



Educational platformization with Generative AI: impacts on teacher autonomy

Plataformización educativa con IA Generativa: impactos en la autonomía docente

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Abstract

The accelerated growth of generative artificial intelligence (GAI) platforms in the educational field demands a critical analysis of their impact on teacher autonomy. This study aims to investigate how these technologies influence teachers' pedagogical freedom and to propose strategies for their ethical, conscious, and strategically aligned use in contemporary educational practices. The research adopted a qualitative, exploratory approach, supported by an analytical framework developed and validated through a focus group with experts in digital technology-mediated education. The results show that although the platforms analyzed — Teachy, MagicSchool and PlanIt Teachers — offer innovative features for lesson planning, activities, and assessments, their uncritical use may compromise teachers' creativity and professional independence. The findings reveal that relying on automatically generated responses from GAI tends to restrict pedagogical decision-making, subordinating teachers to algorithmic logic that is often biased, technical, and non-transparent. The discussion highlights the risk of diminishing teacher agency and emphasizes the need to develop Prompt Engineering as a key competency to maintain professional autonomy. The study concludes that mastering this skill allows teachers to consciously configure their interactions with platforms, enhancing their control over pedagogical processes. Thus, GAI can shift from being perceived as a threat to becoming an ally of critical, creative, innovative, and contextualized educational practices.

Keywords: artificial intelligence, educational technology, educational autonomy, educational innovations, teacher qualifications, digital platforms.

Resumen

El crecimiento acelerado de las plataformas de inteligencia artificial generativa (IAG) en el ámbito educativo exige un análisis crítico de sus impactos en la autonomía docente. Este estudio tiene como objetivo investigar cómo estas tecnologías influyen en la libertad pedagógica de los docentes, proponiendo caminos para su uso ético, consciente y estratégicamente alineado con las prácticas educativas contemporáneas.

La investigación se llevó a cabo utilizando un enfoque cualitativo, exploratorio, anclado en un *marco* analítico desarrollado y validado a través de un grupo focal con expertos en tecnologías digitales aplicadas a la educación. Los resultados indican que, si bien las plataformas analizadas — *Teachy*, *MagicSchool* y *PlanIt Teachers*— presentan funcionalidades innovadoras para planificar lecciones, actividades y evaluaciones, su uso acrítico puede comprometer la creatividad y la independencia docente. Se observó que la adopción automatizada de las respuestas generadas por IAG tiende a restringir la toma de decisiones pedagógicas, subordinando a los docentes a una lógica algorítmica, muchas veces sesgada y poco transparente. La discusión destaca el riesgo de reducir el protagonismo docente y la necesidad de desarrollar habilidades en ingeniería de *prompt* como estrategia para mantener la autonomía profesional. Se concluye que el dominio de esta habilidad permite la configuración consciente de las interacciones con las plataformas, aumentando el control sobre los procesos pedagógicos. De esta forma, la IAG puede dejar de representar una amenaza y convertirse en un aliado de la práctica docente crítica, creativa, innovadora y contextualizada.

Palabras clave: inteligencia artificial, tecnología educativa, autonomía docente, innovación educativa, habilidades docentes, plataformas digitales.

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1. Introduction

The use of Generative Artificial Intelligence (GAI) in education can profoundly transform the educational landscape. GAI platforms used by teachers, such as *Teachy*, *MagicSchool*, and *PlanIt Teachers*, aim to optimize teaching work and offer comprehensive solutions for everyday challenges, such as lesson planning, assessment creation, and student performance analysis (Xin, 2024; Celik et al., 2022; Niu et al., 2022).

