ETHICAL CHALLENGES IN AI-SUPPORTED CONTENT CREATION AND MANAGEMENT IN EU UNIVERSITIES

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Abstract

The rapid evolution of Artificial Intelligence (AI) technologies, characterized by their self-learning capabilities, has transformative implications for society as a whole (Jones, 2023). The growing adoption of AI across different sectors, including education, has urged increased efforts from AI researchers, corporations, leaders and policy makers for the concerns about AI ethics and its risks towards human society (Brown, 2023; Duffy & Maruf, 2023; Future of Life Institute, 2023; Maslej et al., 2023). Some of the AI's benefits include incremental efficiency in systems management and information, optimized service delivery, and solutions to challenges like public safety, among others. While the potential is great, there are risks to mitigate such as the negative impact on employment, ethical issues, privacy, values, intellectual property and fundamental rights (Celso Cancela, 2024). Due to the previous, governments are actively working for the creation of protocols and regulatory approaches to control the direct or indirect AI developments.

This study explores the ethical challenges associated with AI-supported content creation and management within European Universities, focusing on critical risks such as misinformation and plagiarism to mention a few. By employing a theoretical framework grounded in applied social sciences and qualitative research, we provide a foundational understanding of the relationship between AI technologies and ethical considerations in the academic context. The analysis offers actionable insights for educational institutions to navigate these challenges and ensure ethical practices and integrity in content creation and management across the EU.

Keywords: Ethics; Content Creation; Management; Higher Education; AI; GenAI.

1 INTRODUCTION

Generative AI (GenAI) is an AI technology that is capable of generating content in response to prompts written in natural language or conversational interfaces. GenAI draws on the existing content regarding specific topics and produces new content. There are several formats in which the content can be developed, such as: symbolic representations of humans, text written in natural language, images, videos, photographs, even music and software codes. GenAI is able to be trained by gathering sufficient data on any given topic, the content is generated by statically analyzing the distributions of words, pixels and other elements, also is capable of identifying and repeating common patterns (UNESCO, 2023). However, AI is not capable of comprehending the real world and the natural social interactions, as a result, it is not possible for GenAI to create new ideas or solutions to real-world problems, and the content must be validated as might not be 100% accurate.

Globally there are many concerns that using GenAI has raised, especially those related to the educational landscape. Some examples include: students using AI tools such as ChatGPT to cheat on assignments, undermining the learning assessment values, certifications and qualifications (Anders, 2023). In some Higher Education Institutions (HEIs), these AI tools are banned, others have created protocols on how to use them (Tlili, 2023). Yet, many schools and universities adopted a proactive approach believing that rather than prohibiting it, students, professors and staff need to be supported in using GenAI tools that help them achieve better results, effectively, ethically and transparently (Russel Group, 2023). Nonetheless, it is impossible to ignore the positive and the negative potential that AI tools represent for HEIs in Europe.

GenAI has been advancing and expanding at an accelerated pace “processing data from the most advanced countries and regions centered in the Global North, this supposes a negative effect in data-poor regions where the current ChatGTP models reflect the models, the values and the cultural norms of the Global North, making the content generation inappropriate for some regions” (UNESCO, 2023, p.14). In fact, in the “Guidance for generative AI in education and research” – UNESCO, informs on the implications of GenAI, for instance: the rights of data owners and due diligence on whether the GenAI tools are contravening any existing regulation; be aware of the images and codes created with GenAI that might violate someone’s intellectual property rights; images, sounds and codes that humans have created, can be shared and exploited via GenAI apps (2023).

Europe is on the verge of many transformations, one of the most important ones involve the Corporate Sustainability Directive (CSRD) that integrates the different targets of the Sustainable Development Goals (ODS) into actionable strategies that all types of organizations, including HEIs are abide to report on. In this context, an additional issue that GenAI has created is the content pollution and the quality of such contents. These systems are capable of producing offensive and unethical materials that go against the supranational data-privacy and sustainable laws. The type of content that can be discriminatory, using unacceptable language and that reproduces and perpetuates structural barriers among different demographic groups. Due to the lack of strict regulations and audits, GenAI is daily producing gendered biased content that has been spread over the internet, polluting the main sources of content and knowledge for most learners globally.

