

ARTIFICIAL INTELLIGENCE IN EDUCATION AND SOCIAL MEDIA: PSYCHOLOGICAL IMPACTS, LEGAL CHALLENGES, AND ETHICAL GOVERNANCE IN THE DIGITAL LEARNING ERA

MUHAMMAD AMIR MALIK

EMAIL: AMRMLK555@GMAIL.COM

WAHAB ALI

BSC HONS COMPUTER SCIENCE, ALSA7HR01@GMAIL.COM

MARYAM BAIG

LECTURER, HIGHER EDUCATION DEPARTMENT, PUNJAB. YOUNG.RESEARCHER.EDU@GMAIL.COM

MUHAMMAD HASSAN SHAFIQ

ASSISTANT PROFESSOR, FEDERAL DIRECTORATE OF EDUCATION, G-9/4, ISLAMABAD,
HASSANSHAFIQ23@GMAIL.COM

ABSTRACT

Artificial Intelligence has revolutionized the education sector and social media landscape, reshaping the educational landscape, the way of teaching and learning, communication and knowledge creation. Personalized learning, increased accessibility, and digital engagement have been improved by AI-powered education systems, adaptive learning, and algorithmic social media environments. However, alongside the technological advancements, concerns are also raised regarding the psychological well-being of students, algorithmic bias, privacy of data, digital surveillance, academic integrity, misinformation and the effectiveness of existing legal and ethical frameworks (UNESCO, 2021; Holmes et al., 2022). While there has been a growing interdisciplinary research, there are limited, if any, qualitative studies focused on the multi-disciplinary nature of psychological impacts, legal concerns and ethical governance in AI-supported learning and social media platforms.

The purpose of this study is to investigate these interrelated dimensions, through the interpretivist qualitative research design, which is based on socio-technical systems theory and responsible AI governance. Qualitative document analysis and thematic analysis were used to evaluate peer-reviewed literature, international policy documents, legal instruments and institutional reports to identify emerging debates and challenges for governance (Braun & Clarke, 2021; Creswell & Poth, 2018).

The themes that arose from the analysis were: Transforming learning with AI-driven personalization and intelligent educational technologies; Psychological implications of algorithmic engagement, such as cognitive overload, digital dependency, mental well-being; Ongoing legal and ethical issues, including privacy, transparency, accountability, intellectual property, algorithmic fairness; and need for comprehensive, human-centered governance frameworks that balance the opportunities of technology with the values of education, human rights, and responsible AI deployment. The findings indicate that the integration of AI into education is a multifaceted process that requires the active participation of various stakeholders, including educators, policymakers, technology developers, legal frameworks, and regulatory bodies, to establish sustainable and fair learning environments for digital learning.

The research brings together psychological, legal, ethical and governance perspectives in one qualitative research approach, contributing to the increasing stream of studies on the application of AI in education. The findings provide insights and information that will help shape the ways education organizations, educational policy makers, and technology suppliers create responsible governance frameworks for the protection of learners' wellbeing, academic integrity and digital rights in the new digital learning environment.

Keywords: Artificial intelligence, Education, Educational technologies, Social Media, Digital ethics, Psychological well-being, AI governance, Qualitative research

INTRODUCTION

One of the most revolutionary technologies of the 21st century, Artificial Intelligence (AI) has revolutionized the learning and communication process, the creation of knowledge, and the way users interact with digital society. With advancements in machine learning, natural language processing, generative AI, and predictive analysis, intelligent systems are rapidly evolving in the field of education and social media, offering innovative solutions for personalized learning, collaborative knowledge building, and digital interactions. In the interim, AI has elevated prominent discussions on the issue of the autonomy of humans, algorithmic accountability, data privacy, academic integrity, and the ethics of AI and digital technologies. With increased connectivity between education and AI-powered social media platforms, understanding the implications has become a pressing challenge for researchers, educators, policymakers and technology developers, and the need to address these impacts is greater than ever today (Holmes et al., 2022; UNESCO, 2021).

The education sector's growing reliance on AI is a sign of the world's push towards digital innovation in education. The arrival of these technologies has revolutionized the education system, providing customized learning experiences, instant feedback and data-driven insights for decision-making. The impact of these technologies on education has been profound, providing a personalized learning experience, real-time feedback, and data-driven decision-making. These technologies can enhance learning outcomes, increase educational access and decrease educator administrative burden. The growing ubiquity of their presence, however, points to questions of the traditional pedagogical views on pedagogical teaching, the production of knowledge, and critical thinking. AI is, therefore, not only a technological development, but a socio-technical shift, impacting relationships in education, educational governance, and the purpose of education (Luckin et al., 2016; Zawacki-Richter et al., 2019).

With the rise of generative AI, this change has been further accelerated. Creating humanlike text, images, algorithms and multimedia is fast integrated into the teaching, learning, and research process. While students are using AI tools for writing, from completion to research or translation, educators are using AI to develop educational materials, simplify assessment, and customize learning experiences. These have a number of educational advantages, but also introduce questions of academic integrity, intellectual property, authenticity of student work and future human intelligence in higher education. This trend towards using AI-generated content has also raised questions about the responsible use of AI, digital literacy, and institutional governance in educational settings (Kasneci et al., 2023; Tlili et al., 2023).

Education is undergoing transformation and disruption, and AI has helped to transform social media, which is now a key learning centre, a collaboration space, a space for professional networking and a space for public discussion. AI has revolutionized how social media is used today in various ways, including algorithms for content recommendations, social media management systems, community moderation, fraud detection, and advertising targeting. They can enhance the user experience by delivering relevant information, but can also shape the presentation of information, its impact on the opinion of the population and the patterns of digital interactions between the population without being visible to the user. The environment of social media and the impact of algorithmic-driven and AI powered educational technologies have raised the question of the boundaries between formal and informal learning and between digital communication and learning, resulting in complex opportunities and challenges for students in different learning contexts (Bucher, 2018; Gillespie, 2018).

Students are gaining more knowledge from multiple sources such as AI-generated social media, learning communities online, educational influencers, and knowledge platforms. This has given rise to the concept of lifelong learning, interdisciplinary cooperation and sharing knowledge across the world. It has, however, also raised exposure to misinformation, algorithmic bias, echo chambers, and commercial content prioritisation that can have a negative impact on critical thinking and evidence-based learning. AI is therefore becoming a significant influence on learning outcomes that are not directly under the purview of educational institutions (schools, universities), and must be considered in relation to the broader digital ecology (Selwyn, 2016; van Dijck et al., 2018).

The use of AI has psychological implications, as well as pedagogical, that go beyond simply what it can teach. AI-powered personalization can improve the motivation of learners, provide tailored support, and create personalized learning paths. There are however risks that the excessive use of intelligent systems may reduce opportunities for independent thought, problem solving and reflection. Also, predictive learning analytics and automated recommendations might also encourage "passive" acceptance rather than "active" thinking of algorithmic suggestions. These developments raise important psychological questions to address about learner autonomy, cognitive dependence, motivation, self-efficacy, and the development of higher-order thinking abilities in the face of more and more automated learning (Holmes et al., 2022; OECD, 2021).

The impact of the psychological aspects is not limited to academic achievement, but it also has implications for mental health and digital well-being. Social media algorithms powered by AI are tailored to enhance user engagement by delivering personalized content and pings and fostering ongoing interaction. These can strengthen social cohesion and foster collective learning, but can also cause information overload, digital fatigue, anxiety, and digital short attention span and problematic technology use patterns. Youth in particular are likely to be more exposed to psychological impacts of digital technologies because they are in daily contact with algorithmic technologies, as they are with other social media, and are growing up in an environment where learning is often accompanied by AI support (Twenge, 2019; UNESCO, 2023).

Recent studies in Educational Psychology also suggest that, besides technological efficiency, the factor that determines the effectiveness of learning is the emotional state and motivation, and the agency of the students. The use of predictive and personalized AI tools can improve learning results but can also lead to algorithmic labelling, reduced learner autonomy, and set up self-fulfilling learning expectations based on predictive analytics. The concerns illustrate that educational technologies are not devoid of politics, but rather that educational, cognitive and behavioral assumptions are embedded within them and have an impact on educational outcomes. Thus, AI's psychological implications need to be relevant to the social context in which it is applied as well as its technological capabilities (Ryan & Deci, 2020; Holmes et al., 2022).

The rapid integration of AI has also changed the dynamics of academic honesty in educational institutions. The adoption of AI has also transformed the landscape of academic integrity in schools. Plagiarism and academic dishonesty are no longer just about copying or paraphrasing another person's idea; it has become more complex, including having AI write the content, paraphrasing with AI, generating fake content with AI, and researching with the help of AI. Because Generative AI can create very sophisticated academic documents that closely resemble human writing, traditional plagiarism-checking tools are failing to catch AI plagiarism. This is leading to increasing challenges faced by teachers and institutions to distinguish authentic teaching assistance from the "cheating" by using AI to compose texts. These developments have sparked a great deal of debate in the realm of higher education regarding design, authorship, originality, transparency, and best practices for using artificial intelligence (Cotton et al., 2024; Perkins, 2023).

While these are all punitive measures, what is more important is that many scholars recommend that beyond these punitive measures, AI literacy, moral sensibilities and responsible digital citizenship should be nurtured in response to the use of AI in education practices. Educational institutions do not want to prohibit AI technologies in their entirety; they want to reimagine courses, grading systems, and institutional policy to create a thoughtful and engaged relationship with AI and ensure academic honesty and independence. This change is driven by the growing realization that AI is not just a fleeting fad but a sustainable part of teaching and learning. Therefore, it is important that universities provide learners with the tools for effective use of AI tools, but also with the knowledge to critically review the results provided by AI tools, to recognize their areas of application, and to be aware of the ethical and societal implications of AI tools (UNESCO, 2021; Tlili et al., 2023).

AI has brought many new opportunities to the educational realm but has developed at a pace that has outpaced the development of all-encompassing laws, ethics, and governance to address the new challenges it presents. There are many jurisdictions that have unclear understandings about data ownership, informed consent, algorithmic transparency, bias, accountability, IP rights and cross-border regulation. Private technology companies tend to build opaque AI systems, which are frequently used in education with no accountability measures or trust in the systems, as they are not built in an open, trustworthy and transparent way. The concerns emphasize that, while the regulation of AI technology is a key component of governance, it is not the only one, as other dimensions like democratic oversight, human rights, educational equity and responsible innovation also play a role. Consequently, it is essential for interdisciplinary studies to explore and critically discuss the psychological, legal, ethical and governance aspects of AI in the education and social media domains, which is addressed in the following sections.

The international and legal and regulatory aspects have become more complex and international in the meantime, with the spread of artificial intelligence (AI) in educational institutions and social media. AI systems are now collecting, processing, and analyzing personal, behavioural, and educational information on a regular basis to help refine educational paths and customize user experiences. Data-driven decision making has improved the quality, reach and participation in the learning process, but has also led to concerns regarding privacy, surveillance, consent, algorithmic discrimination and commercialization of user data. The use of private-sector AI technologies, many of which are based on algorithms, is growing in use at schools and other learning institutions, which are often "black boxes" with patents and proprietary license agreements that cannot be disclosed or made public for accountability purposes. Who owns educational data, how personal information is processed, who is legally responsible for algorithmic decisions have thus become core questions in digital governance today (Floridi & Cowls, 2019; European Commission, 2024).

Protecting the privacy and security of data has consequently become a fundamental pillar of AI Governance. Therefore, the focus on data privacy and protection has become a crucial aspect of good governance for AI. Digital footprints are continually being left as students engage in learning experiences, take assessments, share ideas and respond to

questions. These data, although beneficial to personalised learning, can also be subjected to risks such as profiling, surveillance, data breaches, and algorithmic bias. There are existing regulatory frameworks, notably the General Data Protection Regulation (GDPR) in the European Union and national privacy laws, that provide good protections; however, many experts argue that these laws are not as effective in protecting the complexity of the AI-enabled educational system, particularly when data crosses institutional and national borders (Voigt & Von dem Bussche, 2017; UNESCO, 2021). The emergence of generative AI adds further complexity due to copyright issues, intellectual property, the ownership of AI-generated content and when copyrighted materials are used for model training (Gasser & Almeida, 2017).

Ethical governance is becoming one of the critical challenges in the realm of AI and education, in addition to legal matters, which also holds true for social media. Ethical AI goes beyond technical correctness and includes the principles of fairness, transparency, explainability, accountability, human oversight, inclusivity, and respect for fundamental human rights. International organisations are increasingly embracing the concept of AI to complement human decision-making, particularly in educational contexts where learning is social, emotional, and cognitive. Ethical governance, thus, must incorporate multiple fields such as those of educators, policy makers, lawyers, psychologists, technologists and civil society to make sure that the AI systems and applications foster human flourishing and mitigate social harms (Floridi et al., 2018; OECD, 2019).

These governance-related issues have been coming to the fore in recent policy developments. The Recommendation on the Ethics of Artificial Intelligence by UNESCO (2021) provided the first comprehensive normative principles for ethical AI on a global scale, focusing on the values of transparency, accountability, diversity, environmental sustainability and respecting human rights. Likewise, the Principles for trustworthy AI by OECD promote values such as inclusive growth, fairness, robustness, explainability, and democratic values (OECD, 2019). The European Union has recently adopted the AI Act which introduces a new regulatory approach with a focus on the risk of AI systems to inform how they will be regulated based on their impact on society, and further raises transparency requirements and the level of regulatory oversight (European Commission, 2024). These are all examples of a growing consensus on the importance of achieving a balance between technological innovation and legal accountability, ethical responsibility, and public trust in order to ensure the effective governance of AI.

Yet there are substantial challenges to implementation, in spite of these encouraging policy developments. AI-related regulations differ from one jurisdiction to another, creating a very fragmented regulatory landscape and diverse regulations for the development and use of AI. Schools might not have the capacity, expertise or complete governance process for reviewing new and emerging AI tools. Furthermore, the legislation is also outdated and does not keep pace with the rapid adoption of new technological developments without proper ethical and legal frameworks in place. In social media, such algorithmic decision making can impact many levels of government in relation to public discussion, educational participation, and exposure to information all at once (Crawford, 2021; Gillespie, 2018).

