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THE ETHICAL PROBLEM OF THE USE OF AIS IN THE DAILY LIFE OF HIGH SCHOOL STUDENTS

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Abstract: The use of artificial intelligence (AI) in education has expanded rapidly, impacting the daily lives of high school students. Although these technologies promise to personalize teaching and optimize learning, ethical challenges arise that require critical analysis. Issues such as privacy, algorithmic bias and the possibility of teachers being replaced by automated systems raise concerns about educational equity and quality. This article investigates these issues based on a qualitative documentary analysis approach, according to the methodology proposed by Severino (2008). The study points out that the implementation of AI in education can reinforce social inequalities if its algorithms are developed without transparency and without considering the diversity of students. In addition, the massive collection of data puts students' privacy at risk, making it essential to create public policies to regulate it. Another aspect analyzed is the role of the teacher, who may be shifted to a secondary role, limiting their direct interaction with students. In light of this, this article proposes a critical reflection on the use of AI in education, highlighting the need for an ethical and inclusive approach to its adoption. For technology to make a positive contribution in secondary education, it is essential that its implementation is aligned with solid pedagogical principles and that it respects the autonomy of teachers and students.
Keywords: Artificial Intelligence; Ethics; Education

INTRODUCTION

The rapid incorporation of artificial intelligence (AI) into the educational field has generated intense debate about its impact on teaching and learning processes. If, on the one hand, AI promises to personalize education and optimize pedagogical practices, on the other, its implementation raises fundamental ethical questions. Among these concerns are student privacy, the influence of algorithmic biases and the possibility of replacing or devaluing the classroom teacher. These challenges are especially relevant in high school, a crucial stage in students' critical education, where human mediation of knowledge is still essential for building students' intellectual autonomy.

The relevance of this study lies in the context of a digitalized society, where AI-based technologies are increasingly present in students' daily lives. However, the literature points out that the indiscriminate adoption of these tools can reinforce social inequalities if their algorithms are developed without transparency and without taking into account the diversity of students (Crawford, 2021; Selwyn, 2014). In addition, the massive collection of student data raises questions about the security of the information and the possible commercial use of these databases by educational technology companies (O'Neill, 2016). Thus, this article seeks to contribute to the critical debate on the ethical impacts of AI in secondary education, drawing attention to the need for a regulatory and pedagogical approach that ensures equitable and responsible use of this technology.

To support this analysis, this study is based on a qualitative approach, using the method of documentary analysis from the perspective of Severino (2008). The choice of this methodology is justified by the need to critically examine academic documents and technical reports on AI in education, selected on the basis of their relevance and topicality. According to Gil (2008), document analysis allows us to explore existing scientific production in order to understand the trends and challenges related to the topic, providing an informed overview of the impacts of AI on student education. In this way, peer-reviewed scientific articles, institutional documents and educational regulations dealing with AI in education were

selected, allowing a detailed mapping of the risks and opportunities of this technology in secondary education.

By analyzing the role of AI in education from a critical perspective, this article aims to contribute to reflections on the need for ethical regulation, the preservation of the teaching role and the protection of student privacy. In addition, the study seeks to warn of the risks of technological solutionism in education, where technology is presented as a panacea for structural challenges, without considering its social and pedagogical impacts (Morozov, 2013). In light of this, the research highlights the importance of a responsible implementation of AI, which respects the principles of equity, autonomy and citizen education for learners.

ARTIFICIAL INTELLIGENCE IN EDUCATION: ADVANCES, CHALLENGES AND ETHICAL IMPLICATIONS

The introduction to this article highlighted the growing presence of artificial intelligence (AI) in secondary education and the ethical challenges that this technology imposes on everyday school life. The advance of AI in education is taking place in a context of increasing digitization of education, driven by public policies and the interest of large technology corporations. However, the impacts of these innovations are not neutral: their implementation can expand educational opportunities as well as deepen inequalities and make teaching work more precarious. A critical analysis of the discourses that support the adoption of these technologies and the pedagogical, political and social implications involved is therefore essential.

The promises of AI in education are widely publicized by its developers and enthusiasts. It is argued that these technologies make it possible to personalize teaching, continuously monitor student performance and automate administrative tasks, freeing up teachers for more reflective and interactive work. Intelligent tutoring systems, adaptive platforms and AI-based virtual assistants are already being used in various educational contexts around the world. Research suggests that these resources can help improve learning by offering immediate feedback and identifying specific difficulties for each student (Chassignol et al., 2018). However, the optimistic outlook surrounding AI in education often ignores the limitations of these technologies and the risks that their indiscriminate adoption can pose.