The “Guidance for generative AI in education and research” highlights significant risks associated with the use of tools like ChatGPT among students, educators, and academic institutions, particularly affecting young individuals. The report highlights that while these AI tools produce highly convincing outputs, they frequently generate erroneous, biased, or inaccurate content - a phenomenon commonly referred to as "hallucinations". Young learners, who often lack a strong foundation in many subjects, are particularly vulnerable when relying on AI as their primary or sole source of knowledge, compounding concerns about the reliability of such information. Additionally, the report draws attention to the misuse of AI in manipulating content, enabling the creation of "deep fakes" or "fake news." Such content may falsely depict individuals engaging in unethical, immoral, or even criminal behavior, propagating hate speech, and exploiting real individuals' likenesses without their consent.

2 METHOD AND SAMPLE

Qualitative research, as described by Bogdan and Biklen (2003), is a broad concept that comprehends various research approaches sharing common characteristics. It is particularly valuable as an exploratory methodology that focuses on words and narratives rather than numerical data. This approach aligns with inductive, constructivist, and interpretative principles, prioritizing understanding the world from the perspective of participants. One of the key features include contextual analysis, emphasis on the research process rather than only on outcomes, and flexibility to develop concepts and theories as they emerge during the research (Bryman, 2004).

Creswell (1998) defines qualitative research as a research process grounded in a clear methodological tradition, enabling researchers to construct a complex and holistic framework through the analysis of narratives and observations conducted within the natural setting. This approach emphasizes examining the characteristics of a specific activity, group, or situation rather than focusing on their frequency or patterns. In this study, content analysis (CA) has been chosen as the qualitative method to be employed.

After surfing different databases such as the Elsevier, and search engines such as Google and Google Scholar, using the keywords: Ethics; Content Creation; Management; Higher Education; AI; GenAI. The search considered results from 2020 to 2024; written in English; in the category of research and review articles; open access; as this is the period in which the AI agenda has taken strength due to the digital transformation experienced in the Covid-19 pandemic. With these keywords, a content analysis was conducted, as this is arguably one of the fastest growing methods used in social research (Neuendorf, 2017). The results obtained are 22 studies that refer to the keywords.

Content analysis is an observational research method used to systematically evaluate both the actual and symbolic content of various forms of recorded communication (Kaplan, 1943; Krippendorf, 1989; Weber, 2017; Neuendorf, 2017). However, this method alone can be insufficient, as it may be influenced by researchers' decisions regarding data collection, analysis, and interpretation, potentially introducing bias in favor of the hypothesis (Neuendorf, 2017). To address this, mixed methods combining quantitative and qualitative approaches were employed to contrast data, enabling a more comprehensive understanding of the research problem (Creswell, 2005). In fact, The data often presented in numbers, in tables and graphs, has the aim to reveal features that otherwise will be hidden (Neuman, 2007, p. 21). For this reason, in social sciences, quantitative and qualitative methods are often used together, as they complement each other.

To create a selection process, we utilized categories and conducted searches of complete texts using keywords as descriptors. This approach incorporated categories and subcategories for analysis, reviews, academic and peer-reviewed journals, as well as language filters. Through this process, we identified articles containing pertinent information on the subject. Furthermore, the 22 articles were coded and analyzed on a spreadsheet in excel, divided into categorized based on the initial keywords established, we filter those studies that truly dedicated content to the topic at hand. Some of the categories used are: authors, countries, titles and keywords, this allows for revision on the regional research development and institutional interests in the different aspects of AI and HEI area.

3 RESULTS

The rapid evolution of Artificial Intelligence (AI) technologies, creates significant ethical challenges associated with AI-supported content creation and management within European Universities. As with all the novelties or innovations, especially those that introduce not only quantitative but also profound qualitative changes in understanding and application, AI generates numerous complex questions. In this context, the primary focus lies on critical risks, such as the ethical use of AI technologies and GenAI tools and platforms across various domains, particularly in education. Potential users, due to their varying levels of skills, experience, and sometimes even age, may lack the ability to critically evaluate AI-generated content. This includes identifying misinformation, understanding the limitations of AI, and

recognizing the risks associated with issues like plagiarism. To tackle these challenges is essential to ensure responsible and informed integration of AI technologies in educational settings.

