The Impact of AI Tools on Creativity and Skill Development in Future Marketers: An Exploration of Dependency and Innovation in Academic Learning

Trabajo de Grado

Gabriela Sofia Bedoya Castillo

Bogotá D.C, Colombia

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Tutor: Rod McColl

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Agradecimiento

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Family Name: Bedoya Castillo

Student ID: 20240017

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Text Generation: Extract key information from academic sources and assist in structuring sections of the dissertation (e.g., literature review). All content was critically reviewed, rewritten, and expanded by me to ensure originality and alignment with research objectives.

Data Analysis: Summarize and organize the qualitative data of the interviews, identifying preliminary topics. Final interpretations and conclusions were manually extracted.

Other Uses: I ensure that the use of generative AI adheres to the Rennes School of Business Academic Integrity and Policy.

Name: Gabriela Sofia Bedoya Castillo

Date: August 28, 2025

Glossary

AI Ethics: A framework of principles guiding the development and use of artificial intelligence to ensure respect for human rights, human dignity, fairness, transparency, sustainability, and human oversight, particularly in educational contexts (UNESCO, 2021, as cited in Li et al., 2025).

Artificial Intelligence (AI): Represents a subdivision of computer science that employs algorithms and machine learning techniques to emulate or mimic human intelligence. (Helm et al., 2020, as cited in Lin & Chen, 2024).

Artificial Intelligence in Education (AIED): An interdisciplinary field that studies and applies artificial intelligence technologies to enhance learning, teaching, and educational administration through adaptive, personalized, and automated systems in higher education contexts (Salas-Pilco & Yang, 2022).

Co-intelligence: A form of human–AI interaction in which artificial intelligence systems augment, emulate, or potentially replace certain cognitive functions, enabling humans to enhance their thinking, writing, and problem-solving capabilities rather than merely automating tasks (Mollick, 2024).

Creativity: Is understood as the ability to generate, reflect, and act in an innovative and original way, is a skill that involves the ability to relate concepts differently and find new combinations and answers from previously known information (Molares-Cardoso et al., 2024).

Generative AI: Is a subfield of AI that focuses on creating original content, such as text, images, music, and even code (Lv, 2023, as cited in Henadirage & Gunarathne, 2025).

Learning Engagement: The behavioral, emotional, and cognitive investment students demonstrate during the learning process, reflected in active participation, emotional involvement, and deep cognitive processing, which supports learning outcomes and creativity development (Zhou & Peng, 2025).

Resumen

La incorporación acelerada de las herramientas de inteligencia artificial (IA) en la capacitación en marketing está transformando la forma en que los futuros marqueteros cultivan la creatividad y las habilidades profesionales básicas. Si bien la IA mejora la eficiencia y apoya la toma de decisiones basada en datos, también plantea preocupaciones sobre la reducción de la originalidad y el razonamiento crítico. Este análisis examina el doble efecto de la IA en los aprendices de marketing, examinando cómo la dependencia de estas herramientas afecta a sus habilidades creativas y preparación para el lugar de trabajo. Utilizando un enfoque cualitativo, con perspectivas de estudiantes, profesores y expertos de la industria, los resultados muestran que la IA funciona como un poderoso colaborador creativo pero puede debilitar el valor de las estrategias y/o del aprendizaje. Utilizando un enfoque cualitativo, con perspectivas de estudiantes, profesores y expertos de la industria, los resultados muestran que la inteligencia artificial funciona como un socio poderoso, pero puede debilitar la resolución independiente de problemas e innovación cuando se utiliza en exceso. Si bien la inteligencia artificial promueve el aprendizaje personalizado y la mejora de las tareas, la dependencia excesiva puede erosionar habilidades humanas fundamentales como la creatividad y el juicio ético. La investigación sugiere tácticas pedagógicas equilibradas que posicionan la inteligencia artificial como un complemento, no un reemplazo, de la creatividad, asegurando que los futuros marqueteros mantengan una ventaja competitiva centrada en el ser humano en un panorama digital en constante cambio.

Palabras Clave

Inteligencia artificial, creatividad, marketing, educación, aprendizaje, habilidades digitales, formación profesional.

Abstract

The accelerated incorporation of artificial intelligence (AI) tools into marketing training is transforming the way future marketers cultivate creativity and core professional skills. While AI improves efficiency and supports data-driven decision-making, it also raises concerns about reduced originality and critical reasoning. This analysis examines the dual effect of AI on marketing learners, examining how reliance on these tools impacts their creative skills and preparation for the workplace. Using a qualitative approach, with perspectives from students, teachers, and industry experts, the results show that AI works as a powerful creative collaborator but can weaken the value of strategies and/or learning. Using a qualitative approach, with perspectives from students, teachers, and industry experts, the findings show that Artificial Intelligence works as a powerful partner, but it can weaken independent problem-solving and innovation when overused. While Artificial Intelligence promotes personalized learning and task improvement, excessive dependence can erode fundamental human skills such as creativity and ethical judgment. Research suggests balanced pedagogical tactics that position Artificial Intelligence as a complement, not a replacement, of creativity, ensuring that future marketers retain a human-focused competitive advantage in an ever-changing digital landscape.

Key Words

Artificial intelligence, creativity, marketing, education, learning, digital skills, vocational training.

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1.Introduction

The rise of artificial intelligence (AI) in the academic and professional sphere has restored marketing education and offers unprecedented efficiency and innovation tools. However, this transformation comes with a critical dilemma: as the degree of AI becomes ubiquitous, its impact on creativity, the cornerstone of marketing, is still being questioned. This work tests the tension between the benefits of AI and its potential to undermine the very skills that determine emergency traders.

1.1.The problem and significance of research

Marketing flows through originality, emotional intelligence, and strategic ingenuity. However, the increasing reliance on these tools, such as ChatGPT and Twins, creates tasks from campaign ideas to data analysis, raising questions about their long-term impact on students' creative development. Early observations indicate that AI accelerates productivity but can also contribute to addiction, homogenizing ideas, and reducing independent critical thinking. This study is due to the gap in empirical studies, which explores tools for restoring creativity and skills in marketing education is an issue that is often overshadowed by technical discussions about AI skills.

1.2.Research Objectives

1. Analyze how marketing students use AI tools in their academic work and perceive their impact on creativity.
2. Evaluate teachers' approach to AI integration while maintaining innovative thinking.
3. Assess the prospects of industry professionals to prepare AI-trained candidates.
4. Recommend realistic suggestions for balancing AI by embracing creativity in training programs.

1.3.Methodology

A high-quality approach was used, conducting in-depth interviews with 13 MSC students, 3 teachers, and 2 marketing professionals. Participants were selected based on their active use of AI in an academic or professional context, providing perspectives on various addictions, skill erosion, and cooking dynamics. The thematic analysis revealed AI as a catalyst and role model for crutches.

1.4.Structure of the Dissertation

Chapter 2 reviews the literature on educational use of AI and a debate on creativity. Chapter 3 describes the methodology, while Chapters 4 and 5 provide results and discuss the impact on

pedagogy and industry. The conclusion summarizes the recommendations to promote " Co-Intelligence": the synergy of power and human machines.

This study urgently emphasizes the reintroduction of marketing training to use the potential of AI without sacrificing the creativity of the people driving the field forward. With these challenges ahead, teachers and professionals can help future salespeople to flourish in the expanded landscape.

2.Literature Review

2.1. Research Question

How does the increasing use of AI tools in marketing education impact the creativity and the development of abilities of future marketers?

2.2. Defining Artificial Intelligence

Artificial intelligence (AI) refers to the simulation of human intelligence processes by machines, especially computer systems. These processes include learning, reasoning, and self-correction. According to Chicaiza Guayta et al. (2024), AI encompasses a broad range of

technologies that allow it to perform tasks that traditionally require intelligence or human effort, such as pattern recognition, data analysis, decision-making, and outcome prediction, among others.

In educational and marketing contexts, AI is used to personalize learning, optimize business strategies, and analyze large amounts of data, thus making AI an effective tool for all areas where it is required or desired. The relevance of AI in the field of marketing lies in its ability to process large amounts of data or make massive recommendations and automated decisions based on patterns invisible to humans. This notion is powerfully articulated by Soni (2023) in their examination of AI-driven marketing optimization:

"AI is an outstanding assistant in the processing of large volume data, providing valuable insights into consumer behavior and trends. The automated optimization function of AI can continuously monitor the performance of a campaign, automatically adapt variables, such as advertisement placements, content, and target audience selection parameters, in real time to increase engagement and yield (Soni, 2023). The processing and analysis of large volumes of data is beyond human capacity because it is a very complicated process. Human presence is still needed to control processes and steer them in the right direction, but most of the work is done by AI." (Soni, 2023, as cited by Bormane & Blaus, 2024, p. 8).

This approach is important both for higher education, where personalized learning improves student experiences and facilitates rapid and effective learning, and for marketing, where AI simplifies campaign creation, making them more targeted and effective.

2.2.1. AI in Education: A New Educational Step

Integrating artificial intelligence into education has brought about a major shift in teaching methods, enabling personalized instruction on an unprecedented scale while also streamlining administrative processes. In 2023, Quirós Vargas offered a particularly insightful take on this dual opportunity, stating that "AI in education offers opportunities for more personalized and flexible learning, as well as more efficient management of educational systems. (…) Despite these challenges, AI in education is expected to lead to greater personalization of learning and more precise, efficient management of educational resources." (Cited by Chicaiza Guayta et al. 2024, p. 89, own translation). However, the researcher notes that technological advancements raise concerns about data privacy, biases in evaluation systems, and the misguided notion that AI systems can potentially replace human educators rather than augment their capabilities.

These observations emphasize the fundamental principle that artificial intelligence should serve as a support tool for educators and students, rather than as a replacement for the irreplaceable human aspects of teaching and learning.

AI systems are truly impressive when it comes to automating routine tasks, like giving standardized feedback, tracking student progress, or adjusting the difficulty of content. However, they still can't replicate the emotional support, inspiring mentorship, and critical thinking development that human educators offer to their students. That's why it's so important to implement AI thoughtfully in training, especially in marketing, which requires maintaining a precise balance between innovation and technology while also cherishing those essential human qualities of creative thinking and ethical reasoning. These elements are truly what create meaningful educational experiences.

Human presence remains necessary for emotional support and the development of critical thinking. While it can optimize tasks such as feedback, progress monitoring, or content adaptation, AI cannot replace something as crucial as humanity in teaching processes and human creativity and genius. This is why its application must maintain a balance between human creativity and value, moral, and educational obligations.

2.2.2. AI in Marketing Education: The Changing Landscape

It is true that in recent years, the education system has transformed to become more personalized and automated, all with the help of technology, creating a transformation that seeks to help students and educators adapt their knowledge to the new and future demands of the emerging market. Henadirage and Gunarathne (2023) effectively capture this transition by building upon Hwang et al.'s (2020) foundational work: “AI in education aims to provide individualized learning support to each student, customizing guidance and aid based on their specific learning progress, preferences, and personal characteristics.” This change of example is particularly important for marketing education, as it has been presented as one of the academic disciplines most deeply affected by advances in technology and artificial intelligence due to reliance on the field of data analysis, prediction of consumer behavior, and specific communication strategies.

Marketing has become one of the disciplines most affected by artificial intelligence, as was mentioned, and its transformation through AI is most visibly manifested in the development of hyper-personalized advertising campaigns that leverage machine learning algorithms to analyze complex patterns of consumer behavior, buying trends, demographic information, and

psychographic traits. According to Bormane and Blaus (2024), Artificial intelligence has redefined contemporary marketing practices by creating unprecedented opportunities to understand and accurately anticipate customer needs through behavioral prediction systems and message personalization. The result is specialized marketing strategies to maximize consumer satisfaction and brand loyalty, making marketing a discipline highly calibrated to consumer satisfaction.

