

DOMINIK WOLSKI *

Academia in transition – what AI brings to the university?

Introduction

Digitization and digital policy both in the European Union (EU) and globally embrace many stakeholders and various types of relationships, including individuals, consumers, businesses, governments, governmental agencies, authorities, etc. In particular in the EU, it also triggered many legislative interventions of the EU institutions, already implemented or planned¹. However in this universe, academics and universities, although being an integral part of it are hardly mentioned, not to say they are not in the mainstream. Artificial Intelligence (AI) as a part of progressive digitization, now is almost an indispensable piece of discussion at any conference or academic meeting, and a subject of number of papers that have been published. Many of them could have been written with use of AI too. Moreover, according to one of the surveys conducted in the United States covering more than 1,800 higher-education teachers, 18% described themselves as frequent users of generative AI tools and this number is growing (Hill 2025). As another survey shows, this time conducted among researchers of two prominent institutions, 25.9% of them describe themselves as “as frequent users of AI tools” (Chugunova et al. 2026, 1).

It goes without saying that AI has brought about revolution in many aspects of our life, implementing transformative changes and being already in use in many high-skill occupations, enabling novel discoveries and fostering innovations. On the flip side, there are also barriers and concerns such as legal uncertainty or privacy connected

* Dr Dominik Wolski (dwolski@kozminski.edu.pl), Akademia Leona Koźmińskiego

¹ See e.g. Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act), OJ L 277, 27.10.2022, pp. 1–102, Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act), OJ L 265, 12.10.2022, pp. 1–66 or Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L, 2024/1689, 12.7.2024 (hereinafter AI Act).

with AI (Chugunova et al. 2026, 1). As mentioned, academia is not free from AI phenomenon, but on the contrary, it becomes rapidly an indispensable part of academic world. However, there are number of questions on how to live, or even survive in the new reality, in particular concerning use of Generative AI (Gen AI) by both academics and students. For the time being it seems however, that except few elements of AI Act that may apply to academic environment too, those issues are not a subject of serious, general discussion or the EU law. Rather, they are a matter of internal regulations or guidelines adopted and announced by some universities in Europe and beyond². Importantly, number of those institutions that adopt internal regulations governing use of AI is growing. As regards to documents created by the EU institutions, what can be relevant for discussion of AI use in academia is a definition of this phenomenon. Thus “Artificial intelligence (AI) refers to systems that display intelligent behaviour by analyzing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. advanced robots, autonomous cars, drones or Internet of Things applications)”³. Obviously, from the technical end, AI solutions develop so fast, that there is neither technical nor legal definition, that could follow this fast evolution, covering all functionalities and possibilities offered by AI tools. Nevertheless, various definitions of AI do not differ significantly, emphasizing its two main components, learning capability and “taking intelligent action or proposing decisions” (ERC 2023, 3). The AI Act emphasizes use of AI systems “in accordance with Union values, to promote the uptake of human centric and trustworthy artificial intelligence (AI) while ensuring a high level of protection of health, safety, fundamental rights as enshrined in the Charter of Fundamental Rights of the European Union (the ‘Charter’), including democracy, the rule of law and environmental protection, to protect against the harmful effects of AI systems in the Union, and to support innovation”⁴. All the values are extremally important, but their application does not seem to provide a solution for specific problems encountered on the way of AI use by students, academic teachers (instructors) and researchers, in-

² See examples TUM Data Protection Guideline for the use of AI; King’s guidance on generative AI for teaching, assessment and feedback; Initial guidelines for the use of Generative AI tools at Harvard or SJTU Guidance on Development and Governance of AI in Education and Teaching.

³ High-Level Expert Group on Artificial Intelligence, A definition of AI: main capabilities and scientific disciplines, Definition developed for the purpose of the deliverables of the High-Level Expert Group on AI, Brussels, 18 December 2018, 1.

⁴ See recital 1 of the AI Act.

cluding those relating to copyrights or privacy concerns. Moreover, the legislative model applied to AI and ongoing discussion of the new conditions applicable to AI are focused on the need of understanding those conditions “by all stakeholders and related solutions supporting those essential requirements need to be integrated into products—otherwise access to the European Union Single Market will be lost” (Mueck and Gaie 2025, p. ix). Thus, the model is essential for shaping the EU market vastly affected by digitization and AI as a significant part of the former, but mostly from the perspective of product safety conditions. However, it does not solve problems discussed in this paper.

With that said, the main aim of this paper is to discuss the way AI changes academic world in its many dimensions, what are the main challenges in this respect, and what is acceptable, what is not or should not be. There are many types of academic work that may be discussed on this occasion, including but not limited to teaching, research, publishing papers or supervising master and PhD/DBA candidates. To this end, regardless of an important problem concerning the extent of permissible use of AI tools, one of the other relevant questions is if a unified, common approach and governance, based on similar principles of AI use in academic universe is needed or not. This may at least pertain universities across the EU, although knowing many examples of international cooperation between academic units, research centers and organizations, a possibility of broader application should not be abandoned. This is because adopting different models of permitted use of AI tools in academia, in particular Gen AI, may raise questions regarding equal principles governing teaching, evaluation of students’ works as well as value of academic degrees obtained under different models. It seems to be particularly important in case of public institutions (e.g. public universities and schools), however since private universities may often use state and the EU public funds, it is also relevant in this regard. Recognition of academic diplomas across the EU is another issue to be taken into consideration in this context. Research and publishing of academic manuscripts should not be forgotten too. Therefore, the main goal of the paper is to discuss how to use AI in academia, especially if knowing current state of technology, the academic institutions are capable to monitor and react to improper use of AI if it occurs, but also if any intervention at the EU or the EU Member States is needed or required in this regard. Furthermore, the paper is also to see the way AI tools may develop in academia, and to the extent limited by our current knowledge, to give some recommendations in this respect, in particular concerning the role of academics in future, digitized and AI-driven academic universe.

