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Productivity and creativity: exploring the use and appropriation of artificial intelligence in contemporary communication in Mexico

Productividad y creatividad: explorando el uso y la apropiación de la inteligencia artificial en la comunicación contemporánea en México

Produtividade e criatividade: explorando o uso e a apropriação da inteligência artificial na comunicação contemporânea no México

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This study analyzes the perception of a group of Mexican users regarding artificial intelligence, highlighting its use to enhance productivity and creativity. Through a survey of 327 participants, preferred tools and motivations for use are explored, revealing a strong dependency and ethical concerns. It underscores the need for clear policies to ensure the responsible use of AI, significantly contributing to communication studies by emphasizing the balance between benefits and ethical implications.
Keywords: Artificial intelligence, productivity, ethics, digital innovation, creativity.

Este estudio analiza la percepción de un grupo de usuarios mexicanos sobre la inteligencia artificial, destacando su uso para incrementar la productividad y la creatividad. Mediante una encuesta a 327 personas, se exploran herramientas preferidas y motivaciones de uso, revelando una fuerte dependencia y cuestiones éticas. Resalta la necesidad de políticas claras para un uso responsable de la IA y contribuye significativamente a los estudios de comunicación al enfatizar el equilibrio entre beneficios e implicaciones éticas.
Palabras clave: Inteligencia artificial, apropiación, ética, innovación digital, creatividad.

Este estúdio analisa a percepção de um grupo de usuários mexicanos sobre a inteligência artificial, destacando seu uso para aumentar a produtividade e a criatividade. Mediante uma consulta a 327 pessoas, ela explora ferramentas preferidas e motivações de uso, revelando uma forte dependência e questões éticas. Ressalta a necessidade de políticas claras para um uso responsável da IA, contribuindo significativamente para os estudos de comunicação para enfatizar o equilíbrio entre benefícios e implicações éticas.
Palavras-chave: Inteligência artificial, apropriação, ética, inovação digital, criatividade.

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Introduction

Digital environments have undergone significant changes since the emergence of commercially accessible artificial intelligence (AI) tools in the last third of 2021. While these systems generate comprehensible discourses, narratives, and operations, their most profound impact can be seen in the cognitive shifts they provoke in knowledge-based societies (Russell & Norvig, 2022).

Particularly, the use and appropriation of AI offer advantages in terms of efficiency and interaction, but they also raise significant ethical considerations and challenges for consumer protection (Malodia et al., 2024). Moreover, the accelerated technological development of AI presents risks such as consumer and user manipulation, dependence on intelligent technologies, and the potential reduction of human and cognitive skills (de Marcellis-Warin et al., 2022).

Practically every day, without exception, new information about AI emerges, whether due to its transformative impact on activities historically carried out by highly trained humans, which can now be completed in a matter of seconds (e.g., text creation, stylized images, or videos), or due to the broader social perspectives stemming from the sustained use of these systems at a macro level (e.g., solving tasks across all levels of academic education) (Virvou, 2023).

The use of artificial intelligence tools has become increasingly common across various industries, sectors, and countries, including Mexico, raising concerns about its impact on consumers and their decision-making processes. So much so that communication and strategic marketing specialists are progressively leveraging AI-based recommendation systems to assist consumers in making purchasing decisions, without considering that this may negatively impact consumers' intentions to engage in eco-friendly consumption by reducing their motivation to manage impressions and to buy sustainable products (Swan, 2022). Counter-algorithms and self-assessment tools are positioning themselves in the market as potential solutions to address the ethical risks associated with AI algorithms (Lu et al., 2023).

An aspect that has drawn attention is the potential influence of artificial intelligence tools on users' creativity and innovative thinking

(Lopezosa et al., 2023). For this reason, this paper aims to explore the initial profile of users employing artificial intelligence tools in Mexico and examine whether these tools act as enhancers of new ideas or as creative crutches supported by the premise of increased productivity and efficiency.

The study investigated the use and appropriation of this technology to reflect on the impact of artificial intelligence on users' creative thinking processes and their trust in these tools to generate innovative solutions. By understanding the initial profile of AI users in Mexico and their relationship with creativity and innovation, insights were gained into the implications of AI adoption on individuals' creative capacities and the development of new ideas.

With this in mind, this research provides an initial overview of Mexicans who are using such tools more intensively, as well as identifying the most popular platforms and applications among users and the ethical perspective they reported having when utilizing these tools.

Theoretical framework

The use, consumption, and appropriation of information technologies are essential aspects of adoption and success in the socio-digital lifecycle. This is particularly evident in the case of disruptive and exponential technologies like artificial intelligence, which have rapidly become cognitive, creative, and analytical assistants in contemporary society. Users tend to adjust their expectations of technological appropriation based on several factors, including adopting trial-and-error strategies to find ways to use the device that best align with their needs and goals, personalizing the technology for their requirements, previous experiences with other technologies, the perceived utility of the new device, and their ability to adapt to its limitations (Zamani & Pouloudi, 2019). When users face moments of disillusionment with a new technological artifact, they may choose to modify their expectations and behaviors to maximize the benefits obtained from its use (Pinto & Filgueiras, 2023).

Appropriation, therefore, involves personalization and adaptation, influenced by social, cultural, and technological factors, including

implementing alternative solutions or workarounds (Zamani et al., 2022) to overcome the inherent limitations of the technology. This enables reevaluation or rejection, making technological appropriation a dynamic process where users' expectations adjust to their experiences and the context or place where they use the applications. This process is essential to understanding how technologies align with users' identities and digital content production, modifying and adapting them to their specific needs, experimenting, creating new applications, or inventing unanticipated uses. This reflects the active and creative process of technological appropriation (Payen et al., 2021).