In education, the inclusion of AI as part of marketing training is increasingly common. This technological revolution has naturally given way to marketing training, where universities and business schools are gradually incorporating AI technologies into their curricula at an accelerated pace, recognizing that future marketing professionals need more comprehensive training in these indispensable tools, which have become an integral part of industry practice.

The current marketing landscape treats AI skills as an essential component rather than a complementary skill. They are necessary not only to optimize marketing campaigns but also to provide students with a thorough understanding of the data, strategies, and complexity of interaction between technological systems and human consumer behavior. This educational duty stems from the growing recognition that future marketers must develop fluency in both the technical aspects of AI tools and understanding consumer psychology to create ethical marketing strategies in an increasingly automated marketing environment, technological and basic to the world.

2.2.3. The Relevance of AI in Marketing Education

As mentioned above, the inclusion of AI in marketing training is not limited to the teaching of technical tools, goes beyond the fact that it also seeks to cultivate important and complementary skills in students that will enable future marketing professionals to integrate their capabilities with artificial intelligence, such as AI in creativity to complement the creation of strategies and designs. This, without neglecting the originality of human ideas. The key is highlighted in contemporary literature, where the pedagogical approach emphasizes the use of AI as a creative complement that enhances, rather than replaces, human ingenuity in the development of marketing strategies, using AI as a tool and not as a substitute. This idea is created based on the documented trend of AI generative algorithms that create generic content/results, lacking originality, innovation, or creative spark - a limitation that becomes immediately apparent when comparing marketing campaigns originated and assisted by AI and human labor.

The teaching of AI in marketing should focus both on the use of technological tools and on developing an ethical and critical understanding of them, without losing sight of the fact that it is an optimization of available resources, not a replacement, since the combination of these two creates a complete environment in all areas of work. As Chicaiza Guayta et al. (2024) contextualize this educational challenge by referencing Lufeng's (2018) seminal work: " AI and education are interrelated, with AI being driven by a modern system of education and knowledge, suggesting a future where education evolves in close association with artificial intelligence" (Urquilla Castaneda, 2023, as cited in Chicaiza Guayta et al., 2024, p. 89, own translation). This perspective demonstrates how marketing education programs require a program that carefully balances AI technical competence with strategic, ethical, and humanistic considerations to prepare students for navigating the complex realities of implementing AI in enterprise environments.

The rapid introduction of AI technology across all sectors shows the importance of integrating these skills into marketing. Technical expertise, strategic/ethical considerations should be considered and balanced in educational programs. The way companies around the world comply with AI demonstrates its importance in the world and today's education, especially in marketing training. Higher education institutions face the challenge of developing a methodology that provides students with the technical skills necessary to take advantage of AI tools, while they must give critical thought to understand their proper use in an ethical and strategic framework. Institutions must prepare students for change and teach them the skills needed to successfully use AI in their future careers and promote their development.

As Chicaiza Guayta et al. (2024) argue, "Teachers must develop strategies to foster a culture of honesty and ethics in the use of these tools, ensuring that they are used to support, not replace, learning" (p. 88, own translation). This pedagogical approach requires fundamentally rethinking traditional teaching methodologies to help students develop a comprehensive understanding of how AI tools influence real-world marketing decisions and relationships with consumers.

The effective AI integration into marketing education requires an alteration in the way that students are taught, teaching students how to make informed and contextually appropriate decisions about when and how to use AI tools in various marketing functions, from automated content generation to personalized ad campaign optimization. Understanding how tools impact people and decisions in real life is just as important as learning how to use them. Students must learn to carefully consider when and how to use AI, as it is increasingly being employed in things like automated content generation and personalized advertisements. This includes being aware that

AI is subject to prejudice and error, and that it's critical to be transparent about the usage of data. Teaching this promotes appropriate and intelligent usage of AI by aspiring marketers.

2.3.Personalization and experiential learning

2.3.1. AI in personalized Marketing

In marketing, AI enables hyper-personalization in real-time data interpretation, thus improving consumer engagement and brand loyalty, allowing companies to go beyond traditional segmentation. Companies can respond to customer behavior in real time by using real-time data. Rivera-Montaño (2023) expectantly captures this transformation: “Personalization in marketing has evolved from traditional segmentation to the ability to deliver unique messages and experiences to each consumer based on their individual preferences, behaviors, and needs.” (own translation, p.71). These advanced capabilities allow companies to significantly improve customer satisfaction and, at the same time, encourage greater brand loyalty, since through specific offers, they minimize the waste of resources and time spent on strategies to be studied, developed and used in the market to maximize relevance for consumers through offers of individual expectations.

The personalization revolution goes beyond making content more personal to encompass AI-driven optimization of each element of the campaign, from visual design options and messaging frameworks to ideal timing and channel selection for maximum impact (Acar, 2024, section 2.3). Current prediction algorithms analyze complex consumer response patterns to determine the most optimal campaign options, setting new industry standards for marketing effectiveness that future professionals must master.

These technological advances have redefined competitive marketing practices, making the use of AI an essential component in modern marketing education, which prepares students for real-world industry demands where, as mentioned by Acar (2024) in section 2.2 of his 'Commentary: Reimagining marketing education in the age of generative AI' where he says that with the growth and implementation of generative AI, customers now expect tailor-made experiences as it has become not something special but something normal, that each customer receives personalized attention.

2.3.2. Personalized Education Through AI

In parallel with its marketing applications, AI has revolutionized education personalization through adaptive learning platforms that dynamically modify educational content based on continuous evaluation of individual student performance metrics and demonstrated learning preferences.

The Mollick study (2024) helps us understand how cooking tools have been actively involved in content development processes, increasing engagement and promoting autonomous learning. Rivera-Montaño's (2023) results in marketing personalization are directly related to the context of education, noting that "AI in personalized marketing contributes to an improved and more satisfying customer experience. By providing highly relevant and personalized content, recommendations and offers, companies can increase customer satisfaction and strengthen the emotional connection with the brand." (Peltier et al., 2020, as quoted in Rivera-Montaño, 2023, p. 76, own translation), this dynamic effectively translates learning environments in which commitment is strongly related to academic outcomes.

Chicaiza Guayta et al. (2024) provide additional information on these educational applications: "Through machine learning algorithms, AI can assess each student's learning patterns, strengths and weaknesses, and provide personalized recommendations." (translation mine, p. 86). This real-time adaptability has been shown to improve learning efficiency, increase levels of student motivation, and reduce drop-out rates in different educational contexts. However, new research shows the potential negative consequences of students becoming too dependent on AI systems, showing independent problems with reducing problems and skills in their own creative thinking.

The potentially harmful effects of excessive use of AI in the educational environment have become increasingly obvious, with studies documenting the obligations and consequences of intensive use of AI and reducing the ability to criticize independent judges. When students get used to delegating analytical tasks and generating solutions in AI systems, teachers see the relevant desire, for example, to participate in problem-solving processes. In addition, automating daily tasks and reducing people's interaction in the learning environment hurts the development of meaningful evaluation and analytical skills, which form the basis for professional competence. Although AI has clear benefits from personal education, it must be critical and measured. Excessive use can prevent the development of meaningful cognitive skills and hinder the goal of education: to promote independent and critical thinking. The basic objectives of education, promoting independent and critical thinking, may be threatened if the integration of AI easily determines that cognitive development tasks are the most important need for this balanced approach when using the strengths of AI, which actively avoids disturbing significant learning processes.

2.3.3. Experiential Learning and Simulation

Artificial intelligence has significantly improved experiential learning opportunities by enabling experiential simulations that simulate the real-world business context. Golab-Andrzejak's research (2023) highlights how AI-powered marketing simulation tools enable students to develop and test strategies, engaging with realistic consumer data sets, measuring campaign performance metrics, and analyzing results to report iterative improvements. These immersive learning experiences deepen conceptual understanding while simultaneously developing practical decision-making skills that translate directly into professional environments.

Comparative analysis by Henadirage and Gunarathne (2024) further demonstrates the value of these AI-based experiential learning tools in global contexts where traditional educational resources may be limited. These studies indicate that well-designed marketing simulations can effectively compensate for physical resources while providing students with practical skills that are needed in line with current industry expectations. These virtual learning environments not only reinforce theoretical marketing concepts but also develop technical skills and strategic thinking, which prioritizes modern entrepreneurs, creating a significant bridge between academic preparation and professional practice in the rapidly evolving digital markets.

2.4.Experiential Learning and Simulation

2.4.1. Fomenting Creativity Through Co-Creation

According to Mollick (2024) and Sihi and Ryan (2024), AI supports creativity when it is used as a co-creator instead of a substitute. Students should use AI as a brainstorming support, as the concept of "co-intelligence," which means the possibility of how AI allows them to integrate and explore various possibilities. This view is supported by a study by Molares-Cardoso et al. (2024), who compared the creativity of university students with that of chatbots such as ChatGPT in verbal ideation exercises. The results showed that, although AI can assist in the human creative process, it cannot yet surpass the human capacity to generate original ideas, make emotional connections, or apply lateral thinking. As the author mention:

“From a more qualitative perspective, AIs offer more obvious creative relationships, with more vertical reasoning based on logic.

The results show ideas that are quite recurrent, repetitive, and far removed from any lateral thinking. They simply say the same thing in different words, but they don't generate new ideas; they stick to the meaning and make sequential movements in the same direction.” (Molares-Cardoso et Al. 2024, p.22, own translation)

Nevertheless, the study recognizes that, when it is applied as a collaborative tool and not as a replacement, AI can amplify the creative repertoire of the students and promote generations of innovative proposals. In this way, the model reconstructs the AI not as a threat to creativity but as a catalyst, provided it is implemented in a pedagogical, critical, and targeted manner.

2.4.2. Risk of Excessive Use

On the other side, Bormane & Egita Blaus (2024) warn that the dependency on AI tools can erode students' capacity for abstract thinking and lateral thinking. Rivera-Montaño (2023) coincides with observing that "excessive personalization could lead to information overload" (own translation, p. 71), which could reduce initiative and curiosity. Diverse authors express their worries related to the psychological alienation that may arise when students delegate creative tasks to automated systems a sensation that is shared by Chicaiza Gayta et al. (2024), how's affirms that "Students can become accustomed to relying on AI for answers and solutions, which reduces their ability to learn autonomously and be self-directed." (own translation, p. 87).

This loss of cognitive autonomy can have deep implications for students' integral formation because it limits their critical and reflective thinking development. When learning becomes overly dependent on technology, there is a risk of weakening the emotional connection to knowledge, transforming education into a mechanical and depersonalized experience. Therefore, it is essential to promote a balanced use of these tools to complement, but do not replace, essential human skills, allowing education to improve efficiency and creativity.

2.4.3. Balancing Automation and Creativity

The use of Artificial Intelligence in education can have positive as well as negative effects on the students' creativity, and for which is why the learning plan must be well-designed. The teachers can create places where AI works as a tool to give them ideas and improve their work, but without replacing each student's creativity. One way to achieve this is by combining artificial

intelligence with other activities focused on human thinking, such as crafts, group discussions, or personal projects. The students will learn how to use the technology and think by themselves, reflect, and critically evaluate the results they obtained with AI's help.

2.5.Cognitive, Technological, and Ethical Challenges

2.5.1. Ethical Challenges

The rapid integration of AI into marketing education has surfaced significant ethical considerations that demand thoughtful institutional responses. The explosive growth of generative AI tools like ChatGPT during 2023 has simultaneously generated enthusiasm about educational potential and serious concerns about unintended consequences for global learning systems. Pop et al. (2024) mention, the growing use of AI can create concerns about data privacy and the transparency of decision-making processes, highlighting the necessity of establishing ethical and data governance frameworks. In the same article, the authors quote Lynch (2024), who warns that "the use of AI in education is valuable in some ways, but we must be hyper-vigilant in monitoring its development and its applications." (as cited in Pop et al., 2024, p. 438), emphasizing the importance of mixing the technology with good teaching practices. Additionally, Hoyos and Sastoque (2020) are mentioned, insisting that companies must be transparent with their clients about how their data is collected, used, and protected (as cited in Pop et al., 2024, p. 438).