This technological revolution has been driven by the promise of increased efficiency, personalization, and democratized access to advanced resources (Duan and Zhao, 2024; Zawacki-Richter et al., 2019). However, the use of these tools raises important questions: to what extent does the intensive use of AI platforms compromise teacher autonomy? Does entrusting pedagogical planning to algorithms reduce the teacher's role to that of a mere technology operator? These are crucial questions, as they point to the risk of the educational process becoming a platformized, overly automated and standardized system, neglecting cultural and pedagogical diversity and the specific needs of students (Silva and Carolei, 2024; Gruzdeva, 2022; Haleem et al., 2022).

The relevance of this study lies in a context with fast technological expansion, in which teachers face challenges arising from the increasing integration of GAI tools in education. While these technologies promise greater efficiency and personalization in teaching, it is critical to ensure that their adoption does not result in superficial pedagogical practices or over-reliance on GAI tools (Sağın et al., 2023).

Therefore, this study investigates the impacts of GAI platforms targeting the educational domain on teacher autonomy. Unlike approaches that merely criticize the risks, the ide aims to present a constructive perspective, arguing that engineering prompts - the ability to create precise and strategic commands to interact with AI tools - can be a practical solution to empower teachers. This approach positions the teacher as a co-creator and agent of AI-generated outcomes, rather than a mere passive consumer of automated solutions. To critically analyze the functions and limitations of the *Teachy*, *MagicSchool* and *PlanIt Teachers* platforms; 2. To understand how these tools can impact teacher autonomy; and 3. To propose ways for prompts engineering to be

incorporated as an essential teaching practice, strengthening teacher autonomy and creative capacity. With the fulfillment of these objectives, the paper aims to contribute to the construction of more solid pedagogical practices adapted to contemporary technological demands, placing the teacher at the center of the educational process. The article is divided into five sections : introduction, methodology, presentation and discussion of the results, and the final considerations.

1.1 Artificial Intelligence in education

The use of Generative Artificial Intelligence in education has attracted increasing academic interest, given its potential to transform traditional pedagogical practices (Szabó and Szoke, 2024; Xia et al., 2024; Vallis et al., 2024, Bahroun et al., 2023). Researchers claim that GAI tools can help teachers create innovative lesson plans and creative content, promoting an environment conducive to exploration (Butler-Ulrich et al., 2024; Pont-Niclòs et al., 2024). In addition, they can contribute to the development of personalized learning experiences geared to meet the diverse needs of learners (Sipahioğlu, 2024; Barroso et al., 2024). However, some studies warn of the risk of over-reliance on GAI tools by teachers, which may reduce teachers' intrinsic motivation and critical thinking, compromising their autonomy and creativity (Firat and Kuleli, 2024; Williamson and Eynon, 2020).

1.2 Educational platformization

Researchers in the field of education have already warned about the risks of educational institutions adopting digital platforms such as *Google Workspace for Education* and *Microsoft 365*, which, although supposedly «free», actually hide a business model based on the massive collection of personal data for profit (Silva and Carolei, 2024). The concept of «platformization» refers to the reorganization of various sectors of society around digital platforms, which act as intermediaries between users and providers of products and services, including education. These platforms have a complex architecture involving connectivity, data collection and the use of artificial intelligence algorithms, allowing them to influence behaviors and shape users' decisions

(Martorell and Tirado, 2024). The risks associated with the platformization of education may be significantly amplified with the introduction of AI-based platforms and their computational algorithms. These algorithms can create informational filters that limit access to different perspectives, reinforcing biases and contributing to a more homogeneous and standardized education. Ultimately, this reduces the autonomy of educators and compromises the quality of the educational process (Kerssens and van Dijk, 2022, 2023; Putri et al., 2024).

1.3 Potentials and risks of GAI

While GAI offers promising tools for improving educational practices, its integration requires caution so as not to undermine teacher autonomy (Broadfoot and Rockey, 2025; Li, 2024). Łodzikowski et al. (2024) note benefits such as personalization of learning, automated assessment, interactive participation, and task automation, but warn of risks such as reproduction of bias, misinformation, loss of pedagogical control, ethical challenges, and technical difficulties. Therefore, ethical and effective implementation of GAI requires active human supervision and continuous teacher training, with the teacher at the center of the educational process.