Due to this reason in the EU the Ethical Guidelines of Usage AI (Patikimo dirbtinio intelekto gairės 2019; UNESCO, 2022, Rekomendacija dėl dirbtinio intelekto etikos; Directorate-General for Education, Youth, Sport and Culture (European Commission), 2022; Committee on Publication Ethics (COPE) Recommendations; Miao, Holmes, 2023; Foltynek, Bjelobaba, Glendinning, Khan, Santos, Pavletic, Kravjar, 2023; Directorate-General for Research and Innovation (European Commission), 2022, etc.) are developed. The national recommendations are prepared in accordance with these main principles. One key suggestion for universities and other HEIs is to develop their own guidelines or regulations, a process that many HEIs have already begun.

For this reason, the article employs discourse analysis to examine the relationship between AI technologies and ethical considerations in academia. Using a theoretical framework rooted in applied social sciences and qualitative research, it establishes a foundation for understanding these dynamics. The findings offer practical guidance for educational institutions across the EU, enabling them to address challenges effectively while upholding ethical standards and integrity in content creation and management.

Table 1. Studies regarding “Ethics”; “Content Creation”; “Management”; “Higher Education”; “AI”; “GenAI” from 2020 to 2024.

Authors	Title	Countries	Keyword	Category
Omaima Almatrafi A, Aditya Johri, Hyuna Lee	A systematic review of AI literacy conceptualization, constructs, and implementation and assessment efforts (2019–2023)	Saudi Arabia US	Adult learning, Information literacy, 21st-century abilities, Human-computer interface, Evaluation methodologies, Education	Content Creation; Higher Education; AI; GenAI.
Nripendra P. Rana A, Rajasshrie Pillai b, Brijesh Sivathanu c, Nishtha Malik d	Assessing the nexus of Generative AI adoption, ethical considerations and organizational performance	UK India	Institutional theory, AI ethics, Generative AI, Organizational, innovativeness, Organizational performance	Ethics; Management; AI; GenAI.
Md. Asaduzzaman Babu a, Kazi Md. Yusuf a, Lima Nasrin Eni b, Shekh Md. Sahiduj Jaman a, Mst. Rasna Sharmin b	ChatGPT and generation ‘Z’: A study on the usage rates of ChatGPT	Bangladesh	ChatGPT, Generation ‘Z’, Student’s view, Adoption tendency	Content Creation; higher Education; AI; GenAI.
Vinzenz Wolf a, Christian Maier b	ChatGPT usage in everyday life: A motivation-theoretic mixed-methods study	Germany	Generative artificial intelligence (GenAI) Continuance intention Motivation Fuzzy-set qualitative comparative analysis (fsQCA) Mixed-methods design	AI; GenAI.
Anastasia Olga (Olnancy) Tzirides a, Gabriela Zapata b, Nikoleta Polyxeni Kastania a, Akash K. Saini a, Vania Castro a, Sakinah A. Ismael a, Yu-ling You c, Tamara Afonso dos Santos d, Duane Searsmith a, Casey O’Brien a, Bill Cope a, Mary Kalantzis a	Combining human and artificial intelligence for enhanced AI literacy in higher education	US UK Taiwan Brazil	Adult learning, Cooperative learning, Collaborative learning, Human-computer interface, Post-Secondary Education, Teaching/Learning Strategies	Content Creation; Management; Higher Education; AI; GenAI.