On the other hand, concerns emerge in Rivera-Montaño's (2023) marketing-focused research, which stresses that "companies must be transparent with their customers about how their personal data is collected, used, and protected" (p. 75, Translation mine). Similarly, Chicaiza

Guayta et al. (2024) expand this ethical framework to educational contexts, arguing that responsible AI implementation requires "guaranteeing the privacy of student data, ensuring equitable access to AI technologies, and promoting transparency in the algorithms used" (p.90, own translation).

These necessarily become particularly noticeable when testing controversial applications, such as Chinese schools, using facial recognition technology to monitor student attention, a practice that risks normalizing over supervision while distorting authentic learning behaviors. While AI-based analysis can certainly improve understanding of education and institutional decision making, these examples emphasize the critical importance of introducing such technologies within the framework of student rights, personal privacy, and respect for education. Marketing education faces an additional ethical challenge in preparing students to move these complex considerations into their future careers, where they may face a similar tension between technological capabilities and ethical responsibilities in professional practice.

2.5.2. Cognitive Challenges

The convenience of AI can discourage effortful thinking, or at least the attempt at it. Hoffman et al. (2022) argue that these automated aids can cause students to doubt their own abilities or to set them aside and rely entirely on AI. These types of situations are not limited only to the psychological domain, but also affect cognitive skills such as problem-solving and creative reasoning. Chicaiza Guayta et al. (2024), discuss the significant disadvantages that the use of AI represents, such as the dependence on this tool that can lead to a decrease in critical thinking and problem-solving skills by themselves, because students can get used to depending on AI to obtain

answers and solutions, which thus reduces their capacity for autonomous learning and their capacity for self-direction.

Additionally, it is also essential to mention the lack of human interaction, where excessive dependence on technology can cause a state of isolation, further reducing social interaction and the development of coexistence skills in special environments, such as interaction with teachers and peers, which is essential for comprehensive and individual learning concerning social skills. Finally, it is also worth mentioning the risk of bias, where AI systems can generate existing biases in education, such as gender or racial discrimination, because the algorithms may be based on biased historical data, leading to unfair or inaccurate assessments or recommendations.

2.5.3. Technological Challenges

In addition to ethical and cognitive challenges, advances in AI also raise technological questions. According to Enholm, Papagiannidis, Mikalef, and Krogstie (2022), cited in Rivera-Montaño (2023), AI tools require a complex, comprehensive, and expensive infrastructure, sometimes inaccessible to all educational institutions due to access difficulties or high costs. These authors emphasize that, since these are highly specialized technologies, their implementation:

"Finally, and most importantly, there are costs, as these technologies require certain conditions that generate significant costs in infrastructure, recruitment of qualified personnel, and dependence on third parties. Therefore, the different dynamics involved in organizations adopting AI and, consequently, developing their capabilities require a deeper understanding." (cited in Rivera-Montaño, 2023, p. 77, own translation)

This creates an equity gap in access to these technologies, particularly in less developed regions or institutions that lack the resources necessary for implementation.

It is also worth highlighting the existence of technological and access barriers. As Torres et al. (2023, p. 87, own translation) point out, "AI can exacerbate existing inequalities in access to quality education. Individuals without access to the necessary technologies may face significant limitations, exacerbating disparities in access to education." This challenge exceeds the basic access problems to cover the finer gaps in technological competence, where students with less saturated technological backgrounds need additional support to participate effectively in advanced AI programs.

Adding to the above is the challenge of integrating AI tools. Integrating these solutions into existing teaching and marketing systems can be technically and economically challenging. According to Rivera-Montaño (2023), "implementing AI in personalized marketing also poses challenges," including the need for trained professionals capable of correctly understanding and interpreting the results generated by artificial intelligence algorithms. Similarly, Reddy and Reinartz (2017) state that: "Companies must ensure they have trained professionals who can effectively evaluate and use AI results to make informed decisions within their personalized marketing strategies." (quoted in Rivera-Montaño, 2023, p. 75, translation mine).

This human infrastructure requirement creates additional hurdles, as many institutions are trying to recruit or develop faculty with the dual competence required in marketing principles and AI system management. These multifaceted technological challenges emphasize the importance of developing a scalable and sustainable AI implementation strategy that maintains the quality of education while expanding access to new technologies.

2.6.Gaps in the literature

2.6.1. Lack of Empirical Research

While there is a clear and comprehensive study of AI in education and marketing, there is a significant lack of empirical research on its practical use and how class or professional classes in their daily practice. The constant changes in the marketplace are evident, and with them the changes to which future and current professionals must adapt. However, it is not clear how, when, or with what tools they are adapting to the new needs and how this may affect their basic skills as human beings. Although academic consensus recognizes the transformative potential of AI tools, relatively little research provides stable and calculated insights into how these technologies affect daily learning processes or long-term skills in the context of marketing education and the longitudinal impact on student development.

As Chicaiza Guayta et al. (2024) point out, the understanding and definition of AI "remain unknown to many, which has even led to international initiatives such as the creation of glossaries by UNESCO and ISO/IEC" (p. 82, own translation). This research gap limits the understanding of how AI truly transforms the way students learn and marketers work.

The dynamic nature of this technology has additional challenges for research as tools develop faster than traditional academic research cycles can assess their impact. This rapid rate of development allows teachers to make implementation decisions, without integrated evidence of long-term consequences for students' creativity, ethical judgment or professional preparation, lack of knowledge to be paid for accelerated research methods.

2.6.2. Challenges of the Measurement of Creativity

The evaluation of creativity in the medium learning environment in AI are unique methodological problems that have not yet been adequately solved by current studies, as measuring creativity is another important challenge, as creativity can be relative and unstable depending on the person, context, possibilities and influences. In the context of measuring creativity, how can we assess whether the use of technological tools improves or restricts students' creativity? Like Mollick (2024), this study highlights the essential dimension of this challenge:

" The implications of having AI write our first drafts (even if we do the work ourselves, which is not a given) are huge. One consequence is that we could lose our creativity and originality. When we use AI to generate our first drafts, we tend to anchor on the first idea that the machine produces, which influences our future work. Even if we rewrite the drafts completely, they will still be tainted by the AI's influence. We will not be able to explore different perspectives and alternatives, which could lead to better solutions and insights."

This demonstrates concern about how artificial intelligence intervention can limit autonomous thinking and reinforces the need to develop precise criteria for assessing these types of skills in technology-mediated environments. In addition, it makes clear the need for further research into developing appropriate frameworks to measure creativity in AI-integrated learning environments.

In this sense, the growing dependence on artificial intelligence is causing an evident decrease in the effort required for critical thinking, as well as in the willingness to generate original and complex ideas. This is mainly due to everything, which means the creative process: try, understand, and adapt to circumstances. Why do you avoid? Since it requires spiritual time and forces AI can avoid quick responses using numbers and algorithms. However, there are costs to

this convenience: the machines create basic and general responses without originality, creativity or that human "spark" is that unique human quality that is difficult to measure but easily recognizable. The lack of tools and methods to assess and highlight these aspects makes the problem even clearer and more urgent.

2.7.Pedagogical Challenges

2.7.1. Ability of the Ethical and Creative Use of the IA

The educational opportunities offered using artificial intelligence are many, but the most fundamental ones are the ethical and creative ones related to the use of this tool. But for what?

Well, it is well known that tools that facilitate human work, to the point of just having to ask a question to get what is needed, remove some of the effort. In return for a lot of work, it is enough to make a simple query to a server, and this will give you everything, while others still do manual research and development work that can take hours, days, or even months, depending on the type of project.

Both jobs may be very well done, but the AI will have the competitive advantage of time and possibly also quality due to the minimal number of errors it makes. Meanwhile, the human being must constantly review their work for various errors that are proper to our nature.

When comparing both options, there is a clear difference in the result. Thanks to those factors where the machine has an advantage, it is usually in first place in this "race," which could be considered unfair in the end due to the little effort behind simply asking a question. On the other hand, there were a thousand questions and answers, corrections, and analyses.

Therefore, it is necessary from a pedagogical perspective to teach the ethics of using artificial intelligence, not as a replacement, but as a support that helps and allows a fair, effective, and equitable process for all. As Ojeda et al. (2023) state, "Teachers should develop strategies to foster a culture of honesty and ethics in the use of these tools, ensuring that they are used to support and not replace learning." (p. 88, own translation).

Teachers, schools, and universities can guide students in the AI use in ways that complement their human skills, thus fostering a cutting-edge education that is both technical and ethical.

2.7.2. The Industry Collaboration

Collaborations with the technology industry are an effective way to transition towards integrating artificial intelligence into the Marketing curriculum. Technology and marketing companies can provide educational institutions with specific tools, knowledge, and experience related to new technologies, trends, and their use in the real world.

Workday's (2023) industry perspective captures this synergy: “By working together, academia and industry can drive innovation, ensure responsible AI development, and ultimately create a better future of work for everyone.” These partnerships become particularly valuable when they expose students to genuine business problems, where AI solutions must be evaluated not only with technical efficiency but also with ethical consequences, consumer influence, and strategic adaptation, due to the multidimensional assessment, which distinguishes competent traders.

Effective cooperation may include joint research projects, industry-sponsored cases where industry participates and collaborates, or functions as professionals involved in the development

of the curriculum that promotes it. By maintaining these conditions, marketing programs can ensure that your education remains in line with the actual, current, and changing needs of the business, while students provide opportunities for development and practical experience, which enhance their vocational preparation.

2.8.Conclusion

The increasing impact of AI tools on marketing training creates a dual landscape: on the one hand, it optimizes processes, adjusts learning, and forces students to real industrial requirements; on the other hand, critical problems in developing creative skills, independent thinking, and professional ethics. The reviewed literature shows that AI works best as a co-author, improving idea generation and marketing strategies, but its excessive use of water can reduce originality, analytical ability, and human interaction and basic elements of future vocational education. To balance these consequences, educational institutions must leverage educational approaches that integrate reflective AI and promote its ethical and strategic use without replacing people's assessment.

This means developing curricula that combine technical skills with critical thinking, as well as cooperating with industry to ensure that technological innovations meet the needs and values of education. In addition, more empirical research is needed to understand the long-term impact on creativity and the development of measures that assess its impact on academic marketing training. In short, AI's success in education marketing depends on its ability to act as human skills, not as a potential substitute, for maintaining the creative and ethical nature that determines future marketers. Technology should be a bridge to professional competence, never a shortcut that threatens the depth of reasoning or authenticity.

3. Research Methodology

3.1. Research Approach

To answer the research question, qualitative research was conducted between April 2025 and May 2025. This qualitative study aims to understand the attitudes, behaviors, and needs of a group of people, usually a set of consumers or a particular population, to explore the complex relationship between using AI tools and developing creative skills in today's marketing education. The methodology was carefully selected to capture a broad and nuanced view of how students, educators, and professionals experience and perceive the impact of AI on creativity perspective notably absent from existing empirical literature. The objective of this study is to understand the significant influence of AI among students, who are consumers of these tools, through the complementary perspectives of educators, who are the main contributors to observe or promote their use, and professionals, who receive prospective sales reps trained in these new technologies and assess how companies adapt to them.