AI and university – five dimensions

Considering the main functions pursued by universities and confronting those functions with functionalities, opportunities, developments, role, and impact of AI in

the academic universe, five key dimensions need to be distinguished. Those dimensions are the following: teaching, examining, graduating, research and writing academic papers. In a nutshell: 1) in teaching process an academic assigned to the subject transfers knowledge to students, using various methods and means, such as in-person and on-line classes, presentations, workshops, case studies, etc., 2) examining translates in verifying students' knowledge, that includes for example answering by students to open questions, completing tests and many other forms of evaluating students' knowledge and skills that students had opportunity to learn, that may be conducted during semester (e.g. mid-semester test) or at its end (final semestral tests), 3) graduating stands for writing thesis or other forms of final student's work (bachelor, master or PhD) and taking final exams in order to accomplish respective level of higher education, 4) research usually consists of searching an idea for the research (ideation), and if the search is successful, working on the subject of the research, research questions and hypotheses, conducting a research project, making conclusions and sharing outcome of the research in many forms, including scientific conferences and academic papers, 5) writing and publishing academic papers, often also combined with research, requires finding an idea for a paper, collecting and analyzing data, searching and analyzing literature in the subject, writing a paper, proof-reading and submitting draft of paper to one of the journals, revising draft after review (if necessary), and submitting final draft. In all the above dimensions, the role of AI is not only visible, but is increasing at unprecedented speed and scale,⁵ in some cases consciously, in some others not. Nevertheless, considering the "nature" of AI and its main functionalities and opportunities that it provides, regardless of future development of AI tools, it seems that in essence current concerns relating to the role of this technology in academic universe will not change significantly. AI solutions that academics and students may be provided with can be faster than those that are in use today (although everyday improving), they also may have more functionalities and options, but in principle the main concerns will be the same. For example, there are very well-known aspects relating to "authorship" of materials generated by AI as well as privacy with regard to everything that AI tools had been "fed" to generate content. Those concerns are universal, reaching far beyond use of AI tools in academia⁶. Therefore they are only signaled, but not discussed at length in this paper. Another set of questions and doubts pertaining use of AI are "typical" for academia. Those concerns, mostly discussed in this paper, relate to academic integrity and ethics, including quality of academic work and a role

⁵ See for example comparison of two surveys, from 2023 and 2024 and increasing number of researchers frequently using AI (Chugunova et al. 2026, 3).

⁶ See for example The European Union Intellectual Property Office, Development of Generative Artificial Intelligence from a Copyright Perspective.

of human factor therein. Based on that, the following subparagraphs discuss the main concerns associated with use of AI in academia, having in mind the above five dimensions.

Teaching

As said, teaching is basically a process in which an assigned academic (teacher, instructor) transfers knowledge and skills to students, using various teaching methods. The methods mean in-class or on-line lectures and workshops, including use of materials created by the teacher, in particular presentations, posters, e-learning courses or case studies. Responsibility for choosing effective teaching method and outcome of the process rests on an academic assigned to the subject. This person is usually not only responsible for teaching, but an academic teacher must also take care of evaluation of students' work, namely what students learned from what they had opportunity to learn as a result of the teacher's effort.

A combination of teaching process and AI tools raises concerns relating to teaching components mentioned above. An academic teacher creates teaching materials that students are provided with in order to make learning curve smoother, faster and more efficient. In pre-AI era, an instructor was preparing materials on his own. Obviously, when doing this job, usually plenty of sources should have been used. Nevertheless, in an effort to observe both the rules of academic integrity and legal requirements, said teacher was obliged to do appropriate references to sources that were used when preparing materials. Presentations, handouts, readings, case studies, posters, etc., were prepared by a teacher who authorized those materials, subject to above references and quotation rules. Nowadays it becomes more complex. On the one hand, universities usually do not prohibit, but instead, they to some extent encourage academics to use AI in teaching process, preparation of materials included. However, on the other hand, those entities do not necessarily explain what the consequences of these practices are. In this respect, one of many concerns is that relating to copyrights, particularly in case of using by an instructor AI solution that is based on open source⁷. The copyrights issue in the context of AI is going far beyond academia but should not be forgotten also in respect to the latter. Supporting responsible experimentation with generative AI tools or expressing a need for critical review of all AI outputs, repeated on many occasions in universities' guidelines on use of AI tools,⁸ does not seem to be enough and clear hint on how to work with AI when creating teaching materials. Importantly, due

⁷ See The European Union Intellectual Property Office, Development of Generative Artificial Intelligence ...

⁸ See for example Initial guidelines for the use of Generative AI tools at Harvard and Use of generative AI tools to support learning.

to use of various technologies based on AI, an academic teacher may not be recognized as an author of such materials, or at least not a sole author. As a matter of fact, but not necessarily according to the current state of legal interpretation of copyright law, materials are co-authored with AI that was used. To what extent a teacher is an author of the materials depends on a particular case, mostly on the teachers' and AI's involvement in their creation. Moreover, although academics use AI tools, not many of them are well familiar with technical intricacies of AI technology⁹. Also, this technology is not totally transparent in respect to how it works and what content it was fed and trained before generating output at the request (so called "prompt") of its user. It is worth noting that prompting as such becomes a new skill in an academic universe too (Chugunova et al., 4). For these reasons it is hard to say that the above academic when deciding to involve AI tool in creation of teaching materials, made such decision when being fully aware of its circumstances and consequences. Taking a very simple and common example of an academic teacher putting PDF file to the AI tool in order to create presentation, the outcome may differ from the original source. So called "hallucinations" ("AI-generated content can be inaccurate, misleading, or entirely fabricated"¹⁰) it is a very well-known phenomenon, that can also significantly affect the outcome expected by the teacher. Importantly in this regard, selecting pieces of knowledge that are relevant for students and structuring presentation require effort and skills, that in the process in question is taken over by AI. Very often, those qualities depend on individual features of an instructor, experience and number of problems encountered and solved during academic career. Those human-attributed features not only cannot be replaceable by AI tools, but they also may give some academics competitive advantage, who thanks to these skills are better in transferring knowledge, have more students and are employed by universities more likely.

Also, said authorship should be a subject of a serious debate. According to the previously mentioned universities' policies and guidelines governing use of AI tools, verification and accountability rest on an academic, who always should review AI-generated content before sharing with students. However, the above situation may raise not only ethical but also legal concerns. Does "fair use" doctrine apply to these situations?¹¹

⁹ According to the survey already mentioned in this paper 42,4% of the researchers declare that they are very or rather familiar with AI tools (Chugunova et al., 3).

¹⁰ Initial guidelines for the use of Generative AI tools at Harvard: Review content before publishing or sharing.

¹¹ See for example court case Tremblay et al v. OpenAI, Inc. et al, United States District Court Northern District of California, where copyrights issue in the context of fair use doctrine was discussed in relation to materials in OpenAI's training dataset (https://www.govinfo.gov/app/details/USCOURTS-cand-3_23-cv-03223/summary).

Should an academic when presenting materials or providing students with these materials inform them, that the teacher was not the only “creator”, but the materials were prepared in co-authorship with AI? Should an academic inform students to what extent or in what percentage a teacher is an author, and what was done solely thanks to AI tool’s functionalities and capabilities?

