from the University of Prešov in Prešov, consistent with earlier findings that they actively follow AI developments.

## 5.5 Utilizing AI Text and Audiovisual Applications by the Students

The final phase of the research investigated the integration of AI-driven text and audiovisual applications into students' academic pursuits. The study emphasized these technologies' impact on improving vocabulary, grammar, stylistics, and both receptive and productive language skills. Additionally, it explored their role in shaping and enhancing students' digital identities. Moreover, the research examined the extent to which these applications facilitate a deeper understanding and retention of knowledge in academic disciplines. Finally, particular attention was devoted to the use of text-based AI tools in the preparation of seminar papers and final theses.

Artificial intelligence has demonstrated significant potential in enhancing the English vocabulary acquisition of students studying the English language and Anglophone cultures. Wang et al. (2024) conducted a detailed empirical analysis of AI-driven platforms in the context of English as a Foreign Language (EFL) instruction. Their findings highlighted that the integration of AI tools enhances vocabulary learning efficiency, with the combined use of AI-powered mobile applications for self-assessment and classroom activities significantly improving vocabulary acquisition outcomes. AI-driven tools, such as language learning applications and chatbots, offer personalized and adaptive learning experiences that meet the individual needs of learners. Additionally, AI-powered applications can adapt to the evolving proficiency levels of learners, ensuring that vocabulary instruction remains challenging yet attainable. This adaptability not only enhances vocabulary retention but also boosts learner motivation and engagement.

Our research revealed that students from the University of Ss. Cyril and Methodius in Trnava showed the most significant improvement in vocabulary acquisition, with 62.3% reporting noticeable progress, thereby confirming the hypothesis **(H9)**. Nearly half (46.2%) of the students from Constantine the Philosopher University in Nitra expressed similar benefits. Approximately 40% of students from Comenius University in Bratislava and the University of Prešov in Prešov acknowledged an enhancement in their vocabulary due to the

influence of AI. Conversely, the least improvement was observed among students from Matej Bel University in Banská Bystrica, with only 34.9% reporting such advancements. Furthermore, around 40% of students from three universities – Comenius University in Bratislava, Matej Bel University in Banská Bystrica, and the University of Prešov in Prešov – indicated that they did not experience any significant improvement in vocabulary as a result of AI integration (Figure 27).

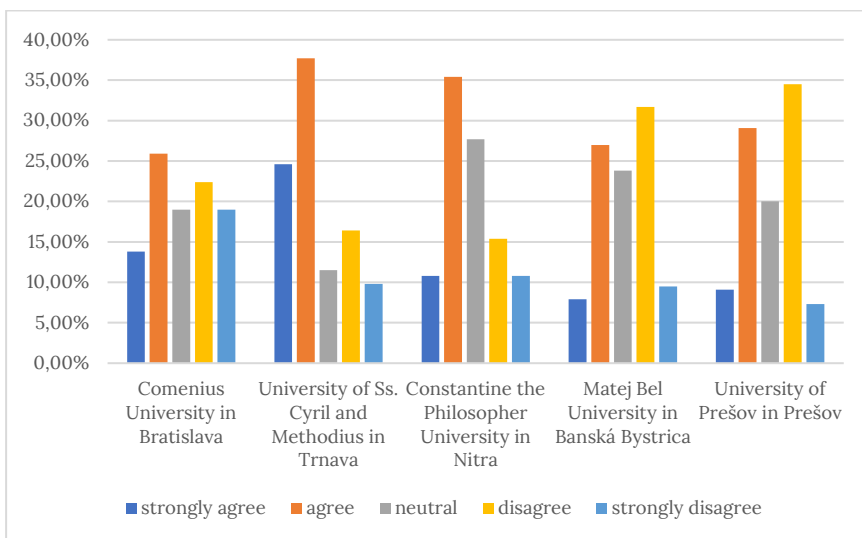


Figure 27: Improvement in students' vocabulary due to AI  
 Source: own processing based on the obtained data

Not only vocabulary but also English grammar is a foundational component of mastering English language skills. Despite its importance, students often encounter significant challenges in understanding grammar. The complexity of grammatical rules further complicates the learning process, making it less accessible and more discouraging for learners. Although teachers have explored numerous strategies to simplify and enrich grammar instruction, a noticeable gap persists in making this process universally engaging and effective (Selvi – Vaishnavi, 2024). The advent of AI presents a promising approach to address this gap and revolutionize grammar learning by making it both engaging and efficient. While tools such as Grammarly and QuillBot have demonstrated high efficiency in facilitating grammar learning, their integration with conversational AI chatbots, such as Deep English and Speak & Improve, further enhances the learning experience (Selvi – Vaishnavi, 2024). These chatbots emphasize comprehensive



communication development through interactive practice, offering a holistic approach to language acquisition.

In addition to enhancement in vocabulary, we also examined how Generation Z perceives improvement in this area. Once again, the most significant improvement was reported by students from the University of Ss. Cyril and Methodius in Trnava, with 42.6% acknowledging progress. Approximately one-third of students from Comenius University in Bratislava noticed such improvement. However, at the other three universities, less than one-third of students reported experiencing improvement. On the other hand, more than half (56.4%) of students from the University of Prešov in Prešov reported no perceived improvement. Similarly, half of the students at Comenius University in Bratislava did not observe any advancements in grammar as influenced by AI. At Constantine the Philosopher University in Nitra and Matej Bel University in Banská Bystrica, this percentage was slightly lower, around 40%. The lowest proportion of students reporting no improvement was at the University of Ss. Cyril and Methodius in Trnava (Figure 28). These findings support the hypothesis (**H8**), affirming that AI serves as an effective tool for improving students' English vocabulary and stylistics, regardless of their region of study; however, comparable progress is not evident in grammar.

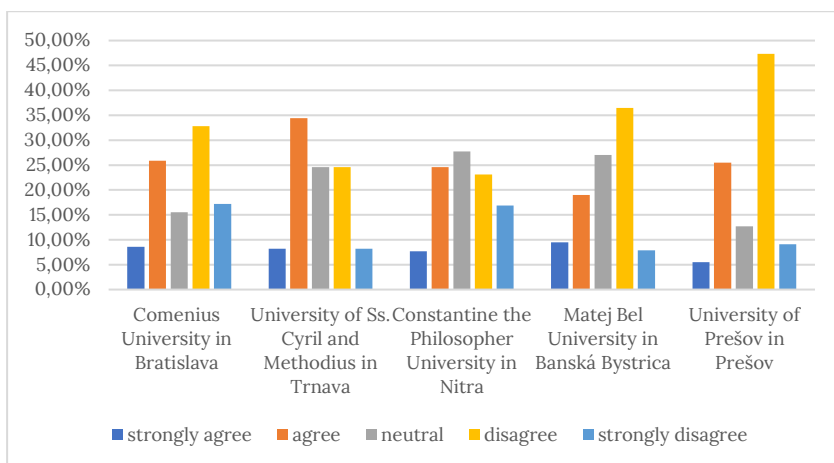


Figure 28: Enhancement in students' grammar due to AI

Source: own processing based on the obtained data

Building on these observations, our research extended beyond grammar improvement to investigate whether AI-driven tools also contributed to enhancing students' stylistic abilities. Once again, the hypothesis (H9) was validated, as the most significant improvement was reported by students from the University of Ss. Cyril and Methodius in Trnava (54.1%). Nearly half (48.3%) of students from Comenius University in Bratislava observed this improvement. Approximately 40% of students from Matej Bel University in Banská Bystrica and the University of Prešov in Prešov reported similar progress, while the lowest proportion (38.5%) was noted at Constantine the Philosopher University in Nitra. Around 19% of students across all universities, with the exception of Constantine the Philosopher University in Nitra (27.7%), expressed no clear opinion on this matter. The highest percentage of students reporting no improvement (40%) came from the University of Prešov in Prešov, whereas the lowest (26.2%) was observed at the University of Ss. Cyril and Methodius in Trnava. The remaining three universities showed comparable results, with approximately one-third of students perceiving no improvement in stylistic skills (Figure 29), which confirms hypothesis (H8).

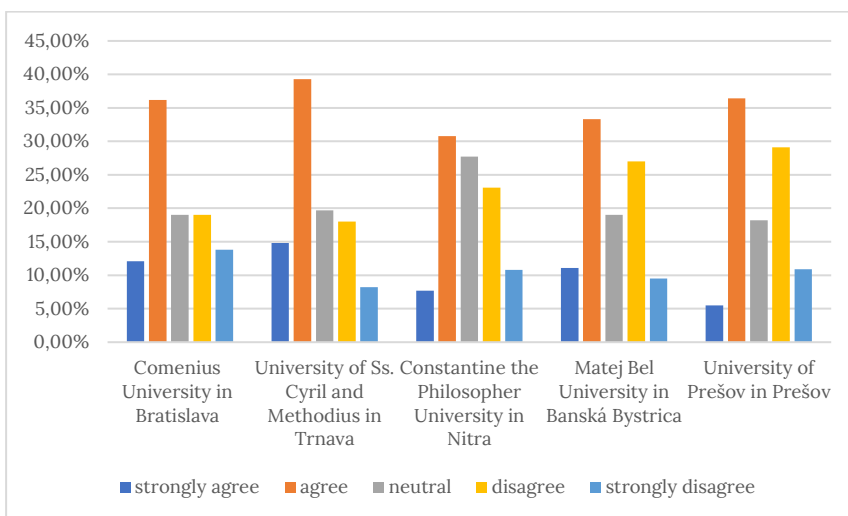


Figure 29: Enhancement in students' stylistics due to AI  
 Source: own processing based on the obtained data

The research revealed that AI-based tools significantly contribute to improving students' stylistic skills, while the improvement in grammar is less pronounced (**H8**). The most substantial progress in stylistics and grammar was reported by students from the University of Ss. Cyril and Methodius in Trnava (**H9**). Disparities between perceived improvement in stylistics and grammar were observed at other universities, with stylistics consistently outperforming grammar. However, a significant portion of students still did not perceive improvement, especially in grammar, suggesting that AI holds greater potential for supporting writing skills rather than solely teaching grammatical rules.

Recent studies have explored how artificial intelligence can enhance English language learning, particularly in developing receptive (listening and reading) and productive (speaking and writing) skills among students (Mortazavi et al., 2021; Woo et al., 2023; Hwang et al., 2023). Our research examined the improvement of listening comprehension and communication skills influenced by the application of artificial intelligence tools into educational process. The study observed an improvement in listening comprehension among 18% to 24% of students, with the exception of those from the University of Ss. Cyril and Methodius in Trnava, where a slightly higher percentage (31.1%) was reported. Conversely, more significant improvements were noted in communication skills, attributed to advancements in vocabulary and stylistic proficiency. At Matej Bel University in Banská Bystrica and the University of Prešov in Prešov, 25.4% of students reported enhancements in communication. This figure increased to 27.9% at the University of Ss. Cyril and Methodius in Trnava. Notably, Comenius University in Bratislava and Constantine the Philosopher University in Nitra reported equal proportions of improvement, with 31% of students demonstrating enhanced communication skills. The results indicate that artificial intelligence tools have a more positive effect on enhancing communication skills compared to listening comprehension, thereby confirming hypothesis (**H10**). However, the variation in improvement levels across institutions underscores the importance of customizing AI applications to specific educational contexts.

Generation Z students have distinct learning preferences that are technology-driven with multimedia resources incorporated (Seemiller et al., 2019). They are highly oriented toward digital tools and platforms, favouring the use of various applications, online courses, videos, and interactive tools. Furthermore, infographics, animations, and podcasts, appeals to their preference for visual and auditory learning. Short, engaging formats like gamification resonate with their reduced attention spans and motivate them through challenges and rewards. Collaborative and social learning also plays a significant role, with Gen Z often thriving in group activities, discussions, and through knowledge shared on platforms like Instagram, or TikTok. They value personalized learning experiences and autonomy, seeking customized content and the freedom to explore topics of personal interest, often through self-directed online research. Practicality and real-world relevance are crucial for them, as they prefer learning that can be immediately applied and connects to broader social and environmental issues that align with their values. Multitasking is common, as they often combine learning with other activities, such as listening to podcasts while exercising. However, challenges such as shorter attention spans and the risk of information overload require targeted approaches to make their learning experience effective. Therefore, in our research, we were particularly interested in determining whether the use of text-based and audiovisual AI applications enhanced students' understanding of academic subjects and facilitated easier retention of the acquired knowledge.

The use of text-based and audiovisual AI applications has enhanced students' knowledge of academic subjects (Figure 30) at Comenius University in Bratislava, as confirmed by 56.9% of respondents. A slightly lower percentage of students at the University of Ss. Cyril and Methodius in Trnava (45.9%) and Constantine the Philosopher University in Nitra (43.1%) acknowledged this improvement. At Matej Bel University in Banská Bystrica, 41.2% of students reported such benefits, while the lowest proportion was observed at the University of Prešov in Prešov, with 36.4% confirming this effect. Approximately 40% of students reported easier retention of the knowledge, although differences among universities were noted (Figure 31). Specifically, 38% of students at Constantine the Philosopher University in Nitra and Matej Bel University in Banská Bystrica confirmed improved retention, followed by 40% at the University of Prešov in Prešov, 44.6% at

Comenius University in Bratislava, and the highest percentage, 47.5%, at the University of Ss. Cyril and Methodius in Trnava. Gen Z, the digital natives, effortlessly adapts to AI tools, our research investigated whether their use of these tools led to an improvement in digital skills. Approximately 35% of students from Comenius University in Bratislava and Constantine the Philosopher University in Nitra confirmed such improvements. A slightly higher proportion, around 40%, was reported by students from Matej Bel University in Banská Bystrica and the University of Prešov in Prešov. The most significant improvement, however, was observed among students from the University of Ss. Cyril and Methodius in Trnava, where 49.1% noted enhanced digital skills.

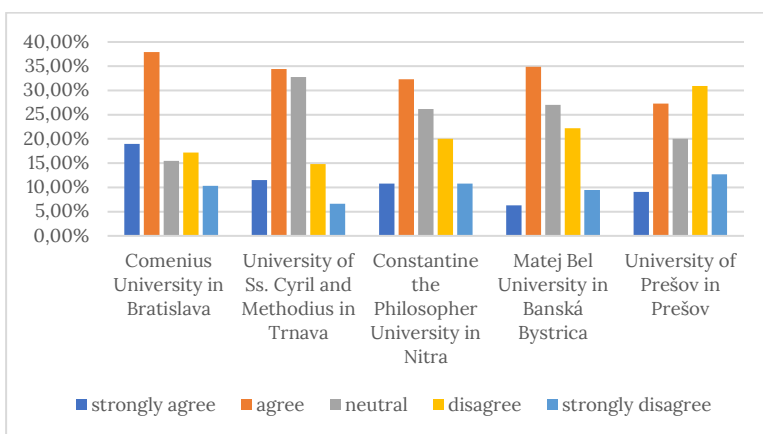


Figure 30: Enhancement in students' academic subjects due to AI  
Source: own processing based on the obtained data

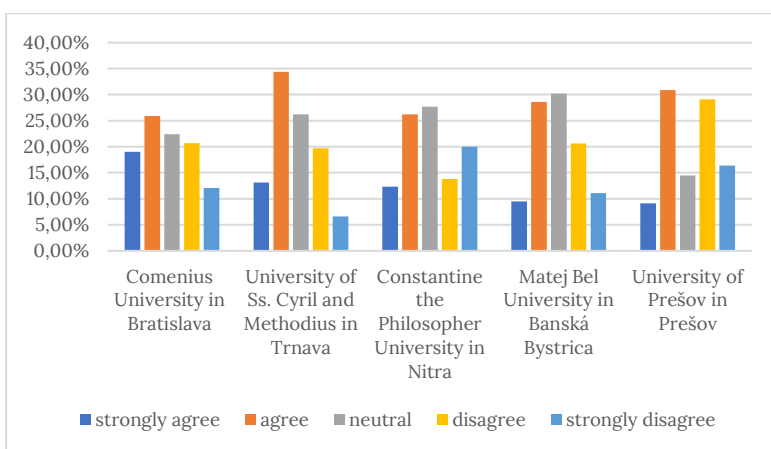


Figure 31: Enhancement in students' retention of knowledge due to AI  
Source: own processing based on the obtained data

The research results revealed differences in the use of AI tools for academic writing across the surveyed universities, with students generally more likely to use AI for seminar papers than for final theses (Figure 32 and Figure 33). The University of Ss. Cyril and Methodius in Trnava and the University of Prešov in Prešov demonstrate the highest rates of AI adoption, with 45.9% and 45.4% of students, respectively, using AI for seminar papers, and over 34% in both institutions using or planning to use AI for final theses. In contrast, Constantine the Philosopher University in Nitra exhibits the lowest adoption rates, with 30.8% using AI for seminar papers and only 21.6% for theses. Comenius University in Bratislava has a consistent usage rate of 41.4% for both seminar papers and theses. Meanwhile, Matej Bel University in Banská Bystrica falls in the middle, with 34.9% of students using AI for seminar papers and 31.7% for theses. These findings highlight a clear trend of greater reliance on AI tools for seminar papers across all universities, while the lower usage rates for final theses may reflect stricter academic standards or higher perceived risks associated with their use. The varying adoption rates among institutions suggest that factors such as institutional policies, access to AI tools, and cultural attitudes toward AI play a significant role in shaping student behaviour.

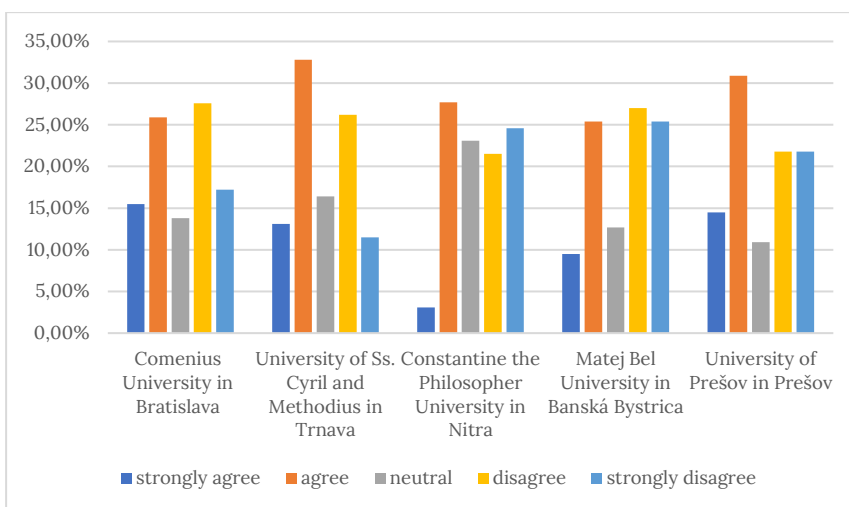


Figure 32: Using AI text-tools for writing seminar papers by students  
Source: own processing based on the obtained data

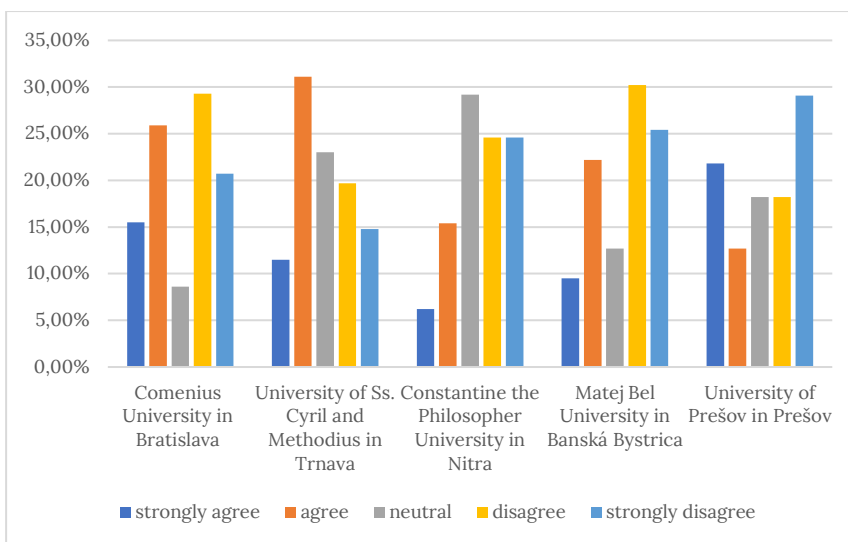


Figure 33: Using AI text-tools for writing final theses by students

Source: own processing based on the obtained data

The integration of artificial intelligence into higher education represents a transformative opportunity, particularly for Gen Z students in Slovak universities, who are inherently comfortable with technology. The findings of this study highlight both the potential and challenges associated with this transition. While AI tools have proven effective in enhancing language skills, improving academic productivity, and offering flexibility, the study reveals significant gaps in infrastructure, training, and ethical awareness across institutions. Notable disparities in readiness and adoption rates among universities underscore the need for targeted investments in technical resources, teacher training, and AI literacy programs. Collaborative efforts among policymakers, teachers, and students are essential to address these challenges and ensure that AI integration aligns with educational objectives. By embracing these innovations responsibly, Slovak universities can better equip students for an AI-driven future, fostering both academic excellence and societal resilience.

## **6 Analysis of the Research Findings among University Teachers**

Teaching in the 21st century demands a set of diverse competencies that go beyond traditional pedagogical skills. In Slovakia, as education undergoes transformation to align with global trends, teachers face growing expectations to meet the needs of a rapidly evolving society. With the rise of digital tools and artificial intelligence in education, teachers must possess strong digital literacy skills. This includes the ability to use educational technologies effectively, adapt to emerging platforms, and integrate digital tools into their teaching practices. Teachers need to facilitate interactive and personalized learning experiences while staying ahead of students, who are often more technically skilled. Additionally, familiarity with online safety and ethical considerations when using digital tools is essential.

The COVID-19 pandemic forced teachers to adapt to the online environment, equipping them with the skills to utilize a variety of applications and platforms. However, as was the case during the pandemic, it remains essential that teachers receive systematic, targeted, and effective training in this area. Previous research indicated that approximately 30% of teachers found online schooling burdensome and the same amount of them considered leaving the job (Pondelíková – Tökölyová, 2022b). As the digital landscape continues to transform, innovative forms of interaction such as remote work, hybrid and online education, virtual teamwork, and video conferencing are becoming central to modern professional and educational practices. Among the most critical challenges confronting teachers today is the need for developed digital literacy. Former research showed that over 70% of teachers reported facing substantial obstacles in this area (Pondelíková, 2023b). In contrast, Millennials demonstrated a natural ability to use various devices and applications. This trend can be largely attributed to their upbringing in a digitally saturated environment. They share everything on social networks, do not read, but watch videos, take photos of everything, and communicate through pictures more than words or text (Miština et al. 2022).



Students will always be ahead of teachers in their proficiency with technology. As respondent R1 stated: *“Teachers will not overtake them, they will not catch up, but they must strive to bridge the gap in this literacy, demonstrating a genuine effort to engage with technology. When students recognize and appreciate these efforts, they are more likely to respect and support their teachers in this journey.”* Acknowledging this reality is crucial, as it underscores the importance of fostering mutual understanding and collaboration in the educational process.