Literature review has shown a growing demand for ethics and the conscious development of AI use, particularly by students and teachers, because they play an important role in our society and the training of future professionals in emerging markets. Therefore, the research adopted an explanatory character, where it recognizes that the phenomenon investigated is socially constructed and better understood through the experiences lived by the participants. This approach is in line with recent research on educational technology, where it is explained that methodologies prioritize originality over breadth when examining the role of AI in learning processes (Henadirage & Gunarathne, 2024; Chicaiza Guayta et al., 2024; Mollick, 2024).

3.2.Research Design

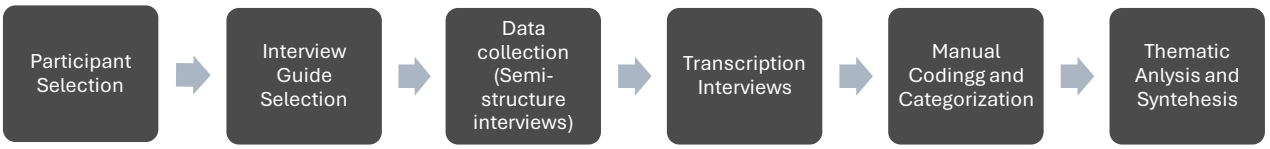
Approach: Qualitative (exploratory), chosen to analyze nuanced changes in creativity and skill development (Bryman, 2016). It also allows us to understand different perspectives: those who use AI during their learning process, those who have observed how this process has changed (teachers), and those who already understand its influence in the real world and on the labor market.

Pilot phase: Three randomly selected student interviews were conducted (Olvia, Caro, Mafe) to fine-tune the questions and identify key issues such as "AI dependency" and "loss of originality" (see Appendix A for transcriptions). It also sought to improve the quality of questions for final interviews, define their length, and determine how many would be needed to obtain deeper perspectives that would complement the research.

Ethics: Approved by the Rennes School of Business. All participants received a PDF with informed consent (Appendix B), which explains the purpose of the interview, the process, the use of the data, and when the recordings will be deleted. The possibility of maintaining anonymity in the presentation of results was also reported; at the request of several participants, this option has been respected and will be presented as follows: "S1" for Student 1, Educators identified by “T1” for Educator 1, and Professionals by “P1” for Professional 1.

A literature review reveals gaps in empirical research on the impact of AI in the classroom (see section 5.1). This design focuses on depth rather than scale to address these gaps. This study design follows a systematic procedure in integration with qualitative standards to ensure depth and consistency in the subject.

Figure 1. Methodological Process Diagram



Source: Own

3.3.Participant Selection and Characteristics

3.3.1. Sampling Strategy

The selection of participants used a combination of intentional sampling and snowball sampling.

Deliberate sampling: In the first stage, participants were identified based on their direct link to the use of artificial intelligence tools in training or professional marketing practice. Included were students who actively use them during apprenticeship, as well as teachers and professionals who can observe, evaluate, or promote their use in their roles. In the case of special teachers and professionals, those related to teaching or marketing are currently chosen to be able to contribute to students from an external and complementary perspective.

Snowball sampling: from these first contacts, participants were asked to recommend colleagues, students or professionals who also meet the criteria defined by the study. This strategy enabled volume work to facilitate access to different profiles and enrich different experiences.

This approach allowed us to summarize a set of things that are particularly rich in information while maintaining diversity in the context of experience, role (student, teacher,

professionals) and academic or work. The combination of these methods preferred a broader and more nuanced understanding of the phenomenon studied.

3.3.2. Participant Demographics and Selection

- **Sampling:** deliberate snowball sampling to ensure diversity:

  - **Students:** 13 MSC digital marketing students (8 nationalities, RSB).
  - **Educators:** 3 teachers (Email; 42% Responses, cited 7 teachers from different marketing areas, only 3 accessed or responded)
  - **Professional:** 2 marketing people (LinkedIn Reach).

- **Criteria:**

  - **Regular use of AI (e.g., ChatGPT, Gemini, etc.) in marketing tasks.**
  - **Experiment for at least 6 months (according to Title 1.3 on AI shift).**

Table 1. Participant Profile and Distribution

Group	Quantity	Selection criteria	Nationalities	Recruitment Method	Data Collection Period
Students	13	Marketing students using AI for courses	Colombia, Mexico, India, etc.	Convenience + peer referral	April - May 2025
Educators	3	Marketing teachers who teach and integrated AI courses	France, Brazil	Institutional email	May 2025
Professionals	2	Marketers using AI in industry.	France	LinkedIn	May 2025

Source: Own

Justification: Reflects your call to revise interdisciplinary perspectives (Title 6.2 on industrial cooperation).

Participation of confidentiality: To protect the privacy of participants while maintaining transparency, the following anonymity protocol was introduced:

- All students have numerical codes (S1-S13).
- Educators are assigned codes T1-T3
- Professionals are assigned codes P1 and P2.

3.4.Data collection procedures

3.4.1. Development of interview protocol

The interview frame was carefully created using the three-scene development process. First, the theoretical anchor was created based on basic work on the integration of artificial intelligence in education (Bormane and Blaus, 2024) and digital pedagogy (Rivera-Montea, 2023). From this, initial problems developed to learn about topics such as the tension between algorithmic efficiency and creative originality, longitudinal models in skill development, are mediated by AI, and comparative results between projects that rely on tools and self-controlled projects.

Second, the empirical validation was carried out with three iterative test interviews, which provided the key to customizing the final tool. At this stage, participants were identified by the discomfort with the terms full of value as "loss of creativity".

In addition, unclear references needed, such as "recent projects", and the need arose, including specific examples of abstract concepts for Anchorage. Finally, linguistic calibration was carried out, consisting of changes such as neutral reform (such as changing the "loss of creativity"

to "creative adaptation"), clear temporal delineation ("projects completed in the last academic semester"), and the inclusion of support problems to promote specific responses.

The interview records were adapted to each group of participants (students, teachers, professionals) to triangulate perspectives on the influence of AI throughout education and the professional continuum. This design is in line with the purpose of the study (Bryman, 2016) and analyzes deficiencies identified in the literature (Section 5.1):

Students were asked questions that focused on the learning experience (such as delegations, skills development) to perceive it as the primary role of AI tools. The topics tested for obvious changes in creativity and depending (for example, "compare two projects: Ai-Maga vs Manuel"). Educators were asked about the adaptation of education and observed influences (e.g., "how do you get students to use AI?") to use it as critical skills observers and the role of academic integrity observers.

Professionals focused on integrating and preparing for future work (e.g., as AI is redefined at the initial level vs. Skills for seniors? ") Assess industry expectations for candidates navigating in a saturated environment.

This tripartite structure provided thematic consistency (such as creativity, skill shift) while observing the unique position of each group in the AI-adopted ecosystem. Problems were calibrated during the test to avoid viable loaded languages (such as "lose creativity" with "creative adaptation").

3.4.2. Interview implementation protocol

The approximate duration of each interview was 25 to 40 minutes, and it followed the phase structure to facilitate conversation. During the management phase (5-7 minutes), ethical aspects approved by the authority were reviewed, informed consent was tested with double approval, and the comfort of the participant with the entry team was ensured.

The next step, contextual research (8-12 minutes), consisted of unstructured conversations on current AI applications in aspects such as task development, campaign simulation exercises, and evaluation preparation. In the focused consultation phase (15-20 minutes), he developed key issues, including a comparative case analysis between the creative idea supported by AI (e.g., Sprint 2) and the results of traditional ideas for brainstorming (Sprint 1 as a baseline). In addition, metacognitive awareness of accumulation or loss patterns and confidence in the detection of hybrid plant results were studied. Finally, open comments were provided in reflexive synthesis (3-5 minutes), an inspection was conducted with the participants on the most important interpretations, and invited to share additional materials.

To ensure quality, all sessions were filled only in English with a certified level of B2 or higher and recorded on a dual channel (Zoom/Teams/Google Meet plus sound support). Immediately after each interview, analytical memoranda were written following a reflective approach proposed by Saldaña (2021), which emphasizes the importance of writing memoranda as a tool to reflect interpretation decisions and the coding process. This practice enabled the research team to identify new models, customize categories, and maintain a critical understanding of how researchers' perspectives influenced analysis. When it comes to documentation, the deciphered texts were given literally within 12 hours, such as the anonymity of the participants

and the triangle itself with other elements such as screen records (where allowed), non-verbal behavior notes, and time model analysis.

This method was particularly effective in capturing the complex interdependence between the use of AI tools and the development of creative skills identified throughout the study.

3.5.Data Analysis Framework

3.5.1. Transcription and Familiarization

Employing Saldaña's (2021) iterative approach, the analysis process comprised:

- **Primary Processing Cycle** (0-48 hours post-interview)
    - Verbatim transcription using modified Jefferson notation
    - Simultaneous audio review for paralinguistic cues
    - Marginal memoing of emergent concepts
- **Secondary Familiarization Phase**
    - Immersive re-reading with dual annotation:
    - Descriptive (factual content)
    - Analytical (potential interpretations)
    - Development of preliminary code clusters

3.6.Methodological Rigor and Reliability

Several additional measures were used to ensure the reliability of the study. First, triangulation was implemented, combining several sources and methods: students, teachers, and professionals were contrasted, and interviews were cross-referenced with AI policy documentary analysis. Second, the team's reflexivity was carefully engaged: researchers were documented and audit records preserved, collecting design decisions and changes throughout the project. Finally, a rough description was used to provide detailed descriptions of the context and preservation of each actor's fragments to show authentic voices.

Trianon

- Data sources: students, teachers, professionals
- Methods: interviews and document analysis (e.g., AI policy)

Reflexivity

- A clear record of the researcher's attitude
- Regular process corrections (audit routes)

Rough description

- Detailed context of each result
- Participants' quotations without losing the reliability of the original

These actions are combined by reinforcing the internal validity and portability of discoveries when they allow them to review and verify how interpretations of special data occurred.

3.7. Ethical considerations

The study followed strict ethical protocols from design to data management and outcomes.

- **Consent is informed**
    - Written consent was obtained from each participant.
    - The waiver procedure was clearly stated at any time.
- **Data protection**
    - The data was stored on servers approved by the University for encryption.
    - The planned closing date (December 2025) was set to ensure that information is not stored beyond of time.
- **Limit of risk**
    - Anonymity protocols were used to protect sensitive findings.
    - Help or advice was offered if any conversation caused discomfort.

- **Geographical**
    - Although the study included Taiwanese members, China, Colombia, Mexico, and Indonesia, the sampling tended to cities and with digital access.
    - The rural context is less represented, which should be considered when interpreting the applicability of results.
- **Language restrictions**
    - Since some members are not local Anglophones, they sometimes simplify complex ideas.
    - Other studies would be suitable for conducting interviews in the native language of each participant to develop cultural or conceptual tones.
- **Occupational bias**
    - The professionals come mainly from high-tech companies.
    - There is a lack of traditional marketing departments that can sigh at the AI acceptance vision.
    - Together, these ethical and contextual precautions help to address risks, track those involved, and clarify several conclusions.

3.8. Constraints and boundary conditions

Although the results provide valuable information, it is important to recognize design limitations:

- **A temporal scope**
    - It was a cross-study, so over time does not follow changes or allow long-term effects.
- **Context**
    - The exhibition includes participants from Taiwan, China, Colombia, Mexico and Indonesia, but is partial to those with access to digital technologies.
    - Regions of the global south with less developed infrastructure are restricted or have a very limited presence.
- **The characteristics of the sample**

Focusing on well-known people with technology, less knowledgeable AI groups may underestimate real obstacles or resistance.

These constraints point in the direction of future studies: complete longitudinal education, expansion of cultural representation in an environment with less digital access and over time, study the trajectory to better understand the development of creative skills in different contexts.