AI governance is complicated because of the interdisciplinary nature of AI—psychological, educational, legal, and technological issues are all interrelated. Algorithms affect a number of aspects of learner motivation, digital wellbeing, privacy protection, education equality and democratic engagement. When considering these issues in isolation, a more holistic understanding of these factors is essential to consider the full socio-technical relations that inform the societal implications of AI. More and more researchers are calling for more integrative and multifaceted governance regimes that can tackle technological innovation, ethical responsibility, legal compliance, effectiveness of education, and psychological well-being (Floridi & Cows, 2019; Holmes et al., 2022). For the present study, the interdisciplinary approach is used as the conceptual framework.

Though AI has grown quickly within the world of education and social media, there are psychological, legal, and ethical considerations, which are complex and multifaceted, and the current literature focuses on one aspect of these issues rather than on examining them as a whole. These factors are often discussed in isolation, resulting in a disjointed understanding of the societal effects of AI. However, there is increasing research that explores the relationships between psychological well-being, algorithmic influence, academic integrity, the legal accountability or responsibility, and ethical governance, but no research that has explored the complex relationships between these variables in this new digital learning landscape of AI. Consequently, the field has a burgeoning research literature that investigates the interplay between psychological wellbeing, the influence of algorithms, academic integrity, legal liability/ responsibility and ethical governance, and yet there is no research that has systematically examined how these variables interact in the current learning environments that utilize AI. The fragmented integration makes it difficult to develop frameworks for the governance of responsible and sustainable use of AI in education and social media.

In looking at the current scholarship, there is little doubt that there are some notable lacunas. First, there is a wealth of quantitative research on the use of AI assisted learning tools, but there are a small number of studies that approach learning from an interdisciplinary qualitative lens that incorporates the areas of education, psychology, law, ethics and digital governance. Secondly, there are research studies that concentrate on post-secondary education, or social media, or both, but not necessarily on how they are interacting in the new AI-powered digital environment. Thirdly, previous

qualitative literature has been limited to specific topics, as opposed to addressing how international policy frameworks, laws and ethics work alongside challenges stemming from the use of AI-powered learning and algorithmic communication. These gaps require filling with a multi-disciplinary study and need to be evaluated for trends to be used in informing policies and practices (Zawacki-Richter et al., 2019; Holmes et al., 2022).

In this context, the current research critically analyzes the psychological consequences, legal and ethical governance concerns that arise when introducing AI in education and social media in the era of digital learning. In particular, the study aims to investigate the changing nature of AI in educational and social media settings, understand the psychological impact of AI-supported learning and algorithmic interactions, assess the legal and regulatory issues of privacy, data protection, academic honesty, IP rights, and algorithmic accountability, and identify new governance frameworks for ethical AI use. It addresses the following overarching questions: What changes has AI brought to the fields of education and social media? What are the effects of AI on the well-being, autonomy and cognition of learners? Which legal and regulatory issues do you anticipate with the use of AI? What are the opportunities for ethical governance to support responsible, transparent, and equitable implementation of AI? What are the challenges for teachers, policy makers, technologists and future governance?

The present study has a number of significant theoretical, methodological and practical implications. It is theoretically an interdisciplinary progress in the following fields: educational technology, educational psychology, digital ethics, digital law and digital governance in one analysis. In practice, it has been used to gain a holistic understanding of literature in relation to qualitative document analysis and thematic analysis, allowing for a more in-depth understanding of the context of academic literature, international policy documents, legal frameworks, institutional reports, and scholarly publications, than traditional quantitative inquiries (Braun & Clarke, 2021; Creswell & Poth, 2018). Research findings provide empirical evidence for educators, higher learning institutions, policy makers, technology developers and regulators to consider the responsible way to integrate AI in a human-centred, transparent, and accountable digital learning environment.

The socio-technical systems theory and responsible AI governance theory are used to inform the study. The socio-technical systems theory is significant because technological innovation is an integral part of social, institutional, cultural and organisational environments (Baxter & Sommerville, 2011) and responsible AI governance is a normative definition underpinned by the principles of fair, transparent, responsible, explainable, privacy, human oversight and respect for human rights (Floridi & Cowls, 2019). In order to achieve the research goals, the study employs an interpretivist qualitative research design, and uses qualitative document analysis and thematic analysis to investigate the literature relevant to the study of AI in education and social media, including peer-reviewed literature, international policy documents, legal frameworks, institutional reports and scholarly publications. The research highlights patterns that relate to psychological well-being, legal regulation, ethical governance and educational transformation, and is methodologically transparent and analytically rigorous, with the process systematically coded and developed into themes (Bowen, 2009; Braun & Clarke, 2021).

As AI becomes more relevant to educational institutions, to social media and to societies in general, it is becoming more relevant to understand its psychological, legal and ethical aspects, so that through governance processes, innovation and human rights are promoted, academic integrity, educational equity and learner well-being are supported. This study extends the call for interdisciplinary research that can contribute to the academic debate and evidence-based policies in the age of new digital learning by adding contributions from educational technology, psychology, digital ethics, law and governance.

LITERATURE REVIEW

Artificial Intelligence (AI) is one of the most impactful technological advancements of modern times in the realm of digital communication and education. Over the past decade, AI and machine learning, NLP and predictive analytics have transformed the way education is delivered, taking it from classroom classrooms to ever smarter, more adaptive and data-driven classrooms. At the same time, AI has transformed the social media landscape, changing the way content is curated, delivered, moderated and even expected. At the same time, AI has fundamentally transformed the architecture of the social media platforms, making algorithmic content curation, personalised content delivery, automated content moderation and predictive engagement mechanisms possible. The developments have created a lot of interest in the field of research as they present an opportunity to innovate in education in ways that have never been seen before, and pose complex psychological, ethical, legal, and governance issues. However, a multi-disciplinary lens is needed to grasp the nature of AI; an understanding of how AI can be applied in education should not be limited to the study of these aspects alone (Holmes et al., 2022; UNESCO, 2021).

The first wave of AI in education has focused on technological efficiency and automation of the teaching process. Intelligent tutoring systems, computer assisted learning and adaptive education software were seen as potential means for more effective teaching, for reducing administrative load and for giving the student feedback that would enhance student performance. AI could bring about some of the capabilities of human tutoring and continuously monitor and

modify learning materials in accordance with the individual's learning needs (Luckin et al., 2016). More recent scholarship, however, shows that AI has matured from a tool for teachers to one that is a part of educational governance, assessment, institutional decision making and curriculum development. This marks a broader shift in thinking from using AI as an educational tool to a socio-technical system that can influence knowledge creation and education systems (Zawacki-Richter et al., 2019; Holmes et al., 2022).

There is general agreement that artificial intelligence (AI) has the potential to help overcome some of the problems facing education, however, education researchers have criticized the idea of “technological determinism” that AI proponents in education are claiming — that is, that AI will impact learning regardless of other factors, such as pedagogical design, school capacity, digital literacy, and social contexts. Technological innovation is an integral part of political, economic and institutional systems, and so these technologies often re-create inequalities (Selwyn 2016). Similarly, Williamson and Eynon (2020) argue that AI is not an innocent educational innovation, it is a more general datafication process that impacts on educational governance, learner autonomy and institutional accountability. Such perspectives challenge the notion of a technocentric story and argue that the success of education goes beyond technology and instead relies on the interplay between the AI system, the human decision-making system and social institutions.

With the advent of generative AI, the future of education has been further reshaped, sparking scholarly discussions. The advancements of large language models and multimodal AI systems have now revolutionized academic writing, programming in code, language translation, content creation, assessment design, and research support, all of which are impacting the generation and access of academic knowledge. While some researchers are impressed by the possibilities of generative AI to enable personalised learning, creativity and improve educational accessibility, others are worried about the potential for increased learner dependency, a decline in critical thinking, academic integrity issues and the reliability of information produced by AI tools (Kasneji et al., 2023; Tlili et al., 2023). The oppositional perspectives point to the use of AI as an educational tool and as a pedagogical disruption—an equilibrium that must be found in evaluating the use of AI.

A body of literature also shows that AI has revolutionized digital learning ecosystems, enabling learning to flourish beyond education and into a network of interconnected online environments. The learners of today are accessing information in virtual classrooms, smart learning platforms, social networks, community learning locations, and in smart learning apps, which are powered by artificial intelligence. Hence, learning has become a process that happens all the time, both in the formal, informal and non-formal education systems. Siemens (2005) theorized about this shift in learning and suggested it is a new paradigm of learning that requires the ability to learn through networks of information and learning through connections. AI has contributed to this by driving the speed of the process, intelligent recommendation systems that can identify a personalized learning resource, collaborative interactions and life long learning in digital environments.

However, opinions are split on the benefits of using AI-powered digital learning on the quality of education. The supporters are convinced that adaptive technologies help to develop learner-centred education, enhance learning opportunities for everyone, including those with special needs, and provide ongoing formative assessment (Luckin et al., 2016). Critics, on the other hand, say that algorithmically-driven personalisation can restrict intellectual freedom, by focusing on content that is similar to that which has been consumed in the past and not on new topics, critical questioning or content from other viewpoints. This is similar to the concerns that have been raised about algorithmic “filter bubbles,” which restrict intellectual diversity by providing personalized information selection (Pariser, 2011). AI personalisation, in this sense, presents a paradox: On the one hand, it increases the efficiency of education, while on the other, it may hinder independent studies and critical thinking.

There has been a growing recognition of the role of human agency in AI-enriched learning environments through more recent qualitative and mixed-methods studies. Many researchers recommend that AI is not meant to replace teachers, but to complement other pedagogical models that place teachers as collaborators in the design and development of learning and educational processes, but continue to exercise their decision-making role in ethical issues, interpretation of contexts and emotional support. This is the point made by Holmes et al. (2022), who believe that AI technology in education cannot replace human expertise since some processes of education, such as social interaction, empathy, creativity and moral reasoning, are hard to be automated. Similarly, UNESCO (2021) highlights the importance of promoting the application of AI to improve equity and inclusion in education, but not relying on technology. This perspective highlights the dynamic nature of the educational implications of AI, not only in terms of its capabilities but also its application.

In the era of digital platforms as communication, learning and information environment, AI and social media are increasingly perceived as a crucial interdisciplinary area. Content visibility, personalised content based on user behaviour, customised learning paths, moderation, identification of misinformation, and recommendations for educational resources are all done with AI algorithms. Consequently, social media have emerged as a growing phenomenon in the information, evaluation and knowledge production processes of learners. The algorithmic nature of public knowledge, as it is produced as a result of algorithmic systems' visibility or invisibility within digital

environments, is claimed by Bucher (2018), and the impact of platform governance on democratic participation and public discourse is shown by Gillespie (2018). The findings reveal that social media has a great educational impact beyond the formal education sector, especially those based on AI.

However, there are opposing opinions about the use of AI in education in social media. Despite this, there are conflicting ideas on the function of AI in social media education already. Optimistic thoughts focus on opportunities for collective learning, sharing knowledge around the world, professional networking, peer support, and open educational resources, but are by no means exclusive. While not exclusive, these positive thoughts do highlight opportunities for collective learning, sharing knowledge across the globe, opportunities for professional networking, peer support and open educational resources. Social media can be a tool for learners to join an international community of practice, to obtain expert knowledge and to engage in lifelong informal learning outside of the classroom (Greenhow & Lewin, 2016). On the other hand, critical researchers believe that the incentives for the commercial platforms often appeal to their potentials for users' engagement rather than the quality of their learning, leading to the spread of misinformation, sensationalism, algorithmic manipulation, and polarization (van Dijck et al., 2018). This dichotomy represents an important approach to a basic conflict between the goals of education and the operation of commercial algorithms – a conflict so far under-explored in the literature.

The presence of Generative Artificial Intelligence (AI) in education and social media is becoming increasingly significant with the advent of their widespread usage. There's an educational content ecosystem in progress, with AI-driven summaries, automated tutoring, recommendation algorithms, conversational agents, personalised digital assistants all running in parallel within educational institutions and in commercial digital platforms. The content of education is now being pushed through the “summaries” generated by AI, automated teaching machines, recommendation systems, conversational agents, and personalised digital assistants – all both within and outside educational institutions, as well as in the various commercial digital platforms. Such intersections are problematic for divisions based on formal/informal learning and algorithmic/communication. AI is now appearing as a part of daily digital life, rather than just an educational technology. It is therefore important to look at AI's educational implications through an ecosystem lens and not in isolation to individual technologies (Williamson & Eynon, 2020; Holmes et al., 2022).

Scholarship has greatly broadened but there are many important conceptual and theoretical shortcomings. Despite the evident need for comprehensive research on these matters, the existing literature on the subject mostly focuses on individual aspects of educational AI, social media algorithms, psychological impacts, legal regulations, and ethical considerations, rather than examining them as a unified issue. This disciplinary disjuncture restricts the scope of understanding of the interaction of these dimensions in the current digital learning contexts. Many empirical studies are also primarily focused on the effectiveness of the technology or on the acceptance of the technology by users and do not pay as much attention to the more general governmental aspects of algorithmic decision-making, digital rights, educational equity and institutional accountability. As the use of AI tools becomes more prevalent and widespread in education and social media, these concerns can only be addressed from a multidisciplinary perspective.

Another major drawback that needs to be addressed is the dominance of quantitative research methods in the field of AI and educational technology. Present research frequently employs survey techniques, experimental designs, learning analytics/predictive modelling to capture learning outcomes, user experience/satisfaction, or technology usage. These approaches offer practical insights but might not cover the complex social, ethical, legal, and institutional dimensions of AI use. Creswell and Poth (2018) propose that qualitative inquiry is particularly useful for examining phenomena that have multiple meanings within a context and constantly evolving social reality. Similarly, Denzin and Lincoln (2018) state that qualitative inquiry can provide more space to explore social phenomena of power relations, institutional practices, and experiences of humans which may be difficult to measure quantitatively. The seemingly increasing interest in this has sparked a demand for qualitative scholarship that can critically combine interdisciplinary evidence related to the overall effect of AI on society.

The present study takes these lines of inquiry head-on by adopting an interpretivist qualitative research method through a tool that incorporates an analytical framework that encompasses educational technology, psychology, ethics and the law of digital technologies, and governance. This study does not just assess the technological effectiveness or pedagogical productivity of AI, but it takes a critical look at the multifaceted impact of psychological well-being, algorithmic power, legal responsibility, ethical oversight, and digital rights on AI-driven learning and social media landscapes. The research is designed to leverage on the latest developments in different areas, as a contribution to the methodology and analysis of this article.

