



# **Proliferation of AI Tools: A Multifaceted Evaluation of User Perceptions and Emerging Trend**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## ABSTRACT

The rapid advancement of artificial intelligence (AI) technologies, epitomized by tools like ChatGPT, Claude, Bard, Copilot, and Copy AI, has significantly reshaped various professional landscapes. This study aimed to assess the impact of these AI tools on professional performance, job dynamics, and societal perceptions. Amidst their benefits in enhancing efficiency and introducing novel capabilities, these tools also pose challenges concerning job displacement, ethical implications, and societal balance. Data from 1623 professionals across diverse industries were analyzed to assess AI tool utilization, functionality, user satisfaction, and perceived impacts. The results indicate that AI tools substantially enhance professional efficiency and are vital in diverse tasks including data analysis and decision-making. However, they also significantly affect traditional job roles, underscoring the urgency for workforce adaptation and skill development. Notably, the study unveils a generational gap in AI adoption, with younger users showing higher engagement compared to older cohorts, suggesting a digital divide. The study's novelty lies in its comprehensive analysis of AI tool impacts across multiple professions, highlighting ethical and societal challenges. Concerns about AI-induced job displacement, privacy, and ethical use were evident, calling for responsible AI integration. The study advocates for targeted reskilling programs to equip the workforce for an AI-driven future and ethical guidelines to ensure AI tools' responsible development and use. This research contributes to the understanding of AI's role in modern professional settings and offers strategic insights for policymakers, educators, and industry leaders. Emphasizing a balanced approach, the study urges for AI deployment that maximizes benefits while addressing potential risks and societal concerns.

*Keywords: Artificial intelligence; AI tools; professional performance; job dynamics; societal impact; ethics in AI; workforce reskilling; digital divide; Chat GPT; Claude; bard; copilot; copy AI.*

## 1. INTRODUCTION

The advent of artificial intelligence (AI) has revolutionized numerous industries, bringing about transformative changes in the way we live, work, and interact with technology [1]. According to Jatoba et al. [2], Artificial Intelligence, which was once a concept confined to science fiction and academic research, has rapidly become an integral part of the modern technological landscape. The journey from theoretical models in the mid-20th century to the sophisticated AI tools of today marks a significant achievement in computational and cognitive science. The integration of AI into various sectors, from healthcare and education to finance and entertainment, has been driven by advancements in machine learning, natural language processing, and data analytics. This integration reshapes how tasks are performed, decisions are made, and information is processed [1].

This study focuses on five AI tools: ChatGPT, Claude, Bard, Copilot, and Copy.ai. Each of these platforms brings unique capabilities and functionalities to the table. ChatGPT, developed by OpenAI, is renowned for its advanced language processing abilities, enabling conversational interactions and content generation [3,4]. Claude, another prominent AI

tool, has been noted for its versatile application in various business contexts [5]. Bard, known for integrating Google's vast knowledge base, offers insightful answers and suggestions [5]. By leveraging Microsoft's computational infrastructure, Copilot has made significant strides in search and information processing [5]. Lastly, Copy.ai stands out for its specialized focus on marketing and content creation [6].

Understanding user perceptions of these AI tools is crucial. This involves exploring how different demographics interact with and view these technologies. Factors influencing user perception include the tools' perceived accuracy and reliability, their interfaces' intuitiveness, and concerns related to privacy and data security [7,8]. How users from various professional backgrounds, age groups, and technical competencies engage with these tools can offer valuable insights into their effectiveness and areas for improvement.

The widespread adoption of AI tools also brings significant ethical and societal considerations. Data privacy and security are paramount, given the vast amounts of personal and sensitive information these tools process [9]. Additionally, the potential for algorithmic bias, where AI systems may inadvertently perpetuate societal biases, raises concerns about fairness and

equity. The societal impact of AI is equally profound, particularly concerning the workforce. While AI can augment human capabilities and create new opportunities, it also poses challenges regarding job displacement and the need for reskilling [9].

Emerging trends in adopting and applying these AI tools are reshaping industries and user experiences. The healthcare sector, for instance, has seen AI-driven advancements in diagnostic tools and personalized medicine. In education, AI facilitates personalized learning experiences and aids in administrative tasks. The business world is leveraging AI for enhanced customer service, predictive analytics, and efficient operations management [1]. Understanding these trends is crucial for predicting future developments and preparing for the implications of these changes.

The rapid advancement of artificial intelligence (AI) and machine learning technologies has led to the development and proliferation of various AI tools, fundamentally altering the landscape of digital interaction, data processing, and decision-making [10]. Among these, tools like ChatGPT, Claude, Bard, Copilot, and Copy.ai have emerged as significant players, each with unique capabilities and user interfaces. While these tools offer numerous benefits, including enhanced efficiency, personalized experiences, and innovative solutions across various sectors, their widespread adoption raises critical questions and challenges [11,12].