1.4 Prompt engineering as a teaching competence

In the contemporary context of constant technological evolution, the continuous development of digital skills by educators becomes increasingly necessary (Kurtz et al, 2024). In the case of GAI, the key is to find a balance between leveraging the capabilities of GAI and preserving the essential human approach in the educational process (Humble, 2024; Bobula, 2024). In this context, *prompt* engineering emerges as an essential skill for teachers to strategically interact with these platforms, configuring responses aligned to pedagogical needs and preserving their autonomy.

Prompt engineering is the process of creating, adjusting and refining commands to optimize the interaction between users and GAI models. This practice is essential to ensure accurate and relevant results by structuring prompts in a clear and contextualized way (Lee and Palmer, 2025). Among its main elements

are the PARTS (Persona, Aim, Recipients, Theme, Structure) structure and the CLEAR (Concise, Logical, Explicit, Adaptive, Restrictive) linguistic approach, which help to formulate more effective prompts (Park and Choo, 2024).

In this sense, *prompt* engineering emerges as a practical and strategic approach to mitigate the ethical and technical challenges of using GAI (Rathod, 2024). This practice, which involves the creation of detailed textual commands to guide the AI, allows teachers to control the outcomes generated, ensuring alignment with pedagogical and contextual goals. By mastering this skill, the teacher ceases to be a passive user of AI platforms and becomes a co-creator, able to shape interactions and outcomes. This competence not only increases teaching autonomy, but also favors the personalization of teaching, allowing content to reflect the specific needs of each group of students (Park and Choo, 2024). Therefore, it is an essential competence to preserve pedagogical integrity and avoid reliance on predefined platform solutions.

2. Methodology

2.1 Methodological approach and nature of the research

The research is qualitative according to the principles described by Bogdan and Biklen (1999), respecting the five fundamental characteristics indicated by the authors: (i) the direct source of data is the natural environment, with the researcher being the main instrument of collection; (ii) it is a descriptive research; (iii) the focus is on processes rather than on results or products; (iv) data analysis is carried out inductively; and (v) meaning is attributed to the participants. The study is exploratory in nature (Gil, 2008) and is anchored in an analytical framework constructed and validated through a focus group (Gatti, 2005; Nyumba et al., 2024).

2.2 Characterization of the expert group

The focus group was conducted with the TEDCOM-Educational Technologies in Connectivity and Mobility Research Group, composed of 30 members, including the authors of this article. The group gathers teachers, instructional designers and Master's

and PhD students in the area of Education mediated by Digital Technologies. This group characterizes a group of experts, since it is composed of participants with advanced academic training, consolidated professional experience and direct work in the area of Education mediated by Digital Technologies, which gives them technical and theoretical mastery over the object of research.

2.3 Research procedures and data collection instruments

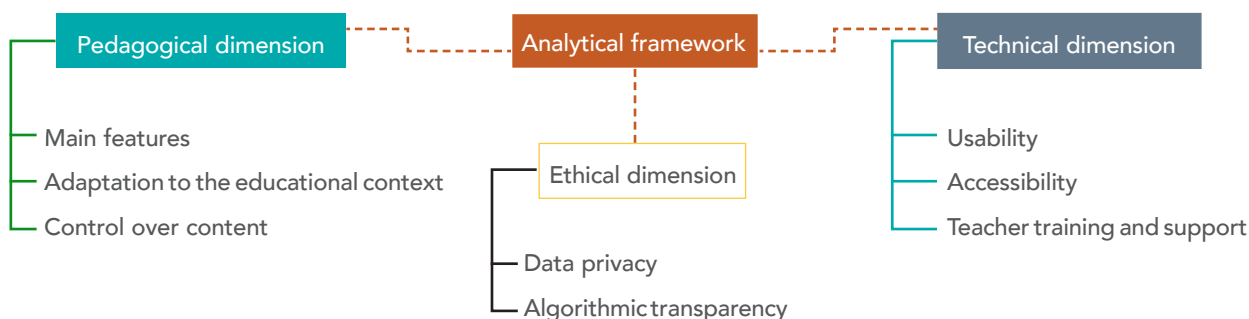
The group of experts initially created an Analytical Framework for Generative Artificial Intelligence Platforms in Education, with the objective of operationalizing the critical analysis of the impacts of these technologies on teacher autonomy. This process was designed collaboratively, anchored on the theoretical review and the experience of the focus group participants, who acted as co-constructors and validators of the instrument.