Recent publications have called attention to the many ways that AI can affect psychology, and its potential is not just to improve learning efficiency or technology convenience. Although AI-based systems for learning have been touted for their potential to personalize learning, offer instant feedback, and foster greater engagement with learners, researchers are now questioning how these technologies affect the cognitive, emotional, motivational, and educational processes of learners in complicated ways and in some instances, contradictory ones. The psychological impact of AI doesn't seem to have a universal effect; it depends on several contextual elements such as students' digital proficiency,

pedagogical planning, institutional support, and the transparency of algorithmic decision-making processes. This has resulted in a paradigm shift in research, from AI's contribution to education, to its impact on human learning, thinking and psychological development, in increasingly AI-driven learning environments (Holmes et al., 2022; OECD, 2021). Personalised learning is a feature that is frequently touted as one of the many benefits of AI in education. Intelligent tutoring systems, adaptive learning platforms, and predictive analytics are now giving "intelligent" technologies the ability to identify strengths and weaknesses for learners and accurately forecast their preferred learning styles. They are said to motivate students, enhance academic outcomes and allow for more inclusive education through the support of individual learners' differences. Personalised feedback has been identified as a means to enhance self-regulated learning (SRL) and to maintain engagement of the student (Luckin et al., 2016; Zawacki-Richter et al., 2019), and can also enable targeted teacher interventions to support students' learning (Zawacki-Richter et al., 2019). The outcomes have strengthened the perception of AI being a beneficial educational resource, enhancing teaching and learning.

With these advantages, however, comes the potential pitfalls and concerns of relying overly on AI-powered learning. However, the advantages come with worries about the potential negative impact on key thinking abilities if artificial intelligence-driven learning becomes excessive. Some critics argue that dependence on intelligent systems to make information retrieval, content generation, and problem solving will limit opportunities for independent thinking, reflective thinking, and intellectual perseverance. Carr (2010), however, states that repeated exposure to digital technologies leads to a disintegration of attention and a shallow information processing that may have an effect on deeper learning and longer-term retention of information. The most recent debates about generative AI also indicate that overreliance on the explanations and writing produced by AI could lead students to become mere consumers of knowledge, an issue that is important for cognitive autonomy and critical thinking (Kasneci et al., 2023; Tlili et al., 2023).

Educational psychology sheds light on the theory of learning which states that learning is an active cognitive process and not just about "information consumption" in the debates on these topics. One of the core principles of Self-Determination Theory is that when the teaching/learning process increases autonomy, competence and relatedness (Ryan & Deci, 2020), the student's motivation, persistence and psychological functioning are improved. AI can support improving learner competence in adaptive teaching and personalized support, but can also restrict learner autonomy by making decisions on their behalf for them continuously. This is because there is a conflict between the use of AI to increase students' educational efficiency and the loss of opportunities to teach students critical thinking, creativity, and self-directed learning abilities.

The effects of AI on students' mental well-being is a major area of study in academia. Learning analytics are a new development in the field of learning and can be used to track the engagement of a learner, calculate the academic output and identify learners who are considered to be at risk of educational failure. The advocates see these predictive tools as the opportunity to implement early intervention based strategies that can improve educational outcomes, and also help in educating students' health and wellbeing by delivering timely support and learning materials. However, critics suggest that the continuous monitoring might cause an increase in anxiety, stress and a feeling of constant monitoring. Algorithmic monitoring of behaviours, participation patterns and learning outcomes of students can exacerbate psychological stress if learning outcomes are continually measured, processes of decision-making are not transparent or easy to understand (Williamson & Eynon, 2020).

The psychological dynamics can get more complicated and complex due to the integration of AI into social media. Social media platforms use algorithms to deliver the most engaging content to users, provide continuous notifications, and push even more behaviourally targeted content. These systems are a way to communicate, collaborate and offer learning opportunities out of the classroom, but also create learning spaces for information overload, social comparison, digital dependency, and algorithmically induced behavioural patterns for learners. Excessive use of social media has been shown to be correlated with anxiety, depression, loneliness, and lower attention span in the past (Twenge, 2019; Keles et al., 2020), as well as with lower psychological well-being, especially among adolescents and university students. The effects are not exclusively attributed to AI, but the algorithms may reinforce long-term internet use-related habits that can affect mental health.

Notwithstanding these issues, researchers caution against determinist views that consider AI as inherently harmful to mental health. Rather, many researchers claim that psychological consequences are a result of the design, implementation and regulation of AI technologies. The tenets of human-centred AI frameworks underscore the importance of intelligently augmenting, rather than supplanting, successful human learning and wellbeing by fostering autonomy, transparency, inclusiveness, and meaningful human interaction (UNESCO, 2021). Similarly, Holmes et al. (2022) claim that AI could be used alongside the professional knowledge of teachers, not in place of interpersonal interaction which is essential for good teaching and learning. As the above suggests, the influence of AI on education is more about the principles of governance than technology.

In the field of education, there has been a recent study on AI and cognitive development. Constructivist learning theories focus on the active construction of knowledge, which involves reflection, interaction and collaboration with the problem in hand, instead of passively receiving knowledge (Vygotsky, 1978). Educational technologies using

Artificial Intelligence (AI) can provide adaptive feedback, collaborative learning opportunities, and personalised learning pathways, which can enhance these processes. But critics argue that recommendations generated by algorithms to what to consume may backfire for intellectual exploration, and they may be able to suggest more content to those who have used the program before. These fears are similar to larger issues about algorithmic filter bubbles and echo chambers that, for instance, could limit intellectual diversity and critical inquiry (Pariser 2011; Bucher 2018). But with the advent of generative AI, there has been growing concern about higher order cognitive abilities. Large language models can now compose really complex essays, program code, summaries of research and analytical answers in just seconds, thus changing the way students are engaging with learning tasks. The potential of LLMs is to generate complex essays, coding solutions, research and analytical responses in seconds, reshaping the nature of students' engagement with learning tasks. While the proponents argue that the technologies reduce cognitive load and enable students to think more deeply, analyze, and engage in critical thinking, critics are concerned that they might stifle creativity and originality and discourage independent thought. In view of this, scholars have increasingly called for the need for AI literacy, which is about critical and accurate interpretation, evaluation and verification of information created by AI instead of believing the information given by algorithms as true (Perkins, 2023; Kasneci et al., 2023).

These discussions dovetail with the heightened concerns about academic honesty. Traditionally, academic dishonesty has been targeted at plagiarism, cheating and unauthorized collaboration. However, generative AI has turned this on its head, enabling students to write academic content that looks original while actually being produced by automated systems that are harder to pick out as plagiarized using traditional plagiarism software. The effects of AI on academic integrity and the understanding of original research have grown so confusing that universities need to reconsider the definition of originality and academic integrity, Cotton et al. (2024) write. Likewise, Perkins (2023) argues that current institutional policies are inadequate as they were designed prior to the proliferation of generative AI technologies that can generate very elaborate and complex academic writing.

Is it possible to teach the issue of academic honesty without worshipping or demonizing AI? What is the proper attitude to take toward AI and academic honesty? The one view of generative AI focuses on its potential as a threat to opportunities for academic dishonesty, to independent learning and to trust in educational assessment. In this context, the need for stricter institutional regulations, AI recognition tools and an evaluation system that upholds academic quality is robust. A different point however is that there is no need to ban AI, it is just another part of the future education and the push towards AI literacy, ethical understanding and disclosure should be a pillar of the universities. This proponents can argue that the focus should be shifting from memorisation or routine content production to critical thinking, problem-solving and creativity and reflective reasoning, as it is time for consumers to take responsible use of AI, not technological avoidance (UNESCO, 2021; Tlili et al., 2023).

An important limitation in the current literature is the research that examines psychological well-being and cognitive development and academic integrity separately and without a clear relationship between them. For example, depending on the AI, various aspects of learner motivation, critical thinking, confidence and ethics can all be affected. Likewise, algorithmic personalisation also affects learning results, as well as the autonomy of the learner, formation of identity, digital behavior, and perceptions of fairness. These multi-dimensional interactions emphasize that the educational application of AI is not a cognitive or technological phenomenon, and that there are interdisciplinary aspects that can't be separated from educational psychology, ethics, educational governance and digital policy.

Looking at the methodology, the majority of existing psychological research regarding the impact of AI is predominantly of cross-sectional survey studies, quantitative experiments, technology acceptance modelling and learning analytics. While these methods offer important data about technology usage and educational results, they often neglect to take into account the lived experiences of learners, institutional contexts, and more generally the ethical dimensions. Qualitative inquiry offers an opportunity to explore the meanings of the impact of AI on learning, well-being, educational integrity, and educational governance as seen by students, teachers, policy makers, and institutions. This is particularly significant as AI adoption takes place in a social environment, where social influence is shaped not just by technology but also by cultural values and institutional norms, and by evolving regulations (Creswell & Poth, 2018; Denzin & Lincoln, 2018).

Overall, the literature highlights the potential of AI to enhance personalised learning, accessibility, and educational innovation, as well as to present significant psychological, cognitive, and ethical challenges. The competing perspectives suggest that a one-dimensional approach of either technological optimism or technological scepticism is inadequate for the educational implications of AI. It is, however, important to have a balanced and interdisciplinary perspective in order to recognize the interplay of the use of education technology, the psychology of the learner, institutional governance and ethical responsibility. Building upon these insights, the next section critically examines the legal, ethical and governance issues surrounding AI such as algorithmic bias, privacy, protection of data, digital rights and new laws that are influencing responsible AI use in education and social media.

In the era of fast-paced advancements in AI for education and social media, questions of cheating, originality, and the generation of knowledge have emerged, challenging the long-standing standards of the educational profession. The

rapid advancement of AI in the educational and social media landscape has sparked substantial worries concerning the integrity of academic study, which is in stark contrast to the centuries-long tradition in this domain. Academic integrity has historically been correlated with honesty, transparency, fairness, trust and responsibility in academic endeavors. This is, however, a transformation of the concept of academic dishonesty that has been made possible by the development of generative AI systems capable of generating complex essays, research summaries and programming code, as well as multimedia content. Unlike standard plagiarism, AI-generated content may be word-for-word original but could still raise concerns regarding intellectual ownership, authentic learning and the degree of appropriate or inappropriate use of AI as an author. This has led to a growing problem for universities and educational institutions to remodeled academic integrity in an AI-enabled learning environment (Perkins, 2023; Cotton et al., 2024).

Current scholarship offers conflicting views on educational outcomes of generative AI. A negative view of how AI will affect education is that students will be tempted to create excessive content using AI instead of doing their own work, thinking critically about their work, and engaging in original scholarship. According to researchers, free AI usage can diminish students' motivation to learn and cultivate their analytical abilities and writing proficiency, and make the detection of plagiarism become more difficult (Kasneci et al., 2023). On the other hand, another body of literature holds that generative AI should be considered a new educational tool, akin to a calculator, search engine or grammar software. In this view, the problem is not AI itself but the lack of clear institutional policies for the responsible use of AI. Thus, there is growing call for approaches to AI in education that emphasize literacy, transparency, and ethics (UNESCO, 2021; Tili et al., 2023) rather than prohibition.

This debate is part of larger conflicts about the role of higher education. Others argue that the system of assessment should remain focused on originality and individual knowledge production, as it is in the traditional written assignments. Others say that education should reimagine assessments to assess higher-order skills and competencies like problem-solving, critical thinking, creativity, reflection, and ethical judgment, not necessarily routine content creation – and that AI will be a crucial part of the future of how people work. This new approach calls for a rethinking of the university's policy on academic integrity in addition to other educational philosophies regarding the learning and assessment of knowledge in the digital age (Bearman et al., 2023; Perkins, 2023).

The growing number of studies on the ethics of AI is closely related to the topic of academic honesty. Ethical AI is not just about the technical performance of the AI system and the accuracy of its algorithms, but also about a range of principles that include fairness, accountability, transparency, explainability, privacy, inclusivity, human autonomy and social responsibility. But rather than being a mere technological development, researchers are increasingly developing a sociotechnical perspective on AI that sees its societal implications as a matter of institutional governance, regulatory oversight, and ethical decision-making. AI systems have become an integral part of the modern educational environment, with their impact on educational opportunities, assessment processes, institutional decision-making, and learners' experiences becoming increasingly prominent (Floridi & Cowls, 2019; Jobin et al., 2019). Therefore, ethical AI has become a central theme in Educational Technology research.

There is a significant literature body that holds that the ethical governance of AI should place a high premium on human-centred AI, which would enable AI to assist, but not supplant, human judgement. UNESCO (2021) highlights that the use of AI systems should uphold human dignity, education equity, cultural diversity, transparency and respect for fundamental rights, with meaningful human oversight. Likewise, OECD (2019) has established principles of inclusive growth, accountability, robustness, explainability and democratic values as the key pillars of trustworthy AI. Overall, these frameworks illustrate the growing international agreement on the moral obligations of AI development. Yet, researchers note that institutional governance, which involves translating ethical principles into practical actions, is a difficult problem to solve, and there are no clear mechanisms for enforcing ethics and specific metrics by which to measure its implementation (Floridi et al., 2018).

One of the more talked about ethical issues is algorithmic bias. Historical data used to train AI systems often contains patterns of social inequalities, cultural assumptions and institutional biases. As a result, algorithmic decision-making can inadvertently reinforce or exacerbate discrimination based on sex, race/ethnicity, socio-economic status, language, disability, or geography. In educational settings, skewed algorithms can affect admissions, predictive learning analytics, automated assessment, student monitoring, and educational recommendations, and can exacerbate instead of mitigate educational inequities (O'Neil, 2016; Noble, 2018). The issues highlight the critical importance of using representative datasets and transparent processes in building AI systems, whilst emphasizing the need for ongoing human input to ensure fair learning opportunities.

The extent to which algorithmic bias can be eradicated is subject to debate. Better data sets, machine learning models that account for fairness, and algorithmic auditing are often suggested as ways to mitigate discriminatory results. However, several critical scholars contend that bias does not only stem from technical limitations, but also from other political, institutional, and social aspects of technological development. Crawford (2021) argues that as AI systems are designed, trained and implemented in the current social context that is marked by unequal power and resource distribution, values embedded in the human context inevitably end up in AI systems. Thus, the solution to algorithmic

bias goes beyond just technological solutions; it demands institutional change, inter-disciplinary governance, and ethical responsibility.