The appropriation of applications and platforms inherently involves experiential learning through manipulation, collaboration, cooperation, intercultural exchange, production, and creation. Through such manipulation and comprehension, users generate new knowledge (Carabaza González, 2011). Understanding the process of appropriation is essential for grasping the role of information technologies in shaping identity, as well as in the creation and consumption of digital content. This process involves both the symbolic and practical dimensions of technology, blending cultural practices that foster a sense of belonging and identity. As such, appropriation becomes a socially significant activity, deeply embedded in the ways individuals and communities relate to digital tools and content.

Appropriation tends to vary significantly, according to the literature, depending on the user group (e.g., young people, professionals, or academics). Studies such as that of Chao-Rebolledo and Rivera-Navarro (2024) have identified differentiated usage between academic-didactic contexts versus student applications for task completion, information search, and idea development. These studies have highlighted positive perceptions from educators, who recognize the potential for improvements in the teaching-learning process, while students express more moderate skepticism.

Mexican users of AI tools, in particular, favor them for enhancing productivity and creativity, especially in text and image production. Pérez Salazar (2023) acknowledges the value of these tools for teaching and the development of academic materials, but also highlights key limitations, including the absence of real-time information, biases in

training data, and challenges in maintaining context during extended interactions. These issues call for a critical approach to using AI tools, emphasizing the need for continuous verification of the generated content.

Sociocultural contexts determine usage for building identities, maintaining social connections, constructing knowledge, and fostering cohesion or creative expansion. Regarding AI, the ethical debate about these technologies remains unclear, appearing to be confined to academic discussions with legal concerns. Divided opinions exist regarding the need to restrict or sanction its use due to unclear and uninformed guidelines about its ethical employment (Chao-Rebolledo & Rivera-Navarro, 2024). This highlights the need for policies and educational programs that promote AI literacy, encouraging critical, ethical, and productive judgment. In Chan and Hu's (2023) study, ethical concerns were evident around issues such as privacy, plagiarism, and overdependence, raising concerns about the potential compromise of critical, analytical, and creative competencies due to possible overreliance.

The growing use of AI assistants marks a shift in how users access information and manage daily tasks, introducing new values around social identity and convenience. The practices and values associated with the use and appropriation of these tools are shaped by users' cultural and social capital. These differences reveal underlying inequalities in access, skills, and competencies, as well as the broader impacts of the user-technology relationship (Carabaza González, 2011).

AI-driven numerical optimization and data analysis represent significant advancements in interpreting complex information. However, users primarily turn to AI tools for reasons such as perceived utility, enjoyment, social identity, personalization, and convenience (Malodia et al., 2024). Existing literature underscores the role of information and communication technologies (ICTs) in shaping social and cultural dynamics, highlighting how their use and appropriation can offer gratification while also presenting challenges for communication research. Users even form emotional connections with voice assistants, AI systems, or avatars, linking their use to personal identity and customization.

Favorable attitudes toward using generative artificial intelligence tools stem from perceived utility, such as offering personalized support, writing assistance, analysis, and resources tailored to facilitate self-directed learning. They also support idea generation and provide immediate, personalized feedback (Chan & Hu, 2023).

Recent data suggest that users creatively engage with new technologies like AI, driven by factors such as hedonic motivation or a desire to explore. This playful value motivates both information seeking and task execution, making appropriation a creative daily act where users invent novel uses for information technologies and ultimately adopt them. Users discover creative uses either independently or by learning from others, heavily influenced by technological cognition orientation, gender, exploration orientation, frequency of use, and prior experience –key predictors of creative engagement (Salovaara et al., 2011). These creative uses are adopted by a significant portion of users, indicating a willingness to explore and experiment with new technologies.

These findings can be related to the consumption of new technologies like artificial intelligence, suggesting that users can also employ AI technologies creatively and innovatively due to perceptions of utility and enjoyment. Trust and frequency of use often moderate the relationship between perceived utility and the outcomes achieved. Frequency of use fosters competence and familiarity with the technology (Carabaza González, 2011). Consequently, users can explore and experiment with AI applications, finding new and unexpected uses for AI in their daily lives and professional activities. This user experience ultimately enhances personalization and social identity association.

Factors such as familiarity with AI, personal characteristics, and frequency of use also influence the adoption and appropriation of artificial intelligence technologies. They have also reinforced the "culture of laziness" and a sedentary lifestyle (Haryono, 2020). The ease of meeting needs quickly, efficiently, and effortlessly encourages impulsive behavior by delivering quality results and immediate satisfaction. This creative crutch is strengthened by response speed, product quality, the produced effect, and the resulting gratification.

Undoubtedly, the appropriation of AI affects society and culture, emphasizing the need for theoretical frameworks that consider the social

and cultural functions of ICTs. Topics such as creative appropriation, informal learning, appropriation contexts, technological transformation and creolization, and knowledge produced through interaction must be explored (Payen et al., 2021).

Our research seeks to explore the social and cultural roles of information technologies, the gratification they offer, and the potential challenges they present in terms of creativity and productivity through the use and appropriation of AI by Mexicans. This study aims to provide insights that can help other researchers better understand the role of technology in society, while also serving as a foundation for developing more effective and efficient communication strategies and policies.

Method

The research examined the profile of AI users in Mexico who reported using such tools at least once a week for work or school purposes. A quantitative approach was employed, utilizing digital questionnaires distributed via social media and e-mail, targeting users geographically within Mexico. The instrument was completed by 327 individuals aged 16 to 70 years (mean age 30.5 years, median 23 years, standard deviation 12.86) from 17 states of the Mexican Republic,[3] with eight out of ten respondents residing in Mexico City or the State of Mexico. This bias may be attributed to the fact that the authors teach at universities in these two regions and promoted the questionnaire among students during the study. A non-probabilistic convenience sampling method was used. Notably, 71% of respondents reported either studying or combining study and work. Consequently, the results cannot be generalized to broader populations as they reflect a specific group (workers, students, or a combination of both). Eligibility criteria included a minimum age of 13 years and the use of AI tools at least once per week. Data

[3] Mexico City (205), State of Mexico (66), Veracruz (9), Morelos (8), Puebla (8), Jalisco (7), Nuevo León (6), Guanajuato (5), Coahuila (3), Hidalgo (3), Aguascalientes (1), Chiapas (1), Durango (1), Michoacán (1), Quintana Roo (1), San Luis Potosí (1), Tamaulipas (1). Total = 327.

collection occurred from September 25 to October 25, 2023, with a response rate of 55 % (591 questionnaires initiated, 327 completed).