To this end, we initially conducted an exploratory review of the national and international scientific literature on the platformization of education, the use of generative AI in teaching and emerging skills such as *prompt* engineering. This review allowed us to identify the main challenges and recurring categories in the analysis of AI-based tools in the educational context. Based on this mapping, a preliminary structure of analytical categories was defined to guide the evaluation of the platforms.

This initial model was subjected to two rounds of validation with a focus group. The sessions lasted two hours each and were held in different weeks. During the meetings, participants critically analyzed the proposed categories, suggested reformulations and added criteria considered relevant based on their practical and theoretical experiences.

As a result of this interactive and dialogic process, three main dimensions were consolidated, the visual representation of which is shown in Figure 1.

Figure 1. Analytical framework of generative artificial intelligence platforms in education



The analytical framework allows an evaluation process of GAI platforms in education, based on three essential dimensions: pedagogical, technical and ethical.

Pedagogical dimension: its main objective is to evaluate how the platforms address teaching needs in pedagogical planning and practice. Tools for developing lesson plans, creating evaluations and personalizing teaching are analyzed, considering the automatic generation of materials, the support of multimodal content and integration with official curricula. Compatibility with different educational levels and pedagogical guidelines, such as Brazil's National Common Curriculum Base (BNCC), is also observed. In addition, the possibility of custo-

mization to meet the diversity of student profiles and teaching methodologies is evaluated, investigating whether teachers can modify, adjust or reject the automatically generated content, as well as the flexibility of the tool to integrate different methodological approaches.

Technical dimension: evaluates the usability and accessibility of the platforms, considering aspects such as interface, technical support and digital accessibility. It verifies that the interface is intuitive and accessible for teachers with different levels of technological familiarity, and the availability of guides, tutorials and technical support, in addition to providing training for the autonomous and critical use of the tools. Compatibility with

different devices (computers, smartphones, tablets) and support for users with disabilities are also considered, ensuring compliance with international accessibility standards.

Ethical dimension: analyzes data privacy and the transparency of algorithms on the platforms. It verifies whether the platform clearly informs about its policies on the collection, storage and use of user data, and its compliance with data protection legislation, such as the Brazilian General Personal Data Protection Law (LGPD). It also assesses whether the platform enables teachers to understand the logic of recommendations and content generation, and whether it provides options to customize automated decisions.

Based on this analytical framework, the group of experts constructed a Checklist for the Evaluation of Generative Artificial Intelligence Platforms in Education, composed of 23 items with three response options for each: Yes, fully met; Partially answered; and Not answered.

The categories, items and questions are organized as follows:

Pedagogical dimension:

Main features. Does the platform offer tools for lesson planning? Does it have resources for creating assessments? Does it allow for personalized teaching? Does it offer automatic generation of material? Does it include multimodal capabilities? Does it integrate with official curricula?

Adequacy to the educational context. Does the platform support different educational levels? Is it aligned with pedagogical guidelines (e.g. BNCC)? Does it allow customization for classes with different profiles?

Control over content. Can the teacher modify, adjust or reject automatically generated content? Does the tool allow the integration of teacher's own methodologies?

Technical dimension:

Usability: Is the interface intuitive and easy to navigate? Can it be used by teachers with different levels of digital competence? Does the platform offer tutorials and guides? Is technical support available?