Zhen Ling Teo, Chrystie Wan Ning Quek, Joy Le Yi Wong, Daniel Shu Wei Ting	Cybersecurity in the generative artificial intelligence era	Singapore	Generative Artificial, Intelligence, ChatGPT, Cybersecurity, Privacy risks, Large language model	Content Creation; AI; GenAI.
Jihyun Lee, Dennis Alonzo, Kim Beswick, Cherry Zin Oo, Daniel W.J. Anson, Jan Michael Vincent Abril	Data literacy of principals in K–12 school contexts: A systematic review	Australia Myanmar	Principals, Teachers Data literacy, Data use Indicators, Dimensions Decision-making	Content Creation; Management; Higher Education
Nils Knoth, Marie Decker, Matthias Carl Laupichler, Marc Pinski, Nils Buchholtz, Katharina Bata, Ben Schultz b	Developing a holistic AI literacy assessment matrix – Bridging generic, domain-specific, and ethical competencies	Germany	AI literacy, Domain-specific AI literacy, AI ethics literacy, Instruments Assessment	Ethics; Content Creation; AI; GenAI.
Stanislav Ivanov, Mohammad Soliman, Aarni Tuomi, Nasser Alhamar Alkathiri, Alamir N. Al-Alawi f	Drivers of generative AI adoption in higher education through the lens of the Theory of Planned Behaviour	Bulgaria Finland Egypt Oman	Generative AI, Theory of planned behaviour, Higher education	Higher Education; AI; GenAI.
Yingying Chaa, Yun Daib, Ziyan Linb, Ang Liuc, Cher Ping Lima	Empowering University Educators to Support Generative AI-enabled Learning: Proposing a Competency Framework	Hong Kong Australia	Teacher competency; generative AI; higher education; competency framework; engineering education;	Content Creation; Higher Education; AI; GenAI.
Raghu Raman, Murale Venugopalan, Anju Kamal	Evaluating human resources management literacy: A performance analysis of ChatGPT and bard	India	Human resource, management, LLM Generative AI, Text mining, HR policy Hiring, Ethics, Managerial decisions	Ethics; Content Creation; Management; AI; GenAI.
Qing Ma, Peter Crosthwaite, Daner Sun, Di Zou d	Exploring ChatGPT literacy in language education: A global perspective and comprehensive approach	China Australia	ChatGPT literacy, Framework, Language teachers, Model validation, Confirmatory factor analysis	Higher Education; AI; GenAI.
Priyanka Gupta, Bosheng Ding, Chong Guan, Ding Ding	Generative AI: A systematic review using topic modelling techniques	Singapore	Generative artificial, intelligence, Systemic review, Topic modeling BERTopic, ChatGPT Use cases	AI; GenAI.
Jiaqi Yang, Alireza Amrollahi, Mauricio Marrone	Harnessing the Potential of Artificial Intelligence: Affordances, Constraints, and Strategic Implications for Professional Services	Australia	Artificial Intelligence, Technology, Affordances and Constraints, Theory Professional Service, Auditing, Developmental review	AI; GenAI.
Stanislav Pozdniakov, Jonathan Brazil, Solmaz Abdi, Aneesha Bakharia, Shazia Sadiq, Dragan Gašević, Paul Denny, Hassan Khosravi	Large language models meet user interfaces: The case of provisioning feedback	Australia New Zeland	Artificial intelligence, Large language models, Generative artificial intelligence, Interfaces, Feedback, Learning analytics	AI; GenAI.
Isabel Fischer, Simon Sweeney, Matthew Lucas, Neha Gupta	Making sense of generative AI for assessments: Contrasting student claims and assessor evaluations	UK	Generative AI, GenAI, Assessment, Sensemaking, Critical thinking, Higher education	Higher Education; AI; GenAI.

Nir Kshetri, Yogesh K. Dwivedi, Marijn Janssen d	Metaverse for advancing government: Prospects, challenges and a research agenda	US UK India Netherlands	Augmented reality, Digital avatars, Electronic government, Digital government, Metaverse, Cityverse, Virtual reality	Management; AI; GenAI.
Mahdi Alkaeed, Adnan Qayyum, Junaid Qadir a	Privacy preservation in Artificial Intelligence and Extended Reality (AI-XR) metaverses: A survey	Qatar Pakistan	Machine learning, Metaverse, Artificial Intelligence, Virtual Reality, Extended Reality, Mixed reality, Homomorphic, encryption, Federated learning	AI; GenAI.
Adil S. Al-Busaidi, Raghu Raman, Laurie Hughes, Mousa Ahmed Albashrawi, Tegwen Malik, Yogesh K. Dwivedi, Thuraiya Al- Alawi, Mohammed AlRizeiqi j, Gareth Davies, Mark Fenwick l, Parul Gupta m, Shashikala Gurpur, Apeksha Hooda o, Paulius Jurcys p, Daryl Lim q, Nicola Lucchi r, Tanvi Misra s, Ramakrishnan Raman n, Anuragini Shirish t, Paul Walton u	Redefining boundaries in innovation and knowledge domains: Investigating the impact of generative artificial intelligence on copyright and intellectual property rights	Oman India Australia Saudi Arabia UK Japan Lithuania US Spain France	ChatGPT, Generative artificial intelligence, GenAI, Generative scholar, Innovation, Intellectual property (IP), risks, Large language models (LLMs), Misuse case analysis, Personality rights	Ethics; Content Creation; AI; GenAI.
Joshua Onome Imoniana a, Edgard Cornachionne a, Luciane Reginato a, and Washington Lopes Silva	Relationships between (Un)known consequences of Artificial Intelligence usage in an organizational or societal context	Brazil	Artificial Intelligence; (Un)known Consequences; IPA-Interpretive Phenomenographic Analysis	Ethics; AI; GenAI.
Jan Henrik Gruenhagen, Peter M. Sinclair b, Julie-Anne Carroll c , Philip R.A. Baker c, Ann Wilson d, Daniel Demant	The rapid rise of generative AI and its implications for academic integrity: Students' perceptions and use of chatbots for assistance with assessments	Australia	Academic integrity, Generative AI, Chatbots, ChatGPT, Plagiarism, Assessment design	Ethics; Content Creation; Management; Higher Education; AI; GenAI.
Olga Kapustina, Polina Burmakina, Nina Gubina, Nikita Serov, Vladimir Vinogradov	User-friendly and industry-integrated AI for medicinal chemists and pharmaceuticals	Russia	Machine Learning, Medicinal Chemistry, Pharmaceutics, Data-Driven Drug Discovery	AI; GenAI.