The questionnaire was extensively promoted during the aforementioned dates through paid advertising options on Facebook and X within Mexico. No specific keywords were used to advertise the questionnaire; instead, the platforms' algorithms were tasked with optimizing visibility for the largest possible audience. On Facebook, promotion occurred through a page managed by one of the authors, which, despite having few followers, allowed ad promotion (as this platform does not permit ads from personal accounts, only from classified "Pages"). On X, the ad was shared via a personal account of one of the authors. A total of 3 000 Mexican pesos were spent to promote the survey. The same questionnaire link was also shared among undergraduate and graduate groups at the Anáhuac, Iberoamericana, and ITAM universities. This process led to 591 people beginning the questionnaire, of which 327 completed it and were included in the analysis. The remaining 264 partially completed questionnaires were discarded.

This inherent data collection bias aligns with the study's objectives. Since the study aimed to profile, examine habits, and assess the attitudes of individuals who reported using AI tools at least once a week, those who did not use AI intensively were excluded. This group predominantly included young individuals of working age, a result partly influenced by the study methodology and the nature of the tools examined, which, at the time, were predominantly integrated into educational institutions and urban workplaces. A follow-up study targeting general populations could determine whether this trend in AI usage is widespread. For an initial profile, however, this approach was considered useful as it was not intended to represent all Mexicans who use AI tools.

Thus, the collected data may be useful for decision-making related to this specific group of people who already use AI in their daily academic or professional activities. Weekly usage was employed as a practical benchmark: using a computational program less than once a week complicates mastery or reflects that it is not significant for the user, especially in work environments.

After data collection, the dataset was downloaded as a CSV file for analysis using a spreadsheet program. Before analysis, all e-mail

addresses, IP addresses, and response timestamps were manually removed from the CSV file to maintain respondents' anonymity. To ensure detailed data analysis, each respondent was assigned a unique nine-digit identifier called "collector_id". This identifier was automatically generated by the survey platform's data collection system upon survey completion, preventing duplication or cloning and blocking users from responding to the questionnaire more than once. These security measures aim to prevent duplicate responses or attacks from bots or automated survey tools. Once the CSV file was cleaned, the data was analyzed. This anonymization ensured that all 327 respondents were treated equally, regardless of how they accessed the questionnaire (Facebook, X, or e-mail). The results presented in the next section exclusively reflect data from these 327 completed questionnaires.

The digital questionnaire comprised 24 questions divided into three sections: a) filter questions to exclude irrelevant users who did not meet the minimum age of 13 or reported not using AI tools at least once a week for study or work purposes (two questions); b) socioeconomic and demographic profile (12 questions); and c) AI usage in daily life, focusing first on reasons for use and later on ethical positioning regarding these technologies (10 questions). Data related to respondents' profiles are detailed in Table 1, while their reasons for using AI and ethical perspectives are presented in Tables 2 and 3, respectively. Given the limited research on this topic in Mexico, this questionnaire structure was considered logical for gaining an initial understanding of users of these new technological tools.

Convenience sampling was chosen due to the novelty of the study's subject. Although the results cannot be generalized beyond the sample and lack representativeness at the population level (Acharya et al., 2013), this sampling method is useful for initial explorations of a novel topic, such as the frequency and motivations for using a new technological tool. It is also frequently employed in exploratory research phases (Alaminos & Castejón, 2006). The two filters applied in the questionnaire helped select suitable cases, accelerating data collection and reducing costs –features typical of this type of sampling (Otzen & Manterola, 2017). Non-probabilistic sampling methods should not be dismissed outright as they play an orienting role (Pimienta, 2000),

especially when studying new phenomena of social significance. For the specific purposes of this study, this sampling approach was considered effective as it allowed the research to focus on the essential traits of the target population –individuals using AI tools on their electronic devices at least once a week for various tasks.

Results

The relationship between Mexican society and artificial intelligence is at a significant turning point, marked by interaction patterns that reflect demographic and social influences. The survey data shed light on how Mexicans interact with AI, offering a detailed and multifaceted perspective. The sample's demographics, dominated by women (54%) and with an average age of 30.5 years, highlight a tendency toward a young and gender-balanced population in terms of AI technology use. This female predominance in the digital sphere suggests that gender could play a crucial role in the adoption and perception of AI tools, pointing to the need for the design and development of these technologies to consider women's specific preferences and needs. The study by Chan and Hu (2023) already emphasized the importance of investigating variables such as gender, academic discipline, age, and educational level as factors influencing the acceptance and use of technologies like ChatGPT.

The sample is characterized by an average age of 30 years, with particular interest shown by young people aged 19 to 25, corresponding to the university stage in Mexico. This indicates a utilitarian approach to AI, with a significant proportion of respondents engaged in studies or combining study and work. This reflects the importance of AI as an academic and professional support tool, reinforcing the findings of Chao-Rebolledo and Rivera-Navarro (2024), and Pérez Salazar (2023). Most respondents reside in major urban areas such as Mexico City and the State of Mexico, with educational levels ranging from high school to postgraduate studies. This underscores the interest in and accessibility of technology among individuals with varying educational backgrounds.

The sample's Internet and social media usage patterns align with national trends, with participants spending between seven and nine hours online daily, as reported by the Internet MX Association (Asociación de Internet MX, 2023). This extensive digital engagement promotes constant exposure to and increasing familiarity with AI applications, especially through recommendation and personalization algorithms on social media platforms. It underscores how AI integration into users' daily lives has become pervasive, shaping both their interactions and the consumption of digital content.