3.9. Methodological innovations

The study included original approaches that enrich the methodological discussion on digital education research and AI:

3.9.1. Three-party perspective

At the same time, three group experiences were tested: students, teachers, and professionals, who discovered unique interactions and tension in each role.

3.9.2. Follow up

The creative workflow was developed in detail before and after the integration of AI tools, and major changes were identified at each stage.

3.9.3. Critical event technology

Focused on the key moments of AI use, which transformed creative outcomes that allowing them to accurately analyze how and why these turns are made in the process.

These investments offer a repeat system for similar research and create a starting point for those trying to integrate new technologies into education and vocational practice.

4. Data Analysis and Discussion

4.1.General description of the analysis process

This chapter provides a thematic analysis of the semi-structured interviews with 13 teachers, 3 teachers, and 2 professionals. In addition, three test interviews were conducted at the beginning of the study to verify and improve the interview manual. These interviews were conducted with three master's students in strategic and digital marketing. Its purpose was to assess the clarity, flow, emotional comfort, and effectiveness of problems. The comments received allowed me to ask more precisely and open the final protocol. Although these test interviews were very valuable, they were excluded from the final coding to ensure the context of the data set. However, the repeated models that appeared in them as AI dependence but confirmed the reduction of critical thinking and perceptual changes in creativity, the importance of initial study and proposed topics. The thematic analysis followed the iterative coding method in Saldaña (2021), which included:

- Transcriptions of text and replacement designations at the time of listening
- Division of reading and notes to be confidential.
- Descriptive and analytical coding to perceive both content and interpretation
- Grouping codes into thematic categories

The thematic coding was done manually. The interviews were listened to carefully, and handwritten notes were made to identify the participants' main ideas, patterns, and emotional signals. Topics were improved by comparing, ensuring the relationship between roles, and allowing both agreement and disagreement to appear clearly.

To ensure context and transparency, this table summarizes anonymous profiles for researchers. According to ethical research standards, all names and attachments have been replaced by codes to ensure the confidentiality of members.

Table 2. Piloto Participant Overview (Anonymized)

Code	Group	Nationality	Role / Specialization	Notes on AI Usage
PILOT1	*Student (Pilot)*	*Mexico*	*MSc Strategic & Digital Marketing*	*Uses ChatGPT, DeepSeek; compares AI tools*
PILOT2	*Student (Pilot)*	*Colombia*	*MSc Strategic & Digital Marketing*	*Uses AI for clarity, projects*
PILOT3	*Student (Pilot)*	*Colombia*	*MSc Strategic & Digital Marketing*	*Uses Gemini for idea structuring*

Source: Own

Table 3. Participant Overview (Anonymized)

Code	Group	Nationality	Role / Specialization	Notes on AI Usage
S1	Student	Colombia	MSc Strategic & Digital Marketing	Uses AI for content refinement and idea support
S2	Student	Colombia	MSc Strategic & Digital Marketing	Concerned about critical thinking loss
S3	Student	Colombia	MSc Strategic & Digital Marketing	Relies on AI to draft written tasks
S4	Student	México	MSc Strategic & Digital Marketing	Uses AI but feels loss of originality
S5	Student	Colombia	MSc Strategic & Digital Marketing	Positive about AI in ideation
S6	Student	Colombia	MSc Strategic & Digital Marketing	Feels dependent on AI

S7	Student	Indonesia	MSc Strategic & Digital Marketing	AI helps with structure, not ideas
S8	Student	India	MSc Strategic & Digital Marketing	Highlights inconsistency in AI rules
S9	Student	China	MSc Strategic & Digital Marketing	Concerned about homogenization
S10	Student	China	MSc Strategic & Digital Marketing	Uses AI regularly for campaign work
S11	Student	Taiwan	MSc Strategic & Digital Marketing	Thinks AI enables productivity but doubts depth
S12	Student	India	MSc Strategic & Digital Marketing	Uses AI for summaries, not full drafts
S13	Student	China	MSc Strategic & Digital Marketing	Concerned about over-dependence

T1	Educator	France	Integrative Marketing Communications Lecturer	Uses AI in class exercises
T2	Educator	France	B2B Marketing Lecturer	Open to AI but cautious with assessments
T3	Educator	Brazil	Consumer Behavior Lecturer	Promotes critical reflection over AI reliance
P1	Professional	France	Digital & E-commerce Consultant	Uses AI daily but values unique human ideas
P2	Professional	France	Global Marketing Programs Manager	Seeks creativity beyond AI templates

Source: Own

Ethical note: all participants gave their verbal consent to participate. The words and organizational attachment were deleted or anonymized to protect privacy on request. This test offers a rich perspective on the triangle in the educational, academic, and professional marketing

environment. This allows you to compare horizontally (in the group) and vertically (between groups) throughout the thematic analysis. The diversity of geographical, cultural, and professional origins gives depth and reliability to the results.

Figure 2 Word cloud generated from qualitative interviews.

Source: Own

4.2. Thematic fund

Five broad themes emerged from qualitative data analysis, each with its own dimension as AI influences marketing creativity and training.

To represent the concepts most frequently mentioned by interview participants, a word cloud was created using the keywords most often mentioned and linked to Artificial Intelligence,

creativity, skills and marketing transformation (see Figure 1). This illustration highlights the relevance of concepts such as intelligence, skills, tactics and learning, which were central to participants' discourse.

4.2.1. Theme 1: AI as a catalyst for creativity and limitation

Many participants described AI as coordinating and limiting creativity. For students, tools like ChatGPT and Midjourney opened new opportunities to generate marketing ideas, especially in the face of creative blockages. Several interviewees appreciated the ability of AI to help launch a campaign project, slogans, and visual concepts.

“I feel like I rely a lot on what the AI says. Sometimes I have the idea but don’t know how to develop it, so I ask for help. I think it’s 50/50.” (S4)

However, there was a cost for this help. Several students expressed concern about the tendency of results to be general, even if they are grammatically correct or well-structured. Another student reflected on how AI tools make their ideas seem generic:

“The text is clean, it's understandable... but it sounds like everyone else's work. Like, I can tell it's ChatGPT, not me.” (S9)

The teachers confirmed these findings. T1 explained that:

Students generally provide flawless work and lack originality. They do not know that creativity comes from imperfections and emotional nuances. Educators echoed these concerns:

“Students jump too fast to AI tools. They don’t let their ideas evolve naturally anymore. The result is clear, but not necessarily deep.” (T1)

Professionals offered a more strategic perspective. While they praised the role of AI for ideas and prototypes in the early stage, they warned that the entire creative process should not be allowed. P2 mentioned above:

I can usually make the AI recommendations. Yes, they are logical but predictable. The real value lies in the element of surprise: humor, courage, or risk. This topic illustrates the paradox: while AI improves access to content and speeds up ideas, it also threatens to flatten out the one thing that defines awesome marketing.

Professionals emphasized the need for originality beyond AI output:

“It’s easy to tell when a pitch was written by AI. The structure is there, but it’s missing attitude, flavor—what gives it personality.” (P1)

4.2.2. Theme 2: Changing skills and cognitive discharge

The presence of AI in students' academic lives has caused subtle but noticeable shifts in cognitive and technical skills as a priority. Many students reported that tasks like collating text, schematics, or even complete drafts are now mostly delegated to the AI. While these tools reduce the time spent on intensive work, they also run the risk of reducing the minimum achieved through these tasks manually.

“Before, I would take notes while reading articles. Now, I just copy the link and ask for a summary.” (S12)

“Sometimes I don’t think as deeply. It’s reduced my creativity—I don’t brainstorm much myself because AI gives answers.” (S3)

From the educators' perspective:

"Some students now treat AI like a shortcut engine. Instead of learning to structure arguments, they ask the tool to do it for them. This is alarming because they're skipping the logic-building phase." (T2)

Practitioners expressed concern about long-term consequences:

"I see candidates who are great with the tools, but they lack intuition in marketing. They can optimize a report, but they can't spark a campaign." (P1)

In addition, some students acknowledged that they no longer practice basic skills such as critical reading, campaign design, or independent thinking:

"AI is addictive—it makes me feel fast and smart. But when I had to pitch something in real time without ChatGPT, I panicked." (S6)

This highlights a cognitive phenomenon: repeated use of AI reduces the need to internalize knowledge or skills. While it may work effectively in the short term, it risks reducing creative experience and confidence.

4.2.3. Theme 3: Pedagogical dilemmas and institutional tensions

Educators study an unknown area. Recognizing the inevitability of AI seems to be few who are ready to teach students how to use it responsibly. Some have tried to incorporate AI into class projects as a tool for analyzing, comparing or criticizing results.

"I asked them to compare AI-generated marketing emails with human-written ones and critique both. It worked, but only with the more committed students." (T3)

However, many teachers expressed that institutional policies are still vague or non-existent. One teacher shared:

“Honestly, I don’t know how to evaluate assignments anymore. Did they write it? Did ChatGPT? The line is blurry, and the school hasn’t really addressed it.” (T2)

Students repeated this confusion. While some were encouraged to study AI, others reported that he was punished for using it.

“Some professors let us use it and even encourage it. Others act like it's cheating. I just want clarity.” (S8)

This incapacity creates dissatisfaction and uncertainty. In addition to institutional patterns or clear education, both teachers and students are forced to interpret the boundaries themselves. This number shows an urgent need to reform the academic policy and professional development of teachers in AI ethics and training.

4.2.4. Theme 4: Industry expectations and AI literacy

In the vocational field, the AI of competence is no longer compulsory, but something is self-taught. Both interviewees emphasized that competition from AI is now the basic hope for junior marketers. However, they stressed that the use of methods is not enough. What distinguishes strong candidates is their ability to combine AI with emotional intelligence, originality, and strategic thinking.

“I expect them to use AI. But I’m really hiring the one who knows how to challenge AI outputs and make them better.” (P2)

Students were aware of these requirements, but some expressed anxiety. More people were concerned that their creativity would be diminished.

"AI helped me build my portfolio fast, but I'm scared I can't do it without it anymore." (S6)

"Sometimes I feel like all my work is 70% ChatGPT. What if I'm asked to do a task live?" (S3)

It reveals a growing conflict between identity: students admit that AI is a professional need, but they also fear it could destroy their creative brand. Professionals concluded that the marketing emphasis is on those who know how to edit AI results, enter emotions, and adapt to context.

"Give me a strategist who can turn a dry AI draft into a story. That's gold." (P1)

4.2.5. Theme 5: Emotional and dynamic impact of trust

The emerging topic of student interviews focused on the emotional impact of AI integration. Some students felt empowered and more secure, especially those who doubted their writing skills or for whom English was a second language.

"It's like having an English tutor and idea coach in one. I'm less nervous turning in work." (S7)

However, others expressed less self-confidence. It's easy to generate content, making them question their skills and whether they are good enough.

"I feel like I don't have real ideas anymore. Like I always need AI to validate or shape them." (S11)

"When ChatGPT writes something better than me in seconds, it's depressing." (S9)

This emotional paradox highlights broader issues of authority, values, and trust. AI might favor performance but can undermine identity, especially among young professionals still developing their creative identity.

4.3. Intergroup comparison

To provide an integrated understanding of how different stakeholders perceive the impact of AI on creativity, skills, and education development, a comparison between groups is synthesized from the most important knowledge compiled from students, teachers, skills, and education development, a comparison between groups is synthesized from the most important knowledge compiled from students, teachers, and professionals.