Source: Author's own elaboration.

The discourse analysis showed that at the present the majority articles are focused on clearing up the content of AI and GenAI (21 articles from 22 are devoted to this) where only half of them (10 from 22) made focus on content creation and doing this in HEIs (9 from 22). And only less than one third of them (6 from 22) analyse the issue of ethics and management of AI. All this confirms the relevance as well as complexity of such aspects of AI and GenAI in the educational world.

Regarding the use of AI for content creation, evidence demonstrate that opportunities are infinite, from improving learning and instruction to student involvement (Alfaisal et al., 2024; Hu, 2023); virtual tutors with AI (Celik et al., 2022); ChatGPT can contribute significantly with professors for the creation of course materials for HEI (Sharma et al., 2023), or even can help students to learn among many topics, to program (Rahman & Watanobe, 2023). In fact, according to a recent survey, at least 43% of the college Gen Z students reported to have used ChatGPT and half of this group admits relying on it to complete projects and tests (Nietzel, 2023). While findings vary in their focus, methodologies and demography studied, the majority of these studies illustrate the many uses and possible areas of control

when using AI in educational settings. It is imperative to create protocols for its use, avoiding younger generations to rely completely on it for all situations.

The ethical considerations and intellectual property rights explored in these studies highlight the potential of GenAI to democratize content creation, facilitating scalability across various sectors. However, significant challenges arise from the training of large language models (LLMs) on datasets that frequently include copyrighted material. This issue has already led to legal disputes, such as the case between The New York Times and OpenAI (Adil et al., 2024).

In response to these challenges, Adil et al. (2024) propose the “Dynamic Ethical Framework and Global Fair AI Use Policy for Responsible Development”. These frameworks are designed to help researchers and practitioners navigate the complexities of copyright in the context of GenAI’s increasing reliance on human-created content. While OpenAI and similar entities must establish robust guidelines for the safe and ethical use of their technologies, stakeholders including policymakers, educators, and industry leaders must collaborate to develop specific policies that safeguard creators' rights. Such measures are essential to ensure compliance with copyright laws and to promote ethical practices in the deployment of AI applications (Jan Henrik et al., 2024).

4 CONCLUSIONS

The review and analysis of theoretical discourse reveals that while Lithuania has developed several strategic documents and programmes addressing digital competences such as their necessity, development, and the management, storage, and disposal of information, data, and digital content there remains a notable gap in specific methodologies and tactics. This gap is particularly evident in areas related to the development of digital competencies for managing information and content, as well as in fostering digital literacy among both current and future professionals across diverse fields, including social science researchers.

Furthermore, the discourse analysis also highlights that most academic articles concentrate on defining AI and GenAI, with relatively limited attention given to their applications in content creation within higher education. Even fewer studies address the ethical and managerial dimensions of AI-supported content creation and management. This evidence reinforces the relevance and complexity of ethical challenges associated with AI and GenAI technologies in the context of European universities.

5 RECOMMENDATIONS

To address the AI ethical challenges in higher education, institutions should prioritize integrating AI protocols into high-risk areas such as educational and vocational training (e.g., exam scoring); employment processes (e.g., CV-sorting tools); and law enforcement-related activities that impact fundamental rights (e.g., evidence evaluation). These measures are critical to guarantee fair and responsible AI use in scenarios that significantly influence individuals' educational and professional trajectories. At various levels, institutions can establish AI-focused committees, recruit experts, and align AI policies with institutional values; multi-institution collaborations can share expertise; create cross-institutional research centers, and work with AI providers to develop solutions tailored to HEI needs.

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