This analysis reveals a complex landscape in which youth, gender, and educational level play significant roles in how AI is perceived and utilized in Mexico. It indicates a generally positive reception of the technology, driven by a young and diverse demographic group that views AI not only as a tool of convenience but also as an integral element of their education and professional development. Additionally, the prevalence of AI on digital platforms and social networks suggests adaptability and a predisposition to incorporate these technologies into daily life, paving the way for a deeper and more reflective integration of AI into Mexico's social and cultural fabric.

TABLE 1
SAMPLE DESCRIPTION*

Category	Value
Gender	
Women	54% (175)
Men	45% (148)
Non-binary, Other, or Prefer not to say	1% (4)
Daily Internet usage (hours)	
Average	8.85 (min: 2; max: 18; Std. Dev: 3.74)
Median	8 hours
Daily Internet usage by groups (hours)	
1 to 3	4% (14)
3 to 5	17% (54)

Category	Value
5 to 7	25 % (83)
7 to 9	22 % (71)
9 to 12	21 % (69)
More than 12	11 % (36)
Age (years)	
Average	30.5 (min: 16; max: 70; Std. Dev: 12.86)
Median	23 years
Age groups (years)	
13 to 18	2 % (8)
19 to 25	58 % (189)
26 to 35	8 % (27)
36 to 45	13 % (43)
46 to 55	13 % (42)
56 to 65	5 % (15)
66 or older	1 % (3)
Daily social media usage (hours)	
Average	5.18 (min: 1; max: 18; Std. Dev: 3.41)
Median	4 hours
Connected fixed and mobile devices at home	
1 to 5	36 % (118)
5 to 10	37 % (121)
10 to 15	19 % (61)
15 or More	8 % (27)
Activity	
Studies	36 % (118)
Work	28 % (92)
Studies and work	35 % (113)
None of the above	1 % (4)
Education	
Secondary school	1 % (2)
High school	58 % (191)
Bachelor’s degree	19 % (62)
Postgraduate degree	22 % (72)

Category	Value
Place of residence	
Mexico City	63 % (205)
State of Mexico	20 % (66)
Other states	17 % (56)

* The table shows the percentages and total number of respondents for each response option. Sample description: n = 327.

Source: The authors.

Motivations for use

The study highlights that 62 % of users turn to artificial intelligence to boost their productivity, saving an average of 7.02 hours per week. The standard deviation of 6.38 hours indicates considerable variability in the effectiveness of AI across different professional and academic domains. Additionally, 31.5 % of respondents use AI to generate new ideas, underscoring its value as a source of inspiration, with an average time savings of five hours per week. Predominantly, the motivation to use AI is to enhance productivity, although nearly one-third seek innovation. The estimated time savings is approximately seven hours per week, though nearly half of this time is spent adjusting AI generated content.

A small yet notable group of users employs AI for entertainment (4.5 %), stress reduction (1 %), and improving mental health (0.6 %), demonstrating AI's versatility in meeting various personal needs. Regarding specific AI tools, users prefer systems focused on text and image creation, with ChatGPT being the most used tool by 91 % of users. Other popular tools include Canva AI Tools and Google Bard (now Google Gemini), reflecting a diverse selection of AI tools tailored to different purposes. This variety illustrates the growing accessibility and adaptability of AI to a wide range of needs and preferences. Generative artificial intelligence, as noted by Chan and Hu (2023), has become a personalized and immediate support for learning when users lack access to human assistance. It serves as a writing assistant, idea generator, grammar checker, research and analysis support, and multimedia content creator.

TABLE 2
REASONS FOR USING ARTIFICIAL INTELLIGENCE TOOLS

Main reason for using AI		Weekly work hours saved by using AI
Academic or work productivity	62% (203)	*Average*: 7.02 (min: 1; max: 40; Std. Dev: 6.38)
Access to new ideas	31.5% (103)	*Median*: 5
Entertainment	4.5% (15)	Weekly additional hours needed to correct or improve AI work
Stress reduction	1% (3)	*Average*: 3.48 (min: 1; max: 40; Std. Dev: 4.29)
Mental health	0.6% (2)	*Median*: 2
Uncertainty reduction	0.4% (1)	

AI tools used

(Participants were allowed to select all applicable options. Total responses exceed 327 due to multiple selections)

Tool	% of use	Tool	% of use
ChatGPT	91%	Gen-2-Runaway	1.50%
Canva AI Tools	26%	Jasper AI	1.50%
Google Bard (now Google Gemini)	19.50%	Murf	1.50%
ChatPDF	18%	Research Rabbit	1.50%
Midjourney	14%	InVideo	1%
Adobe Firefly	13.50%	Shutterstock AI	1%
Dalle-E-2	13.50%	Craiyon	1%
PicsArt	12.50%	Magic Slides	1%
Bing Chat	10.50%	Any Word	0.50%
Grammarly AI Tools	9%	Beautiful	0.50%
CapCut AI Tools	8.50%	Beatoven	0.50%
PhotoAI	7%	Consensus	0.50%
Microsoft Co-Pilot	7%	Descript	0.50%
Copy AI	5.50%	Lumen 5	0.50%
Perplexity	4%	Night Cafe	0.50%
Tako	3.50%	Scite	0.50%
Stable Diffusion	3%	Colossyan	0.30%

Tool	% of use	Tool	% of use
Synthesia	2.50%	Elicit	0.30%
Tome	2%	Veed.io	0.30%
D-iD	1.50%	Other (not listed)	15.50%

Source: The authors.