In addition, academic teachers are allowed to use AI in teaching process in an unlimited scope, subject to rather general rules set forth in the universities’ policies and not being “controlled” by students, neither are academics obliged to inform student about use of AI. Students in turn, are mostly required to work on their own in a “traditional mode”, in particular when they work on tasks assigned to them by teachers (e.g. essays, tests, etc.). If they decide to use AI, they have to be transparent with an academic teacher and in case of any doubts, the latter is someone who should clarify what is allowed and what is not. Meaning, “Faculty should be clear with students they’re teaching and advising about their policies on permitted uses, if any, of generative AI in classes and on academic work. Students are also encouraged to ask their instructors for clarification about these policies as needed”¹². As said, students are usually required to do in-class exercises or prepare homework on their own, unless they inform the teacher about use of AI. In case of any doubts, they need to obtain the teacher’s approval. At the same time, academic teachers may use AI tools whenever they want. It must have caused objections among students, who often express their disgust as regards to how they are treated by teachers in the context of AI use (see Hill 2025, Goldstein 2025 and The Learning Network 2025). At least some of the students’ voices are legitimate in this respect. They say among others, that they pay “often quite a lot, to be taught by humans, not algorithm that they, too, could consult for free” (Hill 2025). On the flipside, in many cases experienced academic teacher, in particular the one having good contact with students, may easily discover, that an essay or other student’s assignment was not written by that student, but it was simply generated by AI tool. However, from practical perspective, even knowing that it is almost impossible for the teacher to prove where this work comes from, especially that this was a result of a “prompt” (see Steinhorn 2025).

Examining

Examining is also an important component of academic teachers’ tasks at the university, aiming to verify if and to what extent students learned what they were offered during the course. This may occur as mid-term tests as well as final exams culminating academic semester or full academic year. In this respect AI-related con-

¹² Initial guidelines for the use of Generative AI tools at Harvard: Adhere to local academic and administrative policies.

cerns are not much different from those discussed above, relating to teaching. In general, academic teachers are free to use AI tools when creating tests, exam papers or case studies, provided that they comply with the universities' policies governing use of AI-based solutions. Though, as stated above, the policies and guidelines are not necessarily clear and sharp, passing wide range of responsibility on to academic teachers. At the same time students, maybe except some analytical tasks requiring analysis of big datasets, are usually required to provide answers based on their knowledge, and are not allowed to use any external support, AI included. The above students' concerns relating to professors using AI to create materials and verify students' exam works, as well as professors' worries concerning untraceability of use of AI tools by students remain unchanged. It looks like a paradox of pretending that neither of both sides uses AI tools, whereas in fact many academics and students use this technology to the extent possible (Goldstein 2025).

As noted above, in some cases following universities' policies students may be allowed to use AI tools when collecting and analyzing data, working on case studies or improving quality of language of their works, essays, exam papers, etc. However, in these situations, questions of ethics, not to say about fairness as well as those concerning legal aspects return, this time on the students' side. Collecting data, analyzing case study, formulating insights, as well as taking care of language quality, require a lot of effort and skills proving students' quality and impacting their grades and final achievements. When using AI tools to deliver all the above assignments, even though partly, who is the one who fulfills the task by answering questions, providing exam paper or solution of a case study? Who is the author, and if AI was involved, to what extent a work that was presented to the teacher represents student's knowledge and skills? All those factors presented above illustrate how difficult is to manage use of AI tools in examining process, no different than in case of teaching. Apart from other elements that might be discussed in this respect, fairness, integrity, but also legality play essential role in this process. Passing an exam must meet all requirements and standards, not only ethical, but also legal, because in the end mid-term assignments as well as final exam have legal value and consequences. Importantly, the rules governing AI use should apply the same way and to the same extent to both professors and students. Otherwise, regardless of students' dissatisfaction that many universities may face, academics will not be legitimate to demand too much from students, if they do not require the same standards from themselves. It is hardly acceptable from ethical perspective, that while students are required to write exam papers based on their own knowledge and effort, academic teachers might be allowed to easily use AI tools to review students' works (see Hill 2025). Therefore, firstly teachers should decide if they want to use AI or not, but once this decision is made, they should be also transparent

with students. Additionally, it requires decision on permissible use of AI tools by students when taking exams. Meeting transparency and integrity standards paves the way of getting trust and students' engagement in both, learning and examining. Moreover, we should not lose sight of one important consequence of growing use of AI tools in academia, which was noticed in relation to students, but it is equally relevant for all academic activities. Increasing use of AI is "a slippery slope", because the more we use it, the more dependent we are on it. It is very addictive and may remove human's need to think and being creative (see The Learning Network 2025), which is important because creativity and human critical thinking cannot be replaced by AI tools¹³.

Graduating

This process is pursued in order to prove final accomplishment of a student, who thanks to the completion of range of activities included in curriculum, finally obtains graduation and bachelor, master or PhD diploma. It usually includes preparation and writing a thesis or dissertation, and final exam in front of a commission appointed by the university's faculty. Therefore, complexity of this process translates into number of opportunities of AI use. Zooming the problem, there are two main aspects of AI use, that may raise significant concerns in this respect. This time however it seems, that the main burden and dilemmas of using AI tools or not, as well as the extent to which it may be used, rest in the first instance on a student. Obviously, the latter does not mean that academic teachers in charge of supervising graduation are free from the above problems.

In vast majority of cases, writing a thesis that apart from final exam provides a base for graduation from the university is key. It also requires a lot of work, effort and skills, being very demanding and time consuming. Depending on the subject, it may include collecting materials, collecting and processing data, searching sources, reading and analyzing literature, and poring plenty of time over writing, before the final product will see a daylight. Therefore, simplifying this process, saving time and getting diploma at ease using "magic power" of AI tools must be very tempting for many students. The idea for thesis can be found at ease as well as writing can be completed quickly using number of AI tools offered on the internet. According to the most of the universities' policies and guidelines, a student may use AI when working on thesis to very limited extent, not replacing student's individual creativity and effort. Thus, support from AI tool may mostly include data collecting, searching for literature or improvement of language. What is important also from the perspective of this paper, who should take care of proper use of AI by students is an academic teacher (a supervisor). As one of

¹³ See Use of generative AI tools to support learning.

the universities' guidelines state "faculty should be clear with students they're teaching and advising about their policies on permitted uses, if any, of Generative AI in classes and on academic work"¹⁴. Another guidelines instruct academics what they should do in order to reduce improper use of AI. It particularly includes necessity of being constantly in contact with students, giving sufficient feedback and checking progress of individual students, especially when they prepare academic works¹⁵. On top of that, many universities require from students submitting their thesis accompanied with a statement on use of AI, aiming to ensure transparency in this process and eliminate improper use of AI. Usually, those statements should be attached to thesis submitted by student.