In addition to students’ perspectives, the research also focuses on teachers’ viewpoints regarding universities’ readiness to integrate AI tools into the educational process, with particular attention to their technical infrastructure. Furthermore, the research examines whether AI tools have contributed to enhancing scientific outcomes, teaching preparation, rhetorical proficiency in the English language, and overall expertise. Particular emphasis is placed on teachers’ opinions on preserving the integrity and relevance of final thesis writing in both form and methodology.

## **6.1 Experience with AI at the University from the Teachers’ Perspectives**

Technical equipment and support are crucial for the successful implementation of artificial intelligence tools into the educational system. As AI technologies evolve, they require significant computing resources, including high-performance processing and graphics, to handle complex tasks and process large data effectively. In addition, huge networking capabilities are essential to facilitate the rapid data transfer needed for deep learning processes, while strong security measures are necessary to safeguard sensitive information and maintain data integrity (Leaseweb Insights, 2019). Furthermore, institutions must invest in cost-effective solutions that allow them to use the potential of AI without incurring disproportionate expenses, making the choice of technology partners and infrastructure critical to long-term success. Ongoing technical support and training for teachers are vital to effectively utilize these technologies, enabling them to adapt curricula based on AI insights and improve overall educational outcomes. Therefore, the right technical equipment and

support not only enhance teaching and learning but also empower educational institutions to foster a more personalized and efficient learning environment.

The survey results revealed that universities face significant technical limitations in effortlessly integrating AI tools into teaching. Generation Z, known for its high expectations regarding technology, highlights this gap. Teachers share a similar perspective, with only 37.5% considering their workplace adequately equipped, while the majority (62.5%) feel otherwise thus confirming hypothesis **(H1)**.

Teachers' perspectives on the technical infrastructure of their workplaces vary. Respondent R1 shared the following: *“Personally, I don't encounter issues. The connection is reliable, and technicians are quick to assist if a problem arises. Technical difficulties during work are rare, and the support team responds promptly.”* Similarly, respondent R2 stated: *“The technical infrastructure at our university, particularly our faculty, is of a high standard. However, from my perspective, what lags behind is the preparedness of teachers to meaningfully integrate AI into teaching. Much like during the COVID-19 period, when teachers were ‘thrown into the deep end’ in terms of readiness for online teaching, they were often left to figure things out on their own. The current situation feels much the same.”* Respondents R14 and R15 from Eastern Slovakia expressed similar views, agreeing that *“the university is technically well-prepared in terms of hardware; however, it would be necessary to acquire the required software.”*

On the other hand, respondents R4 and R8 perceive the faculty's technical readiness for integrating artificial intelligence into teaching as very inadequate. R4 stated that *“the technical infrastructure is significantly under-resourced, posing a substantial limiting factor. The equipment in use, such as projectors, is outdated, and the quality of the internet connection is insufficient and frequently unable to support the reliable transfer of large data volumes essential for working with AI tools. This lack of technical support represents one of the most significant challenges impeding the effective utilization of AI in the educational process.”* R4 further emphasized that *“to enhance preparedness, investments should be made in modernizing audiovisual equipment, ensuring fast and stable internet connectivity, and developing an*

appropriate digital infrastructure to support AI-driven teaching. Additionally, external grants and projects aimed at advancing digital technologies in education could provide valuable assistance. These initiatives could help overcome financial constraints and enable long-term solutions for improving technical infrastructure.” Similarly, a colleague from the same department, respondent R7, identified numerous technical deficiencies, stating that “there is a need for improvement, particularly in updating computing equipment, installing PC consoles in classrooms, seminar rooms, and laboratories, ensuring stable internet connectivity, and implementing effective tools to detect AI-generated text or graphics.” This perspective is echoed by respondent R5, who asserted that “the university’s technical resources are minimal, with the only advantage, which is a personal laptop. However, we - teachers find it frustrating to carry all the necessary tools to each teaching session.” The respondent attempted to address this issue through a project but encountered administrative obstacles. “I wanted to purchase AI tools, such as Grammarly and Vidnoz, for each project member. However, I was unable to convince the responsible administrative personnel, as they strictly adhered to procurement regulations. These rules cannot accommodate the purchase of AI tools since such tools are tied to the user’s email and must be acquired directly online through the respective platforms. The administrative staff showed significant reluctance to understand this process. As a result, I had to explore alternative means to secure the tools we needed.”

Respondents from central Slovakia also reported similar technical difficulties. Respondent R13 stated that “the technical equipment is inadequate. New devices and a high-performance internet connection are needed. Ultimately, it always comes down to funding.” A colleague, respondent R12, provided a more detailed description of the challenges. “Our technical and software infrastructure is significantly outdated, and unfortunately, we are witnessing a gradual decline. We have only one technician responsible for maintaining over 600 computers across the entire faculty. The computers in classrooms are slow, often taking up to 20 minutes to boot up. As a result, I cannot imagine testing any AI tools on them; at best, the system would freeze.”

Opinions on the technical equipment of the universities vary not only regionally but also within the same institution. At Constantine the Philosopher University in Nitra, respondents provided differing views. Respondent R11 thinks that *“the university is not yet fully prepared for the use of AI in teaching.”* In contrast, respondent R10 stated that *“Given that using AI requires only internet access on the user’s side, and since our department has access to a computer lab with internet connectivity, the entire building is equipped with Wi-Fi, and students are allowed to bring their own devices to classes, I believe that, from a technical standpoint, we are sufficiently prepared.”*

In relation to the technical equipment, we were also interested in whether the university or individual departments had purchased AI tools. The survey revealed that they have not. Only one respondent confirmed that the university had purchased the necessary licenses, which was further confirmed in an in-depth interview (R1). In addition to the technical infrastructure, support, and acquisition of AI tools, it is crucial to learn how to effectively use them. Universities, however, seem to be falling behind in this regard, as 78% of respondents reported that their institution has not provided such training. Only 22% of respondents managed to participate in this training independently, and it is noteworthy that some teachers expressed no interest in training or using AI in teaching, as confirmed by 6.3% of those surveyed. On the other hand, more than 80% of teachers indicated that they would appreciate it if their university provided such training, thus confirming hypothesis **(H1)**.

According to respondent R1, Comenius University in Bratislava offers training sessions; however, limited time often hinders participation in further education. The university has a specialized department that organizes training sessions, delivered either online or in person. So far R1 has attended two training sessions focused on artificial intelligence. However, respondents from universities in Trnava jointly stated that they had not received adequate support or training. Respondent R4 added, *“In April 2025, I, along with my colleagues, will participate in an AI training abroad, which the university has facilitated through Erasmus+ mobility. I believe this training will provide us with valuable experiences and inspirations that we can subsequently apply in teaching and share with other colleagues at the university.”* This sentiment was

echoed by respondent R6 who expressed agreement with R4's statement.

Respondent R3 expressed the vision of ideal training and support in this area, stating that *“I would envision the discussion about the use of AI starting at the ministerial level (or with the accreditation commission) and being directed toward universities in the form of issued guidelines. If the instruction were that each university could decide individually, I would expect the university where I work (and we are talking about a ‘technical university’) to officially engage with this topic and prepare training sessions or at least guidelines on how to work with this new platform. I would anticipate that the training sessions would be designed as ongoing initiatives, not merely a one-time two-hour session. They should provide information about existing AI tools, their functionalities, and how to use them effectively – whether for lesson preparation or direct classroom activities with students. Additionally, I would expect updates at least every six months, given the rapid pace at which these tools are evolving.”*

Teachers at Constantine the Philosopher University in Nitra share similar sentiments regarding their professional development. All respondents indicated that the university did not provide the necessary training, with respondent R9 noting, *“I completed training through a private company.”* Respondent R10 added that *“an ideal format would likely be a seminar that presents the possibilities and capabilities (along with shortcomings) of AI, especially for less technically adept educators.”* Furthermore, respondent R11 expressed a desire for *“experts who could demonstrate the potential uses of AI in teaching and instruct us on how to recognize its application among students.”*

At Matej Bel University in Banská Bystrica, the perception of artificial intelligence among the management is not particularly positive, which has resulted in a lack of training opportunities. Respondent R12 confirmed this sentiment by stating, *“We made some efforts to initiate such training, but my subjective feeling is that we are incredibly afraid of AI here, and thus we keep it out of our academic space. Literally.”* In contrast, respondent R13 views the situation from a slightly different perspective, noting that *“there have been some meetings; they were not*

*practical. I participated in three training sessions, one of which was part of the Erasmus program.”*

Respondents from the University of Prešov in Prešov also confirmed that they have not been provided with training opportunities. Respondent R15 stated, *“Information about paid training sessions was provided. It would be appropriate to secure free training.”* Additionally, respondent R14 emphasized that *“workshops conducted in-person or online, featuring specific demonstrations, would be ideal.”*

The findings highlight significant gaps in the integration of artificial intelligence into higher education institutions across Slovakia. Despite isolated examples of progress, such as Comenius University’s training initiatives or Erasmus+ mobility opportunities, the majority of universities lack the necessary technical infrastructure, training programs, and institutional support to effectively incorporate AI into the educational process. Respondents consistently voiced the need for structured and continuous AI training tailored to practical applications in teaching. This shortfall in institutional support extends beyond technical aspects. Respondents called for national-level guidelines to facilitate AI adoption and emphasized the importance of regular updates on rapidly evolving tools. However, the research identified a broader trend, indicating that universities are generally slow to adapt to the integration of AI into the educational process. This conclusion is underscored by the survey results, where nearly 70% of respondents confirmed that their universities have not yet prioritized this critical area.

However, the remaining 30% of respondents view their university’s approach to implementing AI in teaching positively. Respondent R4 supported this assertion, stating: *“The university and faculty where I work have a positive and open attitude toward the use of artificial intelligence. They have issued official recommendations for the effective and ethical use of AI in teaching and encourage innovations that can enhance the quality of the educational process. In 2023, our university organized a Staff Week, which I personally attended. The event focused on the theme ‘AI as the New Definition of the Future of Education,’ and its goal was to open a discussion about the potential of artificial intelligence in the educational process. At our department, reactions to*

AI are varied. Some colleagues are already using AI tools to support teaching and material preparation, while others remain more cautious. Overall, there is a prevailing interest in the benefits AI can bring to the teaching process and a willingness to explore its further applications in the academic environment.” Respondent R1 echoed these sentiments, saying: “I personally perceive AI positively, though certain concerns exist, such as potential misuse. My colleagues share similar views. The institution supports the implementation of AI in teaching and has provided training sessions for this purpose.” Additionally, respondent R11 stated that their workplace is “in agreement with the use of AI.”

Similarly, respondent R2 confirmed ongoing discussions about both the opportunities and risks associated with using AI in education across all levels, noting: “These discussions occur at the Dean’s College, in departmental committees, and during meetings at individual institutes. Seminars and webinars are being organized, such as the lecture by Milan Pikula, Director of SK-CERT, on ‘The Dangers of Artificial Intelligence in Science and Research,’ held on November 13, 2024, at 9:00 AM. While no one denies the advantages of AI, both the faculty management and teachers recognize the rapid pace of AI development and the associated risks.” However, R2 adds “I would not yet speak of a fully effective adaptation to these trends. Perhaps this is easier for colleagues who are technologists or IT specialists than for language teachers or those teaching humanities. From this perspective, we feel somewhat neglected; while colleagues are willing to help if we ask, particularly if we are struggling with something, this does not represent a systematic adaptation to these trends in teaching. I would consider it essential to organize systematic courses that would demonstrate how AI can be used in education.” Although some universities or departments welcome these new trends, the truth remains that “individual teachers adapt on a personal basis,” as confirmed by respondent R10.

The following two questions were related to the individual adaptation of the teachers to implement AI in education. We asked them whether they consider themselves to be the ones who can implement AI in their teaching and whether they are capable of providing training for students in the area of AI. According to our findings, 40.6% of respondents indicated that they are able to provide such training and

68.8% claimed that they belong to the group of teachers who can effectively implement AI into their teaching practices. Respondent R3 confirmed that the use of AI is based solely on independent research and recommendations from colleagues, which they subsequently studied and evaluated for applicability. *“I use AI tools on a daily basis, primarily for creating various activities that I then implement in my classes. Thus, it serves more as a support tool for me. For this purpose, I have subscribed to certain AI applications to ensure unlimited access to all available features.”*

Respondent R4 provided positive feedback on implementing artificial intelligence in the teaching of the English language and culture. R4 expressed that *“I consider AI to be an excellent assistant that helps me streamline my teaching and introduce new, interactive elements. I use AI tools daily, whether for preparing materials, creating interactive exercises, or for individualized approaches to students, which facilitates the adaptation of instruction to their needs and enhances the overall educational process.”* Moreover, R4 belongs to those teachers who can provide training for students in the area of AI and confirmed that *“together with a colleague, I organize workshops focused on AI text applications, which have been met with considerable success.”* Respondent R13 added that they consider themselves *“a great enthusiast”* and *“see significant potential in this technology”*. Furthermore, R13 claim that *“I use it daily, recognizing its potential for developing soft skills. I teach AI courses and implement it in literary studies.”* Nowadays, AI tools are excellent assistants in translation, a sentiment echoed by respondent R6, who asserted that *“I utilize AI tools in the instruction of translation tools and translation processes. Students in these courses are exposed to human translation, machine translation, and translation using computer-assisted translation software (such as Phrase and SDL Trados).”*

On the other hand, respondent R2 stated, *“I gained my experience through my daughter, who is well-versed in this area and demonstrated to me how to use it effectively. Thus far, my experiences are minimal, but they are gradually improving. I use these tools sporadically, as needed; if I were to assess their frequency, I would say about once a month, so not regularly.”* Similar sentiments were expressed by respondent R12 who began utilizing AI due to their students, who shared information about



the tools they use. R12 asserted, *“I do not use AI very frequently, but I sometimes find it to be highly beneficial, particularly because it saves time.”*

Respondents from Constantine the Philosopher University in Nitra reported limited experience with AI and expressed a lack of rationale for its implementation in their subjects. Respondent R10 claims, *“I do not see much reason to use AI in my courses. Moreover, the information obtained through AI cannot be entirely trusted. However, I acknowledge that AI has been very helpful in minor adjustments to syllabi (e.g., redistributing assigned topics) and in transforming existing text.”* Similarly, colleague respondent R11 added, *“So far, I have very limited experience with using AI. I am more traditionally oriented and only occasionally use ChatGPT for lesson preparation.”* Similarly, the integration of AI tools in the teaching of the English language and culture is perceived in a comparable way by teachers from the University of Prešov in Prešov. Respondent R14 stated, *“I am a beginner in this area. I use AI for creating exercises and texts on various topics for educational materials.”* On the other hand, R15 expressed skepticism toward AI, saying *“I do not use it; my previous attempts have yielded unsatisfactory results.”*

These findings validate hypothesis **(H2)**, highlighting that teachers generally view the integration of AI into teaching English language and Anglophone cultures in a positive light. However, readiness to adopt AI varies, influenced by factors such as technical infrastructure, professional training, and institutional support, which are critical for enabling effective implementation and capacity-building for training students. Many teachers have proactively incorporated AI tools to enhance their teaching, yet some remain skeptical or lack the necessary resources to fully explore its potential. Addressing these challenges requires a collaborative effort at institutional and national levels, fostering both technical and pedagogical readiness to meet the demands of modern education.

## 6.2 Teachers' Cognitive Perception of AI

Teachers' knowledge of artificial intelligence varies widely, influenced by their access to technology, professional development opportunities, and educational context. Many teachers recognize the potential of AI to transform the educational process. However, their understanding is often limited, as a survey revealed that while over half (59.4%) are familiar with AI-based applications, only 37.6% are aware of the latest innovations. This confirms hypothesis **(H3)**, as students demonstrate a higher familiarity with AI applications. Barriers to deeper understanding include a lack of formal training, insufficient technical equipment, and concerns about ethical implications such as bias and privacy. According to the survey, 59.4% of respondents reported being able to recognize these issues, while 28.1% remain uncertain, and 12.5% have not yet developed this ability (Figure 34). These results refute hypothesis **(H4)**, as the ability to identify the ethical boundaries of AI usage is similar to that of students or even lower.

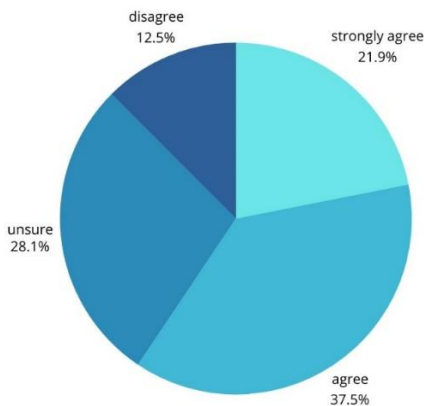


Figure 34: Teachers' ability to identify ethical boundaries of AI  
Source: own processing based on the obtained data

Ethical questions represent some of the most significant challenges that artificial intelligence has brought into education. Nearly 60% of respondents indicated they can identify the pitfalls associated with AI (Figure 35). Among the most prevalent concerns is an excessive reliance on AI, which may restrict social interaction between students and teachers, potentially adversely affecting students' emotional and

social development. Respondent R13 highlighted a considerable risk of addiction, stating, “If all teachers use AI in their lectures, then students will also work with AI in every class. Consequently, the entire teaching process will revolve around working with AI.” As a solution, R13 suggested the importance of psychological hygiene. It is essential to recognize that AI should serve as an assistant and complement in the educational process. A certain balance must be maintained to ensure effective learning outcomes.

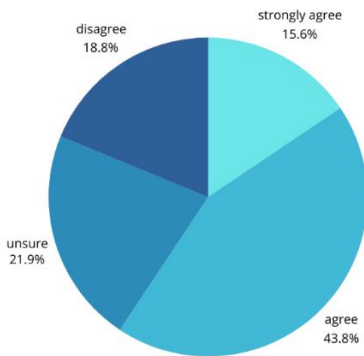


Figure 35: Teachers' ability to identify challenges of AI in education  
Source: own processing based on the obtained data

For many teachers, the integration of AI into teaching presents significant challenges due to a lack of adequate technical resources, training, and support for implementing these technologies. Respondent R5 noted that one of the pitfalls of AI is its financial burden, stating, “Currently, the financial demands are considerable, and the university should be proactive in acquiring AI tools. This would represent a significant advancement; many tools are inaccessible to us because they are expensive.” R5 added that “the development of AI can also be unexpectedly rapid. It has potential applications in education, and I see great promise in this area; therefore, these challenges present a concern for university management.” In a related comment, R12 emphasized the importance of technical infrastructure, expressing skepticism by stating, “I fear that in our neglected technical infrastructure, it will take time for AI to literally ‘come’ here.”

Respondents R3, R6, R8, R10, and R14 agreed that the most significant risk associated with the use of AI in education is the increase in both intentional and unintentional plagiarism. Respondent R3 expressed that *“one of the greatest challenges is ensuring the originality of student work, particularly in completing assignments set by teachers, while preventing an over-reliance on AI tools. Students may be motivated to use AI to generate texts or responses to questions posed in assignments without a sufficient understanding of the linguistic and disciplinary contexts. This reliance can undermine their ability to create independently and develop the language skills necessary in a professional environment.”* In addition, respondent R6 proposed addressing this challenge by assigning students a task to produce a human translation *“on paper”* using a printed dictionary. Furthermore, R6 added, *“This way, I can reliably assess their competencies.”* Similarly, respondent R10 suggested that the solution lies in maintaining traditional assessment methods, stating, *“The approach remains the same: asking oral questions.”*

Another risk identified by respondent R3 is superficiality in learning specialized terminology. According to R3, *“AI can provide correct answers, but it often lacks contextual explanation or depth of understanding.”* This view is supported by respondent R14, who stated that *“AI can provide unsubstantiated information.”* In connection to this issue, respondent R15 noted that *“students’ ability to work independently is diminishing; they do not rely on their own efforts, leading to a gradual decline in the development of certain skills, particularly linguistic ones, as ‘translators are available for everything.’”* R15 further emphasized that *“student motivation to learn foreign languages proves to be a key factor.”*

The impact of AI on student autonomy is emerging as a critical issue. Respondent R4 highlighted that among the greatest challenges and risks associated with the use of AI in teaching English language and Anglophone cultures is the need for critical thinking and the ability to use AI wisely. *“Both students and teachers need to understand that AI is not an omnipotent tool but rather an aid that requires caution in its application.”* This perspective was echoed by respondent R2, who asserted that *“the greatest risk associated with the use of AI is the loss of independent thinking. The younger generation may not be intellectually*

*developed or can become more easily manipulated.” As a solution, R2 suggested that “the use of AI tools must be approached systematically”. Furthermore, R2 added “I place great importance on motivating students, which I see as a key challenge. It is necessary to explain to them that AI is a good servant but a bad master and, ultimately, can be harmful if misused.”*

Last, but not least, a significant challenge lies in the fact that not all students have equal access to AI tools due to economic or geographic disparities, which may intensify existing educational inequalities. However, respondents R1 and R11 agreed that *“students will advance in this area faster than teachers; therefore, it is up to us to adapt to the times as quickly as possible.”*

Addressing these challenges can be approached in alignment with the perspective of respondent R3, who stated: *“I plan to tackle these obstacles by continuing to integrate AI into teaching as a supportive tool rather than a replacement. For instance, when working with specialized texts, students can use AI to generate drafts or suggestions, which they will then critically evaluate and refine. Similarly, I will continue encouraging them to reflect on the process of creating a text, not just its final outcome. Additionally, I will emphasize the importance of ethics and teach them how to properly disclose the use of AI tools in their work. My goal is for students to perceive AI as a tool that enhances their skills rather than as a shortcut.”* Respondent R4 further highlighted that individualized education, along with training sessions provided by schools, is key to overcoming these barriers. *“It is essential that we have both the willingness and the opportunity to educate ourselves in this field. I would also like to see workshops and seminars on the practical application of AI become a regular part of the educational process. These would enable both students and teachers to learn how to integrate these tools into their learning and teaching in an effective and ethical manner.”* Teachers who engage in professional development or collaborate in technology-focused learning communities tend to have a better understanding of the possibilities and limitations of AI. The survey revealed that 75% of respondents understand the purpose and significance of utilizing AI. *“While AI is still in its infancy, it is still relevant to continue developing in-depth knowledge as much as possible about its risks and possibilities through ongoing teacher training”*

(Moura – Carvalho, 2024, p. 148). Promoting comprehensive AI literacy among teachers is essential to enable them to effectively use AI while maintaining ethical, human-centred educational practices.

### **6.3 Teachers' Affective Perspective on AI**

Similar to students, teachers were asked to reflect on their current level of AI literacy. As an emerging field, AI literacy encompasses essential competencies such as understanding and evaluating AI, applying it effectively, and creating AI-based solutions (Ng et al., 2021). To successfully address future technological challenges in the workplace, individuals must not only develop cognitive skills but also receive support for their affective development, ultimately leading to the purposeful and effective application of AI in practice. Equally important is cultivating social responsibility and ethical awareness to ensure that AI is utilized for the benefit of society.