- *Academic or work productivity (62%)*: The majority of users utilize AI to enhance their productivity, saving an average of 7.02 hours per week. This indicates a strong trend toward efficiency and time optimization in academic and professional settings. In this context, AI acts as a catalyst for more efficient time management, which can positively impact performance and work quality.
- *Access to new ideas (31.5%)*: A significant proportion of users rely on AI for inspiration and accessing new ideas, reflecting the growing importance of innovation and creativity across various fields. Using AI as a brainstorming and idea-generation tool may be transforming the way problems are approached and solutions are created.
- *Entertainment (4.5%)*: Although to a lesser extent, AI is also used for entertainment purposes. This may include games or interactive content creation, highlighting how technology can enrich leisure time and provide new forms of entertainment.
- *Personal well-being*: The use of AI to reduce stress and improve mental health, though representing a smaller percentage is noteworthy. This suggests an emerging recognition of AI as a support tool for stress management and emotional well-being.
- *Correction or improvement of AI work*: Users spend an average of 3.48 hours per week correcting or improving AI-generated results. This underscores that, despite its efficiency, AI still requires significant human oversight and adjustments, highlighting the importance of human-AI collaboration.
- *Most used AI tools*: ChatGPT stands out as the most popular tool, used by 91% of respondents. This preference for ChatGPT, followed by other tools such as Canva AI and Google Bard, demonstrates diversity in AI usage, adapting to users' different needs and preferences. The variety of tools also indicates that users are exploring and adapting to different AI interfaces for diverse purposes.

- *Diversity in the selection of AI tools*: The selection of multiple AI tools by users reflects a constantly evolving technological landscape and a willingness to experiment with new applications. This may foster an environment of innovation and continuous learning among Mexican users.

Table 2 illustrates how AI tools are transforming work and academic practices in Mexico. While AI is revealed as a powerful facilitator of productivity and creativity, the need for careful human interaction and oversight also emerges. Additionally, the use of AI for personal well-being, though less frequent, opens new perspectives on the role of technology in improving quality of life.

Zamani and Pouloudi (2019) affirm that the adaptation and appropriation of technologies in informal and academic settings ultimately modify market and educational practices. The automation of routine tasks and the improved efficiency supported by AI tools will eventually create new roles where workers will need to acquire advanced digital skills to adapt to these changes. Similarly, the teaching, research, and ethical discussion models will be redefined, bringing discussions about privacy and academic integrity into the classroom and promoting a proactive and balanced use of technology in society.

Ethical dimensions of usage

The survey reveals ethical concerns and expectations about the future use of artificial intelligence in work and academic contexts. It highlights the absence of specific organizational policies for AI use, leading to more than half of respondents not informing their superiors about using these technologies for assigned tasks, consistent with the findings of Chao-Rebolledo and Rivera Navarro (2024). Despite this, an overwhelming majority claim to use AI ethically. Malodia et al. (2024) have highlighted dilemmas concerning the ethical management of AI applications and data. Their findings prompt a reevaluation of what institutions are doing to create policies thar regulate AI implementation to prevent potential abuses.

This underscores the necessity of discussions on topics such as privacy, the ethics of generative artificial intelligence usage, impacts on

academic integrity, potential dependence, and the reduction of critical thinking. Additional concerns include new social inequalities (gaps between the information-rich and information-poor),[4] transparency issues, and algorithmic control. Plagiarism, identity impersonation, dishonest, and antisocial practices urgently call for ethical and educational guidelines promoting responsible use in all contexts.

A rise in AI adoption is anticipated, with the majority planning to use it extensively over the next five years, acknowledging its ability to reduce mental effort and improve efficiency in previously challenging tasks. However, nearly 70% admit that their minds exert less effort when using it. Although AI is widely perceived as a natural technological advancement that facilitates work and academic activities, the idea of forming emotional relationships with AI systems, akin to the movie *Her* (2013), remains improbable for most respondents.

- *AI usage policies in work or school (25% Yes, 47.5% No, 27.5% Unknown)*: One-quarter of respondents indicated that their workplace or school has AI usage policies. Surprisingly, almost half reported no such policies, and a significant percentage were unaware of their existence. This points to a need for greater clarity and communication about AI policies, which is crucial for ensuring ethical and responsible use.
- *Perceptions of AI ethics (88% consider its use ethical)*: A large majority view AI usage for fulfilling assigned activities as ethical. This high percentage reflects a widespread acceptance of AI as a legitimate and ethical tool in professional and academic contexts.

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4 Information wealth or information poverty is understood as the ability or inability of individuals or groups to access, use, integrate, participate in, appropriate, and benefit from information and digital technologies, as well as the opportunities presented in the context of the digital society. It refers to a gap that highlights disparities in basic digital skills, knowledge, and competencies. This disparity can be influenced by infrastructure, technological education, social conditions, public policies aimed at democratizing access, and opportunities for knowledge and economic development.

- *Future use of AI tools (52% always or almost always)*: Over half of respondents anticipate regular use of AI in the next five years, signaling expectations for deeper integration of these technologies into work and academic life.
- Her-*style relationships with AI (20% completely likely or likely)*: One-fifth of participants see it as likely that someone they know could develop an emotional relationship with AI, similar to the movie *Her*. This raises intriguing questions about future human-AI interactions and their emotional and social implications.
- *Transparency in AI use (47.5% informed superiors or teachers)*: Nearly half of users have informed their superiors about their use of AI for assigned tasks, indicating a level of transparency and acceptance of these tools in professional and educational settings.
- *Perception of mental effort when using AI (67% less)*: Most users feel their minds exert less effort when using AI, which can be interpreted as a sign of AI's effectiveness in simplifying complex or routine tasks.
- *Attitude toward AI (91% agree with its use)*: An overwhelming majority agree that AI tools represent a natural technological progression that facilitates activities previously requiring more time, money, and effort. This reflects a positive and pragmatic attitude toward AI adoption.