Despite of all the above efforts it must be said, that at the current state of development of AI technology, for an academic to detect if student's work was prepared with use of AI tool or not is a hardly feasible task. There is a number of AI detectors, but also AI humanizers, enabling to transform AI-generated text in whatever direction, making use of AI practically undetectable¹⁶. Those solutions are fully transparent as regards to their use, namely "AI Humanizer to Humanize AI Text & Bypass AI Detectors"¹⁷. As a result, even considering great engagement of an academic teacher in preparation of student's thesis, it is very likely, that if the student wants, presenting AI-generated, humanized and as a result undetectable material is easily possible. Human factor for top-tier education is critical, but at the same time "cheating" or doing something that is not in line with universities' policies on use of AI is possible too.

Due to the above reasons, as mentioned many universities require from students submitting their thesis or other projects accompanied with statements on AI use. Transparency is important and in most cases this is all what can be done. Though, those statements may also raise some doubts. Firstly, due to previously mentioned practical undetectability of AI tools' involvement in preparation of any work, the truthiness of the statement almost entirely rests on student's honesty and decentness. If a student is not honest in disclosing if AI tool was used or not, virtually there is no possibility to detect that the statement does not express the truth. Secondly, a student is required to state to what extent, if any, AI tools were used when working on the thesis. At the same time, due to the anti-plagiarism rules, each student must attach standard statement confirming that the student is the one and only author of work, that was presented to the university. However, at this point one may find a little

¹⁴ Initial guidelines for the use of Generative AI tools at Harvard: Adhere to local academic and administrative policies.

¹⁵ AI chatbots in unsupervised assessment, Technische Universiteit Delft.

¹⁶ See examples: <https://justdone.com/ai-humanizer> or <https://humbot.ai/humanize-ai>.

¹⁷ <https://unaimytext.com/>.

contradiction. If a student states that he or she is the one and only author, but at the same time another statement is informing that AI tool was used, in the end the authorship is shared with AI. Obviously, it depends on the extent, purpose of using AI, etc., but especially when use of AI tool is extensive, the sole authorship of student's work is dubious. There is also another rule discussed in the following paragraph pertaining writing academic papers, that does not allow for any AI's authorship. An author must be always a human, who bears full responsibility for the work presented. Nevertheless, combination of AI transparency and anti-plagiarism rules may be confusing. Thirdly and lastly, the universities' rules governing use of AI usually state – the same as in case of publishers of journals – that said use is allowed to certain extent, but the author (a student) must be transparent with application of AI to work that was submitted. There are usually not strict, sharp limitations of using AI too, but general principles and guidelines rather¹⁸. What if, being fully transparent, a student state that thesis was prepared to the great extent thanks to AI (e.g. finding an idea, collecting data and literature, preparing table of content and structure of work, drafting some pieces of work, and in the end language improvement). According to the rules, if transparency is key and AI must not be an author, was this work done by the student or not? This example may be seen as too far reaching and even extreme, but on the other hand one may say, that this is not totally forbidden or impossible, neither are specific rules clearly drawing the limits of using AI tools when preparing student's work.

Research

The problem of research and AI is multidimensional. This is because research projects are usually complex undertakings, very demanding not only in terms of work, but they also require invention and innovation abilities as well as very often managerial skills, that not every academic possesses. Research is also one of the most frequently discussed topics relating to AI and academia (Chugunova et al. 2026, Bianchini et al. 2022 and Fieldhouse 2025). As said in the beginning of this paper, research embraces several different stages, including but not limited to selection of the subject, searching an idea for the project, formulating research questions, hypotheses and objectives, doing conducting research, sharing mid- and final outcome of the research through attending conferences and publishing papers and books. All those components and even more are reflected in AI tools that academics are being offered by providers of AI solutions. They offer plenty of functionalities that are available at ease on the internet¹⁹. An academic may for example request for a research proposal, plan of study, sugges-

¹⁸ See among others rules and guidelines mentioned above in this paper (e.g. Harvard, Oxford, King's College, TUM, SJTU, etc.)

¹⁹ See for example Zero GPT, Google Scholar, Perplexity.

tions for further research, suggestions regarding conferences to attend, twitter thread, title of study, idea for new studies. AI solution can also translate text and answer whatever questions asked by the researcher. In sum, AI technology offers “Effective Research Writing, Reading & Analysis with AI”²⁰. Virtually, possibilities of a researcher to use AI in the research are limitless. Therefore, for an academic to figure out a new research project, to conduct that project and share its results by publishing papers, do not seem to be as difficult as it was in pre-AI era.

For the above reason, number of academics using AI tools in research is increasing rapidly in relatively short time span, ranging from 44% of researchers declaring that they have used AI tools a few times (Chugunova et al. 2026, 3) to 60% of that population reporting that they use AI for work (Fieldhouse 2025). However, what is essential for the above characteristic of AI use in research is the fact, that AI is used by researchers not as “a mere assistant” but “AI is a co-creator”. Namely, AI tools are used for “core research activities” such as “ideation and conceptual development” as well as “in the dissemination stage” “to help write research manuscripts” (Chugunova et al. 2026, 4). Therefore, AI is positioned “as a co-creator or even a manager of research processes” (Chugunova et al. 2026, 4).

With that said, the main concerns arising out of AI use in research are partly similar to those pertaining writing a thesis by a student or drafting a paper by an academic. Whether someone came across with an idea for the project or formulated research questions or hypothesis with use of human’s brain or AI tool is practically undetectable. At the same time, AI tools give huge competitive advantage for those who use it, versus those who do not use AI in research. This is not only due to better, worse or lack of creativity that can be replaced by “innovative” AI, but also because AI tools provide enormous time advantage. Therefore 50.4% of researchers report using AI to speed their work (Chugunova et al. 2026, 4). Even though a human is extremally creative and smart, the time spent by this person on ideation, not to mention other stages of the project, will never be comparable with the efficiency of AI tools that researchers are being offered.

Growing implementation of AI technology in research must lead to profound transformation of research practice (Chugunova et al. 2026, 5). Therefore, what academics and institutions must care about is academic integrity. It is also rather unlikely that the guidelines already adopted by some universities may address all concerns in this respect, neither they can solve all the problems. It requires constant work and discussion, but first and foremost decision made by institutions. Decision that needs to be taken should be reflected in the universities’ rules governing use of AI tools in research, because researchers should know how they can use AI when doing their job.

²⁰ See for example Avidnote.com.