Table 4. Comparing the role of AI among students, teachers and professionals

Group	The perceived role of AI	Main concerns	Unique perspectives
Students	Useful help for productivity and structure	Loss of originality and personal voice	Conflict between convenience and authorship
Educators	Unavoidable but poorly regulated tool	Unclear boundaries, ethical ambiguity	Need for curriculum reform and alignment between AI and pedagogy

Professionals	Strategic need in modern marketing	Superficiality and excessive confidence in young candidates	Pursuit of human uniqueness and creative differentiation

Source: Own

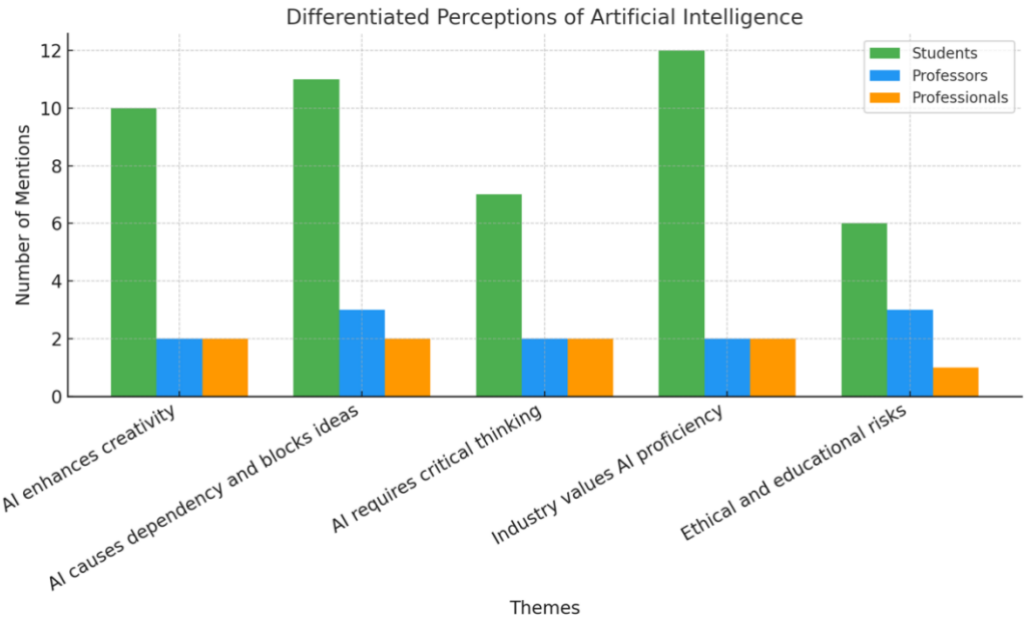
Students see it from a practical point of view. Their answers were filled with phrases like "time saving", "filling in," and "perfect drafts". However, many deeply expressed doubts about the originality and authenticity of his work. Several acknowledged that it was not clear whether their portfolios reflected their skills. Teachers are aware of the value of the tool but often feel they lack institutional support. Many commented on the lack of guidelines for evaluating work with AI and the lack of training on how to integrate AI ethically into their teaching. They feel tension between promoting academic integrity and promoting innovation. Professionals, on the other hand, are pragmatic. The AI competency is now an admission requirement. They said that a candidate is distinguished from someone else, not by fluency, but by the ability to move forward. Professionals are looking for marketers who can critically improve AI-created projects, understand the context, and include an appropriate brand narrative.

In summary, three groups agree on the usefulness of AI. However, their main concerns are different: students are interested in self-incompetence and authority; educators in evaluation and objectivity; and professionals in depth and uniqueness.

To optimize the understanding of the diversity of views among the groups interviewed, the following diagram summarizes the frequency with which key issues were cited. This comparison

highlights how students, teachers, and experts perceive the role and consequences of artificial intelligence in marketing education and professional practice.

Figure 3 Differentiated perceptions about Artificial Intelligence among interviewed groups



Source: Own

4.4. Link to Literature and Discussion

The results of this study not only confirm what has already been discussed in AI education and the professional field and develop an unexplored country that reveals contradictions that many people prefer to ignore. According to Mollik (2023), these tools have become a kind of technological "CO-driver" that improves our capacities and accelerates processes to a level unimaginable ten years ago. Although he does not use the term "another brain," this idea of artificial expansion of our minds, especially in the case of creativity and decision-making, on every

line of his analysis. And here things are getting interesting: what we see for students exceeds the academic. We discover a disturbing addiction that no one discusses frankly, not only is it practical, but also emotional and even cognitive. Things like the S6 are symbolic: he admitted with real fear that AI "stole" his ability to think of himself, as if they were gradually amputating some of his creativity. It fits a ring with a finger with what Care (2024) calls "creative detachment", but with a darker tone: not only is it a detachment, but also a loss of identity.

There was less conduction in Bormane and Blaus (2024), homogenizing the content. The teachers we interview are seen every day: work that looks like the same factory where students vote diluted in layers of automatic correction. " It seems they have been written by robots," the master told us in frustration. Rivera-Montaño (2023) receives another VRI: AI can optimize processes, but the soul starts creative projects. And this is not a theory: the professionals live it in their flesh and see how perfectly the campaigns fail due to lack of authenticity. But the problem does not end. The high cognitive (Chicaica Guayta et al., 2024) is no longer an academic concept but a disturbing reality. Students admit without charge that they are no longer investigating who is no longer analyzing who is no longer in doubt. " What to do if AI is better and faster," he told us. The problem is that it’s not free: the more we delegate to machines, the more atrophy. And the industry data is clear: new generations, when the labor market with critical deficiencies it had not had before. Here is the most distant finding: an emotional impact that no one measures. While other researchers focus on technical skills, our study reveals how AI creates an isolated digital generation. It is no longer just a tool: it has become a kind of distorted mirror: it tells you what you want to hear, works when you rest, never confuses you ... but at the same time, it is disconnected from reality. Several participants described feeling "paradoxical loneliness": virtual participants 24 hours a day, but even further away from their people.

What makes this study unique is that it does not stay in the classroom. We cross-referenced data from students, teachers, and traders, and the picture that emerges is much more complicated than expected. On the one hand, there is an obvious tension: teachers ban vs. companies that require it. On the other hand, there is a lack of opportunities: no one teaches these tools in a truly strategic way. And there is an unpleasant question among all this: do we make professionals or just train advanced AI users?

Finally, although our findings partially coincide with previous studies, we put on the table what nobody will talk about: how AI defines not only processes but also a complete professional identity. How to establish a relationship with the love regime where technological dependence clashes with authenticity. And above all, the same term of "artificial intelligence" changes radically depending on who uses it, whether a student looking for an easy way or a professional trying to keep up with an increasingly competitive market. The bottom line is clear: it’s no longer just a question of efficiency. These are the cultural changes we underestimate and the consequences we have just begun to see. And like every technological revolution, it creates promises and dangers that we cannot afford to ignore.

4.5. Expanded summary of key ideas

This chapter has not only mapped how AI is revolutionizing learning and practice in marketing, but it has also uncovered the uncomfortable contradictions that no one wants to admit aloud. Through a raw thematic analysis, five realities emerged that paint a much more complex picture than the simple "AI makes everything better". Here, there are no half measures: we are

facing a radical transformation that is rewriting the rules of the game, for better and for worse. The key findings are as revealing as they are worrying:

Efficiency has a price: Students use AI as a magic wand to generate ideas and polish work in record time, but then they get the feeling of having cheated. The result may be impeccable, but it tastes like plastic. What's the point of a perfect project if it doesn't carry your imprint?

We are raising a generation of "editors" rather than thinkers: The skills that were once at the heart of marketing research, thoroughly connect abstract ideas, synthesize information, are now rusting. Instead, fast engineering dominates, prompting, adjusting outputs, and retouching what the machine generates. The problem? When the cognitive muscle is not exercised, it atrophies.

Teachers are sailing blind: They recognize that AI is here to stay, but they walk without a compass: no clear policies, no real training, no tools to detect ethical vs. cheating uses. Meanwhile, there is a silent battle in the classroom between those who ban ChatGPT and those who ask to use it "with moderation". Chaos.

The industry doesn't want human robots: As much as companies demand AI mastery, what they're looking for is what AI can't give: strategy with sense of smell, originality that breaks down molds, and that emotional intelligence that turns data into real connections. Ironies of fate: the more tools we have, the more they value humanity.

AI's emotional rollercoaster: It strengthens the insecure (I can finally produce something decent!), but at the same time robs them of confidence in their voice. It is a perverse psychological game: it gives you wings while convincing you that you can not fly alone.

The post-IA professional is not the one who uses technology, but the one who master's it without selling it: The future belongs to those who know how to hack the system, using AI as a

shuttle, but injecting critical vision, wild creativity, and that human something that machines will never replicate.

The final message is clear: either we integrate AI with intelligence-fostering critical thinking, authenticity, and balance-or we end up forming a generation of glorified machine assistants.

Methodological note

Transparency: All participants knew exactly what they were getting into- the study was voluntary, anonymous (we use codes instead of names), and fully confidential. Two pilot interviews served to refine the questions but did not enter the final analysis to avoid bias.

The process was not linear: The interview guide was born from literature but evolved with the contributions of the participants themselves. When unexpected topics began to surface (such as the technology imposter syndrome), we added deeper questions to explore them.

Coding without shortcuts: No automated analysis. Each topic emerged from reading and rereading transcripts, comparing patterns, and discussing team interpretations. A slow artisanal process, but one that ensures that the findings reflect real voices, not assumptions.

Why does this matter? Because in such a hot topic as AI, where everyone has agendas, methodological rigidity was our antidote to bias. Data is data-whether we like it or not.

In essence, this is not another chapter on educational technology. It’s an unedited picture of how AI is redefining identities, unbalancing systems, and forcing us to choose what kind of professionals-and humans-we want to be.

5. Practical Implications and Conclusion

The results of this study offer valuable insights into how higher education institutions, educators, and industry professionals can adapt to the evolving role of artificial intelligence (AI) in marketing education. As I continue to develop my understanding of how students study, develop, and prepare for a future career, this section describes the strategic, educational, and ethical considerations needed to maximize their benefits while minimizing my understanding of how students study, develop, and prepare for a future career, this section describes the strategic, educational, and ethical considerations needed to maximize their benefits while minimizing risk.

5.1. Educational and Pedagogical Implications

This study highlights the urgent need to reform the educational approach for integrating AI. Many students described AI as a two-note sword that improves productivity and potentially inhibits their independent thinking and creativity. The student caught this feeling:

"Sometimes I don’t think as deeply. It’s reduced my creativity-I don’t brainstorm much myself because AI gives answers." (S3)

This quote repeats concerns that Chicaica Guayta et al. (2024) A warning that critical dependence on the United Nations can reduce skills such as critical analysis, synthesis, and creativity. Therefore, reading skills should exceed the basic use of instruments and focus on critical obligations. Teachers should develop curricula that involve partners, not as a means of

compensation. T3 reflects: "I asked them to compare AI-generated marketing emails with human-written ones and critique both. It worked, but only with the more committed students."

Educational strategies should include: a journal reflecting students' choices; Cooperative tasks in which students must identify and justify their contribution; And relative reviews of exercises where AI and human labor are relatively valued. This practice aligns with Creely et al. (2025), which addresses AI's behavior toward the agent's "Co-author" class, fostering a deeper connection to the content. aligns with Creely et al. (2025), which addresses AI's behavior toward the agent's "Co-author" class, fostering a deeper connection to the content.

5.2.Vocational training and Employability

Interviews with industry professionals revealed a growing gap between the technical competence of AI and the type of value that employers appreciate from an original and strategic point of view. Although the future is expected, it is not enough. As emphasized in P2:

"I expect them to use AI. But I'm really hiring the one who knows how to challenge AI outputs and make them better."

This opinion requires a list of educational institutions. Students need not only to learn how to use AI, but also to criticize, improve, and integrate their production in a personal way and strategies. Ameen et al. (2023) say similarly that traders who improved AI need to develop a set of dual skills: machine fluidity and emotional intelligence. Race centers should offer seminars that simulate real-world challenges with limited or late access to AI to promote resilience and originality. Portfolio development should also be highlighted by the student's decision-making process, not just outcomes enhanced by AI.