The fourth section of the questionnaire delved into teachers' confidence in utilizing AI, their trust in AI-generated outcomes, and any hesitations regarding adopting such content. It also addressed their concerns about the broader societal implications of AI development, particularly the perceived threat it may pose to their roles as university teachers. Teachers were asked about their experiences with AI tools in teaching English language and Anglophone cultures. The findings refute hypothesis **(H5)** as 43.7% of respondents do not feel comfortable using AI, while a nearly equal proportion, 43.8%, expressed the opposite view (Figure 36). Additionally, 59.4% of teachers stated that they find AI to be effective in their work.

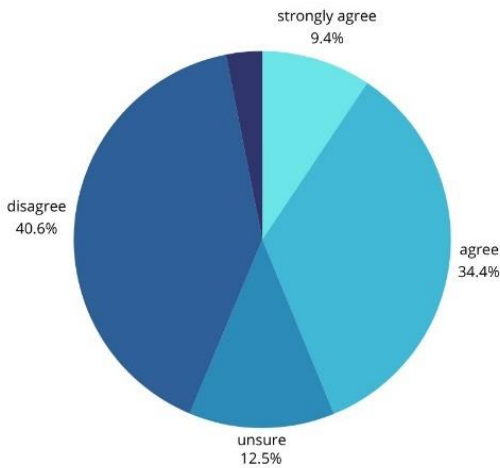


Figure 36: Teachers' feelings of confidence in using AI  
 Source: own processing based on the obtained data

Respondents reported diverse approaches to utilizing AI tools, with varying levels of confidence and frequency of use. Some respondents, such as R1, R3, R4, R5, and R13, engage with AI tools regularly and purposefully, primarily for the preparation of teaching materials, the design of activities, and the creation of interactive exercises within the educational process. R4, in particular, organizes workshops and plans to pursue further education in AI, expressing a highly positive perception of its utility. Respondent R6 feels comfortable using AI in the context of teaching translation, indicating reliance on these tools as effective support. Conversely, respondents such as R10 and R15 reported using AI tools infrequently or not at all, citing a lack of motivation or satisfactory results. Falling between these extremes are respondents like R12, R11, and R14, who utilize AI tools sporadically, primarily for lesson preparation or in contexts where these tools save time. Overall, AI tools are predominantly employed as a means to enhance efficiency and creativity, with confidence in their use increasing alongside experience and systematic learning approaches.

As the use of artificial intelligence in content creation continues to grow, the question of the reliability and trustworthiness of AI-generated outcomes has become increasingly important. According to Chan (2023), the rapid advancements in generative AI models have enabled the production of highly coherent and contextually relevant text that can be difficult to distinguish from human-created work. This

indistinguishability between content created by artificial intelligence and content created by humans poses a major challenge for teachers, researchers, and the broader academic community. On the other hand, AI-generated content can produce problematic content, such as fake news, factual errors, contextual inaccuracies, etc. In our research, we focused on whether teachers trust AI-generated content (Figure 37). The findings revealed that 28.1% of teachers expressed trust in AI-generated content, while 25% held a neutral stance without a clearly defined opinion, and 46.9% indicated a lack of trust in AI-generated content entirely. These findings support hypothesis **(H6)**, as the level of distrust toward AI-generated content among students ranges from 24.6% to 41.3%.

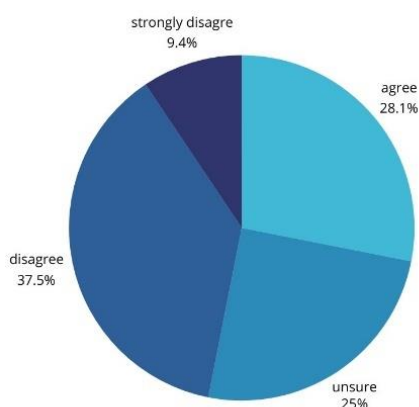


Figure 37: Teachers' trust in AI-generated content  
Source: own processing based on the obtained data

Respondents demonstrate varying levels of trust in AI-generated results, with the majority emphasizing the need for content verification. Respondent R1 noted that while they trust the results, they verify them for content accuracy. Similarly, respondent R4 stated, “I assess the reliability and accuracy of AI-generated results cautiously. I most often use AI for text correction, which is very effective, and also as a tool for quickly gathering information, much like Google. However, when it comes to content accuracy, I always ensure that the data provided by AI is correct, and if I have doubts, I verify it using reliable sources.” Furthermore, R4 added that “key factors in assessing trustworthiness include the relevance of the information, the source of the data (if provided), and, of course, my own experience and knowledge



*in the field. This approach helps me use AI effectively while maintaining a high level of accuracy in the texts I work on.*” In addition, respondent R3 estimates the reliability of paid AI tools at “90%, as the sources from which the information is drawn are provided,” emphasizing that these sources can sometimes be invalid or irrelevant, making the verification of data accuracy a key factor. Respondent R6, on the other hand, underscored that when working with translations, “I thoroughly read the translation and compare it with the original,” evaluating “clarity, accuracy (adequacy), and fluency.” In contrast, respondent R5 noted a growing trust in AI-generated content, stating: “I trust AI more and more, as it learns quickly, but I still verify the information.” Other respondents approach AI-generated results with caution. For instance, respondent R2 noted, “I would not yet feel comfortable fully relying on the accuracy of AI results.” Similarly, respondents R7, R8, and R13 emphasized the need for verification and comparison with trusted sources. Additionally, respondent R10 trusts only those results that “I can immediately verify based on my own knowledge or validate through traditional methods.” Respondent R11 stated that AI results are “not 100% reliable.” Respondent R14 takes a differentiated approach to AI results. “If the text is not technical, I do not consider it important. For technical texts, I verify the results.” On the opposite end, respondent R15 openly declared, “I do not trust AI results.” The development of trustworthy and accurate AI detection methods is therefore extremely important to ensure the integrity of academic work and the fair evaluation of students and researchers.

The potential for inaccuracies is a key factor contributing to the hesitation among teachers and researchers to adopt AI-generated content. According to the survey, 59.4% of respondents reported an awareness of ethical issues, and nearly 60% acknowledged challenges associated with AI, such as plagiarism. Therefore, almost half of the teachers (46.9%) expressed moral reservations about utilizing AI-generated content, with 9.4% indicating strong objections and 37.5% expressing moderate concerns. Meanwhile, 15.6% of teachers adopted a neutral stance, whereas 12.5% found AI-generated content entirely acceptable, and 25% reported no objections (Figure 38). These results provide insight into **(RQ9)**.

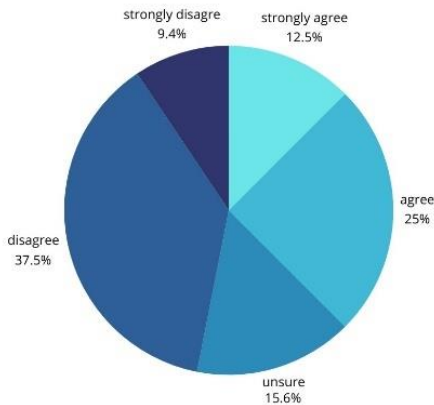


Figure 38: Teachers' moral dilemma in using AI-generated content  
 Source: own processing based on the obtained data

Given that AI is a new phenomenon, many expressed concerns about its negative impact on society. Comparable to students, teachers have also voiced concerns, as evidenced by 68.7% of respondents. Among them, 31.2% are specifically worried that AI might threaten the multifaceted role of teachers (Figure 39). However, a majority (59.4%) perceive AI as beneficial for their work.

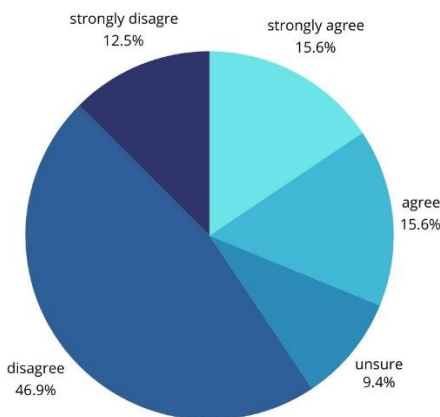


Figure 39: Teachers' perspectives on the threat of AI to their multifaceted role  
 Source: own processing based on the obtained data

Respondent R13 unequivocally stated that the role of the teacher will undergo transformation, as “the volume of digital communication will increase, along with providing instructions to students, and creating user-friendly websites.” R13 added that “teachers will no longer be the

sole source of knowledge in the classroom. Students want to see the teacher's energy and interest in the topics." This perspective is echoed by respondent R4. "AI technologies will undoubtedly influence the teaching, publishing, and project-related activities of higher education teachers in the future. Those who fail to adapt to this trend will struggle to engage students, particularly considering that Generation Z, known for its digital literacy, now populates universities. Avoiding AI would be inefficient and short-sighted. Therefore, it is essential for teachers to continuously enhance their skills in this area." In addition, R4 stated that "rather than threatening the role of the teacher, AI has the potential to significantly facilitate tasks such as text creation, lesson preparation, and drafting project proposals." With further improvements in the technical infrastructure of schools, R4 claimed that "we can envision modern 21st-century universities that embrace innovation and progress." R4 highlighted that "teachers who adapt to these changes – a task that is not particularly challenging with quality training – will become valuable partners and sources of knowledge for students, who will appreciate their guidance." Thus, the role of the teacher will shift, evolving into that of a learning facilitator and mentor, fostering independent and critical thinking among students while leveraging AI to enhance the efficiency of their pedagogical practices.

According to respondent R3 "AI can facilitate the educational process by enabling the personalization of instruction, automating assessment, and creating interactive learning tools. However, it will simultaneously compel teachers to reevaluate how to teach critical thinking; a task that may become even more challenging in an era of instant access to information." Furthermore, R3 emphasized "the urgent need to develop entirely new didactic frameworks customized to individual subjects and educational levels. Alternatively, methodological guidelines must be established to specify how AI tools can be integrated into the educational process, with a particular focus on fostering students' critical thinking skills." Similarly to respondent R4, R3 sees teachers in the position of mentors, guiding students in the effective use of AI, fostering critical thinking, and enhancing their ability to evaluate information. "Their responsibilities will extend beyond the mere transmission of knowledge to the cultivation of students capable of adapting to a rapidly changing technological landscape." R3 highlighted that "teacher training must respond promptly and effectively to these developments."

Respondents R8 and R9 agreed that *“the teacher will continue to play an important role.”* R8 assumed that AI will simplify processes associated with a teacher’s work. Similarly, R9, in alignment with respondents R3 and R4, envisions the teacher as a facilitator and motivator rather than *“a source of knowledge as was the case in the 20th century.”*

On the other hand, some respondents do not believe that the role of the teacher will change. For instance, respondent R10 stated that they do not think *“anything will drastically change in our work.”* Similarly, R7 expressed skepticism about any significant shift in the teachers’ role, claiming that *“for the role of the teacher to change, we are talking about the year 2050 and beyond.”* R7 added that *“the teaching profession is stable, as nothing can replace the human aspect of the teacher’s interaction with students. Spontaneous and creative interactions, which often occur in the classroom, are not yet within the domain of AI.”* Respondent R11 agreed, stating that *“AI technologies will never fully replace the role of the teacher because students still prefer human contact. However, AI can assist teachers in adopting modern teaching methods.”* It is evident that teachers will need to engage in continuous professional development. As Respondent R14 emphasized, this is necessary *“to keep pace with the advancement of AI as well as with the students themselves.”* Based on the research, teachers display enthusiasm and optimism about the potential of AI to enhance their roles, however, others express caution, underscoring concerns about accuracy, ethical implications, and the broader societal impacts of AI, which may be related to their current level of AI literacy.

#### **6.4 A Conative Approach to AI from the Teachers’ Viewpoints**

The fifth section of the questionnaire examined teachers’ conative approach to implementing AI technologies in their work. It explored various aspects of AI integration, including whether teachers actively monitor AI advancements, perceive AI tools as user-friendly, experience increased productivity in work-related tasks, achieve time and cost savings, and adapt more effectively to changes prompted by AI’s integration into their professional activities. Additionally, it

assessed the extent to which AI's rapid development necessitates continuous professional learning. Results indicated that 50% of respondents actively keep track of AI developments, while 62.6% acknowledged the need for ongoing learning driven by the evolving nature of AI technologies.

Artificial intelligence has demonstrated significant potential in enhancing efficiency, saving time, and reducing costs across various sectors. By integrating generative AI into teaching and learning, higher education institutions can contribute to achieving inclusive and high-quality education, promoting lifelong learning opportunities for all (Owoseni et al., 2024). AI has become a valuable tool for saving teachers time in higher education by automating repetitive and time-consuming tasks. For example, AI-powered virtual assistants can answer common student questions, grade assignments, and provide personalized feedback, freeing up teachers to focus on more meaningful teaching activities like mentoring and curriculum development (Goel, 2020). Furthermore, AI-powered tools can enhance lesson planning and course material development by generating content outlines and offering customized recommendations, enabling teachers to prepare more effectively and efficiently. According to the survey results, 59.4% of teachers confirmed that using AI helps them save time and reduce work-related costs, while 25% were unable to assess this impact, and 15.6% reported experiencing no such savings. Additionally, 53.1% of teachers indicated that AI enhances their flexibility in completing work tasks, whereas 31.2% did not experience any improvement in this regard (Figure 40).

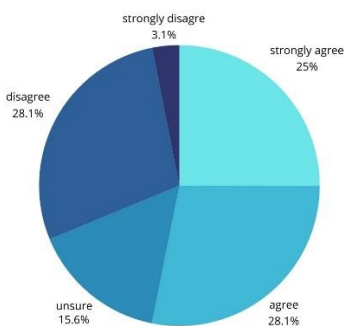


Figure 40: Teachers' perspectives on enhancing work performance due to AI  
Source: own processing based on the obtained data

Research revealed differing degrees of AI technology adoption among teachers (Figure 41). According to survey data, 62.5% of respondents reported using AI tools naturally (**H5**), indicating a high degree of familiarity and comfort with integrating such technologies into their professional tasks. However, 12.5% expressed uncertainty, reflecting a neutral stance possibly due to limited experience with AI applications. Notably, 25.1% of respondents admitted encountering difficulties when using AI, suggesting the presence of barriers such as insufficient training, technological complexity, or resistance to change. These findings underscore the need for targeted professional development programs and user-centred AI design to enhance adoption and reduce usability challenges.

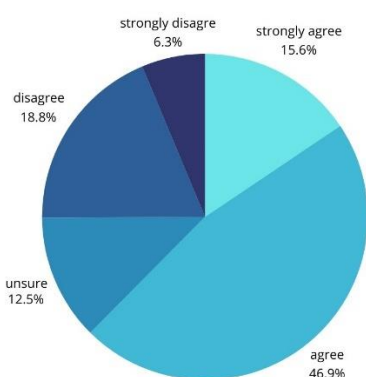


Figure 41: Teachers' perspectives on using AI  
Source: own processing based on the obtained data

The conative approach of teachers toward AI adoption revealed a dynamic interplay between familiarity, usability, and adaptability. While a majority of teachers recognize the potential of AI for enhancing productivity, reducing workload, and enabling professional growth, a notable portion still faces challenges due to limited experience or technical barriers. These findings again highlight the critical need for ongoing professional development, customized AI training, and user-centred technological design to facilitate a smoother transition toward AI-driven educational process. Addressing these factors can ensure wider acceptance and effective integration of AI tools in teaching practices.

## 6.5 Utilizing AI Text and Audiovisual Applications by the Teachers

The final part of our investigation delved into utilizing AI-driven text and audiovisual applications by university teachers. We examined their impact on enhancing scientific research, teaching preparation, English rhetorical skills, digital competencies, and professional development. We also assessed teachers' ability to detect students' use of AI tools. In addition, we asked them about the policies they have established regarding AI in their courses and their perspectives on how AI might influence the traditional approach to thesis writing. Furthermore, we explored teachers' views on the future of teaching English language and Anglophone cultures in the growing prevalence of AI, including potential adjustments to curricula and teaching methods.

AI tools possess the capability to create graphs, analyze data, generate written content, and organize bibliographic records. These functionalities are intended to support academic publishing and enhance the research productivity of teachers. Improvement in scientific outputs was confirmed by 34.4% of teachers, 21.9% were uncertain, and 43.8% reported no improvement (Figure 42).

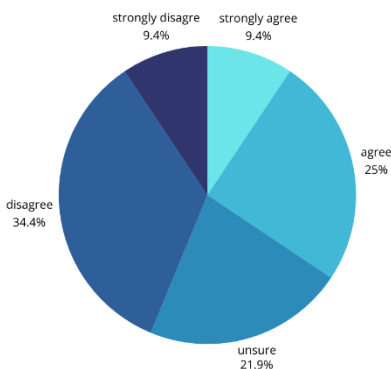


Figure 42: Teachers' perspectives on the enhancement of scientific outcomes due to the usage of AI

Source: own processing based on the obtained data

These findings suggest that while AI technologies hold significant potential for facilitating academic work, their effectiveness may vary depending on individual usage patterns and familiarity with such tools. The research identified diverse opinions from respondents, reflecting both potential benefits and risks associated with implementing AI into their academic publishing (**RQ9**). Respondent R6 emphasized the “systemic pressure on the quantity of scientific outputs at the expense of quality” and expressed concerns that “without a change in this system, the situation will only escalate.” Conversely, respondent R1 views AI as a tool that can relieve researchers of administrative tasks such as managing bibliographic sources, which R1 finds “extremely burdensome.” Similarly, respondent R5 appreciates AI’s ability to “reformulate texts into academic English,” while still perceiving research activity as a purely human endeavour. Respondent R4 reported highly positive experiences with using AI in academic publishing, stating that “AI is an incredible help for me, especially when it comes to language and stylistic editing of texts. Thanks to AI tools, texts are stylistically better written, which increases their professional level and thus the chance of acceptance into indexed scientific journals.” Respondent R11 anticipates that “the use of AI technologies will become a standard part of academic publishing,” potentially “increasing the productivity of teachers.” Respondent R13 specifically highlighted “the efficiency of AI in creating graphs, analyzing research data, performing statistical calculations, formulating questions, generating hypotheses, and organizing bibliographies.”

On the other hand, some respondents pointed out potential threats. Respondent R2 warns that “available AI tools will soon be able to generate significant portions of scientific texts,” which could “disrupt the current evaluation of academic institutions based on publication outputs.” Respondent R3 appreciates the “acceleration of data analysis and text creation through AI,” but simultaneously raises concerns about “issues of originality and ethics.” Concerns about “plagiarism and the dissemination of unfounded information” are expressed by respondent R14, who anticipates a “fundamental change in the way research and academic publishing are conducted.” These differing perspectives illustrate the complex nature of how AI’s impact on the publishing process is perceived, encompassing both pragmatic advantages and ethical and systemic challenges (**RQ9**).



In addition to exploring the impact of AI on academic publishing, we investigated whether AI could enhance the expertise of university teachers. Research showed that 34.4% of respondents reported that AI enhanced their expertise, with another 12.5% expressing strong agreement with this view. Meanwhile, 31.3% were unsure about the impact of AI on their professional expertise, and 21.9% reported no improvement in this area. These findings suggest a divided perspective, with a significant proportion acknowledging the positive influence of AI on their professional development, while others remain uncertain or have not experienced measurable benefits. Furthermore, we asked respondents whether AI improved their preparation for teaching. The results indicate that more than half of respondents (56.2%) confirmed that their preparation for teaching has improved due to AI, while 25.1% disagreed with this statement. These findings underscore the role of AI as a potentially transformative tool in the pedagogical process, although a significant minority remains skeptical about its impact.

The digital environment has become an integral part of contemporary culture, diverging significantly from the traditional cultural norms into which individuals were originally socialized. Personal identity, which was once predominantly shaped by one's birthplace and surrounding environment, has transitioned into a more institutionalized construct. This shift allows individuals greater agency in defining their identities through conscious personal choices and decisions. However, the growing immersion in the digital world is reshaping the very concept of identity itself. Central to this transformation is the notion of digital identity, profoundly influenced by emerging technologies that now play a pivotal role in human life (Pecníková, 2018). Digital identity can be described as a synthesis of data reflecting an individual's personality within the virtual environment (Pondelíková, 2020). Rather than replacing real-world identity, this digital persona acts as a mirror of how individuals choose to represent themselves and engage in online interactions. As digital ecosystems continue to expand, new forms of engagement such as remote work, online and hybrid education, virtual team collaborations, and video conferencing are becoming increasingly critical. Among the most pressing challenges in this evolving context is digital literacy, particularly in the educational sector. The swift evolution of education driven by emerging technologies, particularly through the integration of AI, has intensified

the demand for advanced digital skills. Research conducted by Pondelíková (2023, p. 642) underscores this point: “A substantial portion of educators (71%) have encountered notable barriers in this area. In contrast, Millennials possess an innate proficiency in utilizing diverse devices and applications.” The author further notes that “only 20% of students reported experiencing difficulties in this area. This outcome can be attributed to their status as a generation immersed in social media and the digital world.” In connection to the application of AI in teaching English language and Anglophone cultures, we sought to determine whether the use of AI tools has improved teachers’ digital skills (Figure 43). Research revealed that 34.4% of respondents agreed that their digital skills have improved, while 9.4% strongly agreed. Conversely, 21.9% disagreed, and 9.4% strongly disagreed. A significant portion, 25%, remained unsure about the impact of AI tools on their digital competencies.

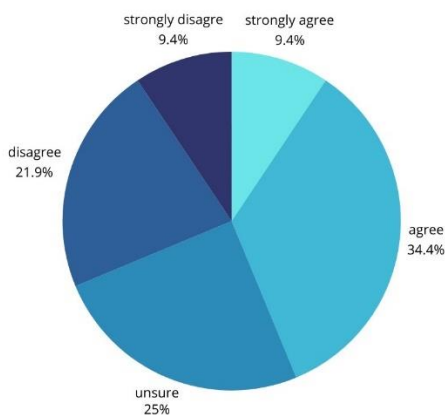


Figure 43: Teachers’ perspectives on the enhancement of their digital skills due to usage of AI

Source: own processing based on the obtained data

Developing strong presentation skills is a vital asset for individuals in various professions, ranging from students and teachers to business leaders and frequent public speakers. An effective presentation is achieved through the synergy of two key elements: the strategic application of rhetorical principles and the use of modern visual aids powered by advanced technologies (Urbaniak – Bielak, 2021). We examined whether AI has enhanced rhetorical skills in English among teachers. Teachers, by virtue of their profession, reported fewer

improvements in this area. Only 6.3% of respondents strongly agreed that their rhetorical skills had improved, while 15.6% agreed. A notable 25% were undecided, whereas 37.5% disagreed and 15.6% strongly disagreed, indicating that AI had not significantly improved their rhetorical abilities.

The final part of the research focused on the importance for teachers to distinguish between student-generated content and AI-generated work. According to the findings, 46.9% of teachers agreed that they can identify when students use AI. Meanwhile, 21.9% were uncertain about their ability to recognize AI-generated content. On the other hand, 28.1% admitted they cannot distinguish between the two, and 3.1% strongly disagreed with the notion that they can detect AI usage in student submissions. These results highlight the need for increased awareness and training for teachers in recognizing AI-assisted work.