As AI becomes increasingly ubiquitous, privacy and data protection are becoming top concerns among academics. Modern AI applications rely on a wealth of data regarding learner behavior, academic outcomes, communication styles, biometric data, browsing habits, and interactions with digital content. However, these data raise important questions about surveillance, informed consent, data ownership, and commercial utilization, which can help educational platforms tailor learning experiences and enhance instructional effectiveness. Students often have little awareness of the processes underlying the collection, analysis, sharing and storage of their learning data, which poses significant issues around informational self-determination and digital autonomy (Zuboff, 2019; Williamson & Eynon, 2020).

As AI systems become more prevalent in educational settings, legal experts have been questioning the adequacy of existing privacy laws in the face of the constant inference of sensitive personal data by algorithms, data that is not explicitly disclosed by the user. Learning analytics, predictive algorithms, facial recognition technologies and behavioural monitoring systems can build detailed digital profile that can impact learning opportunities and institutional decision making. This has raised concerns that, in an unchecked way, schools could embrace surveillance systems that are at odds with democratic principles, freedom of education, and the rights to privacy of the individual (Regan & Jesse 2019; UNESCO 2021).

To meet these challenges, governments and international organisations have put in place more and more comprehensive data protection frameworks. One of the most relevant legal frameworks for personal data processing is the European Union's General Data Protection Regulation (GDPR), which sets forth principles of transparency, purpose limitation, data minimisation, accountability and individual rights over personal data (Voigt & Von dem Bussche, 2017). More recently, the European Union AI Act has added to these safeguards with a risk-based approach that imposes further requirements for high-risk AI systems, including educational applications. These changes in the law are substantial strides forward in the protection of digital rights and in promoting responsible technological innovation (European Commission, 2024).

Despite these regulatory strides, there is ongoing debate about the effectiveness of current laws and regulations in addressing the complexities of AI technologies. Critics have pointed out that privacy laws often mistakenly prioritize the collection of personal data over algorithmic decision-making, automated profiling, "explainability" and international governance. Moreover, the multinational technology firms are subject to governance issues where national legal systems are unable to effectively resolve the issue, due to the inconsistent regulatory framework of each jurisdiction. Law-making is often outdated, that is, techno-adoption happens before comprehensive accountability mechanisms are in place. (Gasser & Almeida, 2017; Floridi & Cowls, 2019).

The broader debates around AI-powered educational and social media ecosystems and the rights and protections that follow are closely related to privacy. Digital rights are not only related to data protection but also to access to technology, freedom of expression, algorithmic transparency, IP rights, non-discrimination, and meaningful human oversight of automated decision-making. There is growing scholarly consensus that digital rights should be considered as extensions of fundamental human rights, as digital technologies are now having an impact on education, employment, democratic participation and social inclusion (UNESCO, 2021). In this view, the role of AI governance is not just to manage technological systems, but also to safeguard the rights, dignity, autonomy and opportunities of people in digital societies.

Overall, the literature shows that academic integrity, AI ethics, algorithmic bias, privacy, data protection, digital rights, and legal regulation are interrelated, rather than stand-alone issues. Responsible governance of AI will thus need to go beyond technical innovation or piecemeal legal changes, and involve interdisciplinary interventions that can bring together the various facets of education, psychological health and well-being, ethical responsibility, legal accountability, and human rights into coherent AI governance frameworks. However, many of the current studies still focus on these aspects individually, leaving the impact of multiple factors on the learning processes and learning ecosystem of digital learning still not fully understood. This fragmentation serves as a compelling justification for the current qualitative research effort, aimed at integrating these interdependent aspects and advancing a deeper understanding of the implementation of responsible AI. The new governance frameworks, international policy developments and unexplored conceptual, theoretical, empirical and methodological gaps are thus explored in the following section, providing a justification for ongoing qualitative research efforts in this fast-changing field.

In recent years, the introduction of artificial intelligence in education and social media has moved research focus from the single issues of ethics to questions about governance, institutional responsibility and public policy. While earlier studies have been mostly concerned with the technical aspects of AI systems, modern research increasingly gives attention to the governance of AI, which should be established to balance technical innovation with educational goals, legal requirements, and human rights. Thus, responsible AI governance has become a multi-disciplinary area, combining aspects from education, psychology, computer science, law, ethics and public administration, which aims

to make AI systems more transparent, accountable, equitable and socially beneficial (Floridi & Cowsls, 2019; UNESCO, 2021).

Responsible AI governance is not about just meeting regulatory requirements, but rather about observing norms that inform the design, development, deployment and ongoing governance of AI systems. The principles of trustworthy AI broadly agreed upon by scholars include the principles of transparency, explainability, accountability, fairness, privacy protection, human oversight and respect for fundamental rights. However, there is great debate on translating these principles into practice in schools and online platforms. While others believe that the rapid development of AI technologies calls for more flexible governance models that involve stakeholders, institutional self-regulation, and governmental oversight (Jobin et al., 2019; Floridi et al., 2018), others advocate the implementation of legally binding regulatory frameworks with governmental oversight. This debate echoes the broader issue of creating governance frameworks that can foster innovation, while at the same time ensuring that learners are not exposed to possible negative effects of technology.

International organisations have been a key player in the process of developing norms for responsible AI. The Recommendation on the Ethics of Artificial Intelligence, by UNESCO (2021), is the first international document to provide the world with a comprehensive framework for the promotion of human-centred AI, based on transparency, fairness, accountability, inclusivity, environmental sustainability and respect for cultural diversity and human rights. Likewise, the OECD AI Principles set priorities for inclusive growth, democratic values, robustness, explainability, and responsible innovation and call on governments to establish governance systems that can help build public trust in AI technologies (OECD, 2019). The European Union's AI Act has recently adopted a risk-based framework for regulating AI systems, categorizing them based on their potential to impact society, and mandating higher levels of safety for systems deployed in critical sectors like education, healthcare, employment, and public administration (European Commission, 2024). Taken as a whole, these efforts illustrate a growing global understanding that the governance of AI must be coordinated and work together internationally, not as separate national policies.

While there is consensus internationally about principles of good governance, scholars have pointed to a range of challenges to implementation. The implementation of ethical principles in AI across various contexts is unevenly distributed due to the varying technological infrastructure, financial resources, regulatory capacities and digital competence in educational institutions. Additionally, the rate of change for AI technologies is faster than that of legislation and institutions, leaving governance gaps where educational institutions often implement AI use in education before proper regulatory measures are implemented to protect them. Such implementation hurdles are especially visible in social media platforms, in which technology firms work in multinational spaces across many jurisdictions that have different legal traditions and regulatory interests (Crawford, 2021; Gillespie, 2018). As a result, the goals of good governance are shifting from merely legal regulations toward flexible and adaptive regulatory frameworks that can adjust to the ever evolving nature of technology. As a result, it is being argued that the solution to good governance is as much adaptive regulatory models as it is legal models, as they can adjust to the ever changing nature of technology.

AI-powered digitalisation has also dramatically reshaped educational policy. Educational policy has also undergone significant transformations in light of AI-powered digitalisation. Educational policies are increasingly being seen as a need to go beyond mere technological uptake to include broader measures for digital and AI literacy, ethical considerations, and responsible innovation by governments, universities, and international organisations. This is not about learning how to use AI as a tool, but also about equipping learners with the ability to critically engage with information produced by AI, to comprehend algorithmic decision-making, to identify potential bias, and to participate responsibly in digitally mediated societies (UNESCO, 2023; Holmes et al., 2022). The changes are part of a larger trend in educational practices to move beyond teaching students to use technology to helping them learn about its social, ethical, legal, and political implications.

Despite this, there are significant differences in policy approaches that have been put in place in different countries and educational systems, as suggested by existing scholarship. Some argue that fostering innovation and economic competitiveness is important for all jurisdictions, while others stress precautionary regulation that will safeguard privacy, academic integrity, and human rights, and urge for a hands-off approach to AI adoption in education. They represent two opposing views on policymaking in technology versus regulation. Innovation-based policies can drive education transformation, but weak governance can lead to algorithmic discrimination, privacy violations and too much commercial influence on learning. However, excessive regulation can stifle innovation in education and diminish the possibilities for responsible technological development. One of the main challenges highlighted in current research on AI policy is the task of balancing competing priorities (OECD, 2019; European Commission, 2024).

Opinions about the educational impact of generative AI are quite divided at this time. The downside of the negative perception of AI in education is that students will be tempted to produce more content with AI than they do on their own, think critically about what they do, and engage in their own original scholarship. According to researchers, free AI usage can diminish students' motivation to learn and cultivate their analytical abilities and writing proficiency, and make the detection of plagiarism become more difficult (Kasneci et al., 2023). Another strand of research has

suggested, however, that generative AI should be regarded as a novel education tool, like a calculator, a search engine or grammatical software. According to this perspective, it is not AI's problem, it's the institutional policies around the responsible use of AI that are lacking. However, there's a push to focus on literacy, transparency, and ethics instead of banning AI in education (UNESCO, 2021; Tili et al., 2023).

This debate is part of larger conflicts about the role of higher education. Yet others say that the system of assessment ought not to be geared toward originality and individual production of knowledge, which is the case with a written assignment. Others say that education should reimagine assessments to assess higher-order skills and competencies like problem-solving, critical thinking, creativity, reflection, and ethical judgment, not necessarily routine content creation – and that AI will be a crucial part of the future of how people work. This new approach involves a rethinking of the university's policy on academic integrity, as well as other educational philosophies related to the learning and assessment of knowledge in the digital age (Bearman et al., 2023; Perkins, 2023).

The ethics of AI is a topic that is related to the academic integrity. The issue of academic integrity is closely related to the growth of studies on the ethics of AI. Ethical AI goes beyond technical aspects and algorithms' accuracy to encompass several principles such as fairness, accountability, transparency, explainability, privacy, inclusivity, human autonomy, and social responsibility. However, the research is beginning to shift from a technical to a sociotechnical approach to AI, where sociological aspects are understood as issues of institutional governance, regulatory policy and ethical decision making. The presence of AI systems in the modern educational environment is increasingly prominent, influencing not just in the educational opportunities and evaluation processes, but also in the decision-making of educational institutions and the students' experience of learning (Floridi & Cows, 2019; Jobin et al., 2019). Ethical AI has thus emerged as a key focus within the realm of Educational Technology research.

There is a substantial body of literature that argues that human-centred AI should be a key priority in the ethical governance of AI, with the aim of helping, not replacing, human decision-making. UNESCO (2021) highlights that the use of AI systems should uphold human dignity, education equity, cultural diversity, transparency and respect for fundamental rights, with meaningful human oversight. Similarly, OECD (2019) has formulated principles of inclusive growth, accountability, robustness, explainability and democratic values as the pillars for trustworthy AI. In sum, these frameworks reflect a worldwide consensus on the ethical responsibilities of creating AI. However, institutional governance, defined as the process of translating ethical principles into practice, is a challenging one to resolve and there are no apparent ways to ensure ethics and no metrics to measure its implementation, researchers note (Floridi et al., 2018).

One of the issues that has been discussed more is algorithmic bias. Patterns of social inequalities, cultural assumptions, and institutional biases are common in the data that is used to train AI systems. Consequently, algorithmic decision making may result in unintended impacts to discrimination on the basis of sex, race/ethnicity, socio-economic status, language, disability or geography. In educational settings, skewed algorithms can affect admissions, predictive learning analytics, automated assessment, student monitoring, and educational recommendations, and can exacerbate instead of mitigate educational inequities (O'Neil, 2016; Noble, 2018). The issues underscore the necessity for representative datasets and clear processes when creating AI systems, and the importance of continuous human involvement to create equitable learning opportunities.

There is some controversy over how much algorithmic bias can be eliminated. Addressing discriminatory outcomes is frequently proposed with the help of better data sets, machine learning models that incorporate fairness considerations, and algorithmic auditing. But, there are a number of significant researchers who argue that bias is not just related to the technical aspects of development, but also to other political, institutional, and social factors. Crawford (2021) argues that as AI systems are designed, trained and implemented in the current social context that is marked by unequal power and resource distribution, values embedded in the human context inevitably end up in AI systems. So, the answer to algorithmic bias is not a technological fix, but an institutional change, inter-disciplinary governance and ethical responsibility.

With the rise of AI in the world, privacy and data protection are becoming high priorities for academics. Modern applications of AI are dependent on vast amounts of data about how learners learn, what they achieve, how they communicate, their biometric data, how they browse, and how they interact with digital content. These data, however, have important implications for surveillance, informed consent and data ownership as well as for the commercial use of these data and for the purposes for which learning platforms can use them to customize learning experiences and increase instructional effectiveness. Students are unaware of the processes involved in the collection, analysis, sharing and storage of their learning data, creating major challenges with informational self-determination and digital autonomy (Zuboff, 2019; Williamson & Eynon, 2020).

With the increasing integration of AI into educational environments, lawyers have been challenging the effectiveness of existing privacy laws when it comes to the constant inference of personal information by algorithms, information which the user hasn't made explicit. Learning Analytics, predictive algorithms, facial recognition technology and behaviour monitoring can create a detailed digital profile that can influence learning experiences and institutional decision making. This has led to concerns that in an unchecked manner these schools could adopt surveillance

technologies that are incompatible with democratic ideals, freedom of education, and the right to privacy of the individual (Regan & Jesse 2019; UNESCO 2021).

To meet these challenges, governments and international organisations have put in place more and more comprehensive data protection frameworks. A particularly relevant law for personal data processing is the General Data Protection Regulation (GDPR) in the European Union which outlines the principles of transparency, purpose limitation, data minimisation, accountability and individual rights over personal data (Voigt & Von dem Bussche, 2017). More recently, the European Union AI Act has added to these safeguards with a risk-based approach that imposes further requirements for high-risk AI systems, including educational applications. These changes in the law are substantial strides forward in the protection of digital rights and in promoting responsible technological innovation (European Commission, 2024).