It is also because AI is a game changer for the research as well as for many other academic activities. However, to benefit from its impact, the governance of AI is not only essential (Goos and Savona 2024), but also expected by community of researchers (Chugunova et al. 2026, 5). Those rules should be rooted in academic integrity. They should also seriously consider that ability of finding and creating a new idea and structuring research project, even supported by AI, are all factors that prove the quality of researcher and give competitive advantage in academic realm. Obviously, there is an undeniable fact of AI being useful, fast and extremely effective. We already know examples of playing chess by AI in a manner unreachable for humans or discovering novel antibiotic by the same technology (Kissinger, Schmidt and Huttenlocher 2024, 7-10). It proves AI to be able to cause transformative change and move science forward. Therefore, we should use AI to the greatest extent possible, whenever it serves for the good of human beings. Nevertheless, what was created by AI should not be “under-signed” by humans. What is also important when laying down rules of permissible use of AI in research, is cooperation between universities that must take place. The rules should apply equally to the wider academic world, if they are supposed to work effectively. Otherwise, implementing different rules by various universities will not solve the problem, but it will escalate it, because if the rules differ, it may result in giving some academics unfair competitive advantage in research. Instead, any rules that will be implemented need to enhance academic work and development of science in its various disciplines and dimensions.

Writing

The last component of academic’s experience discussed in this paper, no less important than the others is writing academic papers, which is closely intertwined with scientific publishing market. Here AI also brings highly transformative change (see Strielkowski 2024, 1), because as previously mentioned study shows, researchers declare openly (although anonymously), that they use AI tools when writing research manuscripts (Chugunova et al. 2026, 4). At the same time, except some technical intricacies, problems existing in this respect are in many aspects similar to those discussed in preceding paragraphs, for example concerning writing thesis or conducting research projects. They are stretched from searching and finding an idea for the paper, through collecting and analyzing data and literature, to writing, proof reading and fine tuning of the draft paper. AI tools are currently in use at all the above stages (Chugunova et al. 2026, 4), what “might change the rules of the game” (Strielkowski 2024, 1) that have existed for a long time in the publishing market. Importantly in this respect, publishing papers in renown, highly indexed academic journals is critical for successful academic career, although the way publishing market works raises some concerns too

(Strielkowski 2024, 1). On top of that, almost every academic experiences pressure to publish that is expressed in a very well-known slogan “Publish or Perish”. How publishers respond to the new realm? At first, to avoid being snowed by wave of papers generated by AI, they worked out and published guidelines on use of AI tools, that provide rules of what is allowed and what is not. According to the rules, any type of AI tool must not be an author or co-author of the article²¹. The rules also state that a very limited use of AI is permissible, for example to improve language and readability of the paper²². Thus, it should be interpreted that AI tools may be used, but in a way that will not distract or limit a real and full contribution, authorship and accountability of human, who is undersigned as the author of the paper. This includes the whole process of work on the manuscript, starting from finding an idea until the full article is written, and only small language adjustments and corrections are available to the author using AI. The author always bears full responsibility for the paper submitted to the journal, irrespectively of the extent and manner AI tools were used. Moreover, regardless of the interpretation of the above rules, the chief principle is always transparency. Thus, everyone who had prepared draft of the paper and sent it to the journal with the intention to publish, must disclose if AI tools were used or not, and if yes, how²³.

A critical role in publishing process is played by reviewers, because in peer review system that is common for all renown journals, the outcome of the review is decisive for the manuscript to be published or not. At the same time, currently existing peer review system may also raise concerns in respect to its length, but also objectivity (biases) and transparency (see Strielkowski 2024, 2). Peer review system demonstrates also very good example of transformative change triggered by AI that is taking place, because AI-based solutions offer a wide range of possibilities of making reviewers’ life easier. They can use AI to get insights from the draft of paper or even to conduct a full review. No wonder that some reviewers may be tempted to use AI in this process and publishers decided to react. The journals in general express big concerns relating to possible use of AI tools in review process, pointing confidentiality and IP rights issues, biases in dataset as well as “risk of generating false, flawed, or inaccurate results.” Mostly for these reasons, use of AI tools or LLMs “to assist in the review, evaluation, or decision-making process of any part of an article, case study, or chapter by either a member of a journal’s Editorial Team or a reviewer,” is not permitted²⁴. One may find

²¹ See e.g. Emerald Publishing’s stance on AI tools and authorship and AI Policy, Taylor & Francis.

²² Emerald Publishing’s stance on AI tools and authorship.

²³ See e.g. Emerald Publishing’s stance on AI tools and authorship and AI Policy, Taylor & Francis.

²⁴ How to... Review a journal, case study or book proposal, Emerald Publishing.

these principles in guidelines on AI use adopted by many renown journals. For example, “Reviewers must not use artificial intelligence tools to generate manuscript review reports, including LLM based tools like ChatGPT”²⁵. Although, some of the guidelines, while emphasizing critical role of human factor and full reviewer’s responsibility for the review, might seem as giving some, although limited space to use AI tools in review process by not introducing explicitly an absolute ban on using AI or LLMs²⁶. Additionally, according to the Oxford Research and Innovation Committee (RIC), transparency of using AI is important, but also peer reviewers should be vigilant about the use of AI and Large Language Models (LLM) by the authors²⁷. It seems that the latter statement, should be addressed to peer reviewers’ work too.

As said, peer review is also that part of publishing process, in which the previously stringent journals’ attitude seems slightly changing. Due to the fast advancement of AI technology as well as undeniable fact of AI tools being used by researchers and authors of manuscripts, some of the publishers may become more open for the use of AI in review process. However, it is possible only provided that “human judgment must remain in the driving seat”. Meaning, AI tools may be supportive in this process, increasing its efficiency, but it cannot replace “the expert judgment of trained reviewers and editors” as well as “responsibility, transparency, and a deep respect for human insight” (see Panda 2025). This leads to the conclusion, that although currently use of AI in peer review is rather not welcomed, either directly prohibited or not recommended, this situation may change in near future. Reviewers might be allowed to use AI when reviewing academic papers, subject to their strict supervision, transparency and full human responsibility for review. Important arguments supporting implementation of AI tools in peer review process may be already mentioned objectivity, transparency and efficiency of the review (see Strielkowski 2024, 2).

The rules governing use of AI discussed in this paragraph do not seem to be enough to address all concerns relating to publishing academic manuscripts. They are rather generic in nature, giving an author space for interpretation, and allowing for making decision if and to what extent AI tools may be used when working on the draft paper. Additionally, any rule to be effective must be enforceable, which in cases pre-

²⁵ Guidelines for peer reviewers, Taylor & Francis.

²⁶ “Generative AI or AI-assisted technologies should not be used by reviewers to assist in the review of the material/manuscript as the critical thinking and original assessment needed for review is outside of the scope of this technology and there is a risk that the technology will generate incorrect, incomplete or biased conclusions. The reviewer is responsible and accountable for the content of the review.” See The use of generative AI and AI-assisted technologies in the review process for Elsevier, Elsevier.