Building on these findings, we explored teachers' attitudes toward using AI tools in writing final theses (**RQ10**). The survey results revealed that 28.1% of respondents expressed acceptance of AI usage, while 31.3% remained undecided. Conversely, 31.3% indicated non-acceptance and 9.4% considered its use entirely unacceptable (Figure 44). To gain deeper insights, we asked them in in-depth interviews about their perspectives regarding the application of AI tools in writing final theses, seminar papers, and completing various academic assignments. The discussions centred on whether teachers perceive this trend as beneficial or negative to the learning process and whether they have implemented specific rules regulating the use of AI in their courses. Where such regulations existed, we explored the rationale behind their establishment and their intended impact on academic integrity and student development.

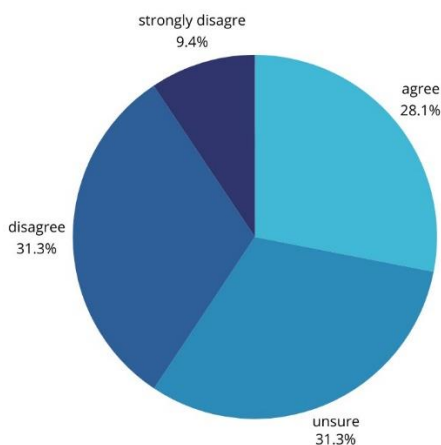


Figure 44: Acceptance of the use of AI tools in writing final theses by teachers  
 Source: own processing based on the obtained data

The integration of artificial intelligence into the educational process provokes diverse responses among teachers. While some respondents perceive AI as a beneficial tool, others express concerns and maintain sceptical attitudes. Respondent R1 opposes the implementation of strict regulations and highlights AI's utility in assisting students with stylistic improvements. R1 stated, *"I left it as it is. If students use AI for learning, it is beneficial. I assign personalized tasks based on introspection, where AI cannot help them."* Similarly, respondent R3 underscored the acceptability of using AI for text reformulation. *"If students use AI tools to rephrase or restructure texts they have created themselves, it is acceptable, as they simultaneously learn new terminology."* In addition, respondent R2 supports encouraging students to utilize AI for resource searching and result evaluation, though not for full seminar paper development. *"Students' use of AI tools cannot be entirely prevented. Instead, they should be motivated to draw inspiration from these tools."* Respondent R4 advocates for the intelligent use of AI under clearly defined rules, emphasizing productive engagement with AI-generated content. *"In my courses, I established clear rules, which allow students to use AI, even I encourage them to use AI, but they must apply these tools wisely."* Furthermore, respondent R5 focuses on teaching students critical thinking and careful evaluation of AI-generated outputs. *"I demonstrate how to use AI while emphasizing the importance of not trusting its output unconditionally. Critical thinking is a priority."* Similarly, respondent

R8 noted that while students often exhibit limited knowledge and struggle to engage meaningfully with AI-generated texts, they regard the overall trend positively. Respondent R9 promotes “healthy” AI usage, emphasizing responsible and thoughtful application.

In contrast, respondent R10 views AI use as problematic, suggesting it could undermine the evaluation of students’ actual competencies. In addition, R10 stated that *“the rule is not to use AI for task completion unless I provide an alternative instruction.”* Respondent R6 highlights issues in translation activities, noting frequent reliance on machine translations without human post-editing, resulting in inadequate outcomes. Respondent R11 echoes this sentiment, asserting, *“If students submit machine translations without post-editing, I evaluate them very negatively.”* Respondent R15 observes that while students use AI for creating presentations, they often fail to answer related questions, underscoring the risk of uncritical adoption of AI-generated content.

Some respondents adopt a neutral stance. Respondent R12 calls for clear AI usage guidelines developed by experts in the field. *“Since we lack clear rules on AI usage, I would welcome them, provided they are created by those knowledgeable about AI.”* Respondent R14 acknowledges AI as an inevitable trend but expresses concerns about evaluating students’ correct use of these tools. *“The challenge is determining whether students have used AI appropriately.”* These diverse perspectives reflect both the challenges and opportunities that artificial intelligence presents within the academic environment. The need for well-defined policies, critical thinking development, and responsible AI integration emerges as a central theme in shaping future educational practices.

The use of AI in completing assignments also raises the question of how such work should be assessed. Respondents were asked about the ethical dilemmas of evaluating student work incorporating AI tools. Respondent R9 sees no dilemmas, asserting that *“it saves time that can be devoted to something else.”* Similarly, respondent R5 argues that *“it is the student’s work, completed with the help of AI,”* and emphasizes assigning students specific tasks that are evaluated based on whether they meet the required criteria. The respondent added, *“The fact that*

students use AI is a mark of their resourcefulness; I even learn something from them.”

However, the majority of respondents highlight ethical dilemmas related to plagiarism (R7, R10, R13, R14), originality (R3, R10), and creativity (R6). For instance, respondent R6 noted that a significant dilemma is the fact that AI-generated work “is not a creative product of the student, but rather the result of a ‘machine,’ which misses nuances that a human would notice.” Furthermore, R6 added, “While AI certainly saves time and energy, it comes at the expense of something else – likely quality.” Respondents R3, R4, and R7 agreed that presenting AI-generated content as one’s own is unethical and that such sources should always be properly acknowledged in accordance with relevant guidelines and regulations. Moreover, respondent R1 views the submission of AI-generated texts as a serious issue and states that “students need to align their mindset and understand that their primary goal is personal and academic growth.” However, many take shortcuts by using AI, which is easily accessible. Resisting this temptation poses a significant challenge for many. Additionally, R1 shares, “I personally encountered two cases where students submitted work exclusively generated by AI. I allowed them to explain the situation and complete a new assignment. Interestingly, one of them never returned. However, the second case had a positive outcome, as the student acknowledged their mistake, apologized, and eventually submitted an excellent, original piece of work.”

Furthermore, respondents R2, R8, and R11 expressed uncertainty about whether they are evaluating the work of the student or the AI. Respondent R8 noted, “It is challenging to evaluate two outputs, one generated by AI but of high quality, and the other created without AI assistance.” Similarly, respondent R2 echoes this sentiment, acknowledging that some students may have advanced skills in using AI tools, surpassing their teachers. Consequently, this can lead to challenges in evaluation, especially if the teacher cannot distinguish what was completed by the student independently and what was done with AI assistance. R2 added, “A dilemma arises when assessing the work of students who complete assignments independently without using AI. Their work may not be as good, but it represents their original effort.” Last but not least is the issue of equal opportunities.

Respondent R3 pointed out, “Not all students have access to advanced AI tools, which can create inequalities.” Although AI has the potential to improve efficiency, its integration into academic work introduces significant ethical challenges that can affect the fair and accurate assessment of student contributions.

The integration of artificial intelligence into the process of writing final academic theses presents both significant advantages and challenges. AI tools can assist students in gathering information, analyzing data, and structuring text, thereby enhancing the efficiency and quality of their work. These technologies can speed up the research process and foster interdisciplinary approaches (Chubb et al., 2022). However, using AI in academic writing raises ethical concerns related to originality and the integrity of these outputs. Resnik and Hosseini (2024) highlight the need for new guidelines to ensure the responsible use of AI in academic research, aiming to prevent issues such as plagiarism and unethical practices. Therefore, it is essential for academic institutions to develop clear guidelines and offer comprehensive training to students on the ethical and effective application of AI in academic writing, thereby safeguarding academic integrity and maintaining high educational standards. Furthermore, teachers were surveyed regarding whether the use of AI tools diminishes the traditional purpose and methodology of thesis writing (**RQ10**). The results revealed that over 70% of teachers agreed with this perspective, 15.6% expressed neutrality, and 12.5% disagreed (Figure 45).

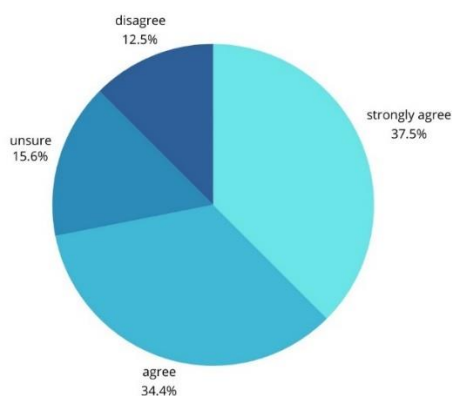


Figure 45: Teachers' perspective on diminishing the traditional purpose and methodology of thesis writing

Source: own processing based on the obtained data

Some teachers expressed concerns that using AI tools diminishes the value of writing final theses in their current form, arguing that this practice should be entirely discontinued (R1, R8, R14). Respondent R1 stated that *“we should want this,”* asserting that the successful completion of university studies should focus on practical applications. For example, *“for English language teachers, state exams could involve analyzing unexpected situations.”* Respondent R6 supported eliminating theses, noting that *“teachers sometimes suspect the student wrote certain parts of a text, but they cannot prove it.”* Furthermore, R6 extended this critique to other written assignments, such as seminar papers, and advocated for demonstrating knowledge and skills through practical tasks. The respondent commented, *“In the past, some individuals bought their degrees; now it will be degrees earned through theses written by AI.”* Moreover, respondent R4 echoed these concerns, claiming, *“Students do not write their theses, it is AI that does it, on the other hand, we - teachers do not read the theses or write evaluations, AI does it instead.”* Respondent R7 raised additional concerns, warning, *“We risk creating a vicious cycle where one AI system checks another AI system for originality.”*

Despite such critiques, final theses still have defenders. Respondents R9 and R10 argued against their elimination. However, those who are in favour of keeping the final thesis writing require adjustments. For instance, respondent R4 proposed shorter, research-oriented studies *“to foster critical thinking and analytical skills, requiring students to engage deeply with specific topics and their own research questions.”* Similarly, respondent R5 supported transforming the thesis into a project or case study with a practical focus. In addition, this respondent argued for eliminating theoretical exams during state exams, given that students are tested on theoretical knowledge throughout their three- or five-year programs. Conversely, respondent R11 suggested replacing the current format of theses with a theoretical-practical state examination.

Respondent R3 called for a clear framework from the Ministry of Education on integrating AI into the thesis-writing process. This respondent emphasized that *“academic institutions must establish clear guidelines for using AI, ensuring these tools enhance education without undermining its values and goals.”* According to R3, the thesis



defense remains essential. *“During the defense, teachers can ask questions to assess whether the student truly understands the topic and arguments presented in the thesis. Although an AI-generated text may be factually accurate, a student who simply adopts it may struggle to provide deeper explanations or defend the ideas it contains.”*

Respondents R12 and R13 expressed ambivalence about eliminating theses. R12 remarked that *“it may eventually be necessary to acknowledge that this format has become outdated,”* while R13 suggested that teachers, as experienced professionals, should be able to recognize through questioning what was authored by the student and what was not. However, R13 also highlighted a potential challenge in detecting advanced AI users, warning that *“those who know how to use AI at a high level will be difficult to uncover.”* Teachers’ perspectives on the future of final theses vary. While critics highlight the risks of academic dishonesty and the obsolescence of traditional formats, advocates call for reform through practical or research-focused projects that foster critical thinking and effective assessment strategies (**RQ10**).

Given that the research was conducted among students of British and American studies, we sought to explore how their teachers evaluate the capability and effectiveness of contemporary AI tools in enhancing students’ language skills and cultural awareness. The opinions of the respondents ranged from highly positive to explicitly negative. Respondents with a positive view of AI highlighted its capacity to support language learning and cultural awareness effectively. Respondent R4 stated that *“current AI tools undoubtedly improve students’ language skills and cultural awareness. They enhance vocabulary and stylistics, which are crucial for effective language learning.”* R4 also incorporates AI tools into intercultural workshops, where *“students solve complex cultural situations using AI, which fosters teamwork and creativity.”* Respondent R3 identified significant potential in AI tools for improving grammar, expanding vocabulary, and refining pronunciation. R3 highlighted voice recognition applications that *“provide precise pronunciation assessment, which is key to effective communication,”* while also appreciating their 24/7 availability. Nonetheless, R3 cautioned that *“AI cannot replicate complex real-world situations and may lead to students relying too*

*heavily on technology.*” Additionally, respondent R12 admitted initial concerns about AI’s potential negative impact but now recognizes that “*students actively and quickly use their language skills thanks to AI.*” Similarly, respondent R11 emphasized that AI tools can be extremely useful if used appropriately. Respondent R8 offered a brief but positive comment: “*They are effective for language skills.*”

Respondents with neutral opinions focused on the advantages and limitations of current AI tools. Respondent R2 acknowledged not being familiar enough with AI tools to assess their effectiveness but observed that students “*continuously improve their language skills and cultural awareness*” through their use. Respondent R5 stated that AI is a high-quality tool, though its effectiveness remains unverified. R5 underscored the necessity for teachers to act as facilitators and oversee AI’s effective utilization. Similarly, respondent R7 recognized AI’s potential but predicted “*it might take 5–10 years before such tools become more reliable.*”

On the other hand, respondents with negative views highlighted the risks associated with AI usage. Respondent R1 remarked, “*We learn a language by using it,*” arguing that AI may weaken writing and translation skills. R1 stressed the need for students to continue focusing on sociolinguistic aspects. Respondent R10 expressed skepticism about whether AI is more useful than other language-learning methods, stating, “*For cultural awareness, I wouldn’t rely on AI as it’s not dependable.*” Respondent R15 expressed concerns about a decline in language skills and student motivation, attributing this to over-reliance on AI. R15 also observed that students have “*a relatively low level of cultural awareness*” and doubted whether AI could improve this. Similarly critical, respondent R9 argued that AI is not decisive for improving language skills, attributing more significant impacts to general internet access and a globalized environment. Respondent R13 acknowledged AI’s contribution to enhancing writing skills but warned of “*cognitive amnesia*” among students who rely on generated texts and think less critically. Respondent R14 views AI primarily as a text-generation tool. The assessments of current AI tools for improving language skills and cultural awareness vary among respondents. While positively inclined respondents value their contribution to linguistic and cultural competencies, neutral respondents emphasize the need

for further evaluation of their effectiveness, and negative respondents underline the risks associated with their use.

With the increasing utilization of artificial intelligence, the teaching of the English language and Anglophone cultures is set to undergo a fundamental transformation. This shift will affect not only the content but also the approach and methods of teaching. Numerous experts agree that AI will offer new possibilities and tools to enrich education and streamline access to learning. AI can provide tools such as interactive conversational models, automated text corrections, simulations of cultural scenarios, and personalized learning plans for language acquisition. These innovations significantly enhance opportunities for individualized student support, which teachers cannot always guarantee. Respondent R3 emphasizes that curricula and teaching methods must be adapted to foster critical thinking, the ability to work with AI, and the evaluation of its outputs. *“Students will need to learn to recognize nuances such as irony, metaphors, or cultural specifics that AI may not interpret accurately.”* A similar perspective is shared by respondent R13, who foresees a shift from memorization to the development of skills, with a focus on soft skills, digital literacy, and the effective use of emerging technologies.

The changes, however, will not be limited to students. Teachers will also need to redefine their roles. As respondent R1 noted, *“Teachers of the future will become facilitators, guiding students in the effective use of AI and fostering the added value that technology alone cannot provide.”* Traditional methods, such as *“tedious exercises using pen and paper,”* will become obsolete and replaced by interactive activities. Respondent R4 highlighted the importance of transitioning from traditional presentations to practical exercises and workshops where AI tools are actively employed. Many teachers are already adapting their curricula, using online platforms for extensive workshops that offer greater flexibility and support in-depth study. In this way, modern trends can be embraced, ensuring that students are prepared for the challenges posed by AI. Several respondents underscore the need for a critical approach to teaching. Respondent R5, for instance, believes that *“traditional methods will not disappear but will be complemented by AI”*. In addition, R5 emphasized that teachers must equip students to recognize the differences between theory and

practice. Respondents R6 and R9 pointed to the necessity of continually adapting curricula, particularly in specialized fields such as translator training. Respondent R13 added that *“universities will certainly not disappear, but they will need to reduce content and focus on in-depth exploration of topics.”*

There are, however, more skeptical views. Respondents R10 and R14 predicted that teaching practices will not change drastically, though AI could assist in creating exercises. Respondent R7 highlighted that *“in Slovakia, implementing technologies in education may take another 10 to 20 years, given the current state of school infrastructure.”* Respondent R15 warns of declining interest in language learning, a challenge that will require innovative approaches not only in teaching methods but also in student motivation.

The overall consensus remains optimistic. Respondent R12 believes that *“these changes will lead to improvements,”* while respondent R8 stressed the need for education in this area. AI has the potential not only to improve the accessibility of information but also to enable better individualization of learning. With the right approach, the transformation driven by AI can lead to more efficient and modern education, equipping students to face the challenges of the future.

The analysis of research findings among university teachers underscores the transformative impact of artificial intelligence on education. As technology evolves, the integration of AI into teaching and research highlights both opportunities and challenges. Teachers are tasked with bridging the digital literacy gap, adapting to innovative tools, and redefining their roles to facilitate critical thinking and effective AI usage among students. While AI offers the potential to enhance teaching efficiency, streamline administrative tasks, and personalize learning, significant obstacles remain, including insufficient training, outdated technical infrastructure, and ethical concerns about originality and equity.

The findings revealed a pressing need for systematic, ongoing professional development and strong institutional support to harness AI's benefits while mitigating its risks. Teachers expressed optimism about the potential of AI to enrich education but call for clear

guidelines, practical training, and an emphasis on fostering critical thinking and ethical usage. Ultimately, the research underscores the importance of collaboration between teachers, institutions, and policymakers to create a modern, adaptable educational framework that meets the demands of a rapidly evolving technological landscape.

## **7 Evaluation of the Research, Summary of the Results, and Recommendations for Practice**

The integration of artificial intelligence into educational processes has emerged as a pivotal topic for higher education institutions globally, including Slovak universities. This research delved into the preparedness of Slovak universities to adopt AI in the teaching and learning of English language and Anglophone cultures, offering an in-depth analysis of systemic challenges and opportunities. Through an analysis of the viewpoints of both students and teachers, the study provides a comprehensive perspective of the readiness of Slovak universities to incorporate AI into their educational process. This exploration is guided by five clearly defined objectives:

1. Determine the opinions of students and teachers on the technical equipment of universities for implementing AI in the teaching process.
2. Assess the knowledge, emotional perceptions, and practical use of AI among students and teachers.
3. Identify and compare differences in language skill improvement among students resulting from the integration of AI into English language and Anglophone cultures study programs at Slovak universities.
4. Examine the attitudes of teachers and students toward the use of AI in writing academic essays and final theses, considering the manner, form, and extent traditionally used.
5. Investigate the perspectives of students and teachers on the ethical considerations of using AI in creating school assignments or scientific texts.

The research adopted a quantitative approach to collect and analyze numerical data, offering insights into the perception and utilization of AI in the educational process. To enhance these findings, qualitative data from in-depth interviews with university teachers provided professional perspectives, adding depth and context to the analysis. Guided by the study's objectives, ten research questions were formulated, serving as the basis for the development of the hypotheses.

**Research Question 1 (RQ1):** *What is the technical readiness of universities in Slovakia for the implementation of artificial intelligence (AI) in teaching English language and Anglophone cultures from the perspective of teachers and students?*

**Hypothesis 1 (H1):** Slovak universities lack sufficient technical preparedness for implementing artificial intelligence (AI) in teaching English language and Anglophone cultures, however, both teachers and students express positive interest and support, provided that infrastructure and professional training are improved.

**Research Question 2 (RQ2):** *What are the attitudes of students and teachers toward the implementation of artificial intelligence (AI) in teaching the English language and Anglophone cultures?*

**Research Question 3 (RQ3):** *What factors influence teachers' readiness and willingness to use these technologies?*

**Hypothesis 2 (H2):** While students and teachers generally perceive the implementation of artificial intelligence (AI) in teaching the English language and Anglophone cultures positively, significant differences exist among university teachers in their readiness to incorporate AI, influenced by disparities in technical infrastructure, access to professional training, and levels of institutional support across universities.

**Research Question 4 (RQ4):** *What is the level of knowledge among students and teachers about AI programs and applications?*

**Hypothesis 3 (H3):** Students and teachers demonstrate varying levels of knowledge about AI programs and applications, with students generally being more familiar due to frequent interaction with technology, while teachers' knowledge is limited by a lack of formal training and access to resources.

**Research Question 5 (RQ5):** *How well do students and teachers identify the ethical boundaries of artificial intelligence in education?*

**Hypothesis 4 (H4):** Teachers are better equipped than students to identify ethical boundaries of artificial intelligence in education due to their greater experience, exposure to ethical training, and responsibility in shaping educational practices.

**Research Question 6 (RQ6):** *How do confidence in using AI tools and the perception of their intuitive and natural usability differ between students and teachers?*

**Hypothesis 5 (H5):** Teachers generally exhibit lower confidence and less intuitive or natural use of AI tools compared to students, which affects their willingness to integrate AI into teaching practices.

**Research Question 7 (RQ7):** *What are the differences in trust levels regarding AI-generated outcomes between students and teachers?*

**Hypothesis 6 (H6):** Teachers exhibit lower level of trust in AI-generated outcomes compared to students.

**Research Question 8 (RQ8):** *Does AI improve language skills among students studying English language and Anglophone cultures?*

**Hypothesis 8 (H8):** AI is an effective tool for enhancing students' English vocabulary and stylistics, regardless of their region of study; however, similar progress is not observed in grammar.

**Hypothesis 9 (H9):** Students who engage in university-provided AI training programs demonstrate significantly greater improvements in vocabulary acquisition and stylistics compared to those who do not participate.

**Hypothesis 10 (H10):** AI is an effective tool for enhancing students' productive skills, regardless of their region of study; however, similar progress is not observed in receptive skills.

**Research Question 9 (RQ9):** *What is the attitude of teachers and students toward the use of AI-generated content, and what are the most common concerns regarding its use?*

**Research Question 10 (RQ10):** *Does the use of AI tools diminish the purpose of writing final theses in the form, manner, and extent currently required within English language and Anglophone cultures study programs?*

The research confirmed hypotheses **(H1)** and **(H2)**, shedding light on systemic challenges in infrastructure, training, and the readiness of teachers, while also recognizing the pivotal role of Generation Z's expectations and experiences, driven by their strong preference for technology-driven learning environments that reflect their digital



fluency and modern lifestyles. They expect educational institutions to mirror the personalized and interactive experiences they encounter in their online interactions. However, Slovak universities' fragmented and inconsistent efforts to leverage AI fail to meet these expectations, creating a disconnect between the needs of students and teachers and the support provided by institutions.

Both students and teachers agreed that Slovak universities lack the technical infrastructure and structured training necessary for effective AI integration (**H1**). From the student perspective, widespread deficiencies in facilities were noted, with over 60% at institutions like the University of Prešov in Prešov, Matej Bel University in Banská Bystrica, and Comenius University in Bratislava citing inadequate resources. Even at better-performing institutions, such as the University of Ss. Cyril and Methodius in Trnava, approximately half of the respondents reported infrastructure challenges. From the teachers' perspective, 62.5% expressed dissatisfaction with their institutions' technical readiness, citing issues like outdated hardware, slow internet, and a lack of essential AI software licenses. This dissatisfaction aligns closely with student-reported experiences, emphasizing a shared understanding of systemic shortcomings. Training opportunities present a significant challenge, with nearly 90% of students across universities reporting a lack of AI-related training and teachers highlighting the insufficiency of existing training initiatives. Although some institutions, such as Comenius University in Bratislava, have started offering AI training sessions, these efforts are often inconsistent, fragmented, and restricted by logistical barriers. Both groups highlighted the urgent need for comprehensive, structured training to enable skill development in AI (**H1**).