The issue of algorithmic bias is one of the main concerns raised by critics of AI in education. Systems based on machine learning operate from databases that often reflect pre-existing social inequalities. When used to assess student performance or recommend content, these algorithms can reproduce and reinforce discrimination, favoring certain student profiles over others. O'Neill (2016) warns that relying on historical data to feed predictive models can lead to the perpetuation of exclusionary patterns, creating invisible barriers to equal access to education. In addition, the lack of transparency in the algorithms' operating criteria makes it difficult to identify and correct these biases, calling into question the fairness and impartiality of AI-mediated educational processes.

Another critical aspect is student privacy. The growing use of digital platforms and AI tools in education implies the massive collection of data on students' behavior, performance and even emotions. While proponents of AI argue that this data can be used to improve pedagogical practices and make teaching more efficient, its collection and storage raise concerns about security and misuse. Private companies that develop these technologies often use the data collected for commercial purposes, raising ethical questions about the

commodification of education. Williamson (2019) points out that the absence of adequate regulations on student privacy jeopardizes student autonomy and undermines trust in the adoption of educational technologies.

In addition to the direct impact on students, AI is also affecting the teaching profession and the dynamics of teaching. One of the promises of educational automation is the partial or total replacement of the teacher by intelligent systems that could carry out everything from correcting tests to planning personalized lessons. Although this prospect may seem futuristic, there are indications that the intensive use of AI could result in the precariousness of teachers' work, reducing their pedagogical autonomy and subordinating their performance to algorithmic decisions. Studies such as Selwyn's (2014) indicate that, by transforming teaching into a highly monitored and fragmented activity, AI can undermine the role of teachers as mediators of knowledge, weakening the critical and dialogical dimension of education.

The impact of AI on education must also be analyzed from the perspective of the governance and control of digital technologies. The centralization of AI development in the hands of large corporations raises questions about who holds power over the tools used in education and what interests guide their implementation. Many AI-based solutions are developed by private companies operating in global markets and whose priorities may not be aligned with the educational needs of different contexts. Ferreira and Lemgruber (2023) warn that dependence on digital platforms developed by these companies can compromise educational sovereignty, limiting the ability of educational institutions to define their own pedagogical models and curricula.

The critical literature on educational technology points out that the insertion of AI into education should not be treated as an inevitable or problem-free solution. As Morozov (2013) argues, there is a tendency in technological discourse to present new tools as definitive answers to complex social challenges, ignoring the structural dimensions of educational inequalities. However, if AI is to make a real contribution to improving education, it is essential that its implementation is accompanied by a robust public debate and regulatory policies that ensure its use is ethical, transparent and aligned with the principles of public and democratic education.

Faced with these challenges, this article proposes a reflection on the need for a governance model that prioritizes equity and respect for the rights of students and teachers. The development and adoption of AI in education must be based on ethical principles that ensure diversity and inclusion, avoiding the reproduction of power asymmetries and guaranteeing that educational decisions continue to be made on the basis of pedagogical values and not just market interests. In this sense, it is essential to build transparency mechanisms in the formulation of algorithms, to create regulations that protect students' privacy and to value teaching as a central pillar of education.

Throughout this study, the documentary analysis carried out made it possible to identify both the potential benefits and the risks associated with the use of AI in education. The literature review shows that, although there are promising initiatives, there are still significant gaps in the debate about the ethical implications of these technologies. It is therefore necessary to further investigate how AI is being implemented in secondary education and what its concrete effects are on the daily lives of students and educators. In the following chapters, the results of this analysis will be discussed, with an emphasis on recommendations aimed at building a model for the responsible use of AI in education.

REGULATION AND ETHICAL CHALLENGES OF ARTIFICIAL INTELLIGENCE IN EDUCATION

The growing adoption of artificial intelligence (AI) in education, especially in secondary schools, raises fundamental questions about the ethics and regulation of these technologies. While the promises of AI, such as personalizing learning and expanding access to knowledge, are widespread, the reality of its implementation requires in-depth reflection on the risks and impacts involved. The discussion on the ethics of AI in education cannot be limited solely to its technical effectiveness, but must consider its social, political and philosophical implications. The documentary analysis carried out shows that the introduction of AI in school environments has the potential to reinforce social inequalities, compromise the privacy of students and reduce the autonomy of teachers. In addition, the absence of clear regulations on the use of these technologies allows private corporations to unilaterally determine the direction of digital education.