²⁷ Research and Innovation Committee guidance on the use of artificial intelligence tools in your research, University of Oxford.

sented in this paper does not seem to be easy. One may find example of “retraction notice” upon it was discovered, that the authors had used GenAI when working on the paper, breaching the journal’s policy²⁸. This means that draft of the paper was sent to the journal, reviewed, published, and eventually withdrawn by editor-in-chief due to previously undiscovered, improper use of GenAI and “duplication of text and image data between two articles that were submitted and published in close succession”²⁹. For some reasons it was not discovered by peer reviewers. This example illustrates, that use of AI in publishing process on both sides, authors and reviewers, is to some extent out of control. How many similar cases of improper use of GenAI were not discovered, and as a result the manuscripts were published and exist in journals’ domain, being a part of the academic track records of the authors? This may concern all previously mentioned methods of “humanizing” AI-generated content, that thanks to that becomes undetectable. Although current rules applicable to reviewers are sharp (no use of AI in reviewing process), discoverability of that use may be also debatable. Therefore, in current state of technology, following or not rules provided by publishers of academic journals rests mostly on trust to the author and reviewer.

Aside from the above reflections on permissible use of AI tools when working on academic manuscript by authors and reviewers, it should be also noted, that “writing is about writing”. Writing skills may also matter in the academic realm, giving some academics advantage, that some of their peers do not possess. From this perspective, giving less-skilled authors opportunity to significantly improve text layout, language quality and readability of the paper beyond the scope of current proofreading may raise some doubts. Obviously, it depends on the subject of the manuscript (namely sciences disciplines discussed in the paper, e.g. social sciences, humanities, formal sciences, etc.), manner and extent of using AI to improve text written by the author, as well as the quality of original text. Nevertheless, it should not replace the author’s own skills and ability to write good quality text. Otherwise, if the quality of the manuscript was vastly improved by AI, AI should be assigned as co-author of the manuscript.

The future of academia in the age of AI

The statistics of AI use in academia are merciless. It is constantly and rapidly growing, including all aspects of academic life, in particular teaching and research, not to say about writing academic papers. According to the surveys already mentioned in this article, 42.4% of the researchers reported that they are very or rather familiar with AI

²⁸ Retraction notice to “The three-dimensional porous mesh structure of Cu-based metal-organic-framework – Aramid cellulose separator enhances the electrochemical performance of lithium metal anode batteries”.

²⁹ Ibidem.

tools, 44.0% have used AI tools a few times, and 29.5% are frequent users of AI. Importantly, AI is in use not as a peripheral tool, but to conduct key research activities (Chugunova et al. 2026, 4). In addition, 69.2% of the researchers “expect that AI will transform or even revolutionize their field of research in the next decade” (Chugunova et al. 2026, 3). This also means that “The integration of AI into academic publishing signifies a pivotal change” and “researchers need to adapt to this emerging landscape” (Strielkowski 2024, 5). How should academic society respond to the new reality? Which of the three alternatives presented in one of the papers discussing AI and the scientific publishing market - “Enhanced Academia” (no limitations for AI), “Co-pilot” (AI as only helping hand) or “AI-free” (any use of AI banned in writing and publishing) (Strielkowski 2024, 4) - should eventually be chosen?

Obviously, everything that moves our civilization forward, such as devising a new vaccine or solving one of the important problems of human beings, is good and should be supported and developed. However, the problem is complex because AI in many aspects of humans’ life as most of other new technologies may be used in positive, but also in negative manner and purpose³⁰. The same applies to AI presence in academic universe. It is also rather unlikely, that guidelines that have been already adopted by many universities and research organizations, may solve problems of ethics, fairness or academic integrity, not to mention legal concerns relating to AI (e.g. confidentiality, copy rights, personal data protection, privacy, etc.). Considering the dynamic of AI evolution which is plain to see almost every day, no wonder that some of the universities already made reservation, that the adopted rules or guidelines are preliminary³¹, and may change in the future depending on further evolution of AI technology.

Having said that, the first important insight relating to universities in the above described every-day-changing circumstances, should concern fundamentals. In a digital world, where almost everything, including information and knowledge is available at ease (although not always accurate and valuable, not to mention fake), the only unique and irreplaceable component of an academic world is a human factor. This is what not only decides about the universities’ position in the society, but it is also the main reason for them to exist. If almost everything may be generated by AI in a few seconds, the only “thing” that is indispensable, it is a personal contact of a student with good

³⁰ See very interesting discussion of AI from wider perspective, including advantages and opportunities that it gives humans as well as perils and pitfalls that it may bring about, also in the context of human intelligence and development of human civilization in Kissinger, Schmidt and Huttenlocher 2024. See also about the need to supervise and control of AI and consequences of failure for the society in this regard in Adib-Moghaddam 2025.

³¹ Initial guidelines for the use of Generative AI tools at Harvard: Adhere to local academic and administrative policies.

academic teacher or tutor (see Hill 2025). This, combined with high-quality teaching skills, knowledge and research, gives a possibility for the university to have good quality of studies and graduates, that the society and market value a lot. As a consequence, if the universities start losing human factor-related quality by uncontrolled, irresponsible use of AI by students, academic teachers and researchers, they will be gradually losing their position, but first and foremost the reason for them to exist. It was also what many universities experienced during COVID-19 pandemic, that forced them to switch to on-line classes only. Therefore, probably neither of the above three options (“Enhanced Academia”, “Co-pilot” and “AI-free”) is possible to implement in its pure instance in academic realm. However, when deciding about the future role of AI in academia, the above implications should be seriously taken into consideration. What is very important for research and science development, but what in a longer perspective impacts academic teaching too, is fair competitiveness in research. Meaning, for someone who decently wants to do a good research, working hard and spending a lot of time on that task, it would be devastating to learn, that someone using unfair methods quickly arrives at the same or better results, being recognized and awarded in academic world. AI may play very positive role enhancing competitiveness and transparency in research and offering “unprecedented opportunities to accelerate the dissemination of research, enhance collaboration among scientists, and improve the overall quality and accessibility of published works” (Strielkowski 2024, 3). Nevertheless, what academic community in general, but universities and research centers in particular, should care about is proper use of AI tools in all dimensions of academic work to provide competitive environment. Balanced, controlled, but at the same time enhancing research use of AI is particularly important in the EU and its Member States, where spendings on research and innovation, also in the context of AI, are in total lower than for example in the United States (Draghi 2024, 6, 25–28).