Accessibility: Is it compatible with computers, smartphones and tablets? Does it include digital accessibility features (screen readers, subtitles, contrast adjustment)?

Training and teaching support. Does the platform offer training or technical support for stand-alone use? Does it provide resources for teachers to use the tools critically?

Ethical dimension:

Data privacy. Does the platform inform how data is collected, stored and used? Does it comply with legislation such as the LGPD?

Algorithmic transparency. Does the platform allow teachers to understand how automated decisions work? Is it possible to adjust recommendations and automatically generated content?

The expert panel conducted three two-hour sessions in different weeks to analyze the *Teachy*, *MagicSchool* and *PlanIt Teachers* platforms, based on the analytical framework and checklist. These platforms were chosen for their representativeness in the current scenario of tools based on GAI platforms oriented to education, which can be seen through references to them, especially in educators' social networks, teaching forums and educational repositories.

Each session addressed one dimension: pedagogical, technical and ethical. The choice to focus on one dimension per week, instead of evaluating them all on one platform at a time, was a strategic methodological decision. This approach favored consistent cross-sectional comparisons, concentration on criteria, reflective maturation between meetings and greater equity in the analysis. It also prevented familiarity with one platform from influencing the assessment of the others, ensuring greater criticality, methodological rigor and consistency in the assignment of scores. It is important to note that the scores attributed to each item/dimension resulted from the consensus among the focus group participants, based on the collective discussion of criteria and perceptions.

Based on the scoring criteria, it was defined whether the platform favors or compromises teacher autonomy. Each item on the checklist was scored as follows: Yes, fully met = 2 points; Partially met = 1 point; Not answered = 0 points. Based on the results, the following evaluation scale was established to measure the impact of the platforms on teaching autonomy: 36 to 46 points - the platform significantly strengthens teaching autonomy, allowing full control over content and methodologies; 24 to 35 points: the platform offers reasonable support for autonomy

but imposes some restrictions on personalization and decision making; 12 to 23 points: the platform presents substantial limitations, compromising pedagogical flexibility; and 0 to 11 points: the platform excessively centralizes pedagogical decisions, compromising teacher autonomy and promoting technological dependence.

Finally, the results of the analyses were compared and discussed, supporting the conclusions of the study.

3. Results

The analysis of the *Teachy*, *MagicSchool* and *PlanIt Teachers* platforms was performed according to the criteria defined in the analytical framework, completing the checklist. The main observations are highlighted below.

3.1 Analysis of the Teachy Platform - <https://www.teachy.com.br/>

The *Teachy* artificial intelligence platform is Brazilian, developed to help teachers prepare lesson plans, create questions and activities for different educational levels (Brito and Brito, 2024).

Pedagogical dimension (19 points in total):

Main features: the platform allows the creation of interactive lessons (2 points) and offers support for quizzes and assessments (2 points). Teachers can adapt content to students' needs (2 points). AI automatically generates lesson plans and teaching materials (2 points). It includes multimodal resources, focusing on texts and assessments (2 points). No clear mention of BNCC or other official curricula (0 points). Subtotal: 10 points.

Appropriateness to the educational context: *Teachy* can be used at different educational levels, focusing on Primary and Secondary Education (2 points). There is no explicit information on compliance with pedagogical guidelines (0 points). Teachers can customize materials for different classes (2 points). Subtotal: 4 points.

Control over the content: the user can modify, adjust or reject the generated content (2 points). It is possible to integrate own methodologies, inserting personalized strategies (2 points). Subtotal: 4 points.

Technical dimension (13 points in total):

Usability: intuitive and well-structured interface (2 points), easy to use by teachers with different levels of technological familiarity (2 points). It offers guides, tutorials (2 points) and support by chat and e-mail (2 points). Subtotal: 8 points.