While these regulatory advances are significant, there is still a discussion on how well existing laws and regulations are performing to meet the challenges of AI technology. Critics have noted that privacy regulations tend to focus on the collection of personal information rather than algorithmic decision making, automated profiling, “explainability” and international governance. Furthermore, the inconsistencies of the regulatory frameworks between each jurisdiction gives rise to governance issues for the multinational technology companies when confronted with this issue because of the absence of a national legal system capable of effectively handling it. There is often an absence of up to date (techno-adopting) legislation, that is, techno-adopting before comprehensive accountability mechanisms. (Gasser & Almeida, 2017; Floridi & Cowls, 2019).

Privacy is intrinsically tied to the broader discussions regarding AI-driven learning and social platforms, as well as the attendant rights and safeguards. Digital rights include not only data protection, but also access to technology, freedom of expression, transparency of algorithms, IP rights, non-discrimination and meaningful human control of automated decisions. There is growing scholarly consensus that digital rights should be considered as extensions of fundamental human rights, as digital technologies are now having an impact on education, employment, democratic participation and social inclusion (UNESCO, 2021). The function of AI governance is not only to control technological systems, but to also protect the rights, dignity, autonomy and opportunities of individuals in digital societies.

Overall, the literature shows that academic integrity, AI ethics, algorithmic bias, privacy, data protection, digital rights, and legal regulation are interrelated, rather than stand-alone issues. Interdisciplinary interventions, beyond technical innovation or incremental lawmaking, will therefore be necessary for responsible governance of AI, to unite various strands of education, psychological health and wellbeing, ethical responsibility, legal accountability and human rights into coherent AI governance frameworks. However, many of the current studies still focus on these aspects individually, leaving the impact of multiple factors on the learning processes and learning ecosystem of digital learning still not fully understood. This fragmentation is a motivating reason for the ongoing qualitative research currently underway which seeks to bring these interdependent aspects together and increase the understanding of the implementation of responsible AI. The new governance frameworks, international policy developments and unexplored conceptual, theoretical, empirical and methodological gaps are thus explored in the following section, providing a justification for ongoing qualitative research efforts in this fast-changing field.

The advent of Artificial Intelligence (AI) in education and social media has shifted the conversation from merely ethical to the broader institutional responsibility and public policy aspects in recent years. Compared to previous research, current research is mainly focusing on the governance of AI that should be developed to ensure that the technical innovations are aligned with the educational mission, legal obligations, and human rights. Thus, responsible AI governance has become a multi-disciplinary area, combining aspects from education, psychology, computer science, law, ethics and public administration, which aims to make AI systems more transparent, accountable, equitable and socially beneficial (Floridi & Cowls, 2019; UNESCO, 2021).

Responsible AI governance is not only regulatory compliance but also adherence to norms that guide: design, development, deployment and continuous governance of AI systems. The general consensus among scholars on the principles of trustworthy AI are the principles of transparency, explainability, accountability, fairness, protecting privacy, human oversight, and respect for fundamental rights. However, there is great debate on translating these principles into practice in schools and online platforms. While others believe that the rapid development of AI technologies calls for more flexible governance models that involve stakeholders, institutional self-regulation, and governmental oversight (Jobin et al., 2019; Floridi et al., 2018), others advocate the implementation of legally binding regulatory frameworks with governmental oversight. The discussion here is part of a larger question about establishing governance mechanisms that can encourage innovation, but also make sure that learners are not presented with potential adverse effects of technology.

International organisations have been a key player in the process of developing norms for responsible AI. The first international document to offer a detailed and broad outline for fostering human-centred AI through the principles of transparency, fairness, accountability, inclusivity, environmental sustainability and respect for cultural diversity and human rights is the Recommendation on the Ethics of Artificial Intelligence (2021) from UNESCO. Similarly, the OECD AI Principles identify key principles of inclusive growth, democratic values, robustness, explainability, and

responsible innovation and urge governments to put in place governance frameworks to assist in fostering public trust in AI technologies (OECD, 2019). The European Union's AI Act recently introduced a risk-based approach to the regulation of AI systems, dividing them into five categories of potential impact on society, and requiring greater levels of safety for systems used in critical sectors such as education, healthcare, employment, and public administration (European Commission, 2024). All of these efforts, when viewed collectively, reflect a growing recognition of the need for the governance of AI to be coordinated and mutually supportive, and not national policies.

There is agreement internationally on principles of good governance but numerous problems have been raised regarding the implementation. The uneven technological infrastructure, financial resources, regulatory capacities and digital competence of educational institutions result in different levels of implementation of ethical principles in the field of AI. Further, AI technologies change more rapidly than legislation and institutions, resulting in governance gaps where educational institutions are adopting the use of AI in education before they are protected by appropriate legislation and policies. These implementation barriers become extremely apparent in social media, where technology companies have to operate in multi-national environments, where legal systems and their respective jurisdictions have varying and sometimes conflicting legal traditions and regulatory interests (Gillespie, 2018; Crawford, 2021). Therefore, the objectives of good governance are moving from the law to regulations that are flexible and adaptable to the changing technology landscape. As a result, it is being argued that the solution to good governance is as much adaptive regulatory models as it is legal models, as they can adjust to the ever changing nature of technology.

AI-driven digitalisation has also revolutionized educational policies. Educational policy has also changed significantly to adapt to the digitalisation enabled by AI. Governments, universities and international organisations increasingly view the need for educational policies to include more than just digital technology uptake; they also recognize the need for policies to support digital and AI literacy, ethical issues, responsible innovation, and more. Additionally, it is not just about using AI as a tool but also about empowering learners to critically engage with AI-generated content, to understand the decision-making processes of algorithms, to recognize potential bias, and to responsibly navigate digitally mediated societies (UNESCO, 2023; Holmes et al., 2022). This is a pattern that is becoming common in educational practice to focus on teaching students how to use technology rather than teaching them about the social, ethical, legal and political implications of technology.

Despite this, there are significant differences in policy approaches that have been put in place in different countries and educational systems, as suggested by existing scholarship. Some believe that promoting innovation and economic competitiveness should be a goal for all jurisdictions, while others emphasize precautionary regulation that will help to protect privacy, academic integrity, and human rights, and call for a "wait-and-see" attitude to the use of AI in schools. They represent two opposing views on policymaking in technology versus regulation. Innovative policies can enable education transformation, but the lack of proper governance can cause algorithmic discrimination, privacy violations and excessive commercial domination over learning. But too much regulation can put limits on innovation in education and opportunities for responsible technological development. One of the main challenges highlighted in current research on AI policy is the task of balancing competing priorities (OECD, 2019; European Commission, 2024).

The literature review reveals that there are still some areas which are not covered in the academic field of reference to education and social media in relation to the problem of AI. First, most studies view AI as a (technological) innovation rather than as a socio-technical phenomenon that is shaped by institutional, cultural, political and ethical settings. This one-dimensional view often fails to account for the mutual dynamic between technology and society; that is, educational usage shapes and is shaped by AI. Consequently, there is less focus on the implications for more general digital citizenship, democratic involvement, institutional accountability, and personal agency in research on technologies.

Theories are also lacking in the literature. Past studies tend to employ technology acceptance models, innovation diffusion models, or information systems models to explain the uptake of AI, emphasizing behavioral intent and technological effectiveness. These theories enable the understanding of users' action, but may be lacking in contributing the understanding of ethical governance, legal accountability, psychological well-being, and institutional power relations. A few studies integrate the perspectives of educational psychology, socio-technical systems theory, responsible AI governance, digital ethics, and critical policy analysis in a comprehensive theory. Such a theoretical dichotomy also hinders the interdisciplinary view of the socio-historical dimensions of AI and the emergence of adequate governance frameworks that could cope with the new challenges in education (Baxter & Sommerville, 2011; Floridi & Cowls, 2019).

But the existing literature leaves large gaps in the empirical. The research on AI in education has increased and, generally, the majority of studies tend to be focused on learning outcomes, technology acceptance, academic performance or instructional effectiveness. There are fewer studies that explore the connection between the psychological health of students, legal structures, ethical frameworks, academic integrity and algorithms in integrated digital learning spaces. On the other hand, many studies are dedicated to studying education or social media individually, but they are emerging to be interdependent and interconnected via AI driven digital platforms. This gap

makes it difficult to understand both the complex nature of the relationship between AI and learning (Williamson & Eynon, 2020) and the way that AI will affect learning in the formal classroom and in everyday, digital contexts (Holmes et al., 2022).

The drawbacks with the methodology further corroborate the need for additional qualitative research. Existing research mostly uses quantitative surveys, experiments, learning analytics and predictive modelling. These methods provide quantitative data but do not provide much understanding of social interpretations, institutional processes, governance, and ethical considerations around implementation of AI. Another aspect of qualitative research that may offer a stronger and more flexible way of analyzing the impact of AI on education across various settings, or the interplay between technological innovation, psychological experience, legal aspects, and ethical governance is one that is challenging to quantify (Creswell & Poth, 2018; Denzin & Lincoln, 2018). Qualitative studies are also very beneficial in the research of new technology with high level of social change and changing policy landscape.

This study directly addresses those conceptual, theoretical, empirical, and methodological gaps, by employing an interpretivist qualitative research design, grounded in socio-technical systems theory and responsible AI governance. The research's methodology is a qualitative document analysis and themed analysis that is used to analyze the literature and policy documents from international organizations, legal documents, institutional reports and scholarly publications to construct an in-depth understanding of the interplay between the psychological impacts, legal hurdles, ethical governance, and educational transformation in the context of AI embedded in educational and social media ecosystems. It takes a more holistic approach to understanding the implications of AI than the technological metrics currently in the literature and asks more pointed questions about the issues of human agency, learner well-being, institutional accountability, digital rights and governance.

AI is not just a technological advancement, but a transformation of the socio-cultural landscape of education, communication, governance, and public life, as evident in the literature. In the realm of education, AI holds great promise for improving educational accessibility, personalisation, knowledge creation, and international collaboration, but it also raises complex psychological, ethical, legal, and governance challenges that demand a multi-disciplinary perspective to address. While there has been progress in the literature that explores individual facets of AI take-up, there is significant conceptual, theoretical, empirical and methodological fragmentation. The focus on these dimensions justifies the present qualitative investigation which aims to bring together the aspects of educational technology, psychology, digital ethics, law, governance and policy studies in a single framework of analysis. The study closes some of the multidisciplinary gaps and serves as a basis for designing the methodology, findings and discussion of the next chapter, and moves towards the development of sustainable 21st-century digital learning environments, which are responsible, human-centered and ethically oriented.

RESEARCH METHODOLOGY

Research Philosophy

The research paradigm adopted in this study is Interpretive and involves analysis of the psychological, legal and ethical issues in the field of education and social media and artificial intelligence (AI). According to interpretivism, social reality is not a single objective reality, but rather is produced during the process of people's experiences, meanings, interactions and contexts (Schwandt, 2014). The internet and digital and governance systems and processes continue to evolve and have a significant impact on education, so it is important to take note of not only the technical characteristics of these technologies but also of how these are received, understood and reacted to by audiences of different ages, gender, cultural backgrounds, and experiences.

The interpretivist paradigm is most appropriate since it is interested in issues that are complex, such as psychological well-being, academic integrity, algorithmic decision-making, privacy, legal accountability and ethical governance. The phenomena involve these social and cultural constructions and are not fully quantifiable phenomena. Rather, they need to critically analyze policy documents, legal frameworks, educational guidelines, institutional reports, and scholarly debates that collectively inform understanding of AI in the contemporary digital societies (Creswell & Poth, 2018; Denzin & Lincoln, 2018).

Also, interpretivism recognizes that technology innovations are situated in political, educational, legal and ethical frameworks. Generative AI, intelligent tutoring systems, recommender systems and AI-infused social media have transformed learning and opened up new opportunities and challenges for the learning field. These changes have to be analyzed with a capability of capturing several aspects and without making an assumption about common impact of technology. The interpretivist approach enables the researcher to understand the construction of different perspectives on responsible AI governance by different actors in the field of education, such as educational institutions, governments, technology companies, international organizations, educators, and learners (Lincoln & Guba, 1985).

Research Approach

The study adopts the qualitative research approach because the research questions focus on finding the meaning, institutional response, governance issues, and emerging ethical issues involving AI, and not causal relations or statistical hypothesis testing. Qualitative research is suitable for examining complex social phenomena where the context, interpretation, and institutional processes are significant factors in understanding the phenomena (Merriam & Tisdell, 2016).

The present research is to offer a critical analysis of documentary data on themes of AI governance, educational change, psychological consequences, digital ethics and legal regulation, as well as quantitative studies that concentrate on numerical indicators. This enables a more in-depth exploration of the implications of AI technologies for educational systems and digital communication and their interactions with technological innovation, human behaviour and institutional governance and regulatory development (Creswell & Poth, 2018).

The qualitative approach also enables an interdisciplinary analysis, with inputs from education, media and governance, digital ethics and psychology, as well as education technology. The qualitative design will have a lot of flexibility and will allow you to explore all the dimensions without breaking them down into variables, given the reach of the impact of AI. Thus the research will not draw statistical generalizations, but rather analytical insights will be generated to develop theories and then create policy (Patton, 2015).

Research Design

The study is of a qualitative nature and uses a multiple document case study design. The research does not focus on a specific technological application, but on the general phenomenon of the integration of AI in education and social media, using a method of systematic analysis of the documentary evidence. The case is characterized by the modern digital learning environment and the consequences that fast developments with artificial intelligence have for psychological well-being, legal regulation and ethical governance.

In a qualitative case study, the researcher can explore real world phenomena and investigate the phenomenon within the context where there is not a clear boundary between phenomenon and context (Yin, 2018). AI technologies are embedded in the education, technology, legal and social sectors. Thus, AI governance is a multi-faceted issue that necessitates a multi-faceted approach, involving insights into policy contexts, institutional practices, regulatory frameworks, education reforms, and digital platforms.

The case study design is deemed to be suitable for the present research as the research question is related to understanding how and why the governance of AI in education and social media is taking place. In particular, it highlights the implications of AI for learning experiences and psychological health, the challenges when implementing the current legal and ethical framework, and governance models that support the responsible application of AI. These questions are not experimental in nature to be tested, but rather are questions to be understood in context, and so the methodology of a case study is highly relevant, especially the qualitative case study (Yin, 2018; Stake, 1995).