5.3.Institutional Policy and Governance

This study revealed the uncertainty and lack of policy from major institutions for the use of AI. Many students reported receiving mixed messages, such as:

"Some professors let us use it and even encourage it. Others act like it’s cheating. I just want clarity." (S8)

Education repeated these concerns. T2 indicated:

"Honestly, I don’t know how to evaluate assignments anymore. Did they write it? Did ChatGPT? The line is blurry, and the school has not really addressed it."

Bonds et al. (2024) claim that institutional reactions to AI are often inconsistent and unpredictable. Disputes:

"The field needs more than innovation; it needs ethical integration, pedagogical guidance, and stronger inter-institutional dialogue" (p. 12).

Authorities need to be clear and coordinated across all programs. They should find out the authorized tools, the corresponding attributes, and the effects of originality and abuse. Policies must support teacher education and student seminars to ensure common understanding. Policy documents should include examples of use, grey areas, and reflection issues to control the ethical use of AI.

5.4.Emotional Impact and Student Identity

One of the most compelling findings in this study concerns the emotional and psychological effects of AI on students. Several participants expressed discomfort or loss of confidence in comparing their work with AI content. S9 Acknowledges:

"When ChatGPT writes something better than me in seconds, it’s depressing."

These concerns outweigh academic performance. Looking at Bearman et al. (2023), the current talk of higher education tends to focus on functional or instrumental aspects, leaving the effects of emotions, identity, and state of state that arise in the daily use of these technologies. The sense of identity, authority, and value is being challenged by increasingly skilled AI systems. Educational practices must directly address these concerns. Reflective essays on creativity, authority, and confidence can help students express their experience. Discussion forums can normalize uncertainty and promote peer support. Educators should confirm their expressions and recognize emotional work in creative tasks. Digital faith, voting seminars, and vulnerability can also help students restore agency.

5.5.Digital Equity and Access

Studies also emphasize inequality in access to AI tools. While some students used advanced platforms, such as DeepSeek, they had limited access or understanding. Henadirage and Gunarathne (2025) emphasize how digital departments exacerbate educational inequalities and say:

"Digital infrastructure and access remain uneven, shaping the degree of AI adoption in higher education" (p. 267).

The authorities must take responsibility for reducing this gap. Strategies may include institutional licensing for key tools, basic and advanced programs for AI authors, and an alternative design with low-access students. Evaluation names should consider multiple levels of AI and digital flow to ensure equity.

5.6. Summary of Stakeholder Impacts

Table 5. Summary of Stakeholder Impacts and Recommended Responses

Stakeholder	Key Insight	Recommended Response
Students	Feel both empowered and displaced by AI	Foster emotional literacy and digital self-awareness
Educators	Face policy ambiguity and assessment challenges	Provide professional training and institutional guidance
Professionals	Seek originality, critical thinking with AI fluency	Update employability training to reflect dual expectations

Institutions	Struggle with governance and equity	Create clear policies and promote inclusive infrastructure

Source: Own

5.7.Conclusion

AI not only transforms educational tools, but it also has an educational identity. This affects how students perceive their competence, how teachers evaluate learning, and how professionals separate their talents. While AI offers opportunities for productivity and experimentation, it also creates challenges related to authority, originality, and trust. The results of this study confirm that the future of marketing training must find a subtle balance: use the potential of AI without compromising people's creativity, ethics, or emotional depth. As Mollick (2024) states:

"AI is not an answer. It is a partner asking us better questions."

In this spirit, teachers need to teach students not only how to use AI, but also how to question it, criticize, and confirm their voice. This is an intelligence-based.

6. Limitations and Suggestions

6.1.Study Limitations

Although this study generated rich, quality data, they are not exempt from constraints. First performed for a short time (April 2025) and therefore cannot perceive long-term changes in behavior or education. Secondly, all participants belonged to the same academic program at the European Business School, which may not reflect a wider cultural or institutional background. In addition, most participants had at least a moderate digital shift, which may have limited their perspectives. The interviews were conducted in English, which may have limited a participant's ability to express a complex emotional or cultural experience. Finally, the qualitative nature of research results depends largely on self-information and may be influenced by social convenience or retrospective bias.

6.2.Suggestions for Future Research

Given the emerging and evolving nature of AI in education, future research should:

Conduct longitudinal studies to evaluate how attitudes, dependencies, and skills develop. This would determine whether early reliance on AI diminishes or increases as students advance.

Explore intercultural contexts, especially in non-Western or resource-poor institutions. Henadirage & Gunarathne (2025) stress that barriers and enablers of AI adoption differ across the Global South.

Develop quantitative measures to assess creativity, confidence, and originality in AI-augmented tasks. Studies such as Fu et al. (2024) suggest that AI changes the cognitive pathways involved in divergent thinking.

Focus on the experiences of educators, particularly how they design assessments, support students' creativity, and manage ethical tensions.

Explore emotional effects like impostor syndrome, dependency, or loss of creative identity. Jose et al. (2025) suggest using mixed method designs to gather psychological and behavioral data.

Experiment with co-designed modules where students and educators collaborate to shape how AI is integrated. Participatory approaches may reveal needs or tensions that have been overlooked.

Test instructional interventions such as reflective journals, peer review of AI results, or role-play exercises that simulate the client’s work in real time without AI. These can foster resilience and critical awareness.

6.3.Final Reflection

This research contributes to the growing body of research that recognizes AI not only as a tool but also as a shift in how learning, authorship, and creativity are understood. Its power lies not only in its production, but also in the way it shapes the thought process itself. To keep education relevant and humane, we must design systems that embrace AI while protecting and nurturing the unique capabilities of human students.

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8. Appendices

Appendix A. Pilot Interview Transcriptions

OLVIA INTERVIEW

[Gabriela Sofia Bedoya Castillo] 17:02:56

Okay, the reason for this study is that I'm doing a GPS on how much study guides affect marketing students. I'm interviewing you because this is a pilot interview. So...

[Gabriela Sofia Bedoya Castillo] 17:03:14

Your answers won't be used in the official GPS; they're just to weed out inconsistencies in certain questions and...

[Gabriela Sofia Bedoya Castillo] 17:03:23

How people develop when asked, okay.

[Olvia] 17:03:26

Okay.

[Gabriela Sofia Bedoya Castillo] 17:03:28

Later, I might interview you again. They'll be considered, but it doesn't mean you can't answer freely. Right now, I just want to analyze something. I won't judge your questions or answers, so answer honestly. It's fine.

[Olvia] 17:03:38

Mhm.

[Gabriela Sofia Bedoya Castillo] 17:03:48

Ready. So, the first one is...

[Olvia] 17:03:48

Okay Okay.

[Gabriela Sofia Bedoya Castillo] 17:03:53

Okay, right now, you're a master's student. What program are you in?

[Olvia] 17:03:57

Right now, I'm studying a Master's in Digital and Strategic Marketing.

[Gabriela Sofia Bedoya Castillo] 17:04:05

Okay, which semester? Okay, good. First question: I told you about the study—what AI tools like ChatGPT, Midjourney, or Copilot do you use in your marketing academic projects?

[Olvia] 17:04:08

It's the last one. Yeah.

[Olvia] 17:04:22

I use several. I've been using ChatGPT, Copilot, Gemini, and sometimes...

[Olvia] 17:04:26

I recently discovered DeepSeek, so I've been using that a lot too.

[Gabriela Sofia Bedoya Castillo] 17:04:31

Okay, describe how you typically use them.

[Olvia] 17:04:37

Well, generally, depending on the project, I tell them I'm a student and have an assignment for X class...

[Olvia] 17:04:48

I describe what I want them to do, and then I compare responses between ChatGPT and DeepSeek to see which is more coherent.

[Gabriela Sofia Bedoya Castillo] 17:04:59

What? The grade?

[Olvia] 17:05:03

Yeah, it's fine.

[Gabriela Sofia Bedoya Castillo] 17:05:05

Describe a specific project where you used guides [AI]. How important was their role?

[Olvia] 17:05:14

I think the online essay...

[Gabriela Sofia Bedoya Castillo] 17:05:18

Mhm.

[Olvia] 17:05:18

We had to read many articles. I gave it the links, and it gave me a summary.

[Olvia] 17:05:26

Then I asked it for key points to make it more concise and tailored to my essay.

[Gabriela Sofia Bedoya Castillo] 17:05:34

How would you describe how AI changed your creative process?

[Olvia] 17:05:41

I think a lot. For example, last year I barely used it. I started using it more in this master's program...

[Olvia] 17:05:49

But yes, I've become a bit dependent. I still research things myself...

[Olvia] 17:05:54

But I ask the AI first and build from there.

[Gabriela Sofia Bedoya Castillo] 17:06:03

Compared to working without AI, what differences do you notice in the originality of your ideas? Do they feel like your own?

[Olvia] 17:06:14

I feel like I rely a lot on what the AI says. Sometimes I have the idea but don't know how to develop it...

[Olvia] 17:06:21

So I ask for help. I think it's 50/50.

[Gabriela Sofia Bedoya Castillo] 17:06:28

Okay.

[Gabriela Sofia Bedoya Castillo] 17:06:35

Have you faced situations where AI limited your creativity?

[Olvia] 17:06:41

I don't think so.

[Gabriela Sofia Bedoya Castillo] 17:06:44

Okay. Have you ever felt limited in creativity during your marketing studies? Did you seek alternatives without AI?

[Olvia] 17:06:48

Mhm.

[Gabriela Sofia Bedoya Castillo] 17:07:00

Without AI.

[Olvia] 17:07:03

Can you give an example? I didn't fully understand the question.

[Gabriela Sofia Bedoya Castillo] 17:07:06

For example, say you must create campaigns for a brand. If you had no ideas for objectives, what alternatives would you try besides ChatGPT?

[Olvia] 17:07:22

I'd go to Google and research...

[Olvia] 17:07:27

Rewards, margins, or see what others are doing with campaigns, then draw ideas from there.

[Gabriela Sofia Bedoya Castillo] 17:07:38

What skills do you think are being lost or reinforced by using AI in your education?

[Olvia] 17:07:45

I think it's reinforcing diversity or...

[Olvia] 17:07:50

...the ability to do things faster.

[Olvia] 17:07:54

For example, companies using AI for commercials. It's super interesting because that process is usually long.

[Gabriela Sofia Bedoya Castillo] 17:08:05

Mhm.

[Olvia] 17:08:05

But I think it's also making us lazier...

[Olvia] 17:08:14

We're relying too much on it, and our judgment is shifting toward what ChatGPT says.

[Gabriela Sofia Bedoya Castillo] 17:08:22

Okay, that's all. Thank you for the interview!

[Olvia] 17:08:27

No problem!

MARIA INTERVIEW

[Gabriela Sofia Bedoya Castillo] 17:18:37

So... Good afternoon. First...

[Gabriela Sofia Bedoya Castillo] 17:18:44

What tools do you use? Even though it's a pilot, don't worry—answer honestly. Your answers won't be judged. It's purely informational. Feel free to be completely open.

[Maria Usuga] 17:19:00

Okay.

[Gabriela Sofia Bedoya Castillo] 17:19:02

First question: What tools like ChatGPT or Midjourney do you use in your marketing academic projects?

[Maria Usuga] 17:19:10

Well, ChatGPT is the main one. Lately I've used DeepSeek...

[Gabriela Sofia Bedoya Castillo] 17:19:17

Mhm.

[Maria Usuga] 17:19:20

Sometimes when ChatGPT doesn't work, I use Gemini.

[Gabriela Sofia Bedoya Castillo] 17:19:26

Describe how you use these tools in your projects.

[Maria Usuga] 17:19:35

For very long documents, I input them to get summaries.