One of the main ethical challenges related to the use of AI in education is the question of algorithmic justice. AI algorithms are trained from large databases, which reflect the historical and structural inequalities of society. This means that instead of offering a more equitable education, AI systems can end up reproducing and amplifying discrimination. O'Neill (2016) warns that algorithmic biases, which are often invisible, affect fundamental decisions, such as recommending teaching materials, assessing student performance and identifying learning difficulties. In the educational context, this can result in processes of exclusion, in which certain groups of students are systematically disadvantaged by algorithms that operate under opaque and unquestionable criteria.

Another crucial point is the impact of AI on student privacy. The digitization of education has led to massive data collection, including information on students' academic performance, behaviour patterns and even emotional aspects. The use of this data to feed AI systems raises concerns about information security and control. As discussed by Williamson (2019), many companies offering AI solutions for education operate under business models based on data commercialization, using the information collected for advertising purposes or to develop new products. The lack of transparency about how this data is used puts students' privacy at risk, especially when there are no specific regulations protecting their rights.

The growing influence of technology corporations on education should also be looked at critically. Companies like Google, Microsoft and IBM have invested heavily in creating AI--based educational platforms, often offering their services free of charge to public schools. However, as Ferreira and Lemgruber (2023) argue, this strategy creates a relationship of technological dependence, in which the education system is shaped by the interests of the private sector. The adoption of AI tools developed by large corporations can limit the pedagogical autonomy of educational institutions, as many of these platforms operate as "black boxes", in which the operating criteria are not publicly disclosed. In this way, decisions about curriculum, methodologies and assessment can end up being dictated by algorithms controlled by commercial interests, compromising educational sovereignty.

The replacement or devaluation of the teacher in the teaching-learning process is another aspect that deserves attention. The automation of educational tasks, such as correcting tests, drawing up lesson plans and monitoring student progress, has been defended as a way of optimizing teaching work. However, Selwyn (2014) warns that this perspective can lead to the precariousness of the profession,

reducing the role of teachers to mere supervisors of technological systems. Teaching, as an essentially relational and communicative practice, cannot be reduced to a set of instructions processed by machines. The risk of AI replacing the teacher in some activities could weaken the construction of critical thinking and student autonomy, fundamental elements for quality education.

The issue of regulating AI in education is still in its infancy in most countries, which leaves room for uncontrolled adoption of these technologies. Although there are international guidelines on AI ethics, such as those proposed by UNESCO and the European Union, few countries have specific policies for the use of AI in primary and secondary education. In Brazil, the debate on regulating AI in education is still limited, and the lack of clear regulations allows schools and education networks to adopt technologies without rigorous evaluation of their impacts. The lack of standardized criteria for implementing AI compromises the ability of educational institutions to ensure that these tools are used ethically and in line with pedagogical principles.

The governance of AI in education needs to involve multiple actors, including educators, researchers, school managers and representatives of civil society. Decision-making on the adoption of AI in schools cannot be conducted exclusively by technology developers and government authorities, as this approach disregards the specificities of the educational context. As Gray (2020) argues, the construction of policies for AI in education should be guided by a democratic dialog, in which school communities have an active voice in defining the criteria and limits for the use of these technologies. The absence of this debate could result in a scenario in which AI becomes an instrument of control and standardization, rather than a resource that expands the possibilities of teaching and learning.

Against this backdrop, some initiatives are already seeking to establish guidelines for the ethical use of AI in education. UNESCO, for example, has promoted debates on the need for regulations that guarantee fairness and transparency in the development of educational technologies. In addition, some universities and research centers have been working on creating parameters to evaluate the impact of AI in schools, considering aspects such as privacy, inclusion and social justice. However, there is still a long way to go to ensure that these guidelines are effectively implemented and that the use of AI in education is aligned with sound ethical and pedagogical principles.

This study reinforces the need for a critical look at the implementation of AI in secondary education. Although these technologies have the potential to transform education, their use must be guided by principles that respect the diversity of students, protect their privacy and ensure that teachers' work is valued. Building an appropriate regulatory model is essential to prevent AI from being used indiscriminately, without considering its social and pedagogical impacts. The following chapters will present recommendations for the formulation of public policies to ensure the ethical and responsible implementation of AI in education, as well as an analysis of the possibilities and limits of these technologies in the contemporary educational context.

BEYOND TECHNOLOGICAL SOLUTIONISM: RESISTANCE AND ALTERNATIVES TO EDUCATION AUTOMATION

The growing adoption of artificial intelligence (AI) in education has been widely promoted as an inevitable advance, often backed by enthusiastic speeches about innovation, efficiency and the personalization of teaching. However, this solutionist perspective ignores fundamental aspects of social and educatio-

nal relations by presenting technology as an automatic answer to structural problems in education. This logic not only simplifies the complex dynamics of teaching and learning, but also opens up space for the commodification of education and the precariousness of teaching, putting at risk the principles of equity and social justice in access to knowledge (Selwyn, 2014).