Accessibility: compatible with computers, smartphones and tablets (2 points). No explicit mention of digital accessibility features such as screen readers, subtitles or contrast (0 points). Subtotal: 2 points.

Teacher training and support: provides tutorials and support materials for independent use (2 points). Despite support, there is no explicit encouragement for pedagogical reflection on the use of AI (1 point). Subtotal: 3 points.

Ethical dimension (3 points total):

Data privacy: the platform provides information on data collection, storage and use, but in a superficial manner (1 point). It states compliance with the LGPD, but without going into details (1 point). Subtotal: 2 points.

Algorithmic transparency: no clear explanations of how algorithms work (0 points). Some options allow adjusting recommendations and automatic content generation (1 point). Subtotal: 1 point.

With 35 points in the final sum, *Teachy* falls into the category of adequate support for teaching autonomy, although it has limitations in customization and decision making. It stands out for its resources oriented to the planning and creation of personalized assessments, but lacks improvements in accessibility, integration with official curricula and algorithmic transparency, which may limit its application in more diverse educational contexts.

3.2 MagicSchool platform review - <https://www.magicschool.ai/>

MagicSchool is an international artificial intelligence platform developed to support educators in various pedagogical tasks (Chacón Molina et al., 2024). It offers tools to create lesson plans, develop assessments, create rubrics, and provide guidance on specific courses (Montenegro et al., 2024).

Pedagogical dimension (18 points total):

Key features: *MagicSchool* offers tools for lesson planning, allowing the generation of plans aligned to educational standards (2 points). It supports the creation of customized tests and quizzes (2 points). Teachers can adapt the generated content to the specific needs of students, promoting personalized teaching (2 points). Using AI, the tool automatically generates teaching materials such as lesson plans and assessments (2 points). It includes multimodal resources, such as generation of slides and images to enrich the teaching-learning process (2 points). Although it allows the creation of plans aligned to educational standards, there is no specific mention of integration with official curricula such as BNCC (1 point). Subtotal: 11 points.

Appropriateness to the educational context: the platform was developed to serve educators at all levels of education, from elementary to higher education (2 points). While it facilitates the creation of materials aligned with educational standards, there is no specific information on compliance with guidelines such as BNCC (1 point). Teachers can adapt materials for different classes, addressing the specific needs of each group (2 points). Subtotal: 5 points.

Control over content: educators have partial freedom to edit, adjust or discard the content generated by the platform (1 point). The tool offers limited flexibility for teachers to incorporate their own teaching methodologies into the materials (1 point). Subtotal: 2 points.

Technical dimension (14 points total):

Usability: the interface is intuitive and well structured, making it easy for teachers to navigate and use (2 points). It is accessible to educators with different levels of technological ability, offering support and easy-to-understand materials (2 points). Provides support materials, including tutorials and guides to use the functions (2 points). Provides technical support to clarify doubts and resolve difficulties (2 points). Subtotal: 8 points. *Accessibility:* compatible with different devices (computers, smartphones and tablets), allowing access in different contexts (2 points). While designed to be inclusive, there is no specific information on features such

as screen readers or adjustable contrast options (1 point). Subtotal: 3 points.

Teacher training and support: provides support materials and technical assistance to help teachers use the tool independently (2 points). However, there is no explicit focus on encouraging critical use of the functions (1 point). Subtotal: 3 points.

Ethical dimension (5 points total):

Data privacy: *MagicSchool's* privacy policy details how user data is collected, stored and used (2 points). The platform claims to comply with data protection legislation, ensuring user privacy (2 points). Subtotal: 4 points.

Algorithmic transparency: no information is available on how algorithms make decisions or generate recommendations (0 points). Some customizations are allowed, but without full transparency on how the settings affect algorithm performance (1 point). Subtotal: 1 point.