The design also provides possibilities for multiple documentary sources to be incorporated from a variety of institutional perspectives. AI governance is now the topic of conversation within international organizations, national governments, education, the law, and technology companies as well as academic research. The study need to be done in connection with these different sources, so that there can be depth and comprehensiveness in the study, and the influence of any one institutional perspective can be minimized.

Qualitative Document Analysis

In this study, the method used was the qualitative document analysis as a main method. Bowen (2009) states that document analysis is a systematic examination, analysis, interpretation and synthesis of documentary information to give empirical information in meaningful. Documentary evidence is one of the most thorough ways of studying technological development, regulatory reactions, educational policy, moral directives, and academically discussed materials that will be necessary for the study of Artificial Intelligence development, which is in a state of constant change.

Document analysis is well suited, since experience is only one part of AI governance, the other is captured in documentary materials which can be accessed by everyone. These policy instruments and frameworks manifest governance of AI technologies and include international, national and regional policies, research publications, institutional policies and procedures, legislative acts, reports and decisions by government bodies. The research on these materials brings to light the new themes of responsible AI, digital rights, education change, algorithm transparency and legal responsibility.

Qualitative document analysis is not a purely legal analysis or literature review because it can compare evidence across types of evidence, can detect patterns and contradictions, institutional priorities, and changing governance practices (Bowen, 2009). The study thus explores documents as more than just factual sources, but as expressions of institutional values, policy agendas, and divergent views on AI in learning and online world-building.

Document analysis is another method of triangulation, in that several types of documents are analyzed at the same time. The areas of consensus, disagreement and new regulatory issues from all of the sources compared to round up

educational reports, international governance frameworks, peer-reviewed scholarship, AI ethics guidelines, legal documents and policy statements. This all-encompassing analysis method is more reflective of the balance of AI governance than any other document type.

Data Sources

Uses a range of primary and secondary document sources to represent a wide range of psychological, legal, educational and ethical aspects of AI.

The main documentary sources are:

Guidance on education and AI from UNESCO's policy and practice.

Quality reports on AI and digital governance by OECD. OECD quality reports on AI and digital governance.

EU AI Act, and other relevant regulations.

Reports from UNESCO and the UN Digital Governance.

Government national AI strategies.

- Institutional policies guiding the use of AI developed by Universities.

Advice from the school authorities.

Policy and legal issues related to privacy and data protection, and digital rights.

Reports of organisations such as World Bank, OECD, UNICEF, etc., and Council of Europe.

Secondary documentary sources are:

Peer-reviewed journal articles from the SSCI- and Scopus-indexed journals.

Academic publications on AI, educational technology, psychology, digital ethics and governance.

- Systematic literature reviews.

- Scholarly book chapters.

Conference proceedings (as appropriate).

- Publications on policy analysis carried out by well-known research institutes.

Multiple documentary categories allow an opportunity for the research to combine theory and current developments in policy. This allows for the study to have a greater analytical depth and to have the opportunity to compare academic knowledge and work within the institutions.

The publications are presented in reverse-chronological order, with the newest ones on top, showcasing the latest development of generative AI and educational technologies. But underpinning theoretical work on qualitative research, educational technology, ethics, psychology and governance and legal theory are incorporated when necessary to offer conceptual foundations.

Sampling Strategy

The research uses a qualitative sampling method, which is known as purposive sampling, a popular sampling method in qualitative research that is used to select information-rich documents that are directly related to the research objectives (Patton, 2015). Purposive sampling is not done to ensure representativeness, but in search for conceptual relevance, documentary credibility and analytical significance.

Several inclusion criteria were used for selecting documents. First, each paper had to touch on one of the study's main themes: (1) Artificial Intelligence in Education, (2) Social Media Governance, (3) Psychosocial effects, (4) Digital ethics, (5) Legal regulation, (6) Algorithmic accountability, (7) Educational technology, or (8) AI governance. Secondly, peer-reviewed academic papers, internationally recognized policy documents and official institutional reports were given preference. Third, documents had to come from an organization, university, government or a reputable academic publisher. Last but not least, the materials selected should help to provide insight into the interaction between education, psychology, law, ethics, and digital governance.

Documents were dismissed when they did not have academic value, included opinions without support, addressed only technical aspects of AI development, or were from non-credible sources. This selection process allowed for the inclusion of high quality evidence in the final documentary corpus that would be able to be analyzed in a rigorous qualitative manner.

Data Collection Procedures

The information was gathered by systematic review and organization of the documentary materials used, which were collected from academic databases, institutional repositories, governmental publications, international organizations, university policy archives and official legal databases. Key words were used in various combinations, such as artificial intelligence and education, social media and digital ethics, algorithmic governance and AI regulation, psychological well-being and academic integrity, educational technology and responsible AI.

All documents were initially filtered by the pre-determined inclusion criteria, and then organized into sub-themes including educational transformation, psychological impacts, ethical governance, legal regulation, privacy and data

protection, algorithmic accountability, and institutional policy responses. This well-structured arrangement enabled later coding and thematic analysis and helped to keep things transparent in the research process (Bowen, 2009).

Data Analysis: Thematic Analysis

After collecting the data, the documentary evidence was analysed thematically, a rigorous and flexible analytical process for identifying, organizing, interpreting and reporting patterns of meaning from qualitative data (Braun & Clarke, 2006; Braun & Clarke, 2021). Thematic analysis was chosen as it offers an insightful and systematic approach to examining complex social phenomena and allows themes to emerge over time, based on careful interpretation of documentary data. Since this research is interdisciplinary, thematic analysis is a suitable analytical method to synthesize the educational, psychological, legal, ethical, and governance perspectives in the context of understanding how AI is used in education and social media.

The analytical procedure adopted was based on Braun and Clarke's (2006) six phases of analysis. Phase 1 comprised multiple reads of all the documentation to become familiar with the material and to grasp the context of AI governance. In the second phase, preliminary codes were created by recognising meaningful concepts that are linked to educational transformation, psychological well-being, algorithmic decision making, digital ethics, academic integrity, privacy protection, ethical regulation, misinformation, social media governance, responsible AI. During the third phase, related codes were grouped together and larger conceptual themes emerged based on the repetition of patterns throughout the documentary evidence. In the fourth phase, these themes, resulting from the first three phases, were reviewed and clarified in line with the documentary data and research goals. This fifth step consisted of defining and naming each theme, and the last step was the synthesis and integration of the results in an analytical narrative that answered the research questions and theoretical framework.

Thematic analysis in this study focused on interpretation not the frequency in Quantitative Content Analysis. The goal was not to identify the frequencies of concepts, but to gain insight into the ways in which educational institutions, governments, international organizations, legal authorities, technology firms and scholars view the opportunities, risks, and governance issues surrounding AI. The interpretative way of orienting is expected for this research as the interpretative paradigm was used for the research as a whole (Braun & Clarke, 2021).

Coding Process

Deductive and inductive coding were used in the coding strategy to increase the analytical rigor and theoretical sensitivity. The study's conceptual framework and literature pertaining to AI governance, education technology, psychology, digital ethics, and the law were used to guide deductive coding. The early category coding were done on the basis of AI-assisted learning, personalized education, academic integrity, psychological well-being, algorithmic bias, privacy, data protection, misinformation, digital citizenship, transparency, accountability, legal regulation, ethical governance, and institutional responsibility (Floridi & Cowls, 2019; Holmes et al., 2022).

At the same time, inductive coding resulted in the discovery of other themes that emerged directly from the documentary evidence, not from preconceived theoretical assumptions (Miles et al., 2020). Other topics identified throughout the analysis were digital dependency, emotional wellbeing, AI literacy, explainable AI, algorithmic transparency, institutional trust, cross-border regulation, platform governance, teacher preparedness and human centred AI governance. The themes that arose enriched the aforementioned analytical framework and mirrored the fast development of the AI technologies.

Constant comparison was used in coding, which involved comparing documents from various institutional sources to uncover similarities, discrepancies, and changes in governance approaches (Merriam & Tisdell, 2016). Educational policy documents were analyzed with legal texts, ethical guidelines and scholarly literature to determine the commonalities and differences. This iterative analytical process has contributed to the conceptual clarity and to making the findings based on documentary evidence and not on researcher assumptions.

Trustworthiness of the Study

Within qualitative research it is essential to ensure methodological rigor. This study adopted the framework of trustworthiness proposed by Lincoln and Guba (1985) that includes credibility, transferability, dependability, and confirmability, which are alternative measures of validity and reliability to the traditional quantitative measures. These are generally accepted as standards for assessing qualitative research and for the quality of interpretive studies.

Credibility

The credibility of the findings is the degree of representativeness of the results to the phenomenon under study (Lincoln & Guba, 1985). Multiple categories of documentary evidence were analyzed to reinforce the credibility, as opposed to a single source. Document analysis was carried out in a systematic manner where international policy documents, government publications, education guidelines and principles, legal frameworks, peer-reviewed journal articles, institutional reports and AI governance principles were systematically compared throughout the process (Patton, 2015).

This was complemented by extensive interactions with both historical and current research on AI, education, digital ethics, and legal frameworks for AI governance. Theoretical literature and documentary evidence were constantly compared, also to keep interpretations contextually based, yet analytically rich.

Transferability

The problem with transferability is that it relates to the degree to which the qualitative results are helpful for understanding comparable situations rather than to the degree to which it leads to universal generalizations (Lincoln & Guba, 1985). The analytical framework of this study is developed specifically around AI in education and social media, but its insights can be extended to other domains of digital governance, educational innovation, regulation of technology and ethical implementation of AI in other institutional contexts.

The rich contextual description of the educational systems, AI governance frameworks, legal developments and ethical challenges allow readers to assess the findings for their relevance in other countries, in other educational institutions or in other technological settings. This contextual detail is generally considered to be important in qualitative research for transferability (Merriam & Tisdell, 2016).

Dependability

The consistency, transparency, and logical coherence of the research process is called dependability (Lincoln & Guba, 1985). For further strengthening of dependability, the research method was carried out systematically with the principles of qualitative methodology, starting from the document selection, sampling, coding, thematic analysis, interpretation and reporting.

Procedural consistency was further improved by the use of recognised methodological frameworks, such as those of Bowen (2009) and Braun and Clarke (2006, 2021) – document analysis and thematic analysis respectively. Inclusion criteria, analysis, and coding are clearly explained, which enhances transparency of the research design and aids in the ability to replicate or extend the study by others.

Confirmability

Confirmability is the extent to which research findings are based on documentary evidence as opposed to personal assumptions or researcher bias (Lincoln & Guba, 1985). Analytical interpretations were substantiated with document evidence from a variety of sources throughout the study. Incorporation of international policy documents, educational reports, legal policy, and peer-reviewed scholarship decreased the need for relying on any one institutional voice.

Additionally, the interpretivist approach fostered ongoing reflexive sensitivity to the role of the researcher in the process of interpretation. Instead of being objective, a study aimed for transparency and made explicit connections between conclusions and documentary evidence and theoretical frameworks (Denzin & Lincoln, 2018). It reinforced the confirmability and was in line with qualitative research principles.

Ethical Considerations

The research was conducted without humans, but ethical issues were always a major part of the research. Because this research was not based on any original data created by the researcher, and was based entirely on public documentary data such as academic publications, legal documents, institutional reports, educational policies, and international governance frameworks, there was no formal institutional ethical approval for this study (Creswell & Poth, 2018).

However, the study was conducted in accordance with academic integrity, intellectual honesty, transparency and responsible scholarship. All documentary sources were cited and represented accurately, interpreted in the context of its place of origin and properly cited according to the APA 7th edition citation method. Special care was taken to ensure that the interpretation was not selective, that the position of the institutions had not been misrepresented, or that the documentary evidence had not been overgeneralized.

The study also remained scholarly in light of the delicate and complex areas of AI governance, digital privacy, algorithmic decision-making, educational ethics and psychological well-being. The analysis was not aimed at promoting any particular technology or regulatory stance, but rather engaging in a critical appraisal of the opportunities and challenges of AI and providing balanced interpretations, with documentary evidence.

Methodological Limitations

The study has some methodological limitations as outlined below: First, the research is limited to documentary data and does not include interviews with teachers, students, policymakers, software developers, lawyers, psychologists, and technology professionals. Document analysis offers valuable insights from an institutional perspective, but including primary qualitative data could help deepen the understanding of the lived experiences related to AI adoption. Secondly, the study is qualitative, using a case study approach, and not a specific educational institution or specific national context, but rather a general overview of the phenomenon of AI in the context of education and social media. The results, therefore, highlight analytical explanation instead of statistical generalisations. Further comparative

research on the other countries, educational systems or digital platforms might yield more information about differences in context.

Third, the speed of change in AI technologies, educational policies and laws remains very fast. Thus, governance structures examined in the current research could be substantially changed as new technologies develop. The conclusions should thus be interpreted as a momentary snapshot of the issues to be addressed of AI governance at a specific point in time based on the evidence of documents reviewed, rather than as a definitive understanding of the issues to be addressed for AI governance.

Last, interpretative qualitative analysis always makes use of the judgment of the researcher. The methodological triangulation, systematic coding, reflexive interpretation and trustworthiness procedures employed were used to avoid bias; however, no researcher can be completely objective, and that is not a part of the interpretivist approach (Schwandt, 2014). Rather, transparency, methodological rigor and evidence-based interpretation are emphasized.

FINDINGS AND DISCUSSION

The qualitative document analysis shows that Artificial Intelligence (AI) has revolutionized the domain of education and social media, changing the ways in which knowledge is produced, shared, and used. AI systems are not just tools; they are part of pedagogy and how it is implemented, how the learner engages, how information is accessed, how people communicate, and how decisions are made within an institution. The study also shows that the use of AI in education is a double-edged sword, with great potential for learning opportunities but also significant psychological, legal, and ethical challenges. In all the evidence, educational institutions, policy-makers, international organizations and scholars see AI as a tool for innovation while also expressing concerns about algorithmic bias, academic integrity, data privacy, mental health and governance (Holmes et al., 2022; UNESCO, 2023).