The last, but very important aspect of AI in future academic environment are rules that should govern its use. It is something that is not limited to academic realm (Goos and Savona 2024), but considering specificities of AI use in teaching, research or academic writing, it also requires specific approach. In this context the guidelines on use of AI tools already adopted by the universities do not seem to be enough, at the same time suggesting that the universities did not yet decide how they should position themselves in respect to use of AI-driven technology. The rules are not sharp, rather generic and giving much space for interpretation, which makes them easy to ignore, circumvent or abuse. At the same time the need of implementing good-quality governance of AI, including “regulations and guidance from supranational institutions” and “set of ethical principles to ensure responsible and transparent scientific publishing practices” is being expressed by academics and researchers (Chugunova et al. 2026, 5, Strielkowski

2024, 3). Therefore, the EU seems to be a good starting point for creation a common policy on AI use in many aspects of academic activity, in particular that there are some examples of similar policies in the same field, that might help when creating the above common rules governing use of AI. As an example, although there is no automatic recognition of academic diplomas in the EU, but the process of compering them exists. This, under certain procedure, allows graduates or academics from one state to nostrify their diplomas (e.g. academic titles) in another state³². It could provide a good ground-work for guidelines on AI use in all dimensions discussed in this paper. Obviously, the rules should respect universities' independence and reality of different qualities of universities and academics from various states, as well as many types of studies, publications and research. However, at the same time they must ensure permissible use of AI, that equally applies to everyone, not leaving space for use of AI in a manner that may disturb academic integrity.

Establishing common principles of AI use across the whole academic world is by far more complex undertaking, if anyhow possible. Universities in the US, China or other powerful states, also considering their advancement in higher education and research, are hardly possible to compare, not to say about "forcing" them to implement the same rules. This kind of exercise would never be successful. However, regardless of those differences, one may see some examples of cooperation between universities and academics over the globe, including teaching and research projects, visits and exchange³³. Therefore, here the opportunity to work on some common or at least not much different rules of use of AI tools seems to be also an imaginable option. The policies governing use of AI mentioned in this paper, that were adopted by many internationally renowned journals from different geographies may serve as a very good example too. Thus, working on some common rules of use of AI will contribute to ensure good quality higher education and research for the good of our global community.

Summary

Ever since AI had entered our world, academics (scholars, researchers) and students started living in a new reality. If this eventually means revolution with consequences going further than Industrial Revolution of 1750 (see Goos and Savona 2024) or becomes common as many another technologies in the service of human, that has nothing to do with humans' general intelligence (see Lawrence 2024), we do not now yet. Nevertheless, it is undeniable that AI exists in every aspect of humans' life, including academia, and affecting it every day. At the same time, what should not be

³² Recognition of academic diplomas.

³³ See remarks regarding the need of cooperation between top international universities in Baty 2024.

ignored is the fact, that AI when having many functionalities that can support or booster academia, may also significantly impact some aspects of teaching, writing manuscripts and research, not necessarily improving their quality. This may happen in particular if use of AI does not comply with rules of academic integrity and ethics or disrupts competitiveness in research and science.

AI-related problems discussed in this paper are complex, engaging many stakeholders, including academics, universities and students, as well as many conflicting interests, because as known AI in schools and at the universities is also a big business (Goldstein 2025). That is why in academic realm it should be seen and treated as objective as possible. In the current state of knowledge, it is a “machine” based on chains of neurons and their connections, and the outcome that AI tool provides very efficiently upon it was prompted, mostly depend on what it was fed (or trained). For this reason we should not mystify AI, being either threatened or too ecstatic, since this is only a tool that may be used for a very good purpose as well as for a bad one. The universities working in tandem with the EU institutions should create sharp, but also reasonable rules of use of AI, ensuring academic integrity, and including equality, transparency and fairness in teaching and research. Additionally, what is absolutely critical and should never be forgotten, is that the main value of academic world is human factor. Except that, that rest is a set of “technical” tools, methods and solutions. Missing human factor must sooner or later unavoidably result in a “superfluity” of academics and universities. It is worth mentioning here once again, what one of Americans students said, that they pay “often quite a lot, to be taught by humans, not algorithm that they, too, could consult for free” (Hill 2025). Therefore, when creating any rules on AI use, what should not be forgotten is the human “component” as the main value of academic world, that distinguishes it from technology and technical tools.

References

- Adib-Moghaddam A. (2025) *The myth of good AI, A manifesto for critical artificial intelligence*, Manchester University Press
- AI chatbots in unsupervised assessment, Technische Universiteit Delft. <https://www.tudelft.nl/teaching-support/educational-advice/assess/guidelines/ai-chatbots-in-unsupervised-assessment>
- AI Policy, Taylor & Francis. <https://taylorandfrancis.com/our-policies/ai-policy/>
- Baty P. (2024) These are the top international universities: Why their cooperation has never mattered more. World Economic Forum. <https://www.weforum.org/stories/2024/01/the-top-internationally-connected-universities-why-their-cooperation-is-vital/>
- Bianchini S., Müller M., Pelletier P. (2022) Artificial intelligence in science: An emerging general method of invention, Research Policy 51
- Chugunova M., Harhoff D., Hölzle K., Kaschub V., Malagimani S., Morgalla U., Rose R. (2026)