[Gabriela Sofia Bedoya Castillo] 17:19:45

Mhm.

[Maria Usuga] 17:19:47

Otherwise, I use them for numbers, math, measurements, graphs, etc.

[Maria Usuga] 17:20:02

Sometimes for email drafts—not to write them, but to get ideas.

[Gabriela Sofia Bedoya Castillo] 17:20:19

Describe a specific project where you used AI and its role.

[Maria Usuga] 17:20:25

Well, different university projects, but mainly for Salesforce...

[Gabriela Sofia Bedoya Castillo] 17:20:41

Okay.

[Maria Usuga] 17:20:50

I wasn’t clear on the topic, so I relied heavily on AI for clarity and answers.

[Gabriela Sofia Bedoya Castillo] 17:21:04

Next question: How has your creative process changed using AI?

[Maria Usuga] 17:21:13

Years ago—well, last year—I never used AI. I thought it reduced people’s thinking...

[Maria Usuga] 17:21:32

Since starting here [current studies], it's normalized. AI has made studying easier compared to my university in Medellín, where I never used it.

[Gabriela Sofia Bedoya Castillo] 17:22:05

How do you feel your creativity changed?

[Maria Usuga] 17:22:11

Sometimes I don't think as deeply. It's reduced my creativity—I don't brainstorm much myself because AI gives answers.

[Gabriela Sofia Bedoya Castillo] 17:22:37

Compared to working without AI, what differences do you see in your ideas' originality?

[Maria Usuga] 17:22:50

Ideas felt more natural without AI. I had to research my own ideas. Now, AI makes everything faster and easier—no thinking needed.

[Gabriela Sofia Bedoya Castillo] 17:23:26

Have you faced situations where AI limited your creativity? For example, having an idea but feeling unable to develop it without AI?

[Maria Usuga] 17:23:47

I think yes. I've gotten so used to AI that it might limit me later...

[Maria Usuga] 17:24:06

I'll feel the need to ask it things. Since it has all the answers, I won't spend time [thinking].

[Gabriela Sofia Bedoya Castillo] 17:24:18

How do you handle this? What alternatives do you seek?

[Maria Usuga] 17:24:43

For written work, sometimes I avoid AI. I search resources myself, read pages, and generate original ideas. AI often gives similar answers to others.

[Gabriela Sofia Bedoya Castillo] 17:25:18

What skills are being lost or reinforced by AI in your education?

[Maria Usuga] 17:25:38

Reinforced: Proactivity and efficiency. AI makes work faster and more reliable.

[Maria Usuga] 17:26:19

But it promotes laziness... Loss of critical thinking and reading.

[Maria Usuga] 17:26:39

Honesty is lost too—people copy-paste without studying.

[Gabriela Sofia Bedoya Castillo] 17:26:56

That’s all. Thank you! This is a short study to develop better questions later.

[Maria Usuga] 17:27:06

Got it.

CAROLINA INTERVIEW

[Gabriela Sofia Bedoya Castillo] 18:04:04

I'll explain: This interview is for my GPS about how AI affects marketing students' creativity.

[Andrea Carolina Rodríguez Herrera] 18:04:16

Okay.

[Gabriela Sofia Bedoya Castillo] 18:04:17

This is a pilot interview. Your answers won't be used in the final GPS. Still, be honest. You'll be re-interviewed later. Your responses won't be judged—it's purely research.

[Andrea Carolina Rodríguez Herrera] 18:04:47

Ready!

[Gabriela Sofia Bedoya Castillo] 18:04:53

Start by telling me what you study and your current semester.

[Andrea Carolina Rodríguez Herrera] 18:05:08

I studied Business Administration, Marketing, and Digital Business. Now I'm in a Master's in Management—first semester, Digital and Strategic Marketing track.

[Gabriela Sofia Bedoya Castillo] 18:05:49

What AI tools like ChatGPT or Midjourney do you use in academic projects? How?

[Andrea Carolina Rodríguez Herrera] 18:05:56

Just Gemini. I use it to structure ideas or understand topics before continuing work.

[Gabriela Sofia Bedoya Castillo] 18:06:16

Describe a specific project where AI played an important role.

[Andrea Carolina Rodríguez Herrera] 18:06:35

For a Strategic Management project on Tesla...

[Andrea Carolina Rodríguez Herrera] 18:06:48

...there were too many sources online. AI helped gather specific information efficiently.

[Gabriela Sofia Bedoya Castillo] 18:07:06

How has your creative process changed using AI?

[Andrea Carolina Rodríguez Herrera] 18:07:20

It saves time in research and summarizing long texts. Without AI, finding specific points would take longer.

[Gabriela Sofia Bedoya Castillo] 18:08:14

Compared to working without AI, what differences do you see in your ideas' originality?

[Andrea Carolina Rodríguez Herrera] 18:08:31

Lately, it's harder to be original. Compared to others using AI, thought processes feel similar...

[Andrea Carolina Rodríguez Herrera] 18:09:04

It limits my creativity and imagination. AI feels like a safe, easy path—people use it to save time or get risk-free answers.

[Gabriela Sofia Bedoya Castillo] 18:09:37

Have you faced situations where AI limited your creativity? For example, couldn't develop an idea, or felt dependent on AI?

[Andrea Carolina Rodríguez Herrera] 18:09:52

The second case. Sometimes I felt uninspired, so I used AI. But I felt frustrated not being able to develop ideas myself.

[Gabriela Sofia Bedoya Castillo] 18:10:37

How do you handle this? What non-AI alternatives do you use?

[Andrea Carolina Rodríguez Herrera] 18:10:53

I used to use mind maps: writing a topic and connecting ideas with pen and paper.

[Gabriela Sofia Bedoya Castillo] 18:11:16

What skills are being lost or reinforced by AI in your education?

[Andrea Carolina Rodríguez Herrera] 18:11:33

Reading comprehension and concentration are being lost. People struggle with long texts or videos.

[Andrea Carolina Rodríguez Herrera] 18:12:27

In marketing, many companies now create campaigns (e.g., images, copy) with AI—replacing creative roles.

[Gabriela Sofia Bedoya Castillo] 18:12:57

What is AI reinforcing in your education?

[Andrea Carolina Rodríguez Herrera] 18:13:14

Processing information more efficiently. It’s a huge help.

[Gabriela Sofia Bedoya Castillo] 18:13:31

Perfect. That's all. Thank you!

Appendix B. Informed consent

Informed consent form

Research Study: *"The Impact of AI Tools on Creativity and Skill Development in Marketing Students"*

This research study seeks to understand how AI tools are influencing the way marketing students work, create, and develop skills. It is not only about evaluating the use of technology, but also about understanding how it shapes learning and creativity in academic settings. Participation in the study involves a short interview of approximately 15 to 20 minutes, which can be conducted either in person or virtually. During the interview, you will be asked questions about your experience using AI tools such as ChatGPT, Midjourney, or others in your academic work. With your permission, the interview will be audio-recorded to ensure accuracy in the analysis of your responses.

The total time commitment for this interview will not exceed 20-30 minutes.

Regarding confidentiality, your name will be used unless you prefer to remain anonymous. If that is the case, please inform the researcher, and a pseudonym (e.g., "Student A", "Marketer A", "Professor A") will be used instead. All data, including recordings and notes, will be stored securely in a password-protected folder accessible only to the researcher, Gabriela Bedoya, and authorized academic supervisors. **The audio recordings will be permanently deleted after they have been transcribed, and the research has been qualified by December 2025**. The results of this study may be included in academic publications or presentations, but no identifiable personal information will be disclosed.

Your participation is entirely **voluntary**. You are free to skip any question or withdraw from the interview at any point, without any consequence or penalty. Declining to participate will not affect your academic performance or standing in any way.

If you have any questions or concerns regarding this study, please contact the researcher, **Gabriela Bedoya, at gabriela-sofia.bedoya-castillo@rennes-sb.com or by phone/WhatsApp at +33 07 08 48 44 46.** You may also contact the academic supervisor, **Prof. Rod McColl, at rod.mccoll@rennes-sb.com**.

By agreeing to participate, you confirm:

- You are **over 18 years old**
- You **understand the purpose and procedures of the study**
- Your participation is voluntary
- You consent to **audio recording** when applicable.

Name: _____

Date: _____

Signature:

Appendix C. Questions for the Students

Questionnaire

Theme 1: AI Integration in Learning

1. Do you use AI tools in your studies? How often and for what kinds of tasks?

Follow-up:

- "Has your usage increased or changed over time?"

2. "Walk me through how you typically use AI tools in your marketing courses. What specific tasks do you delegate to AI versus complete manually?"

Follow-ups:

- "Can you describe a recent assignment where AI played a key role?"
- "How do you decide when *not* to use AI?"

3. "Describe a moment when AI significantly altered your approach to a creative marketing task (e.g., campaign design, branding). What changed?"

Theme 2: Creativity & Originality

4. "Compare two projects: one where you relied heavily on AI and another where you worked without it. How did the creative outcomes differ?"

Follow-ups:

- "Which version felt more authentically 'yours'? Why?"
- "Did peer or professor feedback differ between these projects?"

6. "Have you ever felt pressured to conform to AI-generated ideas because they seemed 'safer' or more academically acceptable? Describe that experience."

Theme 3: Skill Evolution

6. "What marketing skills have you noticed improving or declining since using AI tools? Give concrete examples."

Follow-ups:

- "How has your brainstorming process changed?"
- "Do you still practice skills like manual data analysis or copywriting?"

7. "Imagine mentoring a new student: how would you advise them to use AI without stifling their creative growth?

Appendix D. Questions for the Professors

Questionnaire

Section 1: AI Adoption in Teaching

1. Do you personally use AI tools in your teaching or research? If so, which ones and for what purposes?

- *Probe:* Has your own use of AI influenced how you teach about it?

2. How do you guide students in using AI? Do you set explicit boundaries or encourage experimentation?

- *Probe:* Can you share your syllabus policy on AI use?

3. Have you modified assignments since AI became prevalent? What changes have you made and why?

- *Probe:* Describe an assignment that became obsolete due to AI.

Section 2: Observing Student Impacts

4. What specific signs indicate to you that a student is over-relying on AI?

- *Probe:* How does this affect their class participation or exam performance?

5. Compare two students: Pre-AI (before 2022) and post-AI. What differences stand out?

6. Have you noticed any generational differences in how students adapt to AI (e.g., traditional vs. digital-native students)?

Section 3: Preserving Creativity

7. Which could be a 'success story' where a student used AI in a way that genuinely enhanced their creativity.

- *Probe:* What made this case different from typical AI use?

8. What in-class exercises do you use to avoid the AI dependency

Appendix E. Questions for the Professionals

Questionnaire

Section 1: Workplace AI Integration

a. What percentage of your team's creative process is AI-assisted versus human-originated? Could you walk me through a typical workflow?

- Probe: "Which tasks are still 'AI-proof' in your experience?"

b. When evaluating AI-generated marketing content, what tells you it lacks human creativity?"

- Probe: "Share an example of when you rejected AI output for being 'too generic'.

c. How do you onboard new hires regarding AI use? What's explicitly encouraged vs. forbidden?

- Probe: "Have you fired anyone for misusing AI? What happened?"

Section 2: Creativity Redefined

d. Share a campaign where AI contributed meaningfully to the creative concept (not just execution). **How was the human-AI collaboration structured?**

e. Do you conduct 'AI vs human' creative tests? If so, **what have you learned about their respective strengths?**

f. How has AI changed what you consider 'entry-level' versus 'senior-level' creative skills in your team?

Section 3: Preparing Future Marketers

g. When reviewing recent graduates' portfolios, what shows **they can think beyond AI templates?**

- *Probe:* "Share an example that impressed you.

h. What's your #1 advice for students about developing a 'creative signature' in the AI era?"