Moreover, the research found significant variability in teachers' readiness to integrate AI into educational practices (**H2**). Some institutions, such as the University of Ss. Cyril and Methodius in Trnava, showcased progress, with over 80% of students observing AI integration in courses like English language and Anglophone culture, while other universities remain significantly behind. At Comenius University in Bratislava, more than 70% of students reported the absence of AI tools in classrooms. Similarly, institutions like Constantine the Philosopher University in Nitra and Matej Bel University in Banská Bystrica had low adoption rates, with

approximately 65% of students indicating that their teachers did not use AI in their teaching. Teachers' readiness is shaped by their personal experiences and the level of institutional support they receive. Those who have engaged with AI through workshops or independent learning demonstrate greater confidence and success in implementing AI tools into teaching English language and Anglophone cultures effectively. For example, some respondents actively utilized AI for creating interactive exercises and personalized learning experiences. However, others cited skepticism, resource limitations, or a lack of training as barriers, demonstrating a clear need for institution-wide support and national guidelines to bridge the gap.

These findings highlight the need for a coordinated, multi-level strategy to address deficiencies in infrastructure, training, and teacher readiness. Collaborative efforts among universities, policymakers, and teachers are essential to modernize facilities, develop comprehensive training programs, and establish clear guidelines for AI integration. By addressing these challenges holistically, Slovak universities can not only meet the demands of Generation Z but also position themselves to thrive in an AI-driven global academic landscape.

In the survey section dedicated to the cognitive perception of artificial intelligence among students and teachers, we concentrated on their knowledge of AI applications and the ethical boundaries of artificial intelligence. Teachers provided valuable insights through in-depth interviews, which contributed to confirming the hypothesis **(H3)**, while hypothesis **(H4)** was refuted. The data supporting **(H3)** revealed that students exhibit a significantly higher familiarity with AI programs and applications compared to teachers. Students demonstrated higher levels of knowledge about AI across surveyed Slovak universities, with notable examples including Constantine the Philosopher University in Nitra (89.2%) and the University of Ss. Cyril and Methodius in Trnava (86.9%). Conversely, teachers' familiarity was reported at 59.4%, with only 37.6% aware of the latest innovations. This disparity can be attributed to students' frequent interaction with technology in academic and personal contexts, providing greater exposure to AI tools. Teachers' limited familiarity stems from barriers such as lack of training and technical infrastructure. The confirmation of **(H3)** underscores the need to bridge the gap between students' and teachers' familiarity with AI tools. Professional development programs

and access to technological resources for teachers are critical steps in achieving this goal.

On the other hand, hypothesis **(H4)**, which assumed that teachers would outperform students in identifying the ethical boundaries of AI, was refuted. For instance, 73.8% of students from the University of Ss. Cyril and Methodius in Trnava demonstrated awareness of AI ethics compared to 59.4% of teachers. Additionally, the level of uncertainty among teachers (28.1%) was similar to or even greater than that of students, contradicting the hypothesis that teachers' experience and ethical training equip them better for understanding AI's ethical implications. This refutation highlights the need for enhanced teacher training focused on AI ethics and usage in educational contexts. This finding highlights the necessity for enhanced teacher training programs that focus on AI ethics and its application in educational contexts. The refutation of **(H4)** underscores the necessity of integrating systematic education on ethical considerations, such as data privacy, accountability, and bias, for both students and teachers to ensure the responsible use of AI in academic and professional settings.

The study further investigated the interaction between individuals and artificial intelligence in teaching and learning English language and Anglophone cultures, with a focus on confidence in using AI, the natural and intuitive use of AI tools, and trust in AI-generated content. These aspects are pivotal in understanding the extent to which both students and teachers embrace AI technologies and the challenges they encounter in doing so. Data revealed variability in confidence levels across institutions, with students and teachers displaying comparable levels of confidence and discomfort thus refuting hypothesis **(H5)**. For example, 43.7% of teachers reported discomfort in using AI, aligning closely with the proportion of students expressing similar reservations.

Conversely, the findings supported hypothesis **(H6)**, revealing that teachers exhibit lower trust in AI-generated outcomes compared to students, reflecting differing levels of skepticism toward AI-generated content between the two groups. Among students, distrust in AI-generated outcomes varied between 24.6% and 41.3% across institutions, while teachers demonstrated higher skepticism, with

46.9% reporting a lack of trust. This shared distrust stems from concerns over the accuracy, reliability, and ethical implications of AI-generated content. Many respondents emphasized the need for verification, aligning with academic concerns about the indistinguishability between human and AI-created content. These findings underline the importance of fostering trust through transparency and accountability in AI tools.

The integration of artificial intelligence in language learning has revolutionized the teaching and acquisition of English vocabulary, grammar, and stylistic skills. By synthesizing empirical data and analyzing student outcomes across Slovak universities, the research underscores the transformative role of AI in facilitating personalized, adaptive, and efficient learning experiences. The research highlights AI's significant impact on vocabulary acquisition. Personalized and adaptive learning experiences offered by AI tools meet individual student needs and proficiency levels, supporting both retention and motivation. The data revealed substantial improvements among students at the University of Ss. Cyril and Methodius in Trnava, with 62.3% reporting noticeable progress. This contrasts with lower reported improvements at Matej Bel University in Banská Bystrica (34.9%). This supports hypothesis **(H9)**, which states that students participating in university-provided AI training programs achieve significantly greater improvements in vocabulary acquisition and stylistics compared to those who do not.

The research also explored the role of AI in addressing the persistent challenges of grammar learning. Tools such as Grammarly and QuillBot simplify grammar acquisition, while their integration with conversational AI chatbots enhances interactivity and engagement. However, the findings suggest that grammar improvement through AI remains less pronounced compared to vocabulary and stylistic enhancements, thus supporting hypothesis **(H8)**. For instance, more than half of the students at the University of Prešov in Prešov (56.4%) perceived no improvement in grammar due to AI. These findings highlight a limitation in current AI applications' effectiveness in simplifying and clarifying grammatical rules. This underscores the need for further advancements in AI tools to make grammar learning more accessible and engaging for all users.

Furthermore, this study provided valuable insights into the role of AI-based tools in enhancing students' writing skills, particularly in stylistic development. The findings underscore the significant contribution of AI to improving stylistic proficiency while highlighting the relatively limited impact on grammar acquisition. These results align with hypothesis **(H8)**, which suggests that AI is more effective in supporting stylistics than grammar. Furthermore, the research identified the University of Ss. Cyril and Methodius in Trnava as the institution where the most substantial progress in both stylistics and grammar was observed, attributed to the participation of 34.4% of students in AI training provided by the university, thereby confirming the hypothesis **(H9)**. This university-specific observation adds depth to the analysis by suggesting that contextual factors may influence the effectiveness of AI tools in education.

Beyond foundational language skills, the research examined AI's role in enhancing listening comprehension and communication. While improvements in listening comprehension were moderate (18-24% across most institutions), communication skills benefitted significantly, attributed to advancements in vocabulary and stylistic proficiency. These results validate AI's effectiveness in fostering active language use and interactive communication, albeit with room for improvement in listening-focused applications, thereby confirming the hypothesis **(H10)**.

The evaluated research underscores the transformative potential of AI in English language learning, with significant advancements in vocabulary acquisition, stylistic proficiency, and communication skills. However, the findings also reveal the limitations of current AI tools in addressing grammar and listening comprehension. These results call for continued innovation and context-specific implementation to maximize AI's potential in fostering comprehensive English language proficiency. As AI technology evolves, its integration into language education promises to make learning more personalized, efficient, and engaging for diverse student populations.

The rise of AI-generated content in educational and academic environments has sparked diverse reactions from students and teachers, highlighting its transformative possibilities as well as the ethical challenges it introduces **(RQ9)**. The research revealed that

while many students are comfortable with using AI-generated content, significant moral reservations persist, with approximately one-third expressing concerns. This ambivalence highlights the importance of fostering ethical literacy and equipping students with clear guidelines for responsible AI use. Teachers also exhibit a spectrum of attitudes toward AI-generated content, informed by their awareness of ethical and practical implications. According to the survey data, almost half of the teachers (46.9%) expressed moral reservations about utilizing AI-generated content, with 9.4% indicating strong objections and 37.5% expressing moderate concerns. Qualitative insights from teacher respondents further illustrate the duality of AI's potential. Proponents praise its ability to reduce administrative burdens and improve linguistic precision, critics raise concerns about originality, plagiarism, and ethical dilemmas. Both students and teachers expressed shared concerns regarding the ethical and practical challenges posed by AI-generated content.

In connection to the use of AI-generated content, the research also explored whether the integration of AI tools in English language and Anglophone cultures study programs diminishes the purpose of writing final theses (**RQ10**). Survey results revealed a divided perspective and indicated that while 28.1% of teachers accept AI usage, 31.3% were undecided, and 40.7% expressed varying degrees of disapproval. In-depth interviews highlighted teachers' concerns about academic integrity, with some advocating for eliminating traditional theses due to perceived risks of AI misuse and doubts about their current educational value. Furthermore, some teachers call for practical alternatives, such as projects or case studies, to better assess students' skills and knowledge. Others emphasized the necessity of reform, proposing shorter, research-driven theses or practical assessments to adapt to AI's growing role. Advocates for retaining final theses stressed the importance of thesis defences to ensure student's understanding and critical engagement, while critics call for updated, practical frameworks to enhance student learning outcomes. The research underscores the need for clear guidelines and innovative approaches to integrate AI ethically and effectively into academic practices.

The research data were collected between September and October 2024, and given the rapid pace at which new and improved AI applications are being developed, these findings risk becoming outdated by the time the monograph is published. Artificial intelligence began making its way into university environments in 2022, and evaluating AI literacy over such a short span of approximately two years presents a significant challenge. Despite this limitation, the results provide valuable insights into the early integration of AI into higher education and its impact on both students and teachers. Additionally, the research is limited to the humanities, particularly focusing on students and teachers of English language and Anglophone cultures. Expanding the study to include applied language departments at technical and business-focused universities would provide a broader understanding of AI's role in English language and Anglophone cultures education. Another restriction lies in the limited number of teachers participating in both the survey and in-depth interviews. However, the interviews were conducted with representatives from across Slovakia, ensuring horizontal coverage from the western through the central to the eastern regions, which enhances the geographical inclusiveness of the qualitative data.

This research highlights the complex interplay between emerging AI technologies and the traditional frameworks of higher education in Slovakia. It emphasizes that successful AI integration requires not only technical upgrades and training but also a cultural shift in how educational institutions approach innovation and adaptability. By engaging with the unique perspectives of both students and teachers, the study offers a foundation for redefining language education in ways that align with the contemporary technological landscape. Looking ahead, fostering collaboration among universities, policymakers, and the private sector will be essential to overcome barriers and unlock the transformative potential of AI. Such efforts must prioritize inclusivity, ethical considerations, and responsiveness to the rapid evolution of AI, ensuring its integration enhances both teaching practices and learning outcomes across diverse fields.

## CONCLUSION

The rapid rise of artificial intelligence as an omnipresent force in modern society demands significant attention, particularly in the context of education. As a transformative phenomenon, AI presents unprecedented opportunities to reshape institutional operations, redefine teaching practices, and enhance the learning experience for students. This monograph has delved into the integration of AI tools into university education in Slovakia, with a focus on English language and Anglophone cultural studies, revealing the potential and challenges of AI.

The application of AI in education, as categorized by Bates et al. (2020), spans three critical levels: institutional processes, supporting learning and teaching processes, and curriculum enhancement. At the institutional level, AI systems optimize administrative and support functions, driving efficiency and enabling data-driven strategies that promote student success. The second level focuses on AI's transformative potential to personalize the learning experience, automate routine tasks, and support the cognitive and emotional aspects of education. Intelligent tutoring systems, generative AI applications, and adaptive learning platforms customize content to individual learners, increasing engagement and improving outcomes. These technologies empower teachers to shift their focus from administrative tasks to more meaningful roles, such as mentoring, cultivating critical thinking, and inspiring creativity. The integration of AI in teaching facilitates the development of interdisciplinary skills, equipping students with the competencies necessary to thrive in a rapidly evolving world. At the curriculum level, AI serves both as a tool for enhancing curricular design and as a subject of study itself. Educating students about AI and its reasonable usage ensures that they are prepared to navigate an AI-driven future. Simultaneously, AI tools assist in creating adaptive, relevant, and high-quality curriculum materials. Furthermore, AI supports teachers through professional development programs, equipping them with the skills to effectively use technology and address the ethical challenges associated with its use.



Despite its transformative potential, the integration of AI in education is not without challenges. Trust in AI remains a significant issue, as teachers and students alike struggle with questions of transparency, accountability, and reliability. Teachers often express concerns about the potential disruption of their roles and the implications of relying on AI-generated content. Similarly, students may face difficulties in critically evaluating AI outputs, risking over-reliance on these tools. Addressing these concerns requires a robust framework for AI literacy that encompasses technical proficiency, ethical understanding, and critical evaluation skills.

Professional development programs are essential to support teachers in adapting to AI technologies, ensuring they can effectively integrate these tools into their teaching practices. Ethical frameworks, such as those proposed by UNESCO and the European Commission, provide guidance on the responsible use of AI, emphasizing principles of inclusivity, fairness, and transparency. These frameworks are critical for fostering an environment where AI is used to complement, rather than replace, human expertise in education. For students, fostering AI literacy is equally important. By equipping them with the knowledge and skills to engage critically and ethically with AI, educational institutions can prepare learners for the challenges and opportunities of an AI-driven world.

The anticipated launch of OpenAI's autonomous agent, Operator, in January 2025 marks a new chapter in AI's evolution (Fiala, 2024). Operator, with its ability to independently perform complex tasks such as coding, scheduling, and managing workflows, exemplifies the future potential of AI to increase human productivity and streamline educational processes. Its integration into existing workflows holds promise for enhancing institutional efficiency and expanding the scope of personalized learning. However, the deployment of such advanced systems also necessitates careful consideration of ethical implications, particularly concerning autonomy, accountability, and human oversight.

In the Slovak context, the integration of AI tools into university education has demonstrated significant potential to enhance the teaching and learning of the English language and Anglophone cultures. However, the successful implementation of AI in Slovak

universities requires addressing systemic challenges, including outdated infrastructure, limited access to advanced technologies, a lack of comprehensive training for teachers, and the need to either ensure final theses remain meaningful and relevant in the evolving technological landscape or consider their complete abolition. Moreover, fostering a culture of innovation and adaptability within academic institutions is critical to fully realizing the benefits of AI.

Collaborative initiatives with industry partners, increased investment in technological resources, and policy reforms prioritizing digital literacy are essential to overcoming these barriers. For universities, it would be worth considering cooperation with ASAI – The AI Association, a platform established in 2024 that connects enthusiasts, companies, and the community in the field of artificial intelligence. It promotes innovation, ethics, and education while fostering a robust network of entrepreneurs, startups, and solutions across Slovakia. Notably, it also offers training for schools and teachers. According to its official website, ASAI membership offers access to special training sessions, educational materials, and opportunities to become a certified trainer. Some Slovak universities with a technical focus have already joined AI Point, a platform that is the result of cooperation between the Ministry of Investments, Regional Development and Informatization of the Slovak Republic and the National Artificial Intelligence Platform AIslovakIA. This initiative aligns with the implementation of the measure in the Action Plan for the Digital Transformation of Slovakia 2023-2026. These collaborations can highlight the effectiveness of utilizing national and industry-driven platforms to advance AI integration in education. Engaging with organizations like ASAI and AI Point enables educational institutions to access essential resources, training, and support, thereby enhancing their capacity to incorporate AI technologies into their curricula. Such partnerships can bridge the gap between current educational practices and the evolving technological landscape, ensuring that both teachers and students are well-equipped to use AI's potential.

AI's integration into education represents not just a technological advancement but a fundamental shift in how we approach teaching and learning. By thoughtfully and ethically embracing AI, educational institutions can utilize its transformative potential to create inclusive, equitable, and high-quality learning environments. The findings of this

monograph emphasize that while challenges remain, the opportunities presented by AI far outweigh the risks. In the Department of British and American Studies, the primary objective is to cultivate students' proficiency in the English language. Therefore, institutions that adapt to this technological evolution will not only enrich their educational programs but also equip students to thrive in an increasingly AI-driven world.

## RESUMÉ

Incorporating artificial intelligence (AI) into higher education represents a groundbreaking advancement that revolutionizes teaching and learning across various disciplines. This monograph explores the implications of AI adoption within British and American studies programs at Slovak universities. Its primary focus is to evaluate how AI tools can enhance educational processes, specifically in teaching and learning English language and Anglophone cultures, while addressing the ethical, pedagogical, and infrastructural challenges of such integration. The research provides critical insights into the attitudes of students and teachers toward AI, assesses its impact on educational outcomes, and proposes strategic recommendations for the effective incorporation of AI technologies into university curricula.

The study aims to examine the evolving role of AI in the humanities, particularly within the fields of language and cultural studies, which are traditionally less associated with technological interventions compared to STEM disciplines. By investigating the perceptions and applications of AI tools among students and teachers, the main goals were set:

1. Determine the opinions of students and teachers on the technical equipment of universities for implementing AI in the teaching process.
2. Assess the knowledge, emotional perceptions, and practical use of AI among students and teachers.
3. Identify and compare differences in language skill improvement among students resulting from the integration of AI into English language and Anglophone cultures study programs at Slovak universities.
4. Examine the attitudes of teachers and students toward the use of AI in writing academic essays and final theses, considering the manner, form, and extent traditionally used.
5. Investigate the perspectives of students and teachers on the ethical considerations of using AI in creating school assignments or scientific texts.

This research employed a questionnaire targeting both students and teachers. However, online questionnaires were found insufficient to fully meet the research objectives. Consequently, in-depth interviews with university teachers were conducted to gain their perspectives on integrating artificial intelligence into education. To align with the study's objectives, ten research questions were developed, serving as the basis for the formulated hypotheses.

**Research Question 1 (RQ1):** *What is the technical readiness of universities in Slovakia for the implementation of artificial intelligence (AI) in teaching English language and Anglophone cultures from the perspective of teachers and students?*

**Hypothesis 1 (H1):** Slovak universities lack sufficient technical preparedness for implementing artificial intelligence (AI) in teaching English language and Anglophone cultures, however, both teachers and students express positive interest and support, provided that infrastructure and professional training are improved.

**Research Question 2 (RQ2):** *What are the attitudes of students and teachers toward the implementation of artificial intelligence (AI) in teaching the English language and Anglophone cultures?*

**Research Question 3 (RQ3):** *What factors influence teachers' readiness and willingness to use these technologies?*

**Hypothesis 2 (H2):** While students and teachers generally perceive the implementation of artificial intelligence (AI) in teaching the English language and Anglophone cultures positively, significant differences exist among university teachers in their readiness to incorporate AI, influenced by disparities in technical infrastructure, access to professional training, and levels of institutional support across universities.

**Research Question 4 (RQ4):** *What is the level of knowledge among students and teachers about AI programs and applications?*

**Hypothesis 3 (H3):** Students and teachers demonstrate varying levels of knowledge about AI programs and applications, with students generally being more familiar due to frequent interaction with technology, while teachers' knowledge is limited by a lack of formal training and access to resources.

**Research Question 5 (RQ5):** *How well do students and teachers identify the ethical boundaries of artificial intelligence in education?*

**Hypothesis 4 (H4):** Teachers are better equipped than students to identify ethical boundaries of artificial intelligence in education due to their greater experience, exposure to ethical training, and responsibility in shaping educational practices.

**Research Question 6 (RQ6):** *How do confidence in using AI tools and the perception of their intuitive and natural usability differ between students and teachers?*

**Hypothesis 5 (H5):** Teachers generally exhibit lower confidence and less intuitive or natural use of AI tools compared to students, which affects their willingness to integrate AI into teaching practices.

**Research Question 7 (RQ7):** *What are the differences in trust levels regarding AI-generated outcomes between students and teachers?*

**Hypothesis 6 (H6):** Teachers exhibit lower level of trust in AI-generated outcomes compared to students.

**Research Question 8 (RQ8):** *Does AI improve language skills among students studying English language and Anglophone cultures?*

**Hypothesis 8 (H8):** AI is an effective tool for enhancing students' English vocabulary and stylistics, regardless of their region of study; however, similar progress is not observed in grammar.

**Hypothesis 9 (H9):** Students who engage in university-provided AI training programs demonstrate significantly greater improvements in vocabulary acquisition and stylistics compared to those who do not participate.

**Hypothesis 10 (H10):** AI is an effective tool for enhancing students' productive skills, regardless of their region of study; however, similar progress is not observed in receptive skills.

**Research Question 9 (RQ9):** *What is the attitude of teachers and students toward the use of AI-generated content, and what are the most common concerns regarding its use?*

**Research Question 10 (RQ10):** *Does the use of AI tools diminish the purpose of writing final theses in the form, manner, and extent currently required within English language and Anglophone cultures study programs?*

The methodology of the study is rooted in a mixed-methods approach, combining quantitative surveys and qualitative interviews to provide a comprehensive understanding of AI's role in Slovak universities. The research sample includes 302 participants, consisting of undergraduate and doctoral students specializing in English language and Anglophone cultures. To ensure a diverse range of responses and maximize the questionnaire return rate, five universities were strategically selected for participation. These institutions were Comenius University in Bratislava, the University of Ss. Cyril and Methodius in Trnava, Constantine the Philosopher University in Nitra, Matej Bel University in Banská Bystrica, and the University of Prešov in Prešov. In addition to the student participants, the research included university teachers primarily from the Departments of British and American Studies. Rather than limiting the scope to specific universities, the survey was distributed to all language departments specializing in the teaching of English language and Anglophone cultures across Slovakia, resulting in responses from 32 teachers. Beyond the online survey, in-depth interviews were conducted with 15 of these teachers. These interviews offered valuable insights into their perspectives and experiences with AI in educational practices.

The structure of the monograph is organized into seven chapters, each addressing a specific aspect of the research. The first chapter provides a historical overview of AI, tracing its evolution from its origins to its current applications in education. This chapter establishes the theoretical foundations for understanding AI's potential and limitations in academic contexts. The second chapter focuses on the role of AI in British and American studies, detailing the specific tools and applications employed by students and teachers. This includes an analysis of generative AI applications such as ChatGPT and Gemini, translation tools like DeepL, and creative platforms like Canva and MagicSchool. The third chapter outlines the theoretical and methodological background of the research, and the fourth chapter provides a rationale for the composition of the research sample.

Chapters five and six present the empirical findings of the study, analyzing the perspectives of students and teachers on their experiences with AI. The findings are organized into cognitive, affective, and conative dimensions, offering a nuanced understanding of how users perceive, interact with, and are influenced by AI tools. The final chapter synthesizes these findings, summarizing the key trends and challenges identified throughout the research. It concludes with a series of actionable recommendations for improving the integration of AI into educational practices.