Given this scenario, it is essential to question the naturalization of AI in education and investigate forms of resistance and alternatives that can counterbalance its unregulated advance. The belief in technological neutrality and the inevitability of digital progress hides the influence of economic interests in the formulation of educational policies and the adoption of algorithmic solutions that reinforce inequalities. It is therefore essential to explore initiatives that counter this logic, as well as proposals for regulation and pedagogical practices that rescue the role of the school as a space for critical and emancipatory education (Morozov, 2013).

The absence of clear regulations on the use of AI in secondary education and other educational levels has allowed large technology corporations to exert direct influence over curricula, teaching practices and the collection of student data. Companies like Google, Microsoft and IBM have been expanding their operations in education by offering free platforms which, despite appearing beneficial, establish a model of technological dependence for schools and education networks. This shows that without adequate governance policies, power over educational tools tends to be concentrated in private interests, restricting the autonomy of public institutions (Williamson, 2019).

To tackle this problem, some countries have developed regulatory strategies that seek to balance technological innovation and the protection of educational rights. The European Union, for example, has made progress in creating regulations that guarantee greater transparency in the algorithms used in educational processes, as well as establishing guidelines on the privacy of student data. In Brazil, the debate on regulating AI in education is still in its infancy, and there is an urgent need to formulate policies that ensure greater public control over these technologies. Without clear regulations, education can become a space vulnerable to data exploitation and the implementation of methodologies that prioritize quantitative metrics over critical and reflective learning (Ferreira & Lemgruber, 2023).

Among the measures needed to guarantee the democratic governance of AI in education are algorithmic transparency, the protection of student data, the participation of the school community and educational sovereignty. Algorithmic transparency involves disclosing the criteria used by algorithms in the processes of personalizing teaching, evaluating students and recommending content. The protection of student data requires the creation of specific rules to prevent the commercial use of information collected by AI platforms. The participation of the school community implies the inclusion of educators, researchers and representatives of civil society in the debate on the implementation of these technologies. Finally, educational sovereignty depends on encouraging the development of public or open-source technological solutions that reduce dependence on private companies and ensure greater control over the tools used in teaching (Gray, 2020).

In addition to the need for regulation, it is essential to think about pedagogical alternatives that enable the critical and responsible adoption of AI in education. Some experiments have already shown that it is possible to use digital technologies without subordinating educational processes to the algorithmic logic or to the commodification of student

data. These experiences suggest that technology can be used to enrich teaching, provided that teachers and students have autonomy in defining its use and that there is an ongoing debate about its social and ethical implications (Selwyn et al., 2023).

One of these alternatives is the valorization of active methodologies that reinforce the autonomy of students and teachers in the use of technology. Rather than replacing teaching with automated systems, these approaches emphasize the role of educators as mediators of knowledge, using technology as a complementary tool rather than as the central agent in the teaching-learning process. Active methodologies enable more participatory and engaged learning, going against the logic of standardization imposed by many AI systems (Ferreira & Lemgruber, 2023).

Experiences from schools and universities that have implemented critical digital literacy projects have also shown promising results. These initiatives seek to train students to understand how algorithms work, identify possible biases and question the indiscriminate use of AI in education and other areas of society. Training critical citizens in relation to technology is one of the central challenges facing education in the 21st century, given that AI is increasingly present in decisions that affect everything from the job market to the political sphere. To this end, schools need to develop programs that encourage a reflexive approach to the relationship between technology and power, allowing students to understand the impacts of algorithmic decisions on their lives (Gray, 2020).

One of the main challenges of automation in education is the attempt to relegate teaching to a secondary role, reducing teachers to mere operators of AI systems. However, pedagogical practice involves dimensions that cannot be replicated by machines, such as dialog, the collective construction of knowledge and conflict mediation. Education is a social process, based on human interaction and the construction of meanings that go beyond the mere transmission of information. Reducing teaching to automated processes runs the risk of emptying it of its critical and reflective function, compromising students' comprehensive education (Selwyn et al., 2023).

Replacing teaching with automated systems ignores the fact that teaching is not reduced to presenting content, but involves the critical, ethical and political training of students. Therefore, contrary to what advocates of technological solutionism claim, AI should not be seen as a substitute for the teacher, but as a resource that can be used strategically and subordinated to pedagogical needs. To this end, it is essential that teachers are trained to deal with these technologies critically, without this implying a loss of their autonomy or a weakening of direct interaction with students (Barreto, 2017).