With a total of 37 points, *MagicSchool* is classified as a platform that significantly strengthens teacher autonomy, offering control over content and methodologies. It stands out for its wide range of functions oriented to lesson planning, assessment creation and teaching customization, providing effective support to teachers. Its intuitive interface, compatibility with multiple devices and provision of guides and tutorials make the user experience accessible and efficient. However, there are still areas for improvement, especially in terms of algorithmic transparency, as the platform does not clarify how automated decisions are made. In addition, integration with official curricula and the presence of specific digital accessibility resources remain points of attention. Despite these limitations, *MagicSchool* represents a robust and innovative solution for teachers seeking to optimize their pedagogical practices with the support of artificial intelligence.

3.3 Analysis of the PlanIt Teachers platform - <https://www.planitteachers.ai/>

PlanIt Teachers is an artificial intelligence platform designed to help teachers create curriculum-aligned lesson plans, worksheets, and assessments. Developed by educators, it offers AI tools that enable customization of teaching resources, such as

classroom slides, student worksheets, and support materials (PlanIt Teachers, 2024).

Pedagogical dimension (20 points total):

Key features: PlanIt Teachers offers a set of artificial intelligence-driven lesson creation tools, enabling rapid generation of curriculum-aligned lesson plans (2 points). The intelligent assessment center facilitates test creation, providing automated feedback and monitoring student progress (2 points). The platform allows for the customization of teaching materials, tailoring instruction to the specific needs of the students (2 points). It automatically generates a variety of materials such as lesson plans, presentations, activities and assessments (2 points). It offers multimodal resources, allowing the creation of slides, activity cards and other formats (2 points). While it mentions alignment with curriculum and intelligent content mapping, it does not specify which curriculum standards or guidelines are used (1 point). Subtotal: 11 points.

Adequacy to the educational context: the platform is applicable at different educational levels and covers more than 50 areas of knowledge (2 points). Although it mentions curricular alignment, it does not provide information on compliance with national guidelines (1 point). Flexibility in adapting the materials allows us to meet the needs of different classes and educational contexts (2 points). Subtotal: 5 points.

Control over content: teachers have total freedom to edit, adjust or reject the content generated by the platform (2 points). The tool offers flexibility to incorporate their own methodologies, allowing teachers to apply their own pedagogical strategies to the materials (2 points). Subtotal: 4 points.

Technical dimension (15 points total):

Usability: the PlanIt Teachers interface is intuitive and well structured, making it easy for educators to navigate and use (2 points). It was designed to cater to teachers with different levels of technological familiarity, offering support and accessible resources (2 points). It provides support materials, including tutorials and guides to help users with its functionality (2 points). Technical support is available to solve doubts and difficulties, ensuring adequate follow-up (2 points). Subtotal: 8 points.

Accessibility: compatibility with computers, smartphones and tablets allows the platform to be used on different devices and in different contexts (2 points). Although it is designed to be inclusive, there is no specific information on the availability of features such as screen readers, subtitles or contrast settings (1 point). Subtotal: 3 points.

Teacher training and support: the platform offers support materials and technical support to help teachers use the tool independently (2 points). In addition, it promotes the critical use of the tools, allowing the adaptation of the contents according to the pedagogical needs of the teachers (2 points). Subtotal: 4 points.

Ethical dimension (1 point total):

Data privacy: PlanIt Teachers does not provide details on how user data is collected, stored or used (0 points). It also does not state compliance with data protection legislation, such as the LGPD (0 points). Subtotal: 0 points.

Algorithmic transparency: no information on how the platform's algorithms make decisions or generate recommendations (0 points). Some customizations are allowed in the generated content, but no transparency on the impact of these configurations on the algorithm performance (1 point). Subtotal: 1 point.

With a total of 36 points, PlanIt Teachers is a platform that strengthens teaching autonomy, providing control over content and methodologies. It stands out for its wide range of functions oriented to the creation of lesson plans, development of evaluations and personalization of teaching, offering consistent support to teachers. Its intuitive interface, compatibility with multiple devices and the presence of guides and tutorials make the user experience accessible and effective. However, there are areas for improvement, especially in terms of algorithmic transparency - as the platform does not explain how its automated decisions are made - and the lack of clear policies on data privacy and integration with official curricula. Despite these limitations, PlanIt Teachers represents a viable solution for teachers who want to improve their pedagogical practices with the support of artificial intelligence.