The research confirmed eight hypotheses, offering a comprehensive understanding of the systemic challenges, opportunities, and ethical considerations involved in integrating AI into English language education and the study of Anglophone cultures in Slovak universities. On the contrary, two hypotheses were refuted. The hypotheses **(H1)** and **(H2)** were validated, highlighting significant deficiencies in infrastructure, training, and teacher readiness for AI integration. Both students and teachers identified systemic shortcomings **(H1)**, such as outdated hardware, limited software licenses, and insufficient AI-related training. Over 60% of students from universities like the University of Prešov, Matej Bel University, and Comenius University reported inadequate technical resources. Similarly, 62.5% of teachers expressed dissatisfaction with their institutions' technical readiness, emphasizing the need for institution-wide improvements. Additionally, the research revealed considerable variability in teachers' preparedness to incorporate AI into educational practices **(H2)**. Training emerged as a critical challenge, with nearly 90% of students across universities reporting a lack of AI training opportunities. Teachers also highlighted inconsistencies in training initiatives, noting logistical barriers and limited institutional support. Although some universities, such as Comenius University, have begun offering AI training, these efforts remain fragmented. The study underscores the urgent need for structured training programs to enable skill development and enhance teacher readiness for AI integration.

In addition, the research confirmed hypothesis **(H3)**, demonstrating that students possess significantly greater familiarity with AI tools than teachers. At Constantine the Philosopher University in Nitra, 89.2% of students and 86.9% at the University of Ss. Cyril and Methodius in Trnava reported familiarity with AI, compared to 59.4%



of teachers across universities. This disparity reflects students' higher exposure to technology through academic and personal contexts. Conversely, hypothesis **(H4)**, suggesting that teachers would outperform students in recognizing AI's ethical boundaries, was refuted. While 73.8% of students at the University of Ss. Cyril and Methodius in Trnava demonstrated awareness of AI ethics, only 59.4% of teachers confirmed that they can recognize these boundaries. Teachers also exhibited higher levels of uncertainty (28.1%) than students, indicating a need for enhanced ethical training programs in the field of AI. Both groups expressed concerns about data privacy, accountability, and bias, emphasizing the importance of systematic education on AI ethics for responsible usage.

The research also refuted hypothesis **(H5)**, which suggested that teachers would exhibit greater confidence than students in using AI tools. Instead, both groups demonstrated similar levels of discomfort, with 43.7% of teachers and a comparable proportion of students expressing reservations about using AI. However, hypothesis **(H6)** was confirmed, revealing that teachers exhibit lower trust in AI-generated content compared to students. While distrust among students ranged from 24.6% to 41.3%, 46.9% of teachers expressed skepticism, citing concerns over reliability and ethical implications.

The study provided valuable insights into AI's role in English language learning, confirming hypotheses **(H8)**, **(H9)**, and **(H10)**. AI tools were shown to significantly enhance vocabulary acquisition and stylistic skills, while their impact on grammar improvement was less pronounced **(H8)**. At the University of Ss. Cyril and Methodius in Trnava, 62.3% of students reported notable vocabulary improvements, compared to 34.9% at Matej Bel University. These findings support the hypothesis **(H9)**, which proposed that university-provided AI training programs lead to greater improvements in vocabulary and stylistics. Beyond foundational language skills, the research explored AI's contribution to improving listening comprehension and communication skills. While improvements in listening comprehension were moderate (18-24%), communication skills experienced significant enhancement, attributed to advancements in vocabulary and stylistic proficiency. These findings affirm AI's effectiveness in promoting active language use and interactive communication, though there remains room for improvement in

listening-focused applications, thereby confirming the hypothesis **(H10)**.

Moreover, the research explored the ethical implications of AI-generated content **(RQ9)**, revealing diverse reactions among students and teachers. While many students expressed comfort with AI-generated content, approximately one-third voiced ethical concerns, emphasizing the importance of fostering ethical literacy and providing clear guidelines for responsible usage. Teachers exhibited similar concerns, with 46.9% expressing reservations about AI-generated content and highlighting issues such as originality, plagiarism, and accountability. The study also examined the impact of AI on traditional academic practices, such as thesis writing **(RQ10)**. While 28.1% of teachers supported the use of AI in thesis preparation, 40.7% disapproved, and 31.3% remained undecided. In-depth interviews revealed a spectrum of opinions, with some advocating for reforming traditional theses, while others calling for their ban, and others emphasizing the need for thesis defences to ensure critical engagement. These findings underscore the need for innovative approaches to academic assessments in the AI era.

One of the most significant contributions of the research is its set of recommendations for addressing the challenges associated with AI adoption in Slovak universities. The first recommendation emphasizes the need to enhance technical infrastructure, such as upgrading digital platforms and ensuring reliable internet connectivity, to support the effortless use of AI tools. The second recommendation focuses on the importance of teacher training, advocating for professional development programs that equip teachers with the technical and pedagogical skills required to effectively integrate AI into their teaching. The third recommendation involves redesigning curricula to incorporate AI literacy as a core component of British and American studies programs. By embedding AI literacy into the curriculum, universities can prepare students for the challenges and opportunities of a digitalized world, fostering critical thinking, creativity, and ethical awareness. Collaborative efforts among universities, policymakers, and the private sector are essential to address these challenges and unlock AI's full potential in higher education.

The ethical implications of AI are a recurring theme throughout the monograph, reflecting the broader societal debates surrounding this technology. Concerns such as data privacy, bias, and the impact of AI on human creativity and critical thinking are explored in depth. The research emphasizes the importance of developing institutional policies and ethical frameworks that address these issues, ensuring that AI is used responsibly and transparently. Moreover, the study calls for fostering a culture of critical engagement with AI, encouraging students and teachers to question and evaluate the outputs of AI tools rather than passively accepting them.

The study provides valuable insights into the initial phases of AI integration, with a focused exploration of the humanities, particularly British and American studies programs at Slovak universities, offering meaningful perspectives within the context of a rapidly evolving technological landscape. Future research should extend to applied language departments at technical and business-focused universities and investigate long-term trends in AI adoption to gain a more comprehensive understanding of its impact on education. By fostering innovation and adaptability, Slovak universities can better meet the challenges of the digital age and promote responsible and effective AI integration in education.

## RESUMÉ IN THE SLOVAK LANGUAGE

Zavedenie umelej inteligencie (AI) do vysokoškolského vzdelávania predstavuje prelomový pokrok, ktorý revolučne mení vyučovanie a učenie sa naprieč rôznymi disciplínami. Táto monografia skúma dôsledky prijatia umelej inteligencie v rámci programov britských a amerických štúdií na slovenských univerzitách. Jej hlavným cieľom je zhodnotiť, ako môžu nástroje umelej inteligencie zlepšiť vzdelávacie procesy, najmä pri vyučovaní a osvojovaní si anglického jazyka a anglofónnych kultúr, pričom sa zaoberá etickými, pedagogickými a infraštruktúrnymi výzvami spojenými s takouto integráciou. Výskum poskytuje kritický pohľad na postoje študentov a učiteľov voči umelej inteligencii, hodnotí jej vplyv na vzdelávacie výsledky a navrhuje strategické odporúčania pre efektívne začlenenie technológií umelej inteligencie do univerzitných učebných osnov.

Monografia si kladie za cieľ preskúmať meniacu sa úlohu umelej inteligencie v humanitných vedách, najmä v oblastiach jazykových a kultúrnych štúdií, ktoré sú tradične menej spojené s technologickými zásahmi v porovnaní s disciplínami STEM. Skúmaním vnímania a aplikácie nástrojov umelej inteligencie medzi študentmi a učiteľmi boli stanovené hlavné ciele:

1. Zistiť názory študentov a učiteľov na technické vybavenie univerzít pre implementáciu umelej inteligencie do výučbového procesu.
2. Posúdiť vedomosti, emocionálne vnímanie a praktické využitie umelej inteligencie medzi študentmi a učiteľmi.
3. Identifikovať a porovnať rozdiely v zlepšení jazykových zručností študentov vyplývajúce z integrácie umelej inteligencie do študijných programov anglického jazyka a anglofónnych kultúr na slovenských univerzitách.
4. Preskúmať postoje učiteľov a študentov k využívaniu umelej inteligencie pri písaní akademických a záverečných prác, s ohľadom na spôsob, formu a rozsah tradične používaných metód.
5. Preskúmať pohľady študentov a učiteľov na etické aspekty používania umelej inteligencie pri tvorbe školských úloh alebo vedeckých textov.

Ako výskumná metóda bol zvolený dotazník zameraný na študentov a učiteľov, avšak dotazníky nepostačovali na úplné splnenie stanovených cieľov. Z tohto dôvodu sa uskutočnili hĺbkové rozhovory s vysokoškolskými učiteľmi, s cieľom získať ich pohľad na integráciu umelej inteligencie do vzdelávania. Na dosiahnutie súladu s cieľmi štúdie bolo vytvorených desať výskumných otázok, ktoré tvorili základ pre formuláciu hypotéz.

**Výskumná otázka 1 (VO1):** *Aká je technická pripravenosť vysokých škôl na Slovensku na implementáciu umelej inteligencie (AI) do výučby anglického jazyka a anglofónnych kultúr z pohľadu učiteľov a študentov?*

**Hypotéza 1 (H1):** Slovenské univerzity nemajú dostatočnú technickú pripravenosť na implementáciu umelej inteligencie (AI) do výučby anglického jazyka a anglofónnych kultúr, napriek tomu učelia aj študenti prejavujú pozitívny záujem a podporu za predpokladu, že sa zlepši infraštruktúra a odborná príprava.

**Výskumná otázka 2 (VO2):** *Aké sú postoje študentov a učiteľov k implementácii umelej inteligencie (AI) do výučby anglického jazyka a anglofónnych kultúr?*

**Výskumná otázka 3 (VO3):** *Aké faktory ovplyvňujú pripravenosť a ochotu učiteľov používať tieto technológie?*

**Hypotéza 2 (H2):** Zatiaľ čo študenti a učelia vo všeobecnosti vnímajú implementáciu umelej inteligencie (AI) do výučby anglického jazyka a anglofónnych kultúr pozitívne, medzi vysokoškolskými učiteľmi existujú výrazné rozdiely v pripravenosti začleňovať AI do výučby, ovplyvnené rozdielmi v technickej infraštruktúre, prístupom k odbornej príprave a úrovňou inštitucionálnej podpory naprieč univerzitami.

**Výskumná otázka 4 (VO4):** *Aká je úroveň vedomostí študentov a učiteľov o programoch a aplikáciách AI?*

**Hypotéza 3 (H3):** Študenti a učelia preukazujú rôzne úrovne vedomostí o programoch a aplikáciách umelej inteligencie, pričom študenti sú vo všeobecnosti zdatnejší vďaka častej interakcii s technológiami, zatiaľ čo vedomosti učiteľov sú limitované nedostatkom formálneho školenia a prístupu k zdrojom.

**Výskumná otázka 5 (VO5):** *Vedia učitelia a študenti identifikovať etické hranice umelej inteligencie vo vzdelávaní?*

**Hypotéza 4 (H4):** Učitelia sú lepšie pripravení identifikovať etické hranice umelej inteligencie vo vzdelávaní vďaka svojej väčšej skúsenosti, absolvovanému etickému vzdelávaniu a zodpovednosti za formovanie vzdelávacích postupov.

**Výskumná otázka 6 (VO6):** *Ako sa líši sebadôvera pri používaní nástrojov umelej inteligencie a vnímanie ich intuitívnosti a prirodzenej použiteľnosti medzi študentmi a učiteľmi?*

**Hypotéza 5 (H5):** Učitelia vo všeobecnosti prejavujú nižšiu sebadôveru a menej intuitívne či prirodzene používajú nástroje umelej inteligencie v porovnaní so študentmi, čo ovplyvňuje ich ochotu integrovať AI do výučby.

**Výskumná otázka 7 (VO7):**  *Aké sú rozdiely v úrovni dôvery vo výsledky generované umelou inteligenciou medzi študentmi a učiteľmi?*

**Hypotéza 6 (H6):** Učitelia prejavujú výrazne nižšiu mieru dôvery vo výsledky generované umelou inteligenciou v porovnaní so študentmi.

**Výskumná otázka 8 (VO8):** *Zlepšuje umelá inteligencia jazykové zručnosti študentov študujúcich anglický jazyk a anglofónne kultúry?*

**Hypotéza 8 (H8):** Umelá inteligencia je efektívnym nástrojom na zlepšenie slovnej zásoby a štylistiky študentov bez ohľadu na ich región štúdia; avšak podobný pokrok sa nepozoruje v oblasti gramatiky.

**Hypotéza 9 (H9):** Študenti, ktorí sa zapojili do univerzitných vzdelávacích programov zameraných na využívanie umelej inteligencie, dosahujú výrazne väčší pokrok v osvojovaní slovnej zásoby a štylistiky v porovnaní s tými, ktorí sa týchto programov nezúčastnili.

**Hypotéza 10 (H10):** Umelá inteligencia je efektívnym nástrojom na zlepšenie produktívnych jazykových zručností študentov bez ohľadu na ich región štúdia; avšak podobný pokrok sa nepozoruje v oblasti receptívnych zručností.

**Výskumná otázka 9 (VO9):** *Aký je postoj učiteľov a študentov k využívaniu obsahu generovaného umelou inteligenciou a aké sú najčastejšie obavy spojené s jeho používaním?*

**Výskumná otázka 10 (VO10):** *Znižuje využívanie nástrojov umelej inteligencie význam písania záverečných prác v podobe, spôsobe a rozsahu, ktoré sú v súčasnosti vyžadované v študijných programoch anglického jazyka a anglofónnych kultúr?*

Metodológia štúdie je založená na prístupe zmiešaných metód, ktorý kombinuje kvantitatívne dáta získané z dotazníkov a kvalitatívne z hĺbkových rozhovorov s cieľom poskytnúť komplexné pochopenie úlohy umelej inteligencie na slovenských univerzitách. Výskumnú vzorku tvorilo 302 študentov so špecializáciou na anglický jazyk a anglofónne kultúry. Na zabezpečenie rôznorodosti odpovedí a maximalizáciu návratnosti dotazníkov bolo strategicky vybraných päť univerzít: Univerzita Komenského v Bratislave, Univerzita sv. Cyrila a Metoda v Trnave, Univerzita Konštantína Filozofa v Nitre, Univerzita Mateja Bela v Banskej Bystrici a Prešovská univerzita v Prešove. Okrem študentov sa výskum zamerával aj na vysokoškolských učiteľov pôsobiacich na jazykových katedrách špecializujúcich sa na výučbu anglického jazyka a anglofónnych kultúr na Slovensku, pričom odpovede poskytlo 32 učiteľov. Okrem online dotazníkov boli uskutočnené aj hĺbkové rozhovory s 15 z týchto učiteľov. Tieto rozhovory priniesli cenné poznatky o ich postojoch a skúsenostiach s využívaním umelej inteligencie vo vzdelávacom procese.

Monografia je rozdelená do siedmich kapitol, pričom každá z nich sa venuje konkrétnemu aspektu výskumu. Prvá kapitola poskytuje historický prehľad umelej inteligencie, sledujúc jej vývoj od počiatkov až po súčasné aplikácie vo vzdelávaní. Táto kapitola vytvára teoretické základy na pochopenie potenciálu a obmedzení umelej inteligencie v akademickom kontexte. Druhá kapitola sa zameriava na úlohu umelej inteligencie v rámci britských a amerických štúdií, pričom detailne opisuje konkrétne nástroje a aplikácie využívané študentmi a učiteľmi. Zahŕňa analýzu generatívnych AI aplikácií, ako sú ChatGPT a Gemini, prekladateľských nástrojov ako DeepL a kreatívnych platforiem, napríklad Canva a MagicSchool. Tretia kapitola predstavuje teoretické a metodologické východiská výskumu, zatiaľ čo štvrtá kapitola objasňuje zdôvodnenie zloženia výskumnej vzorky.

Piata a šiesta kapitola predstavujú empirickú časť štúdie a analyzujú pohľady študentov a učiteľov na ich skúsenosti s umelou inteligenciou. Zistenia sú usporiadané do kognitívnej, afektívnej a konatívnej dimenzie, čím ponúkajú pochopenie toho, ako používatelia vnímajú a používajú nástroje umelej inteligencie, a ako sú nimi ovplyvňovaní. Záverečná kapitola syntetizuje tieto zistenia, sumarizuje kľúčové trendy a výzvy identifikované v priebehu výskumu. Na záver obsahuje sériu praktických odporúčaní na zlepšenie integrácie AI do vzdelávacieho procesu.

Štúdia potvrdila hypotézy **(H1)** a **(H2)**, pričom poukázala na výrazné nedostatky v infraštruktúre, školení a pripravenosti učiteľov na integráciu AI. Študenti aj učitelia identifikovali systémové nedostatky **(H1)**, ako je zastaraný hardvér, obmedzené softvérové licencie a nedostatočné školenia týkajúce sa AI. Viac ako 60 % študentov z univerzít ako Prešovská univerzita, Univerzita Mateja Bela a Univerzita Komenského uvádzalo nedostatočné technické vybavenie. Podobne 62,5 % učiteľov vyjadrilo nespokojnosť s technickou pripravenosťou svojich inštitúcií, pričom zdôraznilo potrebu celoinštitucionálnych zlepšení. Okrem toho výskum odhalil značnú variabilitu v pripravenosti učiteľov na začlenenie AI do vzdelávacích postupov **(H2)**. Tréning sa ukázal ako kľúčová výzva, pričom takmer 90 % študentov naprieč univerzitami uvádzalo nedostatok príležitostí na školenia o AI. Učitelia tiež zdôraznili nezrovnalosti v iniciatívach odbornej prípravy, pričom poukázali na logistické prekážky a obmedzenú inštitucionálnu podporu. Hoci niektoré univerzity, ako napríklad Univerzita Komenského, začali ponúkať školenia k umelej inteligencii, tieto snahy zostávajú roztrieštené. Štúdia podčiarkuje naliehavú potrebu štruktúrovaných školiacich programov, ktoré umožnia rozvoj zručností a zvýši pripravenosť učiteľov na integráciu AI do vzdelávacieho procesu.

Výskum potvrdil aj hypotézu **(H3)**, čo dokazuje, že študenti majú podstatne väčšiu znalosť nástrojov AI ako učitelia. Na Univerzite Konštantína Filozofa v Nitre 89,2 % študentov a 86,9 % na Univerzite sv. Cyrila a Metoda v Trnave uviedlo znalosť AI v porovnaní s 59,4 % učiteľov naprieč univerzitami. Tento rozdiel odráža vyššiu mieru kontaktu študentov s technológiami v akademickom aj osobnom kontexte. Naopak, hypotéza **(H4)**, ktorá naznačuje, že učitelia dokážu lepšie identifikovať etické hranice AI v porovnaní so študentmi, bola



vyvrátená. Kým 73,8 % študentov Univerzity sv. Cyrila a Metoda v Trnave preukázalo povedomie o etike AI, iba 59,4 % učiteľov potvrdilo, že tieto hranice dokáže rozpoznať. Učelia tiež vykazovali vyššiu mieru neistoty (28,1 %) ako študenti, čo naznačuje potrebu vzdelávacích programov etického školenia pre učiteľov v oblasti AI. Obidve skupiny vyjadrili obavy týkajúce sa ochrany osobných údajov, zodpovednosti a skreslenosti údajov, pričom zdôraznili dôležitosť systematického vzdelávania o etike AI pre zodpovedné používanie.

Výskum tiež vyvrátil hypotézu (**H5**), ktorá naznačovala, že učelia prejavujú väčšiu dôveru ako študenti pri používaní nástrojov AI. Namiesto toho obidve skupiny preukázali podobnú úroveň neistoty, pričom 43,7 % učiteľov a porovnateľný podiel študentov vyjadrilo výhrady voči používaniu AI. Potvrdila sa však hypotéza (**H6**), ktorá odhalila, že učelia prejavujú nižšiu dôveru v obsah generovaný AI v porovnaní so študentmi. Zatiaľ čo nedôvera medzi študentmi sa pohybovala v rozmedzí od 24,6 % do 41,3 %, 46,9 % učiteľov vyjadrilo skepticizmus, pričom uviedli obavy zo spoľahlivosti a etických dôsledkov.

Štúdia poskytla cenné poznatky o úlohe AI pri výučbe anglického jazyka a potvrdila hypotézy (**H8**), (**H9**) a (**H10**). Ukázalo sa, že nástroje AI výrazne zlepšujú osvojovanie slovnej zásoby a štylistické zručnosti, zatiaľ čo ich vplyv na zlepšenie gramatiky bol menej výrazný (**H8**). Na Univerzite sv. Cyrila a Metoda v Trnave zaznamenalo výrazné zlepšenie slovnej zásoby 62,3 % študentov v porovnaní s 34,9 % na Univerzite Mateja Bela. Tieto zistenia podporujú hypotézu (**H9**), ktorá predpokladala, že školiace programy AI poskytované univerzitami vedú k väčšiemu zlepšeniu slovnej zásoby a štylistiky. Okrem základných jazykových zručností výskum skúmal vplyv AI na zlepšenie počúvania s porozumením a komunikačných zručností. Zatiaľ čo zlepšenia v počúvaní s porozumením boli mierne (18-24 %), komunikačné zručnosti zaznamenali výrazné zlepšenie, čo sa pripisuje pokroku v slovnej zásobe a štylistickej zdatnosti. Tieto zistenia potvrdzujú efektívnosť AI pri podpore aktívneho používania jazyka a interaktívnej komunikácie, aj keď stále existuje priestor na zlepšenie v aplikáciách zameraných na počúvanie, čím sa potvrdzuje hypotéza (**H10**).

Okrem toho výskum skúmal etické dôsledky používania obsahu generovaného AI (**RQ9**), pričom odhalil rôzne reakcie medzi študentmi a učiteľmi. Zatiaľ čo mnohí študenti vyjadrili spokojnosť s obsahom generovaným AI, približne jedna tretina vyjadrila etické obavy, pričom zdôraznila dôležitosť podpory etickej gramotnosti a stanovenie jasných pokynov pre zodpovedné používanie. Učitelia prejavili podobné obavy, pričom 46,9 % vyjadrilo výhrady k používaniu obsahu generovanému AI a zdôraznilo problémy, ako je originalita, plagiatorstvo a zodpovednosť. Štúdia tiež skúmala vplyv AI na tradičné akademické praktiky, ako je písanie záverečných prác (**RQ10**). Zatiaľ čo 28,1 % učiteľov podporilo používanie AI pri písaní záverečných prác, 40,7 % nesúhlasilo a 31,3 % vyjadrilo nejednoznačné stanovisko. Hĺbkové rozhovory odhalili spektrum názorov, pričom niektorí obhajovali reformu tradičných záverečných prác, iní boli jednoznačne za ich zrušenie a ďalší zdôrazňovali dôležitosť obhajoby záverečných prác, aby sa zabezpečila kritická angažovanosť. Tieto zistenia podčiarkujú potrebu inovatívnych prístupov k akademickým hodnoteniam v ére AI.