TABLE 3
ETHICAL PERSPECTIVE ON AI USAGE

Does your workplace or school have an AI usage policy?		Considers AI use ethical for completing assigned activities	
Yes	25% (81)	Yes	88% (289)
No	47.5% (155)	No	12% (38)
Yes, but unfamiliar with it	27.5% (91)		
Will use AI tools for work or school in the next five years		**Probability of someone known having a *Her*-type relationship with AI in the next five years**	
Always or almost always	52% (170)	Completely likely and likely	20% (66)

Sometimes	43.5% (142)	Doesn't know	36% (117)
Never or almost never	4.5% (15)	Completely unlikely and unlikely	44% (144)
Informed boss or teacher about using AI for an activity		"AI tools are a natural step in technology to facilitate activities that previously required much time, money, and effort. Therefore, we should make the most of them"	
Yes	47.5% (155)	Completely agree and agree	91% (298)
No	52.5% (172)	Completely disagree and disagree	9% (29)
Feels that their mind works more or less when using AI			
More	33% (108)		
Less	67% (219)		

Source: The authors.

The results of this survey reveal a generally positive and pragmatic stance toward the use of AI in Mexico, with high expectations for its future integration into work and education. However, they also highlight the need for clear policies, transparency, and ethical considerations surrounding its use. Additionally, the potential for emotional interactions with AI opens a new field of study on the relationship between humans and machines. Today, users have delegated epistemic virtues such as objectivity, certainty, and transparency to AI, forgetting that automated responses require constant critical oversight, particularly in academic and professional contexts where precision and neutrality are essential.

Discussion

The findings of our study demonstrate a digital environment that predicts increasing reliance on artificial intelligence for productive activities. The results align with reports from the consultancy firm IPSOS

(2023), indicating that 57% of Mexican workers believe these technologies will permanently change their way of working, although another 36% fear being replaced by AI in their jobs (Segundo, 2023). Similarly, trends suggest that institutions will increasingly integrate AI to address specific problems by combining their databases with unique interfaces, as exemplified by the company Renaiss AI (Diario El Referente, 2023). According to a report by the Inter-American Development Bank, Mexico is the Latin American country with the largest number of companies using AI, primarily for task automation (Garnero et al., 2023).

Excessive dependence on AI, such as ChatGPT, could reduce personal skills and critical competencies, ultimately hindering critical thinking and creativity. This may negatively affect holistic skills, such as the critical evaluation of information (Chan & Hu, 2023), and diminish individuals' professional prospects. As AI becomes an integral tool in workplaces, those who fail to develop independent and adaptive skills may face greater challenges entering a labor market that increasingly demands critical thinking and autonomy (Payen et al., 2020).

In short, the structural normalization of AI appears inevitable at both individual and organizational levels. What remains to be determined is the degree of dependence this technological shift will bring to individuals' cognitive processes and institutions' information management. Notably, 86% of Mexican workers are willing to integrate these tools into their professional lives, according to a ManpowerGroup study (Martínez, 2023). This finding aligns with the responses from our survey: nine out of ten respondents consider AI to be a natural technological step and are willing to maximize its potential (Edwards, 2023a).

However, the structural normalization of generative AI will require the development of frameworks for its integration into education and the workplace. This will involve creating guidelines addressing pedagogical, governance, operational, and management dimensions (Zamani et al., 2019). Efforts should focus on fostering AI literacy by providing resources and workshops to understand its ethical and social implications, prioritizing transparency in AI design, offering explanatory models to clarify decision-making processes, and implementing robust data protection practices to maintain trust in these tools and reduce ethical risks (Edwards, 2023b).

Etiological dimension of AI usage

Our sample indicated that the primary reason for using these technologies was to increase work or academic productivity. However, the second most common reason was accessing new ideas, a dimension reinforced by the recent launch of avatars or roles integrated into ChatGPT, making it easier to produce information under a specific social role, such as designer, programmer, or writer (OpenAI, 2023). These cognitive supports appear to enhance the abstract capacities of AI users, albeit at the cost of reduced mental effort, as revealed by survey data: nearly seven out of ten respondents stated that their minds exert less effort when using AI.

Essentially, AI tools seem to function as "creative crutches" that occupy a space in the mental processes of those accustomed to their operation. The screen becomes an extension of users' innovative capacity, mediated by an interface that provides algorithmic responses in seconds. The interstitial time necessary for generating new ideas has been eliminated by AI on two fronts: timeframes shrink from minutes or hours to seconds, and bursts of creativity transform into orderly, albeit ascetic, texts synthesized from millions of thoughts previously posted online –thoughts now generatively repurposed by these tools into copyable, editable, and marketable objects.

AI's stimulation of creativity, support for idea generation, enhancement of cognitive and writing skills, and assistance with research and analysis reflect its creative and cognitive potential, as supported by tools like ChatGPT and DALL-E (Chan & Hu, 2023). Nonetheless, this can lead to dependency, diminishing critical and cognitive skills or fostering a culture of laziness rather than productivity. Speed, response quality, time optimization, and ease of use prioritize impulse and desire over need, resulting in short-term gratification and constant pursuit of rewards through AI use (Haryono, 2020).

Profile of AI users in Mexico

The results show a bias toward younger, working-age individuals, particularly university students. This does not mean that older age groups do not use these technologies intensively; rather, the internal dynamics of higher education institutions have made AI a natural tool for

individuals who must produce large amounts of text for their studies. In general, students have a positive perception of AI (Chan & Hu, 2023).

Currently, tools for detecting plagiarism have not accurately distinguished whether a text was created by an AI tool or a human (Edwards, 2023a). Nonetheless, some institutions have begun integrating these tools into their classrooms (Pérez Salazar, 2023).

Ethical horizon of AI

The ethical horizon of AI tools remains underexplored in Mexico, with few exceptions, such as the work of Chao-Rebolledo and Rivera-Navarro (2024). However, our questionnaire reveals trends that seem irreversible unless a regulatory framework clearly delineates the boundaries of their use and appropriation, as noted in other studies (Swan, 2022; Virvou, 2023; Zamani et al., 2022).