Beyond the rhetoric of technological inevitability, the adoption of AI in education must be guided by a critical debate on its impacts and limitations. It is possible to think of alternatives that guarantee a more democratic and responsible use of these technologies, provided that effective public policies are established, transparency in algorithmic processes is promoted and the role of teaching as an irreplaceable practice is reinforced. Only through participatory governance and a critical pedagogical approach will it be possible to build an AI model in education that serves the public interest, and not corporate or solutionist logics (Ferreira & Lemgruber, 2023).

FINAL CONSIDERATIONS

The analysis developed throughout this study shows that artificial intelligence (AI) has taken on a growing role in education, particularly in secondary schools, directly impacting pedagogical relationships and the organizational structure of schools. If, on the one hand, these technologies offer possibilities for personalizing teaching and optimizing administrative processes, on the other, they present significant ethical challenges that cannot be ignored. Among the main problems identified are the risk of reinforcing social inequalities through algorithmic biases, the threat to student privacy and the precariousness of teaching. These aspects demonstrate the urgent need for regulation and a critical approach to the adoption of these technologies in the educational context.

The findings of this study indicate that the discourse surrounding AI in education has been largely influenced by a solutionist vision, which naturalizes technological advancement as an inexorable path towards modernizing teaching. However, as discussed throughout this paper, this perspective often ignores the political and economic nature that permeates the implementation of these technologies, favoring corporate interests to the detriment of a truly democratic and inclusive educational model. The lack of transparency in the construction of algorithms and the lack of participation by the school community in decision--making about the use of these tools reinforce a model of technological dependence, in which educational institutions become increasingly subordinate to market logics.

Against this backdrop, this study reiterates the importance of clear regulatory guidelines to ensure that the use of AI in education is aligned with sound ethical and pedagogical principles. The formulation of public policies must prioritize equity in access to educational technologies, the protection of student data and the valuing of teachers' work. The governance of these systems cannot be restricted to developers and technology companies, but must include educators, researchers, managers and representatives of civil society. As Selwyn (2014) and Ferreira and Lemgruber (2023) point out, it is essential that decision-making on AI in education is guided by a robust public debate, preventing these technologies from being adopted without proper critical evaluation of their long-term impacts.

In addition, this study reinforces the need for a commitment to the critical training of educators and students to deal with the implications of AI in teaching. Building a digital culture that encourages reflection on the uses and limits of these technologies is essential to avoid adopting them uncritically and instrumentally. To this end, it is recommended that teacher training policies include a debate on AI and digital ethics, so that teachers can not only use these tools, but also understand their risks and challenges in a critical way.

Although AI can indeed contribute to personalizing teaching and increasing access to information, its implementation must be accompanied by a commitment to social justice and the autonomy of educational institutions. Without adequate regulation and without valuing the role of the school as a space for citizen education, there is a risk that the adoption of these technologies will accentuate inequalities and reduce education to a mechanized process, guided by opaque metrics and algorithms.

Therefore, this study reaffirms that the inclusion of AI in education should not be driven by a logic of technological inevitability, but rather by a critical vision based on ethical principles. The construction of a democratic governance model for AI in education is an urgent and unavoidable challenge, which depends on the commitment of researchers, educators and public policy makers to ensure that technology is at the service of equity, autonomy and the comprehensive education of students.

REFERENCES

Barreto, R. G. (2017). Educação e tecnologia: Desafios contemporâneos para a docência. Editora Vozes.

Campos, M. L., & Lastória, I. G. (2020). Autonomia docente e tecnologia educacional: Impactos da digitalização na prática pedagógica. Editora Unesp.

Ferreira, A. L., & Lemgruber, F. R. (2023). Governança digital e o impacto da inteligência artificial na educação pública. Editora PUC-Rio.

Gatti, B. A. (2019). Formação de professores no Brasil: Políticas e desafios. Cortez Editora.

Gray, J. (2020). Critical AI literacy: Understanding algorithmic decision-making in education. Routledge.

Morozov, E. (2013). To save everything, click here: The folly of technological solutionism. PublicAffairs.

O'Neill, C. (2016). Weapons of math destruction: How big data increases inequality and threatens democracy. Crown Publishing.

Selwyn, N. (2014). Distrusting educational technology: Critical questions for changing times. Routledge.

Selwyn, N., Sancho-Gil, J. M., & Pangrazio, L. (2023). Education and artificial intelligence: Critical perspectives on emerging challenges. Palgrave Macmillan.

Williamson, B. (2019). Big data in education: The digital future of learning, policy and practice. SAGE Publications.