In this first part of the findings the thematic analysis revealed three interwoven themes: (1) AI-enabled learning and educational transformation, (2) AI-driven social media and digital learning ecosystems, and (3) psychological well-being, mental health and learner engagement. The themes show that questions of digital governance, ethical responsibility and human well-being go hand-in-hand with educational innovation. The results are examined from the perspective of human-centered AI, socio-constructivist learning theory, digital ethics and responsible innovation, with a focus on a balance between technological development and educational values and human rights (Floridi & Cows, 2019; Holmes et al., 2022).

Theme1: AI-driven learning and educational change

AI's impact on education is multifaceted, with a consistent theme that it has revolutionized learning environments by enabling intelligent tools that facilitate personalized learning, adaptive assessment, automated feedback, curriculum planning, and administrative efficiency. AI applications are not like traditional digital learning platforms, which were fixed and one-size-fits-all, but rather they adapt to the learner's behaviour, uncover their strengths and weaknesses, and offer tailored learning experiences. These advances have paved the way for differentiated instruction to be available, and for learning to be accessible in various educational settings (Luckin et al., 2016; Zawacki-Richter et al., 2019).

The results suggest that AI-powered educational tools can help students get personalized learning experiences, adaptive content, and real-time feedback. The role of intelligent tutoring system, predictive analytics, and generative AI applications is growing to help students to solve complex problems, to develop writing skills, to conduct research and access educational resources. AI in the field of education has thus transformed the pedagogy from a standardized approach to more individualized strategies, such as flexible learning, personalization, and ongoing support (Holmes et al., 2022).

The results are consistent with socio-constructivist approaches to learning which stress the importance of learning as an interactive, cooperative, and active process of constructing knowledge rather than the passive process of transferring information (Vygotsky, 1978). AI technologies can aid collaborative learning by providing personalized guidance and allowing learners to access educational content based on their cognitive needs. The documentary evidence indicates that AI is not a substitute for teachers, but should be used as an educational assistant to improve teaching methods and make the most of the teacher's pedagogical expertise.

However, the qualitative data also points to key issues with the use of AI to facilitate learning. Over-dependence on automated instructional systems can decrease opportunities for critical reflection, independent thought, and human interaction. A number of policy briefs note that when the current content created by AI is adopted without further critical analysis of its quality or pertinence, it can create superficial learning, which may be efficient but ultimately prove ineffective (UNESCO, 2023). The results corroborate concerns that the convenience of technology should not supplant higher-order cognitive development, especially in higher education.

The changing roles of educators in the context of AI in learning is another important discovery. Instead of replacing teachers, AI is transforming how they perform their role from information transmission to mentorship, facilitation,

critical guidance and ethical supervision. The teachers should not only incorporate AI into their teaching methods but also help develop students' digital literacy, critical thinking, and responsible use of AI. Thus, to achieve successful implementation of AI, continuous professional learning, institutional support, and technology integration policies need to be developed that foster responsible use of AI (OECD, 2021).

Comparative studies with past work show a general consensus on the transformative power of AI in education and the ongoing implementation challenges. Previous studies focused mainly on technological efficiency, adaptive learning and instructional innovation (Luckin et al., 2016). But more recent scholarship suggests that responsible AI governance, transparency, explainability and educational ethics are also defining aspects of educational transformation, and are of equal importance (Holmes et al., 2022; UNESCO, 2023). The current results confirm this growing consensus by showing the need to make connections between the effectiveness of education and ethics, institutional accountability, and student wellbeing.

The results highlight the need for a strategic and judicious approach to the integration of AI in education, rather than a blanket acceptance. Technological investments need to go hand-in-hand with teacher training, institutional governance, ethical guidelines, and ongoing assessment of AI-supported learning. This approach may achieve a balance that maximizes educational outcomes while avoiding possible education risks from automation and algorithmic reliance.

Theme2: AI-Driven Social Media and Digital Learning Ecosystems

The second key theme that stands out from the qualitative analysis is the growing interdependence of AI, social media, and digital learning. Social media platforms have emerged from mere communication forums into powerful educational spaces where AI algorithms play a pivotal role in shaping what educators can see, access, and share. Social media platforms have grown to be more than just communication spaces, they are powerful learning environments where AI algorithms dictate what educators may see, access, and disseminate. Learners are increasingly exposed to education, public knowledge and online discussion through recommendation systems, personalized content feeds, algorithmic ranking, and generative AI tools (Cinelli et al., 2021).

The results suggest that AI recommendation systems have the potential to provide significant educational benefits, such as providing quick access to a variety of learning materials, professional communities, instructional videos, academic discussions, and collaborative knowledge networks. Students are increasingly using platforms like YouTube, LinkedIn Learning, AI-powered education applications to fill gaps in their formal education. Thus, learning is increasingly taking place in a digital environment that often includes formal and informal settings in the learning process, and not only in traditional educational settings (Greenhow & Lewin, 2016).

Through the lens of the connectivist learning theory, these developments show how digital networks are becoming more relevant in the production of knowledge in today's world. Learning depends more and more on the ability of individuals to connect to information systems that are distributed over space and time and not just personal knowledge acquisition, argues Siemens (2005). This is strongly backed by the documents, which illustrate how AI-driven digital environments enable an ongoing learning process by engaging with a variety of online communities, educational websites and knowledge bases.

However, the analysis reveals a number of critical issues that need to be addressed with regard to the use of AI in social media environments. Algorithmic personalisation often focuses on user engagement rather than education, causing users to stay on the platform for longer and to reinforce their own views and beliefs while reducing exposure to different perspectives. This phenomenon is referred to as algorithmic "filter bubbles" in several documents, as the learner is presented with more and more homogeneous information, based on the previous behavior they had online, rather than a balanced educational content (Pariser, 2011). Algorithmic filtering can limit critical thinking, diversity of thought and exposure to other points of view.

The study also shows that misinformation and content created with AI are emerging threats in educational social media environments. Generative AI can create convincing but inaccurate educational materials, fake references, edited multimedia content, and bogus academic explanations. When it circulates so quickly through algorithmically driven social media platforms, it can be tricky for learners to identify trustworthy information from misinformation. Therefore, the skills of digital literacy and information evaluation are becoming increasingly relevant skills in education (UNESCO, 2023).

The other significant discovery relates to the commercialization of educational involvement. The algorithms used for AI-generated content often prioritize commercial goals, advertising revenue, and user engagement over educational content. This means that educational information is competing with entertainment, political messages and commercial ads in the same digital space. This is because it raises a number of questions about the neutrality of education and the necessity for transparency in the algorithmic systems of content recommendation (Floridi & Cowls, 2019).

The findings are comparable to the results of other studies that have been conducted in the past, with the overall picture showing a high degree of alignment in both the educational opportunities and governance issues of AI-driven social media. While collaborative learning and the ability to access educational resources have been central themes of

scholarship in the past, more recent research is increasingly focused on algorithmic accountability, misinformation, digital manipulation and platform governance (Cinelli et al., 2021). The current results combine these viewpoints by revealing that educational innovation and governance issues are interdependent aspects of the modern digital learning landscape.

These findings have important policy implications. Schools must improve digital literacy education by strengthening the subjects of critical evaluation of online information, using AI appropriately, using algorithms and ethical participation in digital space. At the same time, there is a need to have more transparency from the technology companies in the recommendation algorithms for educational content and public information.

Theme 3: Psychological Well-Being, Mental Health and Learner Engagement

Thirdly, from the qualitative analysis it is interesting to note that the conversation around the intersection of AI technologies, social media and psychological well-being is a complex one. In all the documents there is consistent evidence that AI impacts students cognitively, emotionally, socially and psychologically. By delivering tailored support, real-time feedback, and adaptive learning experiences, AI-powered educational tools can foster students' motivation, confidence, and engagement. The impacts are, however, accompanied by growing concerns about anxiety, digital dependence, social comparison, information overload and emotional health (OECD, 2021).

A key discovery is that using AI in personalized learning can help alleviate the frustration of schoolwork because students can learn at their own speed. Adaptive learning systems detect learning challenges early, suggest learning materials and offer ongoing formative feedback. Individualized support seems to be especially helpful to students who need extra academic support or flexible learning opportunities. The results align with the research in educational psychology which has been proven to show a positive effect of personalized feedback on motivational state, self-efficacy and academic persistence of learners (Bandura, 1997).

Meanwhile, the study reveals increasing psychological dangers from extended engagement with AI-powered social media. Recommendation systems designed to optimize user engagement often promote excessive usage, frequent notifications, and overuse of the platform. These activities have been linked to heightened stress, shorter concentration spans, emotional fatigue, sleep disturbances and poor psychological health in children and young people (Twenge, 2017). While AI isn't solely responsible for these results, the design of algorithms on platforms does have a significant impact on user behaviour and digital habits.

The second significant finding is related with social comparison and the construction of digital identity. Learners are often met with highly selectively presented depictions of academic success, personal success, and social recognition in AI-curated social media environments. All this exposure can lead to false expectations, lowered self-esteem and greater academic stress especially among adolescents and college students. Given this documentary evidence, it seems that the role of AI in the psychological experiences extends beyond education to social interactions mediated by algorithms.

The results also show that generative AI poses new psychological challenges to academic confidence and intellectual independence. AI-powered writing tools and conversational systems can aid in learning, but overreliance on AI tools can impact students' self-efficacy and hinder their ability to solve problems on their own. If not accompanied by suitable pedagogical precautions, the reliance on AI-generated answers can eventually diminish critical thinking and intellectual independence (UNESCO, 2023).

By examining the findings from past scholarship, one can see that there is a general consensus of an increasing view that the psychological impacts of AI are not monolithic but can be positive or negative, depending on the circumstances. Previous studies often focused on the learning efficiency aspect, while more recent studies increasingly highlighted the need for mental health, emotional resilience, and digital well-being, and responsible technology use (Holmes et al., 2022; OECD, 2021). These current results support this trend by highlighting the importance of psychological wellbeing as a key element of responsible AI governance, not an afterthought.

The theme for Artificial Intelligence, Academic Performance, and Personalized Learning will examine how AI impacts student learning and explore applications for instructional decisions, student assessment, and student support. The qualitative analysis suggests that a key area where artificial intelligence (AI) is likely to make a significant impact in the field of education is by creating personalized learning environments, thereby enhancing academic outcomes. As opposed to the conventional models of teaching which supply the same learning experiences for all learners, AI-based education systems continuously assess their progress, determine strengths and weaknesses, and modify instructional content based on the individual needs of learners. Throughout the documentary evidence, educational institutions and international organizations have confirmed that responsibly used adaptive learning technologies have positively contributed to learning efficiency, engagement, and accessibility to education (Holmes et al., 2022; UNESCO, 2023).

The results indicate that there is scope for using AI with learning environments that allow for ongoing formative assessment, not just a traditional summative assessment. Intelligent Tutoring Systems, predictive analytics, automated assessment platforms, and generative AI applications ensure students receive timely feedback, helping them discover

conceptual misunderstandings before they turn into major learning obstacles. This individualized approach enables learners to take responsibility for their own learning and follow-up, and to monitor their own learning process, correct their mistakes and misconceptions, thereby fostering their self-regulated learning (Luckin et al., 2016).

The results of these findings are consistent with the theories of education which focus on the autonomy and active construction of knowledge. According to a constructivist view, meaningful learning is an active process in which students engage with knowledge rather than just passively taking it in (Vygotsky, 1978). AI technologies can aid in this by offering tailored learning experiences, allowing learners to explore, reflect, and continually improve. It is not so much an alternative to teachers but rather a companion tool that is used in conjunction with other pedagogical methods, including technology-based assistance, group work, interactive dialogue, and critical analysis.

Additionally, the analysis highlights the immense potential of AI in promoting educational inclusion by aiding students with diverse learning needs. Adaptive technologies support learners with disabilities with speech recognition, text-to-speech software, language translation, customized accessibility settings and intelligent learning support. These technologies help to remove educational obstacles, and stimulate higher involvement from learners with less access to high-quality education. The results support the premise of UNESCO (2023) that AI has significant potential to support inclusive education with principles of equity and accessibility.

However these educational advantages have some significant problems as identified in the documentary evidence. A common worry is that AI-driven educational suggestions could be limiting, favouring the algorithmically forecasted preferences over more general intellectual pursuits. Students can feel more and more compelled to use tailored recommendations that sustain current learning sequences and less to call for interdisciplinary learning or autonomous research. Personalization, therefore, should be a supplement to, not a substitute for, all-encompassing education that promotes creativity, curiosity and critical thinking.

Another notable finding is related to educational inequity. While AI can bring learning resources to anyone, there are requirements for reliable internet, digital infrastructure, technological literacy and institutional capacity to enable this to happen. Low-resource educational institutions often face financial, technical, and administrative challenges to equitable application of AI. This means that the opportunities provided by AI are unevenly distributed and are raising awareness about the digital divide (OECD, 2021).

Results from past scholarship suggest that there is significant consensus on the ability of AI to enhance learning outcomes and its challenges of implementation. In the past, studies have concentrated mainly on adaptive learning technologies and the efficiency of instruction (Zawacki-Richter et al., 2019). However, more recent research has begun to prioritize responsible implementation, educational equity, teacher preparedness, and institutional governance as critical factors for successful AI adoption (Holmes et al., 2022). The present results contribute to this larger view by showing that the effectiveness of education is not just a function of technological innovation, but is also aided by institutional preparedness, pedagogical quality and equity of access.

Methodologically, the results indicate that the implementation of personalized learning with the support of AI in educational institutions should be part of a broader pedagogical approach, where digital literacy, teacher professionalization, a learner-centered approach, and ethical use of technology are key components. This could be a way to get the most out of education without the negative impacts of overreliance on technology.

Theme5: Academic Integrity, Authorship, and Generative Artificial Intelligence

The issues of academic integrity and authorship are among the most notable ones that emerged from the qualitative analysis, standing as one of the most important themes. Large language models, AI writing aids, auto-completion tools, and intelligent content generation have irrevocably changed the understanding of what was once considered original and authored, what is known, how it is created, and what is expected of scholars. These technologies offer great educational assistance but also defy conventions about independent learning and intellectual contribution in academia (Cotton et al., 2023).

The results show that generative AI has significant learning benefits when used to assist students in their learning. AI tools are being more widely adopted by students to explain difficult concepts, create study materials, arrange research ideas, enhance writing quality and provide individual academic feedback. These applications could help lower barriers to learning, boost academic confidence, and enhance educational accessibility for multilingual learners and students who need extra support in their education. Thus, the impact of AI on education cannot be seen as solely negative; rather, AI can be a valuable educational tool if used responsibly.