More than half of our respondents who use AI indicated that they do not inform their superiors or teachers. However, given the current institutional vacuum, there is no obligation to do so, creating a gray area for organizations producing information. This trend is concerning, as most respondents stated they would always or almost always use these systems in the next five years. Indeed, nearly nine out of ten believe they use AI ethically. As shown, the impact of AI on established social orders poses significant challenges for scholars of ethics and morality.

Ambivalence between productivity and ethics

There is an inherent ambivalence between productive behavior and the ethical dimensions of ICT use. Productive use of AI is intrinsically tied to significant ethical challenges, especially concerning users' autonomy and development of critical skills. This passive dependence will impair the generation of original ideas and informed decision-making. Balancing productive use with a robust ethical dimension will promote AI accessibility and competencies while fostering the responsible and humanistic utilization of these technologies. This approach aims to bridge gaps and inequalities (Pérez Salazar, 2023), humanize technological use (Chan & Hu, 2024), and develop comprehensive, person-centered technological ecosystems.

Indirectly, the ethical perspective also intertwines with interpersonal relationships, as 20% of respondents believe it is completely likely or likely that someone they know will have a relationship similar to the one depicted in the movie *Her* with an AI system in the next five years. This suggests that such a dystopian future may not be entirely far-fetched. Currently, a significant number of people already engage in continuous conversations with their AI through wireless headphones, whether while commuting, seeking advice, or brainstorming (Edwards, 2023b). The macro-social consequences of this behavior are difficult to predict.

In summary, this research highlights the importance of a balanced approach to AI, recognizing its benefits in efficiency and creativity while addressing its ethical implications and impact on human cognitive skills. The study primarily contributes three aspects:

- *Trends in AI use for productivity and creativity*: A clear inclination toward the use of AI to enhance productivity and access new ideas is observed. This aligns with existing theories on technological adoption and its impact on workplace and academic efficiency.
- *Cognitive dependence and ethics in AI use*: The research reveals a growing cognitive dependence on AI tools, raising questions about their effect on human mental effort. Furthermore, it highlights a lack of ethical clarity regarding its usage, which is crucial for guiding its responsible adoption.
- *Profile of AI users in Mexico*: AI users tend to be young and educated, indicating greater adaptability and openness to technological innovation. This has implications for how future AI tools are designed and tailored to meet their needs and preferences.

Conclusion

In summary, this study on the use and appropriation of artificial intelligence tools in Mexico revealed that the primary users are young individuals, highly connected to the Internet and social media, who utilize AI primarily to enhance workplace and academic productivity, as well as to generate innovative ideas. Among this group, an average of three

and a half hours per week was saved on tasks, considering both the time saved and the time invested in correcting AI-generated outputs. AI tools are most frequently used for text or image creation, while video and audio production with AI has not yet achieved the same level of popularity.

While the study analyzed data predominantly obtained from a specific group of users –namely, university students and workers in urban centers– this initial profile provides a useful starting point for understanding the macro-social implications of using and appropriating these new technologies among those who use them intensively and frequently.

That said, further inquiries are needed to determine whether these new tools are, in fact, extending to other population groups, as well as their motivations and ethical considerations regarding their use. For now, while this study contains an implicit bias due to the collected data, which may limit its ability to make representative statements for the broader Mexican population, it constitutes a first step in communication studies focused on these new and significant technologies.

AI is becoming an essential resource for improving efficiency in academic and work-related tasks, facilitating access to new ideas, and serving as a tool for inspiration. While it allows for significant time and resource optimization, it also risks fostering dependence and becoming a creative crutch that could weaken critical thinking and independent creativity in the long term.

From an ethical standpoint, it is concerning that more than half of the users who participated in this study did not inform their superiors about the use of AI in their work or studies, and nearly half were unaware of the existence of organizational regulations on this matter. However, most participants stated that they plan to continue using AI in the next five years, anticipating a significant societal shift in the production of knowledge and related services. This underscores the lack of institutional policies regulating AI use and the need for ethical frameworks to define guidelines for responsible and transparent usage, particularly regarding privacy, academic integrity, and professional honesty.

This quantitative analysis highlights the need for additional qualitative studies to better understand the impacts and trends. It is

evident that the growing use of AI is altering cognitive patterns in the digital environment, extending into material reality. This phenomenon cannot be ignored due to its profound impact on various areas of users' lives and on society as a whole, marking a paradigm shift as AI becomes increasingly integrated into the daily lives of Mexicans.

Bibliographic references

Acharya, A., Prakash, A., Saxena, P. & Nigam, A. (2013). Sampling: Why and How of it? *Indian Journal of Medical Specialities*, *4*(2), 330-333. https://doi.org/10.7713/ijms.2013.0032

Alaminos, A. & Costejón, J. L. (2006). *Elaboración, Análisis, e Interpretación de Encuestas, Cuestionarios y Escalas de Opinión*. Universidad de Alicante, Marfil. http://hdl.handle.net/10045/20331

Asociación de Internet MX. (2023). *19° Estudio Sobre los Hábitos de Usuarios de Internet en* México 2023. https://www.asociaciondeinternet.mx/estudios/asociacion

Carabaza González, J. (2011). *Apropiación de las tecnologías de la información y comunicación: apuntes para su operacionalización*. Prisma Social.