- Who uses AI in research, and for what? Large-scale survey evidence from Germany*, Research Policy 55
- Draghi M. (2024) The future of European competitiveness, Part A, A competitiveness strategy for Europe. https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en
- Emerald Publishing's stance on AI tools and authorship. <https://www.emeraldgrouppublishing.com/news-and-press-releases/emerald-publishings-stance-ai-tools-and-authorship>
- European Research Council (2023) Foresight: Use and impact of Artificial Intelligence in the scientific process, https://erc.europa.eu/sites/default/files/2023-12/AI_in_science.pdf
- Fieldhouse R. (2025) AI is saving time and money in research – but at what cost? Nature, <https://www.nature.com/articles/d41586-025-03936-2>
- Goldstein D. (2025) Teachers Worry About Students Using AI But They Love It for Themselves, New York Times. <https://www.nytimes.com/2025/04/14/us/schools-ai-teachers-writing.html>
- Goos M., Savona M. (2024) The governance of artificial intelligence: Harnessing opportunities and mitigating challenges, Research Policy 53, Issue 3
- Guidelines for peer reviewers, Taylor & Francis. https://editorresources.taylorandfrancis.com/reviewer-guidelines/#reviewer_ethical_guidelines
- Hill K. (2025) The Professors Are Using ChatGPT, and Some Students Aren't Happy About It, New York Times. <https://www.nytimes.com/2025/05/14/technology/chatgpt-college-professors.html>
- How to... Review a journal, case study or book proposal, Emerald Publishing. <https://www.emeraldgrouppublishing.com/how-to/how-guides-reviewers/peer-review-hub/review-journal-case-study-book-proposal>
- Initial guidelines for the use of Generative AI tools at Harvard. <https://huit.harvard.edu/ai/guidelines>
- Khan D.-E., Suhm P. (2015). In: Geiger R., Khan D.-E., Kotzur M. (eds) European Union Treaties, A Commentary, C.H.Beck, Hart, München
- King's guidance on generative AI for teaching, assessment and feedback. <https://www.kcl.ac.uk/about/strategy/learning-and-teaching/ai-guidance>
- Kissinger H., Schmidt E., Huttenlocher D. (2024) The Age of AI, John Murray, London, UK
- Lawrence, Neil D. (2024) The Atomic Human, Understanding Ourselves in the Age of AI, Allen Lane
- Mueck M., Gaie C. (eds) (2025), European Digital Regulations, Springer
- Panda L. (2025) Rethinking peer review in the AI era with responsibility and transparency, Elsevier. <https://www.elsevier.com/connect/rethinking-peer-review-in-the-ai-era-with-responsibility-and-transparency>
- Recognition of academic diplomas. https://europa.eu/youreurope/citizens/education/university/recognition/index_en.htm
- Research and Innovation Committee guidance on the use of artificial intelligence tools in your research. University of Oxford. <https://www.medsci.ox.ac.uk/for-staff/opportunities-and-updates/research-and-innovation-committee-guidance-on-the-use-of-artificial-intelligence-tools-in-your-research>
- Retraction notice to “The three-dimensional porous mesh structure of Cu-based metal-organic-framework – Aramid cellulose separator enhances the electrochemical performance of lithium metal anode batteries” [Surfaces and Interfaces, Volume 46, March 2024, 104081]. <https://www.sciencedirect.com/science/article/pii/S2468023024007077>

- SJTU Guidance on Development and Governance of AI in Education and Teaching. https://www.sjtu.edu.cn/resource/upload/202503/20250306_192305_495.pdf
- Steinhorn L. (2025) A Professor's Dilemma, Inside Higher Ed. <https://www.insidehighered.com/opinion/views/2025/08/01/professors-dilemma-ai-opinion#>
- Strielkowski W. (2024) Could AI change the scientific publishing market once and for all? arXiv: 2401.14952. <https://doi.org/10.48550/arXiv.2401.14952>
- The European Union Intellectual Property Office, Development of Generative Artificial Intelligence from a Copyright Perspective, <https://www.euipo.europa.eu/en/publications/genai-from-a-copyright-perspective-2025>
- The Learning Network (2025). What Students Are Saying About Using A.I. for Schoolwork. New York Times. <https://www.nytimes.com/2025/05/08/learning/what-students-are-saying-about-using-ai-for-schoolwork.html>
- The use of generative AI and AI-assisted technologies in the review process for Elsevier, Elsevier. <https://www.elsevier.com/about/policies-and-standards/the-use-of-generative-ai-and-ai-assisted-technologies-in-the-review-process>
- TUM Data Protection Guideline for the use of AI. <https://www.digitalisierung.tum.de/en/tum-guideline-for-the-use-of-ai/>
- Use of generative AI tools to support learning. Oxford. <https://www.ox.ac.uk/students/academic/guidance/skills/ai-study>

Academia in transition – what AI brings to the university?

Digitization, including its last prominent development, namely AI, encompasses many stakeholders and various types of relationships. In this universe, academics and universities, although being an integral part of it are rarely mentioned. At the same time AI triggered revolution in many aspects of academic life, being now an indispensable part of discussion at many conferences and academic meetings. Also, a number of papers discuss AI and certainly many of them were written with use of AI too. With that said, there are many questions on how to live in the new reality, in particular concerning use of AI by academic teachers, students and researchers. This paper discusses the way AI changes academic world in its many dimensions, including but not limited to teaching, research, publishing academic manuscripts and supervising master and PhD/DBA candidates. To this end, one of the relevant questions is if a unified approach to use of AI tools in academic world is needed or not, at least across the EU. It is because adopting different models of permissible use of AI in academia, may raise many concerns relating to teaching, evaluation of students' works as well as academic degrees obtained under different models. Therefore, the main objective of the paper is to discuss how to use AI in academia, but also if any intervention at the EU or the EU Member States' level is needed or required, and to the extent limited by current knowledge, to give some recommendations in this respect.

Key words: AI, university, academics, students, researchers, guidelines

Świat akademicki w okresie przemian – co sztuczna inteligencja wnosi na uniwersytet?

Cyfryzacja, w tym jej najnowsze, istotne osiągnięcie, jakim jest sztuczna inteligencja (AI), obejmuje szerokie grono interesariuszy oraz różnorodne relacje. W tym kontekście pracownicy naukowcy i uniwersytety, choć stanowią integralną część tego świata, rzadko są wymieniani. Jednocześnie AI wywołała rewolucję w wielu aspektach życia akademickiego, stając się nieodłącznym elementem dyskusji podczas konferencji i spotkań naukowych. Powstaje również wiele publikacji na temat AI, przy czym znaczna część z nich mogła być napisana z wykorzystaniem tej technologii. W związku z tym pojawia się wiele pytań o to, jak funkcjonować w nowej rzeczywistości świata akademickiego, w szczególności w odniesieniu do wykorzystywania AI przez wykładowców, studentów i naukowców. Niniejszy artykuł omawia wpływ AI na świat akademicki w jego wielu wymiarach, które obejmują m.in. dydaktykę, badania naukowe, publikowanie artykułów naukowych oraz promowanie prac magisterskich i doktorskich. Jedną z istotnych kwestii jest zasadność przyjęcia jednolitego podejścia do wykorzystywania narzędzi AI w środowisku akademickim, przynajmniej w obszarze Unii Europejskiej. Wynika to z faktu, że stosowanie odmiennych modeli dopuszczalnego wykorzystania AI w szkolnictwie wyższym może budzić liczne obawy dotyczące procesu nauczania, oceniania prac studenckich oraz wartości stopni naukowych uzyskiwanych w ramach różnych systemów. Głównym celem artykułu jest zatem omówienie sposobów wykorzystania AI w środowisku akademickim oraz rozważenie potrzeby interwencji na szczeblu unijnym lub krajowym, a także – w zakresie ograniczonym obecnym stanem wiedzy na temat technologii AI – sformułowanie stosownych rekomendacji.

Słowa kluczowe: AI, uniwersytet, pracownicy naukowcy, studenci, naukowcy, wytyczne