Though, there are significant worries raised by this documentary about the misuse of AI in the educational environment. AI generated essay, assignment, programming answer, literature summary and research support all provide possibilities for plagiarism, contract cheating, and inappropriate academic support. But as more content is created by AI, a student's understanding of originality will be undermined the more that content is used without proper attribution or critical reflection. The results align with recent research that emphasizes the need for a rethinking of traditional ideas about authorship and academic integrity in the wake of new developments in AI technologies (Kasneci et al., 2023).

The analysis also shows that the main problem is not about plagiarism identification. Educational institutions are not only grappling with a definition of AI-generated content, but are also dealing with more complex issues regarding the acceptable use of AI, intellectual responsibility, transparency, and ethical scholarship. Academic integrity policies are mostly drafted prior to the era of the ubiquity of generative AI and generally cannot keep up with the new ways of creating knowledge through AI. This means that universities are in need of new governance models that establish guidelines for suitable educational applications of AI while maintaining the integrity of educational programs.

These results can be understood through the prism of moral frameworks that focus on responsibility, transparency and intellectual responsibility. According to Floridi and Cowls (2019), the key principles in the governance of responsible AI should be human agency, fairness, transparency, and accountability, not technology. Extending these ideals to higher education, it seems that AI could be a tool to augment, not supplant, students' intellectual work. Students are still held accountable for assessing, checking, understanding, and citing AI-generated information in their work.

The comparison with the previous studies shows important changes in educational scholarship. The discussions were often centered on the negative aspects of AI, such as detection of plagiarism and security of examinations. Recent studies take a more holistic approach, seeing generative AI as a means to change how we teach, evaluate, write research papers, and educate, not just to make cheating easier (Cotton et al., 2023; Kasneci et al., 2023). The current results validate this developing paradigm shift by emphasizing the need to promote ethical use of AI in academics, not just the prohibition of its use.

A second significant discovery is related to the changing identity of the educator in regards to academic standards. Teachers are more of facilitators to develop ethical AI literacy and not just assessors of grades. Teachers are not just assessors of grades but more facilitators for developing ethical AI literacy. This change needs to be reflected in the way that assessments are designed, with a greater focus on critical thinking, problem-solving, oral communication, collaborative learning, reflective writing, and forms of assessment that are not easily automated by computer-generated content. This pedagogical innovation allows one to make academic integrity a part of educational transformation, not technological opposition.

Institutional-level, universities should develop clear policies on AI that define ethical use of AI in teaching, learning, research, and assessment. It is also essential that faculty development programs equip teachers with the skills to use AI responsibly without compromising on academic rigour. These measures would collectively enhance the integrity of education in the context of digital learning, which is rapidly changing. Together these measures would improve the integrity of education in the context of quickly changing digital learning environments.

Theme6: Privacy and surveillance; and the legal governance of AI

The qualitative analysis reveals that privacy, surveillance, and legal regulations are some of the most important governance issues concerning AI education and social media. Modern AI tools gather, analyze, and process vast amounts of personal data about students throughout their time, encompassing their learning habits, grades, internet usage, interactions, geographic locations, and even physiological data. AI-driven analytics are becoming more common in education, helping schools track student engagement, assess learning outcomes, and make informed decisions. These practices contribute to educational efficiency, but also evoke intricate legal and ethical issues regarding privacy rights, informed consent, and the responsible management of data (European Commission, 2024).

The documentary evidence shows that AI-based learning technologies can often rely on comprehensive data harvesting, which is not fully understood by many of the potential consumers. Pupils often use smart learning systems, adaptive platforms and social media apps without awareness of how their personal data is collected, stored, analysed, shared or retained. This gap between the user and technological capability makes it difficult for meaningful informed consent and digital autonomy to take place.

These results also show that algorithmic surveillance is not limited to learning outcomes but also covers a wider spectrum of behaviours. There is a growing number of learning analytics systems capturing attendance, participation, assignment submission, online activity, emotion, and behavior to forecast academic performance and/or target students who may need intervention. While these technologies could be used as aids to early educational support, there is a risk of reducing the autonomy and trust of learners, as well as their privacy, if this support is not adequately protected.

It also through the legal lens shows the growing international awareness of the need for AI governance as a "regulatory priority". Transparency, accountability, human oversight, risk assessment, and the protection of fundamental rights are the core principles highlighted in frameworks like the European Union AI Act, the General Data Protection Regulation (GDPR), UNESCO's Recommendation on the Ethics of Artificial Intelligence, and OECD AI Principles (European Commission, 2024; OECD, 2019; UNESCO, 2023). In sum, these efforts highlight the evolving recognition that the governance of AI should ensure innovation and uphold legal safeguards for privacy, equality, and human dignity.

Additionally, key gaps in the current legal landscape are identified. With AI technologies advancing much faster than legislative efforts, regulatory gaps remain in areas such as automated decision-making, trans-border data transfers, accountability for algorithms, intellectual property rights, and AI in education. National laws are still in the process

of being adapted to include some aspects of AI privacy, while not creating new laws that govern AI. Educational institutions often have to function in ambiguous regulatory contexts where institutional moral direction is needed as well as compliance with legal regulations.

When comparing with the previous scholarship, the conclusions are consistent and agree with the need for human-centred AI governance. Floridi and Cowls (2019) suggest that the principles of beneficence and non-maleficence, justice, autonomy and explicability can be promoted through AI regulation. The examination of documentary evidence is highly in support of these principles and shows that technological innovation should not be for technological efficiency but for fundamental human rights and Democratic values.

The results also highlight the importance of institutional responsibility for the effective functioning of legal governance. The responsibility for ensuring transparency, explainability, fairness, and accountability of AI systems is shared amongst educational institutions, technology companies, governments, and international organisations. Thus, to achieve ethical and responsible governance of AI, there is a need for interdisciplinary collaboration between various fields, including legal norms, educational policies, ethics, technology, and the public.

CONCLUSION

Artificial intelligence (AI) is one of the most impactful technological advancements of modern times in education and social media. It has been quickly adopted in digital learning environments, reshaping teaching, learning, interactions, knowledge creation and institutional management. AI has brought new possibilities for personalized learning, education access, and administrative efficiency, but also created new psychological, ethical, legal, and policy concerns that need to be addressed in full. The study adopted an interpretative qualitative research method with the application of qualitative document analysis and thematic analysis to critically analyze these interconnected aspects. The research showed that the innovation in education, psychological well-being, legal regulation and ethical governance are not separate processes but are part of a wider digital learning ecosystem. Thus, the results further support the case for the need for responsible governance, a human-centred approach to education, and institutional accountability in the future of AI in education (Holmes et al., 2022; UNESCO, 2023).

The study aimed to explore the impact of AI on the education and social media landscape in the digital learning era. The qualitative results confirm that AI has greatly contributed to the improvement of educational innovation by implementing adaptive learning systems, intelligent tutoring platforms, automated assessment, predictive analytics and generative AI applications. These technologies have facilitated individualized learning routes, greater educational access and more flexible teaching methods. At the same time, AI-powered social media platforms have opened new avenues of learning, sharing, and engaging with educational content worldwide, bringing learners into closer contact with other digital communities and learning opportunities. The results, however, also suggest that the quality of education is not guaranteed by technological innovation. Pedagogically-sound implementation, institutional readiness, digital literacy, and ongoing human oversight are key to the effective integration of AI. Thus, AI should be regarded as a complement to teachers, a tool that complements and supports human professional educational judgment (Luckin et al., 2016; Zawacki-Richter et al., 2019).

The second goal was to explore the psychological aspects of AI in educational and social media contexts. The study revealed both positive and negative impacts of AI on wellness for learners. Adaptive learning technologies can enhance learner self-efficacy, confidence, engagement, and motivation by offering personalized support and timely feedback. However, social media algorithms driven by AI can also give rise to digital dependency, information overload, social comparison, anxiety, emotional exhaustion and shortened attention spans. The results of this study indicate that psychological well-being must be taken into account as a key issue of AI governance and not as an incidental by-product of technological advancement. So, to promote responsible educational policies, digital well-being, healthy technology use and learner resilience must be foregrounded along with technological advancement (Bandura, 1997; OECD, 2021).

The study also explored the legal and ethical issues surrounding AI in the education and social media sectors. The results show that privacy and data protection, transparency in the algorithms, surveillance, academic honesty, intellectual property and accountability are becoming increasingly important in the context of the collection and processing of large amounts of personal and academic data by AI systems. The existing legal frameworks may not effectively address the rapidly advancing capabilities of AI, leading to uncertainties for educational institutions and policymakers. Ethical issues of algorithms' bias, explainability, fairness, discrimination, and responsible decision-making, at the same time, show that the effectiveness of technology is not independent from basic human rights and democratic values. The results presented here align with the growing international consensus on the need for human-centred principles in the governance of AI, including transparency, accountability, justice and respect for human autonomy (Floridi & Cowls, 2019; European Commission, 2024).

Among the key conclusions is the escalation of the influence of generative AI in the realm of academic integrity and knowledge creation. AI is not just about providing more options for plagiarism but fundamentally changing notions

of authorship, originality, and scholarly duty. Educational institutions are thus called to action to go beyond the traditional focus on AI detection to embrace frameworks that build ethical AI literacy, transparency, responsible authorship, and honest evaluation. Student users should be encouraged to engage in the use of AI in a critical, reflective and responsible manner, while exercising intellectual independence and academic integrity. Similarly, teachers need to revamp their assessment practices and make it more focused on higher-order thinking, creativity, critical analysis, and collaborative problem solving, which are not easily mimicked by automated content creation (Kasneci et al., 2023; Cotton et al., 2023).

Conceptually, this research enriches the interdisciplinary field of education, by synthesizing the views of educational technology, educational psychology, digital ethics, technology law, educational governance, and human-centered AI. Current research on AI often addresses the subject with a disciplinary lens, each emphasizing a specific learning outcome, technological advancement, legal perspectives, or moral issues. In contrast, the current study presents an integrated conceptual framework showing that education transformation, psychological well-being, legal governance, and ethical responsibility are inter-dependent aspects of the responsible use of AI. The results thus continue the ongoing discussion on the governance of AI, highlighting that technological advancements ought to be consistent with educational values, human rights, institutional responsibility, and social justice (Floridi & Cowls, 2019; Holmes et al., 2022).

From the methodological point of view, the study illustrates the advantages of qualitative document analysis together with thematic analysis for the investigation of complex and dynamic technological phenomena. The interpretivist paradigm allowed for the critical analysis of institutional perspectives found in policy documents, international frameworks, scholarly literature, legal instruments and educational guidelines. The method adopted enabled the contextual understanding of AI governance in an in-depth manner and enabled comparison between the three fields of education, psychology, law, and ethics. Additionally, the use of multiple documentary sources added to the trustworthiness and analysis of the research by comparing the findings between the governments, international bodies, academic literature, and institutional policies (Bowen, 2009; Braun & Clarke, 2021; Creswell & Poth, 2018).

This study has significant implications for practice. The results underscore the critical need for the educational sector to establish robust policies and frameworks for the governance of AI, integrating technical, ethical, educational, and supportive measures for learners. Teachers need ongoing professional development to incorporate the use of AI effectively, while ensuring pedagogical quality, academic integrity, and student-centered learning. To ready learners for AI-infused societies, AI literacy, digital citizenship, critical media literacy, and ethical decision-making should be included in educational curricula. At the same time, universities need to provide clear institutional policies on the acceptable use of AI in learning, evaluation, research and scholarly communication.

The study also has implications for policy makers and legal authorities. Governments should place a priority on creating broad and inclusive AI governance guidelines on education, algorithmic accountability, data protection, transparency, privacy and human rights. Regulatory solutions must be sufficiently flexible to be adaptable to the extent of technological innovation and be accountable and effective for the public. International collaboration will also continue to be a key aspect as AI technologies, digital platforms and educational ecosystems are increasingly global. The role of other organizations like UNESCO, OECD and national educational authorities is also crucial in the promotion of the internationally consistent ethical standards and responsible AI governance (OECD, 2019; UNESCO, 2023).

Just as with any other technology, the developers of educational AI systems also have a large part to play in making sure that the systems are transparent, explainable, inclusive, and not unnecessarily algorithmically biased. There is a need to incorporate human-centered design principles into the development of AI, including fairness, accessibility, privacy, accountability and the well-being of the user, and not just optimisation for efficiency or commercial performance. Improved software developer-education, software developer-psychologist, software developer-legal, software developer-ethicist, and software developer-policy maker partnerships would help create more socially responsible technological innovation.

The study has identified a number of limitations, although these do not detract from its contributions. The research was based solely on written documents and did not involve students, teachers, policy makers or technology developers in interviews or observations. While documentary analysis yielded detailed institutional views, further studies using qualitative methods, such as interviews, focus groups, and mixed methods, could offer additional data on the lived experience of implementing AI. Also, since the technologies used with AI and the regulations are still rapidly developing, the results should be seen in the time frame of the documents analyzed. Further research into other educational systems, cultural environments, and forms of governance would lend greater support to understanding the implementation of responsible AI in a variety of contexts.

Future research needs to explore the potential long-term psychological impacts of AI-based learning, the robustness of institutional AI governance structures, the relationship between generative AI and academic integrity and develop comparative international strategies for managing AI in education. Further studies on the scholarships should explore

experiences of marginalized learners, AI literacy, teacher preparedness, algorithmic fairness, and digital inclusion as well, to make sure the future use of AI systems does not perpetuate existing educational inequalities. Overall, this study highlights the transformative potential of AI in education and social media, while also underscoring the ethical and responsible use of these tools. The future viability and success of AI in digital education will not rely on the technology itself as much as the ability of society to regulate AI technology in an ethical, legal and educational manner. To realize responsible AI governance, the building of transparent institutions, evidence-based policymaking, strong legal protections, ethical technological design, digitally capable teachers, and AI-informed students and international collaborations are necessary. An education system, with human dignity, educational equity, academic integrity, and democratic accountability at its core, can leverage the transformative power of AI while simultaneously upholding the values that drive meaningful learning and responsible knowledge production. This equitable, people-centred approach is the most sustainable route to an inclusive, ethical and resilient digital learning future.

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