Chan, C. & Hu, W. (2023). Students' voices on generative AI: perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, *20*(43). https://doi.org/10.1186/s41239-023-00411-8

Chao-Rebolledo, C. & Rivera-Navarro, M. Á. (2024). Usos y percepciones de herramientas de inteligencia artificial en la educación superior en México. *Revista Iberoamericana de Educación*, *95*(1), 57-72. https://doi.org/10.35362/rie9516259

de Marcellis-Warin, N., Marty, F., Thelisson, E. & Warin, T. (2022). Artificial intelligence and consumer manipulations: from consumer's counter algorithms to firm's self-regulation tools. *AI and Ethics*, *2*, 259-268. https://doi.org/10.1007/s43681-022-00149-5

Diario El Referente. (2023, 20 de octubre). Renaiss AI, la plataforma de IA que reinventa la productividad empresarial. *El Referente*. https://elreferente.es/startups/renaiss-ai-la-plataforma-de-ia-que-reinventa-la-productividad-empresarial/

Edwards, B. (2023a, July 14). Why AI writing detectors don't work. *ArsTechnica*. https://arstechnica.com/information-technology/2023/07/why-ai-detectors-think-the-us-constitution-was-written-by-ai/

Edwards, B. (2023b, October 27). People are speaking with ChatGPT for hours, bringing 2013's Her closer to reality. *ArsTechnica*. https://arstechnica.com/information-technology/2023/10/people-are-speaking-with-chatgpt-for-hours-bringing-2013s-her-closer-to-reality/

Garnero, P., Ripani, L. & Merino, M. F. (2023). *América Latina en Movimiento: competencias y habilidades para la cuarta revolución industrial en el contexto de pospandemia*. Banco Interamericano de Desarrollo. http://dx.doi.org/10.18235/0005178

Haryono, B. (2020). The utilization of information technology application, lazy-ass culture, sedentary lifestyle, and consumptive behavior of villagers. *International Journal of Education and Social Science Research*, *3*(5), 37-50. https://doi.org/10.37500/IJESSR.2020.3052

IPSOS. (2023). *Global Views on A.I. 2023*. https://www.ipsos.com/sites/default/files/ct/news/documents/2023-07/Ipsos%20Global%20AI%202023%20Report-WEB_0.pdf

Lopezosa, C., Codina, L., Pont-Sorribes, C. & Vállez, M. (2023). Use of generative artificial intelligence in the training of journalists: challenges, uses and training proposal. *Profesional de la Información*, *32*(4), e320408. https://doi.org/10.3145/epi.2023.jul.08

Lu, L., Fang, J., Tong, Z. & Wang, L. (2023). The downside of artificial intelligence (AI) in green choices: How AI recommender systems decrease green consumption. *Managerial and Decision Economics*, *44*(6), 3346-3353. https://doi.org/10.1002/mde.3882

Malodia, S., Islam, N., Kaur, P. & Dhir, A. (2024). Why Do People Use Artificial Intelligence (AI)-Enabled Voice Assistants? *IEEE Transactions on Engineering Management*, *71*, 491-505. https://doi.org/10.1109/TEM.2021.3117884

Martínez, M. (2023, November 2). Encuesta revela que 86% de los trabajadores están dispuestos a usar IA en sus actividades. *El Economista*. https://www.eleconomista.com.mx/empresas/El-86-de-los-trabajadores-dispuesto-a-incorporar-Inteligencia-Artificia-a-sus-actividades-laborales-20231102-0066.html

Otzen, T. & Manterola, C. (2017). Técnicas de muestreo sobre una población de estudio. *International Journal of Morphology*, *35*(1), 227-232. http://www.intjmorphol.com/abstract/?art_id=4051

OpenAI. (2023, November 6). *Introducing GPTs, OpenAI Blog*. https://openai.com/blog/introducing-gpts

Payen, V., Baptiste, J., Nova, N. & Schneider, D. (2021). Utilisation et appropriation des technologies informatiques pour l'apprentissage: cas des technicien-nes du secteur économique informel de la vente et de la réparation des appareils informatiques en Haïti. *L'éducation en débats: Analyse comparée*, *10*(2), 172-191. https://doi.org/10.51186/JOURNALS/ED.2020.10-2.E345

Pérez Salazar, G. (2023). *Uso del ChatGPT y Otros LLMs en los Entornos Educativos*. Facultad de Ciencias de la Comunicación de la Universidad Autónoma de Coahuila.

Pimienta, R. (2000). Encuestas probabilísticas vs. no probabilísticas. *Política y Cultura*, *13*, 263-276. https://polcul.xoc.uam.mx/index.php/polcul/article/view/815

Pinto, R. & Filgueiras, E. (2023). Media appropriations of young consumers: Production and Consumption of Digital Content on Social Networks. *Ergonomics In Design*, *7*(7), 167-185. https://doi.org/10.54941/ahfe1003374

Russell, S. & Norvig, P. (2022). *Inteligência Artificial: un enfoque moderno*. Pearson Educación.

Salovaara, A., Helfenstein, S. & Oulasvirta, A. (2011). Everyday appropriations of information technology: A study of creative uses of digital cameras. *American Society for Information Science and Technology*, *62*(12), 2347-2363. https://doi.org/10.1002/asi.21643

Segundo, L. P. (2023, July 18). Cree 36% de mexicanos que la IA les quitará el empleo. *Reforma*. https://www.reforma.com/cree-36-de-mexicanos-que-la-ia-les-quitara-el-empleo/ar2642080

Swan, G. (2022). Detection of Consumption of Alcohol Using Artificial Intelligence. In A. Rai, D. Kumar Singh, A. Sehgal & K. Cengiz (Eds.), *Paradigms of Smart and Intelligent Communication, 5G and Beyond. Transactions on Computer Systems and Networks* (pp. 103-111). Springer. https://doi.org/10.1007/978-981-99-0109-8_6

Virvou, M. (2023). Artificial Intelligence and User Experience in reciprocity: Contributions and state of the art. *Intelligent Decision Technologies*, *17*(1), 73-125. https://doi.org/10.3233/IDT-230092

Zamani, E. & Pouloudi, N. (2019, September 27-28). On the appropriation of consumerised IT: a trial and error approach. In *MCIS 2019 Proceedings. 13th Mediterranean Conference on Information Systems*. AIS eLibrary. https://aisel.aisnet.org/mcis2019/18

Zamani, E., Pouloudi, N., Giaglis, G. & Wareham, J. (2022). Appropriating Information Technology Artefacts through Trial and Error: The Case of the Tablet. *Information System Frontier*, *24*, 97-119. https://doi.org/10.1007/s10796-020-10067-8

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