Jedným z najvýznamnejších prínosov výskumu je súbor odporúčaní na riešenie výziev spojených s integráciou AI do vzdelávacieho procesu na slovenských univerzitách. Prvé odporúčanie zdôrazňuje potrebu zlepšiť technickú infraštruktúru, ako je napríklad modernizácia digitálnych platforiem a zabezpečenie spoľahlivého internetového pripojenia, aby sa podporilo jednoduché používanie nástrojov AI. Druhé odporúčanie kladie dôraz na význam odbornej prípravy učiteľov a na potrebu poskytovať im prístup k programom profesionálneho rozvoja. Tieto programy majú za cieľ rozvíjať technické a pedagogické zručnosti, ktoré učiteľom umožnia efektívne integrovať umelú inteligenciu do výučby. Tretie odporúčanie zahŕňa prepracovanie učebných osnov s cieľom začleniť gramotnosť AI ako základnú zložku britských a amerických študijných programov. Začlenením gramotnosti AI do učebných osnov môžu univerzity pripraviť študentov na výzvy a príležitosti digitalizovaného sveta, podporovať kritické myslenie, kreativitu a etické povedomie. Na prekonanie týchto výziev a využitie plného potenciálu umelej inteligencie vo vysokoškolskom vzdelávaní je kľúčová spolupráca medzi univerzitami, tvorcami politik a súkromným sektorom.

Etické otázky AI sú opakujúcou sa témou v celej monografii, ktorá reflektuje širšiu spoločenskú diskusiu o tejto technológii. Podrobne sa analyzujú otázky, ako sú ochrana osobných údajov, skreslenosť údajov a vplyv AI na ľudskú kreativitu a kritické myslenie. Výskum zdôrazňuje potrebu vytvárania inštitucionálnych politík a etických rámcov, ktoré sa týmito problémami zaoberajú a zabezpečujú zodpovedné a transparentné využívanie AI. Štúdia zároveň apeluje na budovanie kultúry kritického prístupu k umelej inteligencii, podporujúc študentov a učiteľov, aby výstupy AI nástrojov overovali a hodnotili namiesto ich pasívneho prijímania.

Štúdia prináša cenné pohľady na počiatočné fázy integrácie AI, pričom sa zameriava na humanitné vedy, konkrétne programy britských a amerických štúdií na slovenských univerzitách, a ponúka hodnotné poznatky v dynamicky sa vyvíjajúcom technologickom prostredí. Budúci výskum by mal zahŕňať aj katedry aplikovaného jazyka na technicky a ekonomicky orientovaných univerzitách, pričom by sa mal zamerať na dlhodobé trendy v integrácii AI, aby poskytol komplexnejšie pochopenie jej vplyvu na vzdelávanie. Tým, že budú slovenské univerzity podporovať inovácie a schopnosť prispôbovať sa, môžu efektívnejšie čeliť výzvam digitálneho veku a zabezpečiť zodpovednú a efektívnu integráciu AI do vzdelávacieho procesu.

## BIBLIOGRAPHY

- About xAI. In: xAI. Retrieved from <https://x.ai/about>
- AI Point – Národná platforma pre rozvoj umelej inteligencie na Slovensku. Retrieved from <https://aislovakia.com/>
- AKINWALERE, S. N. – IVANOV, V. T. 2022. Artificial intelligence in higher education: Challenges and opportunities. In: *Border Crossing*, Vol. 12. No. 1. pp. 1–15. Retrieved from <https://doi.org/10.33182/bc.v12i1.2015>
- AMOOZADEH, M. et al. 2023. Towards Characterizing Trust in Generative Artificial Intelligence among Students. In: *ICER '23: Proceedings of the 2023 ACM Conference on International Computing Education Research*. Vol. 2. Retrieved from <https://doi.org/10.1145/3568812.3603469>
- ARMSTRONG, W. – MICHAEL, K. 2020. The Implications of Neuralink and Brain Machine Interface Technologies. In: *2020 IEEE International Symposium on Technology and Society (ISTAS)*. pp. 201–203. Retrieved from doi: 10.1109/ISTAS50296.2020.9462223
- ARROYO, I. et al. 2014. A Multimedia Adaptive Tutoring System for Mathematics that Addresses Cognition, Metacognition and Affect. In: *International Journal of Artificial Intelligence in Education*. Vol. 24. pp. 387–426. Retrieved from <https://doi.org/10.1007/s40593-014-0023-y>
- ARTHARS, N. et al. 2019. Empowering teachers to personalize learning support. In: *Utilizing learning analytics to support study success*. pp. 223–248. Cham: Springer. Retrieved from [https://doi.org/10.1007/978-3-319-64792-0\\_13](https://doi.org/10.1007/978-3-319-64792-0_13)
- Artificial Intelligence. In: *Encyclopaedia Britannica*. Retrieved from <https://www.britannica.com/technology/artificial-intelligence>
- Artificial Intelligence. In: *Merriam-Webster Dictionary*. <https://www.merriam-webster.com/dictionary/artificial%20intelligence>
- Artificial Intelligence. In: *OpenAI*. (2025). *ChatGPT (version 4o)*. Retrieved from <https://openai.com/>
- Artificial Intelligence. In: *Oxford Reference*. Retrieved from <https://www.oxfordreference.com/display/10.1093/acref/9780198609810.001.0001/acref-9780198609810-e-423>
- ASAI – Asociácia AI. Retrieved from <https://www.asai.sk/>

- BAILEY, J. AI in Education. In: *Technology*. Vol. 23. No. 4. Retrieved from <https://www.educationnext.org/a-i-in-education-leap-into-new-era-machine-intelligence-carries-risks-challenges-promises/>
- BAKER, T. – SMITH, L. 2019. *Educ-AI-tion rebooted? Exploring the future of artificial intelligence in schools and colleges*. Retrieved from [https://media.nesta.org.uk/documents/Future\\_of\\_AI\\_and\\_education\\_v5\\_WEB.pdf](https://media.nesta.org.uk/documents/Future_of_AI_and_education_v5_WEB.pdf)
- BATES, T. et al. 2020. Can artificial intelligence transform higher education?. In: *International Journal of Educational Technology in Higher Education*. Vol. 17. No. 42. pp. 1-12. Retrieved from <https://doi.org/10.1186/s41239-020-00218-x>
- BAUMEISTER, R. et al. 1998. *Ego depletion: Is the active self a limited resource?* In: *Journal of Personality and Social Psychology*. Vol. 74. No. 5. pp. 1252-1265. Retrieved from <https://doi.org/10.1037/0022-3514.74.5.1252>
- BLACK, T. R. 1999. *Doing quantitative research in the social sciences: An integrated approach to research design, measurement and statistics*. New York: Sage, 1999. 768 p. ISBN 978-0-76195-353-1.
- BLOOM, B. 1956. *Taxonomy of educational objectives*. New York: Longmans. 473 p. ISBN 978-0-679-30209-4.
- BRAVO, F. A. et al. 2024. Engineering Education in the Age of AI: Analysis of the Impact of Chatbots on Learning in Engineering. In: *Educ. Sci.* 2024. Vol. 14. No. 5. Retrieved from <https://doi.org/10.3390/educsci14050484>
- BUCKINGHAM SHUM, S. – MCKAY, T. A. 2018. Architecting for learning analytics. Innovating for sustainable impact. In: *EDUCAUSE Review*. Vol. 53. No. 2. pp. 25-37. Retrieved from <https://er.educause.edu/articles/2018/3/architecting-for-learning-analytics-innovating-for-sustainable-impact>
- BURGSTEINER, H. 2016, March. Irobot: Teaching the basics of artificial intelligence in high schools. In: *Proceeding of the AAAI conference on artificial intelligence*. Vol 3. No. 1. Retrieved from <https://doi.org/10.1609/aaai.v30i1.9864>
- CARR, D. 2019. *Golden Years?: Social Inequality in Later Life (American Sociological Association's Rose Series)*. New York: Russell Sage Foundation, 2019. 336 p. ISBN 978-0-87154-034-8.
- CHAN, C. K. Y. 2023. A comprehensive AI policy education framework for university teaching and learning. In: *International Journal of*

- Educational Technology in Higher Education*. Vol. 20. Retrieved from <https://doi.org/10.1186/s41239-023-00408-3>
- ChatGPT. In: OpenAI. (2025). *ChatGPT (version 4o)*. Retrieved from <https://openai.com/>
- CHEN, L. 2020. Artificial Intelligence in Education: A Review. In: *EEE Access*. Vol. 8. pp. 75264-75278. Retrieved from doi: 10.1109/ACCESS.2020.2988510
- CHICHEKIAN, T. – BENTEUX, B. 2022. The potential of learning with (and not from) artificial intelligence in education. In: *Frontiers in Artificial Intelligence*. Vol. 5. Retrieved from <https://doi.org/10.3389/frai.2022.903051>
- CHIU, T. K. F. et al. 2024. What are artificial intelligence literacy and competency? A comprehensive framework to support them. In: *Computers and Education Open*. Vol. 6. Retrieved from DOI: 10.1016/j.caeo.2024.100171
- CHUBB, J. et al. 2022. Speeding up to keep up: exploring the use of AI in the research process. In: *AI & Society*. Vol. 37. pp. 1439-1457. Retrieved from <https://doi.org/10.1007/s00146-021-01259-0>
- COECKELBERGH, M. 2012. Can we trust robots? In: *Ethics and Information Technology*. Vol. 14. pp. 53-60. Retrieved from <https://doi.org/10.1007/s10676-011-9279-1>
- Curipod. In: Pitchbook. Retrieved from <https://pitchbook.com/profiles/company/435272-50#faqs>
- DELIPETREV, B. et al. 2020. *Historical Evolution of Artificial Intelligence*. EUR 30221EN. Luxembourg: Publications Office of the European Union. ISBN 978-92-76-18940-4. Retrieved from doi:10.2760/801580, JRC120469
- DENNY, P. et al. 2023. Can We Trust AI-Generated Educational Content? Comparative Analysis of Human and AI-Generated Learning Resources. In: *arXivLabs*. Retrieved from <https://arxiv.org/abs/2306.10509>
- DENSCOMBE, M. 2010. *The Good Research Guide: for small-scale social research*. Maidenhead: McGraw Hill, 2010. 392 p. ISBN 978-0-33524-139-2.
- Department of British and American Studies, Faculty of Arts, Constantine the Philosopher University in Nitra. Retrieved from <https://kaa.ff.ukf.sk/studium/>

- Department of British and American Studies, Faculty of Arts, Pavol Jozef Šafárik University in Košice. Retrieved from <http://kaa.ff.upjs.sk/en/studijne-programy>
- Department of British and American Studies, Faculty of Arts, University of St. Cyril and Methodius in Trnava. Retrieved from <http://kaam.ff.ucm.sk/sk/aktuality/>
- Department of English Language and Literature, Faculty of Arts and Letters, Catholic University in Ružomberok. Retrieved from <https://www.ku.sk/en/faculties/faculty-of-arts-and-letters/departments/departament-of-english-language-and-literature/study-programmes/>
- Department of English Language and Literature, Faculty of Education, Trnava University in Trnava. Retrieved from <https://pdf.truni.sk/katedry/kaj/studium>
- Department of English language, literature and didactics, Faculty of Education, Comenius University in Bratislava. Retrieved from <https://www.fedu.uniba.sk/kajl/>
- Department of Translation Studies, Constantine the Philosopher University in Nitra. Retrieved from <http://www.ktr.ff.ukf.sk/index.php/sk/pre-studentov>
- DESHPANDE, M. – RAO, V. 2017. Depression detection using emotion artificial intelligence. In: *2017 International Conference on Intelligent Sustainable Systems (ICISS)*, Palladam, India. pp. 858-862. Retrieved from doi: 10.1109/ISS1.2017.8389299
- DIDUKH, L. et al. 2020. *Modern Philology: Promising and priority areas for scientific researches*. Lviv, Toru: Liha-Pres. 216 p. ISBN 978-966-397-194-0.
- DIGNUM, V. 2017. Responsible autonomy. In: *Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence*, Melbourne. pp. 4698-4704. Retrieved from <https://doi.org/10.24963/ijcai.2017/655>
- Education 4.0 insights. In: *World Economic Forum*. 2020. Retrieved from <https://initiatives.weforum.org/reskilling-revolution/education-4-0-insights>
- EMMONS, R. 1986. Personal strivings: An approach to personality and subjective well-being. In: *Journal of Personality and Social Psychology*. Vol. 51. No. 5. pp. 1058-1068. Retrieved from <https://doi.org/10.1037/0022-3514.51.5.1058>

- Ethical impact assessment: a tool of the Recommendation on the Ethics of Artificial Intelligence. 2023. In: *unesdoc.unesco.org*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000386276>
- Ethics guidelines for trustworthy AI. 2019. In: *digital-strategy.ec.europa.eu*. Retrieved from <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>
- Exploring DeepL for Machine Translation: How It Works, and How Accurate It Is. 2024. In: *Phrase*. Retrieved from <https://phrase.com/blog/posts/deepl/>
- FALLOON, G. 2020. From digital literacy to digital competence: the teacher digital competency (TDC) framework. In: *Educational Technology Research and Development*. Vol. 68. pp. 2449–2472. Retrieved from <https://link.springer.com/article/10.1007/s11423-020-09767-4>
- FARROKHANIA, M. et al. 2023. A SWOT analysis of ChatGPT: Implications for educational practice and research. In: *Innovations in Education and Teaching International*. Vol. 61. No. 3. pp. 1-15 Retrieved from [doi.org/10.1080/14703297.2023.2195846](https://doi.org/10.1080/14703297.2023.2195846)
- FERNANDES, J. V. 2022. Robot Citizenship and Gender (In)Equality: The Case of Sophia the Robot in Saudi Arabia. In: *Janus.net*. Retrieved from <https://doi.org/10.26619/1647-7251.DT0122.4>
- FERNÁNDEZ-BATANERO, J. M. et al. 2021. Impact of educational technology on teacher stress and anxiety: a literature review. In: *International Journal of Environmental Research and Public Health*. Vol. 18. No. 2. Retrieved from [doi: 10.3390/ijerph18020548](https://doi.org/10.3390/ijerph18020548)
- FIALA, B. 2024. Revolučný pomocník od OpenAI: Takzvaný „agent“ za teba vykoná úlohy do pár minút. In: *Startitup*. Retrieved from <https://www.startitup.sk/openai-prinasa-revolucneho-pomocnika-takzvany-agent-vykona-ulohy-za-teba-za-par-minut/>
- FIRDA, N. 2024. Artificial intelligence’s transformative role in mathematics education: A systematic literature review. In: *ETLTC2024 International Conference Series on ICT, Entertainment Technologies, and Intelligent Information Management in Education and Industry*. Retrieved from <https://doi.org/10.1063/5.0235478>
- FRY, H. 2018. *Hello World: Being Human in the Age of Algorithms*. New York: W.W. Norton. 243 p. ISBN 978-0-393-63499-0.



- GE, S. 2024. Challenges of artificial intelligence (AI) in education. In: *Journal of Education Humanities and Social Sciences*. Vol. 41. pp. 60–62. Retrieved from <https://doi.org/10.54097/bxjg8n04>
- GOCCEN, A. – AYDEMIR, F. 2020. Artificial Intelligence in Education and Schools. In: *Research on Education and Media*. Vol. 12. N. 1. Retrieved from <https://doi.org/10.2478/rem-2020-0003>
- GOEL, A. 2020. AI-Powered Learning: Making Education Accessible, Affordable, and Achievable. In: *arXivLabs*. Retrieved from <https://doi.org/10.48550/arXiv.2006.01908>
- GUINNESS, H. 2024. What is Google Gemini?. In: *Zapier*. Retrieved from <https://zapier.com/blog/google-gemini/>
- HASESKI, H. I. 2019. What do Turkish pre-service teachers think about artificial intelligence?. In: *International Journal of Computer Science Education in Schools*. Vol. 3. No. 2. Retrieved from <https://doi.org/10.21585/ijcses.v3i2.55>
- HENDERSON, A. 2023. 7 characteristics of Gen Z in 2023. In: *GWI*. Retrieved from <https://blog.gwi.com/marketing/generation-z-characteristics/>
- HENDL, J. 2008. *Kvalitativní výzkum. Základní teorie, metody a aplikace*. Praha: Portál, 2008. 408 p. ISBN 978-80-7367-485-4.
- HERBOLD, S. et al. 2023. AI, write an essay for me: A large-scale comparison of human-written versus ChatGPT-generated essays. In: *arXivLabs*. Retrieved from <https://arxiv.org/abs/2304.14276>
- HILGARD, E. R. 1980. The trilogy of mind: Cognition, affection, and conation. In: *Journal of the History of the Behavioral Sciences*. Vol. 16. No. 2. pp. 107-117. Retrieved from [https://journals.scholarsportal.info/details/00225061/v16i0002/107\\_ttomcaac.xml](https://journals.scholarsportal.info/details/00225061/v16i0002/107_ttomcaac.xml)
- HOFFMAN, P. 2003. Retooling Machine and Man for Next Big Chess Faceoff. In: *New York Times*. Retrieved from <https://www.nytimes.com/2003/01/21/science/retooling-machine-and-man-for-next-big-chess-faceoff.html>
- HOLMES, W. et al. 2019. *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Independently published. 242 p. ISBN 978-1-79429-370-0.
- HOLMES, W. et al. 2021. Ethics of AI in education: Towards a community-wide framework. In: *International Journal of Artificial Intelligence in Education*. Vol. 32. pp. 504-526. Retrieved from <https://doi.org/10.1007/s40593-021-00239-1>

- How AI impacts Gen Z in the workplace. In: *TalentLMS*. Retrieved from <https://www.talentlms.com/research/ai-impact-gen-z-work-skills>
- HUANG, M. 2024. Student engagement and speaking performance in AI-assisted learning environments: A mixed-methods study from Chinese middle schools. In: *Education and Information Technologies*. Retrieved from <https://doi.org/10.1007/s10639-024-12989-1>
- HUITT, W. – CAIN, S. 2005. An overview of the conative domain. In: *Educational Psychology Interactive*. Valdosta: Valdosta State University. Retrieved from <http://www.edpsycinteractive.org/papers/conative.pdf>
- HUITT, W. 1996. The mind. In: *Educational Psychology Interactive*. Valdosta: Valdosta State University. Retrieved from <http://chiron.valdosta.edu/whuitt/col/context/infoage.html>
- HUITT, W. 2011. Bloom et al.'s taxonomy of the cognitive domain. In: *Educational Psychology Interactive*. Valdosta: Valdosta State University. Retrieved from <http://www.edpsycinteractive.org/topics/cognition/bloom.html>
- HUMBLE, N. – MOZELIUS, P. 2022. The threat, hype, and promise of artificial intelligence in education. In: *Discover Artificial Intelligence*. Vol. 2. Retrieved from <https://doi.org/10.1007/s44163-022-00039-z>
- HWANG, G. J. – TU, Y. F. 2021. Roles and Research Trends of Artificial Intelligence in Mathematics Education: A Bibliometric Mapping Analysis and Systematic Review. In: *Mathematics*. Vol. 9. No. 6. Retrieved from <https://doi.org/10.3390/math9060584>
- HWANG, Y. et al. 2023. What is prompt literacy? An exploratory study of language learners' development of new literacy skill using generative AI. In: *arXivLabs*. Retrieved from <https://arxiv.org/abs/2311.05373>
- IFENTHALER, D. 2017. Are higher education institutions prepared for learning analytics?. In: *TechTrends*. Vol. 61. No. 4. pp. 366–371. Retrieved from <https://doi.org/10.1007/s11528-016-0154-0>
- IFENTHALER, D. et al. 2018. Informing learning design through analytics: Applying network graph analysis. In: *Australasian Journal of Educational Technology*. Vol. 34. No. 2. pp. 117–132. Retrieved from <https://doi.org/10.14742/ajet.3767>

- Institute of British and American Studies, Faculty of Arts, University of Prešov in Prešov. <https://www.unipo.sk/filozoficka-fakulta/iaa/studentom/46558/>
- KADARUDDIN, K. 2023. Empowering education through generative AI: Innovative instructional strategies for tomorrow's learners. In: *International Journal of Business, Law, and Education*. Vol. 4. No. 2. pp. 618-625. Retrieved from <https://doi.org/10.56442/ijble.v4i2.215>
- KANDLHOFER, M. et al. 2016. Artificial intelligence and computer science in education: From kindergarten to university. In: *2016 IEEE Frontiers in Education Conference (FIE)*. pp. 1-9. Retrieved from doi: 10.1109/FIE.2016.7757570
- KARJIAN, R. 2023. The history of artificial intelligence: Complete AI timeline. In: *Tech Target*. Retrieved from <https://www.techtarget.com/searchenterpriseai/tip/The-history-of-artificial-intelligence-Complete-AI-timeline>
- KATONANE GYONYORU, I. K. 2024. The Role of AI-based Adaptive Learning Systems in Digital Education. In: *Journal of Applied Technical and Educational Sciences*. Vol. 14. No. 2. Retrieved from <https://doi.org/10.24368/jates380>
- KAY, J. 2012. AI and Education: Grand Challenges. In: *IEEE Intelligent Systems*. Vol. 27. No. 5. pp. 66-69. Retrieved from doi: 10.1109/MIS.2012.92
- KAYA, N. – BULUT, S. 2022. Artificial Intelligence and Education: An Overview. In: *Psychology & Psychological Research International Journal*. Vol. 7. No. 3. ISSN 2576-0319. Retrieved from DOI: 10.23880/pprij-16000303
- KEEFE, E. B. – COPELAND, S. R. 2011. What is literacy? The power of a definition. In: *Research and Practice for Persons with Severe Disabilities*. Vol. 36. No. 3-4. Retrieved from <https://doi.org/10.2511/027494811800824507>
- KELLY, M. et al. 2004. *European Profile for Language Teacher Education. A Frame of Reference*. Retrieved from [https://eprints.soton.ac.uk/472210/1/Profile\\_short\\_report\\_1.pdf](https://eprints.soton.ac.uk/472210/1/Profile_short_report_1.pdf)
- KENNEDY, K. 2023. *AI Literacy Framework*. Retrieved from <https://kennedyhq.com/wp/2023/12/21/ai-literacy-framework/>

- KIM, N. J. – KIM, M. K. 2022. Teacher's Perceptions of Using an Artificial Intelligence-Based Educational Tool for Scientific Writing. In: *Front. Educ.* Vol. 7. Retrieved from <https://doi.org/10.3389/educ.2022.755914>
- KUIPERS, B. 2018. How can we trust a robot? In: *Communication of the ACM*. Vol. 61. No. 3. pp. 86–95. Retrieved from doi:10.1145/3173087
- LIGHTHILL, J. 1973. *Artificial Intelligence: A General Survey*. Retrieved from [https://rodsmith.nz/wp-content/uploads/Lighthill\\_1973\\_Report.pdf](https://rodsmith.nz/wp-content/uploads/Lighthill_1973_Report.pdf)
- LONG, D. – MAGERKO, B. 2020. What is AI literacy? Competencies and design considerations. In: *Proceedings of the 2020 CHI conference on human factors in computing systems*. pp. 1–16. Retrieved from <https://doi.org/10.1145/3313831.3376727>
- LUCKIN, R. 2017. Towards artificial intelligence-based assessment systems. In: *Nature Human Behaviour*. Vol. 1. Retrieved from <https://doi.org/10.1038/s41562-016-0028>
- LUCKIN, R. et al. 2016. *Intelligence Unleashed. An argument for AI in Education*. London: Pearson. ISBN 978-0-99242-488-6.
- MA, W. et al. 2014. Intelligent tutoring systems and learning outcomes: a meta-analysis. In: *Journal of Educational Psychology*. Vol. 106. No. 4. pp. 901–918. Retrieved from doi: 10.1037/a0037123
- MagicSchool. Retrieved from <https://www.magicschool.ai/magicschool>
- MANYIKA, J. et al. 2017. *A future that works: Automation, employment, and productivity*. Chicago: McKinsey Global Institute.
- MCCARTHY, J. 2007. From here to human-level AI. *Artificial Intelligence*. Vol. 171. 18. pp. 1174–1182. Retrieved from <https://doi.org/10.1016/j.artint.2007.10.009>
- MCCLAIN, D. L. 2006. Chess Player Says Opponent Behaved Suspiciously. In: *New York Times*. Retrieved from <https://www.nytimes.com/2006/09/28/sports/28iht-web.0928chessD.2969859.html>
- MCLEOD, S. 2023. Qualitative vs Quantitative Research Methods & Data Analysis. In: *SimplyPsychology*. Retrieved from <https://www.simplypsychology.org/qualitative-quantitative.html>
- MINSKY, M. – PAPERT, S. A. 2017. *Perceptrons: An Introduction to Computational Geometry*. Cambridge: MIT PR. 316 p. ISBN 978-0-262-34393-0.