4. Discussion

The analysis of the *Teachy*, *MagicSchool* and *PlanIt Teachers* platforms reveals a complex and multifaceted picture regarding the impact of generative artificial intelligence (GAI) on teacher autonomy. The data show that while all platforms offer significant support for pedagogical practice, the levels of autonomy granted to teachers vary considerably across the pedagogical, technical and ethical dimensions assessed.

In the pedagogical dimension, all three platforms presented robust resources for creating lesson plans, customizing materials and generating content automatically. This corroborates the findings of Szabó and Szoke (2024) and Butler-Ulrich et al. (2024), who highlight the potential of GAI to support innovative pedagogical practices. However, the platforms still fail to integrate with official curricula, such as BNCC, which may compromise the applicability of the resources in regulated contexts. This limitation was also pointed out by Gruzdeva (2022), who warns of the risks of curricular decontextualization in standardized digital solutions.

The technical dimension demonstrated reasonable usability and accessibility, with intuitive interfaces and effective technical support. However, the absence of specific digital accessibility resources in all the platforms analyzed (such as screen readers and contrast settings) is a concerning aspect, especially given the demands of inclusive education. As Kerssens and van Dijck (2022) point out, the centrality of platforms can deepen inequalities if they are not designed with principles of accessibility and equity.

Regarding the ethical dimension, the greatest weaknesses are identified: in none of the platforms was there sufficient transparency about the algorithms used or clarity in the data policy as required by regulations, such as the LGPD. This scenario reinforces the criticisms of Humble (2024) and Łodzikowski et al. (2024) about the risks of indiscriminate use of GAI in education, which include the loss of pedagogical control and the imposition of automated and potentially biased solutions.

In this context, the study reinforces the need for teacher training in prompt engineering, as advocated by Park and Choo (2024) and Rathod (2024). Mastering this skill enables teachers to strategically interact with platforms, adapting AI outputs accor-

ding to their pedagogical needs and promoting more critical, creative and contextualized practices. *Prompt* engineering emerges as a viable way to balance the benefits of GAI with the preservation of teacher autonomy and pedagogical intentionality.

5. Final Conclusions

The findings of this study show that the use of generative artificial intelligence platforms in education represents a promising development, but requires caution and critical thinking on the part of teachers.

The central contributions of this work lie in the proposal of a structured analytical framework and the application of a systematic checklist, which allowed a careful comparative evaluation between different platforms. These instruments may be useful for teachers and institutions seeking to adopt educational technologies in a more conscious and strategic way.

On the other hand, the main limitation identified refers to the need for greater technical depth in the ethical dimensions of the platforms, especially regarding the operation of algorithms and the management of users' personal data. In this context, it highlights the urgency of training teachers in skills such as *prompt* engineering, not only as an operational resource, but as a critical tool for pedagogical mediation.

In future research it is necessary to analyze other GAI tools applied to education, in order to broaden the understanding of their potentialities, limits and pedagogical impacts in different contexts of use, contributing to a more comprehensive and representative analysis.

In summary, the use of IAG in education should not only be incorporated, but also understood and reconfigured according to the needs of teaching practice. This perspective contributes to strengthening professional autonomy by articulating ethical criteria with the development of educators' capacity for technological agency.

Contribution of the authors

Dr. Igor Radtke Bederode: conceptualization, data curation, formal analysis, research, methodology, validation, original draft-writing, writing-revision and editing.

Dr. Luis Otoni Meireles Ribeiro: conceptualization, data curation, formal analysis, research, methodology, validation, original draft-writing, writing-revision and editing.

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