- MIŠTINA, J. et. al. 2022. The Impact of the Pandemic Crisis on Technology Standard of Traditional University Education. In: *Mobility for Smart Cities and Regional Development - Challenges for Higher Education*. ICL 2021. *Lecture Notes in Networks and Systems*, Vol. 390. Cham: Springer. Retrieved from [https://doi.org/10.1007/978-3-030-93907-6\\_20](https://doi.org/10.1007/978-3-030-93907-6_20)
- MITCHELL, J. 2024. Know the Different Versions of ChatGPT. In: *Future Skills*. Retrieved from [https://futureskillsacademy.com/blog/chatgpt-versions/?utm\\_source=chatgpt.com](https://futureskillsacademy.com/blog/chatgpt-versions/?utm_source=chatgpt.com)
- MITCHELL, M. 2020. *Artificial Intelligence. A Guide for Thinking Humans*. London: Pelican Book. 419 p. ISBN 978-0-241-40483-6.
- MOHAMED, M. Z. B. et al. 2022. Artificial intelligence in mathematics education: A systematic literature review. In: *International Electronic Journal of Mathematics Education*. Vol. 17. No. 3. Retrieved from <https://doi.org/10.29333/iejme/12132>
- MORTAZAVI, M. et al. 2021. Sustainable Learning Environment by Mobile-Assisted Language Learning Methods on the Improvement of Productive and Receptive Foreign Language Skills: A Comparative Study for Asian Universities. In: *Sustainability 2021*. Vol. 13. No. 11. Retrieved from <https://doi.org/10.3390/su13116328>
- MOSLY, I. 2024. Artificial Intelligence's Opportunities and Challenges in Engineering Curricular Design: A Combined Review and Focus Group Study. In: *Societies 2024*. Vol. 14. No. 6. Retrieved from <https://doi.org/10.3390/soc14060089>
- MOURA, A. – CARVALHO, A. A. A. 2023. Teachers' perceptions of the use of artificial intelligence in the classroom. In: *Atlantis Highlights in Social Sciences, Education and Humanities*. Retrieved from [https://doi.org/10.2991/978-94-6463-380-1\\_13](https://doi.org/10.2991/978-94-6463-380-1_13)
- MUTHUKRISHNAN, N. et al. 2020. Brief history of Artificial Intelligence. In: *Neuroimaging Clinics of North America*. Vol. 30. No. 4. pp. 393-399. Retrieved from <https://doi.org/10.1016/j.nic.2020.07.004>
- NAUDÉ, A. J. – MILLER-NAUDÉ, C. L. 2020. Linguistics and Philology— Separate, Overlapping or Subordinate/Superordinate Disciplines? In: *Journal for Semitics*. Vol. 29. No. 2. Retrieved from <https://doi.org/10.25159/2663-6573/8573>
- NAZARETSKY, T. et al. 2022. An Instrument for Measuring Teachers' Trust in AI-Based Educational Technology. In: *LAK22: 12th*

- International Learning Analytics and Knowledge Conference. Retrieved from <https://doi.org/10.1145/3506860.3506866>
- NESSIPBAYEVA, O. 2012. The Competencies of the Modern Teacher. In: *BCES Conference Book*. Vol. 12. pp. 148-154. ISSN 1314-4693. Retrieved from <https://eric.ed.gov/?id=ED567059>
- NG, D. T. K. et al. 2021. Conceptualizing AI literacy: An exploratory review. In: *Computers and Education: Artificial Intelligence*. Vol. 2. Retrieved from <https://doi.org/10.1016/j.caeai.2021.100041>
- NÚÑEZ, J. M. L. – LANTADA, A. D. 2020. Artificial Intelligence Aided Engineering Education: State of the Art, Potentials and Challenges. In: *International Journal of Engineering Education*. Vol. 36. No. 6. pp. 1740-1751. Retrieved from [https://www.ijee.ie/latestissues/Vol36-6/03\\_ijee3984.pdf](https://www.ijee.ie/latestissues/Vol36-6/03_ijee3984.pdf)
- O'NEIL, C. 2016. *Weapons of Math Destruction: How Big Data Increases Inequality Threatens Democracy*. New York: Crown. 272 p. ISBN 978-0-553-41881-1.
- OMENKA, O. S. et al. 2024. A Review of Artificial Intelligence (AI) Readiness in Higher Education Institutions: A Case Study of Northern States of Nigeria. In: *Global Journal of Engineering and Technology*. Vol. 3. No. 6. pp. 35-45. ISSN 2583-3359. Retrieved from <https://gsarpublishers.com/abstract-932/>
- ONDREJKOVIČ, P. 2007. *Úvod do metodológie spoločenskovedného výskumu*. Bratislava: VEDA, 2007. 248 p. ISBN 978-80-224-0970-4.
- OWOSEN, A. et al. 2024. *Generative AI in Higher Education. Innovation Strategies for Teaching and Learning*. London: Palgrave Macmillan. 213 p. ISBN 978-3-031-60178-1. Retrieved from <https://doi.org/10.1007/978-3-031-60179-8>
- PALM, G. 1986. Warren McCulloch and Walter Pitts: A Logical Calculus of the Ideas Immanent in Nervous Activity. In: *Brain Theory*. Springer: Berlin, Heidelberg. pp 229-230. Retrieved from [https://doi.org/10.1007/978-3-642-70911-1\\_14](https://doi.org/10.1007/978-3-642-70911-1_14)
- PECNÍKOVÁ, J. 2018. Digital Identity in the Reflections of Cultural Values. In: *Budušee v nastojašcem: človečeskoje izmerenije cifrovoj epochi*. Moscow: NIU. pp. 63-66.
- Perplexity. In: *Visibility*. Retrieved from <https://visibility.sk/blog/slovník/perplexity/>
- PETRÁŠ, P. – MUNKOVÁ, D. 2023. Machine Translation Based on Neural Networks – a Promising Way to Translate from Analytic Languages into Flective Slovak? In: *Slovenská reč*. Vol. 88. No. 1. pp.

- 74–89. Retrieved from  
<https://www.juls.savba.sk/ediela/sr/#sr2023>
- POKRIVČÁKOVÁ, S. 2019. Preparing teachers for the application of AI-powered technologies in foreign language education. In: *Journal of Language and Cultural Education*. Vol. 7. No. 3. pp. 135–153. Retrieved from <https://doi.org/10.2478/jolace-2019-0025>
- POLLOCK, S. 2015. Introduction. In: *World Philology*. Cambridge: Harvard University Press. pp. 1–24. Retrieved from <https://www.jstor.org/stable/j.ctt1287gv5>
- PONDELÍKOVÁ, I. – LUPRICHOVÁ, J. 2024. AI-assisted enhancing of gender awareness through reading comprehension in history and literature courses of anglophone cultures. In: *CELDA 2024: 21st International Conference on Cognition and Exploratory Learning in Digital Age: Proceedings*. Zagreb: IADIS Press. pp. 198–208. ISBN 978-989-8704-61-0.
- PONDELÍKOVÁ, I. – TÖKÖLYOVÁ, T. 2022a. Shaping the Digital Identity in Slovak Academic Environment: From Emergency Remote Teaching (ERT) to Effective Online Teaching. In: *Annales Universitatis Mariae Curie-Sklodowska : Section N*. pp. 139–158. ISSN 2451-0491. Retrieved from <http://dx.doi.org/10.17951/en.2022.7.139-158>
- PONDELÍKOVÁ, I. – TÖKÖLYOVÁ, T. 2022b. Work From Home and Stress in the Slovak Academic Environment. In: *Handbook of Research on the Complexities and Strategies of Occupational Stress*. Hershey: IGI Global. pp. 200–222. ISBN 978-1-66843-937-1. Retrieved from DOI 10.4018/978-1-6684-3937-1.ch012
- PONDELÍKOVÁ, I. 2020. *Úvod do medzinárodných kultúrnych vzťahov a interkultúrnej komunikácie*. Banská Bystrica: Dali-BB. 95 p. ISBN 978-80-8141-234-1.
- PONDELÍKOVÁ, I. 2023a. *Blended education for university of 21st century*. Trnava: Univerzita sv. Cyrila a Metoda v Trnave. 131 p. ISBN 978-80-572-0369-8.
- PONDELÍKOVÁ, I. 2023b. Design thinking for specific purposes: Comparative study of design thinking technique to enhance educational process for students of English and teachers of various academic fields. In: *Journal of Teaching English for Specific and Academic Purposes*. Vol. 11. No. 3. pp. 633–650. ISSN 2334-9182. Retrieved from DOI: 10.22190/JTESAP230813049P

- POPENICI, S. A. D. – KERR, S. 2017. Exploring the impact of artificial intelligence on teaching and learning in higher education. In: *RPTTEL*. Vol. 12. No. 22. Retrieved from <https://doi.org/10.1186/s41039-017-0062-8>
- PORAYSKA-POMSTA, K. et al. 2024. The Ethics of AI in Education. In: *arXivLabs*. Retrieved from <https://arxiv.org/abs/2406.11842>
- Porozumejte svetu a komunikujte v rôznych jazykoch. In: *Google Translate*. Retrieved from <https://translate.google.com/about/?hl=sk>
- PUŠKÁROVÁ, Z. (2024, December 7). Slovensko má svetovo úspešných vývojárov digitálnych hier. Študujú v Trnave. In: *TVnoviny*. Retrieved from <https://tvnoviny.sk/domace/clanok/940065-slovensko-ma-svetovo-uspesnych-vyvojarov-digitalnych-hier-studuju-v-trnave>
- PYM, A. - TORRES-SIMÓN, E. 2016. Designing a course in Translation Studies to respond to students' questions. In: *The Interpreter and Translator Trainer*. Vol. 10. No. 2. pp 1-21. Retrieved from <https://doi.org/10.1080/1750399X.2016.1198179>
- QUEK, C. L. G. et al. 2024. Investigating instructors' and students' perceived knowledge and attitudes in using generative AI tools for teaching and learning. In: *ASCILITE 2024 Conference Proceedings*. Retrieved from <https://doi.org/10.14742/apubs.2024.1239>
- Recommendation on the Ethics of Artificial Intelligence. 2021. In: *unesdoc.unesco.org*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000381137>
- RESNIK, D. B. – HOSSEINI, M. 2024. The ethics of using artificial intelligence in scientific research: new guidance needed for a new tool. In: *AI Ethics*. <https://doi.org/10.1007/s43681-024-00493-8>
- RICHARDS, D. – DIGNUM, V. 2019. Supporting and challenging learners through pedagogical agents: Addressing ethical issues through designing for values. In: *British Journal of Educational Technology*. Vol. 50. No. 6. pp. 2885–2901. Retrieved from <https://doi.org/10.1111/bjet.12863>
- ROSENBLATT, F. 1958. The perceptron: A probabilistic model for information storage and organization in the brain. In: *Psychological Review*. Vol. 65. No. 6. pp. 386–408. Retrieved from <https://doi.org/10.1037/h0042519>



- ROY, T. 2023. The History and Evolution of Artificial Intelligence, AI's Present and Future. In: *All Tech Magazine*. Retrieved from <https://alltechmagazine.com/the-evolution-of-ai/>
- RUI, Z. – BADARCH, T. 2022. Research on Applications of Artificial Intelligence in Education. In: *American Journal of Computer Science and Technology*. Vol. 5. No. 2. Retrieved from doi: 10.11648/j.ajcst.20220502.17
- RUSSEL, S. – NORVIG, P. 2010. *Artificial Intelligence: A Modern Approach*. Upper Saddle River: Pearson Education. 1132 p. ISBN 978-0-136-04259-4
- ŠABO, P. – TÓTH, G. (2024, October 10). #49. Výzvy Umelej Inteligencie. In: *Mozgová Atletika*. Retrieved from <https://open.spotify.com/episode/7uVZjUKQyfa3VRK9RARW6s>
- SACHARIDIS, D. et al. 2020. Fairness and diversity in social-based recommender systems. In: *Adjunct Publication of the 28th ACM Conference on User Modeling, Adaptation and Personalization*. pp. 83–88. Retrieved from <https://doi.org/10.1145/3386392.3397603>
- SADUOV, R. – GELVANOVSKY, G. 2024. The Impact of ChatGPT on Academic Writing Instruction for Computer Science Students. In: *Researchgate*. Retrieved from DOI:10.13140/RG.2.2.30899.40481
- SciSpace Copilot. Retrieved from <https://typeset.io/>
- SEEMILLER, C. et al. 2019. How Generation Z College Students Prefer to Learn: A Comparison of U.S. and Brazil Students. In: *Journal of Educational Research and Practice*. Vol. 9. No. 1. pp. 349–368 Retrieved from DOI:10.5590/JERAP.2019.09.1.25
- SELBER, S. A. 2004. *Multiliteracies for a Digital Age*. Carbondale: Southern Illinois University Press. 288 p. ISBN 978-0-809-38868-4.
- SELVI, V. T. – VAISHNAVI, B. 2024. Comparison on Applications and Impact of AI in English Grammar Learning. In: *Recent Research Reviews Journal*. Vol. 3. No. 2. pp. 357–369. Retrieved from <https://irojournals.com/rrrj/article/view/3/2/4>
- SHABBIR, J. – ANWER, T. 2018. Artificial Intelligence and Its Role in Near Future. In: *arXivLabs*. Retrieved from <https://arxiv.org/abs/1804.01396>
- SINGH, H. 2024. The Role of AI in Shaping the Future of Education. In: *Forbes*. Retrieved from <https://www.forbes.com/councils/forbesbusinesscouncil/2024/10/01/the-role-of-ai-in-shaping-the-future-of-education/>

- SPAIR, R. 2024. *Navigating AI Ethics: Building a Responsible and Equitable Future*. Cambridge: Rick Sapir. 493 p. ISBN 979-8-342-46215-0.
- STAKER, H. – HORN, M. B. 2012. *Classifying K-12 Blended learning*. Retrieved from <https://www.christenseninstitute.org/wp-content/uploads/2013/04/Classifying-K-12-blended-learning.pdf>
- STONE, P. et al. 2016. *Artificial Intelligence and Life in 2030. One Hundred Year Study on Artificial Intelligence. Report 2016*. Stanford: Stanford University. Retrieved from: <http://ai100.stanford.edu/2016-report>
- Sustainable Development Goal 4 (SDG4) is the education goal. In: UNESCO. Retrieved from <https://www.unesco.org/sdg4education2030/en/sdg4>
- SUTROP, M. 2019. Should we trust artificial intelligence? In: *Trames: Journal of the Humanities and Social Sciences*. Vol. 23. No. 4. pp. 499-522. Retrieved from <https://doi.org/10.3176/tr.2019.4.07>
- TADDEO, M. 2010. Modelling trust in artificial agents: a first step towards the analysis of e-trust. In: *Minds and Machines*. Vol. 20. No. 2. pp. 243-257. Retrieved from <https://doi.org/10.1007/s11023-010-9201-3>
- TALLON, A. 1997. *Head and heart: Affection, cognition, volition as triune consciousness*. New York: Fordham University. 334 p. ISBN 978-0-823-21772-4.
- TAMBUSKAR, S. 2022. Challenges and benefits of 7 ways artificial intelligence in education sector. In: *Review of Artificial Intelligence in Education*. Vol. 3. Retrieved from <https://doi.org/10.37497/rev.artif.intell.education.v3i00.3>
- Teaching Excellence through Professional Learning and Policy Reform*. 2016. OECD. Retrieved from [https://www.oecd.org/en/publications/teaching-excellence-through-professional-learning-and-policy-reform\\_9789264252059-en.html](https://www.oecd.org/en/publications/teaching-excellence-through-professional-learning-and-policy-reform_9789264252059-en.html)
- The European Master's in Translation. Competence Framework*. 2017. Retrieved from [https://commission.europa.eu/system/files/2018-02/emt\\_competence\\_fw\\_2017\\_en\\_web.pdf](https://commission.europa.eu/system/files/2018-02/emt_competence_fw_2017_en_web.pdf)
- The Fourth Industrial Revolution, by Klaus Schwab. In: *World Economic Forum*. Retrieved from <https://www.weforum.org/about/the->

- fourth-industrial-revolution-by-klaus-schwab/?utm\_source=chatgpt.com
- TURING, A. 1950. Computing machinery and intelligence. In: *Mind*. Vol. 59. pp. 433–460. Retrieved from <https://doi.org/10.1093/mind/LIX.236.433>
- Umelá inteligencia v školstve. In: *VysokeSkoly*. Retrieved from <https://www.vysokeskoly.sk/clanok/umela-inteligencia-v-skolstve>
- URBANIÁK, A. – BIELAK, M. I. 2021. Towards designing a Public Presentation Evaluation Tool (PPET): A pragma-rhetoric insight. In: *New Themes and Dimensions in Applied Linguistics* 59. Hamburg: Verlag Dr. Kováč. pp. 145–165. Retrieved from [https://www.researchgate.net/publication/354473565\\_Towards\\_designing\\_a\\_Public\\_Presentation\\_Evaluation\\_Tool\\_PPET\\_A\\_p\\_ragma-rhetoric\\_insight](https://www.researchgate.net/publication/354473565_Towards_designing_a_Public_Presentation_Evaluation_Tool_PPET_A_p_ragma-rhetoric_insight)
- USMAN, A. K. 2020. Technological advancement and educational development in Northern Nigeria. In: *Journal of Educational Technology Systems*. Vol. 48. No. 2. pp. 213–225. Retrieved from <https://journals.sagepub.com/home/ETS>
- VANLEHN, K. 2011. The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems. In: *Educational Psychology*. Vol. 46. No. 4. pp. 197–221. Retrieved from doi: 10.1080/00461520.2011.611369
- VELANDIA, E. M. 2024. Artificial intelligence in the educational context. In: *International Journal of Human Sciences Research*. Vol. 4. No. 9. Retrieved from <https://doi.org/10.22533/at.ed.5584292425095>
- VERGINIS, I. et al. 2011. Guiding learners into reengagement through the SCALE environment: an empirical study. In: *IEEE Transactions on Learning Technologies*. Vol. 4. No. 3. pp. 275–290. Retrieved from doi: 10.1109/TLT.2011.20
- WACH, K. et al. 2023. The dark side of generative artificial intelligence: A critical analysis of controversies and risks of ChatGPT. In: *Entrepreneurial Business and Economics Review*. Vol. 11. No. 2. pp. 7–30. Retrieved from <https://doi.org/10.15678/EBER.2023.110201>
- WANG, P. 2019. On Defining Artificial Intelligence. In: *Journal of Artificial General Intelligence*. Vol. 10. No. 2. pp. 1–37. Retrieved from doi: 10.2478/jagi-2019-0002

- WANG, Y. et al. 2024. Empirical Assessment of AI-Powered Tools for Vocabulary Acquisition in EFL Instruction. In: *IEEE Access*. Vol. 12. pp. 131892-131905. Retrieved from <https://ieeexplore.ieee.org/document/10639964>
- WASHBOURNE, R. K. 2012. Teaching and Learning of Translation. In: *Wiley Online Library*. Retrieved from <https://doi.org/10.1002/9781405198431.wbeal1151>
- WEIZENBAUM, J. 1966. ELIZA - A Computer Program for the Study of Natural Language Communication Between Man and Machine. In: *Communications of the ACM*. Vol. 9. No. 1. pp. 36-35. Retrieved from <https://doi.org/10.1145/365153.365168>
- WELNITZOVÁ, K. 2023. *Chybovost' strojového prekladu*. Praha: Verbum, 2023. 130 p. ISBN 978-80-88507-06-2.
- What are the infrastructure requirements for Artificial Intelligence?. 2019. In: *Leaseweb Insights*. Retrieved from <https://blog.leaseweb.com/2019/07/04/infrastructure-requirements-ai/>
- What is ChatGPT: Everything That You Need to Know. 2024. In: *Geeks for Geeks*. Retrieved from [https://www.geeksforgeeks.org/what-is-chatgpt/?utm\\_source=chatgpt.com](https://www.geeksforgeeks.org/what-is-chatgpt/?utm_source=chatgpt.com)
- WIGGERS, K. 2018. Grammarly brings its AI-powered proofreading tools to Google Docs. In: *VentureBeat*. Retrieved from <https://venturebeat.com/ai/grammarly-brings-its-ai-powered-proofreading-tools-to-google-docs/>
- WOGU, I. A. P. et al. 2018. Artificial intelligence, artificial teachers and the fate of learners in the 21st century education sector: Implications for theory and practice. In: *International Journal of Pure and Applied Mathematics*. Vol. 119. No. 16. pp. 2245-2259. Retrieved from <https://acadpubl.eu/hub/2018-119-16/2/232.pdf>
- WOO, D. J. et al. 2023. Exploring AI-Generated Text in Student Writing: How Does AI Help? In: *arXivLabs*. Retrieved from <https://arxiv.org/abs/2304.02478>
- ZAWACKI-RICHTER, O. et al. 2019. Systematic review of research on artificial intelligence applications in higher education—where are the educators? In: *International Journal of Educational Technology in Higher Education*. Vol. 16. No. 1. pp. 1-27. Retrieved from <https://doi.org/10.1186/s41239-019-0171-0>

- ZHAI, X. et al. 2023. Editorial: AI for tackling STEM education challenges. In: *Front. Educ.* Vol. 8. Retrieved from doi: 10.3389/feduc.2023.1183030
- ZHU, Q. – LUO, J. 2022. Generative pre-trained transformer for design concept generation: an exploration. In: *Proceedings of the design society.* Vol. 2. pp. 1825-1834. Retrieved from <https://doi.org/10.1017/pds.2022.185>

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**ENHANCING UNIVERSITY EDUCATION IN SLOVAKIA  
PIONEERING AI TOOLS FOR ACHIEVING EXCELLENCE IN THE EDUCATIONAL  
PROCESS OF ENGLISH LANGUAGE AND ANGLOPHONE CULTURES**

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