The lack of comprehensive understanding regarding how different user groups perceive these AI tools in terms of utility, trustworthiness, ethical considerations, and overall impact on their personal and professional lives constitutes a critical concern for stakeholders [10]. While preliminary studies and anecdotal evidence suggest varied responses ranging from enthusiastic adoption to skepticism and concern about privacy and job security, there is a need for a more structured and in-depth analysis. This problem is compounded by the rapid pace of development in AI technologies, which often outstrips the ability of researchers, policymakers, and the general public to comprehend and address the implications of these tools fully [13,14].

Furthermore, the emergence of these AI tools has sparked debates over ethical concerns, including data privacy, algorithmic bias, and the potential for misuse. The societal impact of AI, particularly regarding employment, skills

development, and the digital divide, is another area requiring thorough investigation. These concerns are not just theoretical; they have practical implications for designing, regulating, and implementing AI technologies [2].

The broader societal implications of these technologies, considering their role in shaping public discourse, influencing decision-making processes, and altering the dynamics of various industries, create significant uncertainty about their holistic effect [15,16]. It thus becomes essential to investigate the potential of these tools to democratize access to information and facilitate innovative solutions in fields such as education, healthcare, and business against concerns about digital inequality and the erosion of traditional skills and job roles [17].

This study aims to conduct an in-depth and comprehensive analysis of the proliferation of artificial intelligence (AI) tools, focusing specifically on user perceptions and emerging trends related to five prominent AI tools: ChatGPT, Claude, Bard, Copilot, and Copy.ai. To achieve the aim of this study, the following objectives were used to develop this paper:

1. To trace the history of artificial intelligence tools until their present state, exploring their functionality and limitations.
2. To conduct a comparative analysis of ChatGPT, Claude, Bard, Copilot, and Copy.ai, focusing on their unique features, performance, user interface, and adaptability to ascertain the strengths and limitations of each tool and how they align with user needs and expectations.
3. To assess how users from various demographics, including age, profession, educational background, and technical expertise, perceive these AI tools in terms of their functionality, usability, reliability, and overall satisfaction.
4. To provide recommendations for policymakers, developers, and users. These recommendations will guide the responsible development and deployment of AI tools, ensuring they align with ethical standards and societal values.

## 2. LITERATURE REVIEW

### 2.1 Historical Context and Evolution of AI Tools

According to Philip [18], The initial phase of AI was characterized by simple, rule-based

algorithms designed to perform specific tasks. These systems operated on predefined rules and could not learn or adapt to new information. This era focused on programming computers to mimic basic aspects of human intelligence, such as problem-solving and logical reasoning [19]. Some examples of systems in this era include: ELIZA (1964-1966) (Developed by Joseph Weizenbaum at MIT, which could rephrase much of what the user said and pose questions, creating an illusion of understanding, though it had no built-in framework for contextualizing events); SHRDLU (late 1960s to early 1970s) (Created by Terry Winograd to respond to commands and answer questions based on the specific rules, demonstrating an impressive understanding); MYCIN (early 1970s) (Developed at Stanford University to diagnose blood infections and recommend antibiotics); DENDRAL (1965) (designed experts at Stanford University as a chemical analysis expert system to analyze mass spectrometry data to deduce possible molecular structures); and XCON (1980s) (developed originally as "R1" by Carnegie Mellon University for Digital Equipment Corporation (DEC) to configure computer systems and automate the process of selecting computer components to fulfill specific customer orders, a task that was complex and time-consuming for human workers) [20-23].

Although these early AI systems were revolutionary at the time, they were confined to the rules set by their programmers and did not possess the capability to learn from new data or experiences. Their successes and limitations played a significant role in shaping the direction of AI research, paving the way for the development of more advanced machine learning and adaptive algorithms that characterize contemporary AI tools as the limitations led to a shift towards machine learning (ML) in the latter part of the 20th century [24]. Unlike their predecessors, ML algorithms could learn from data, identify patterns, and make decisions with minimal human intervention. This shift marked a significant turning point, as AI systems demonstrated improved performance and greater adaptability [25,26]. A pivotal development in the evolution of AI tools was the advent of neural networks and deep learning. Inspired by the structure and function of the human brain, neural networks consist of layers of interconnected nodes that can process and interpret complex data patterns [27]. Deep learning, a subset of ML involving neural networks with multiple layers (deep neural

networks), enabled AI systems to handle tasks such as image and speech recognition, natural language processing, and predictive analytics with unprecedented accuracy [28,29].

Today, the emergence of sophisticated AI platforms like ChatGPT, Claude, Bard, Copilot, and Copy.ai can be attributed to the advancements in deep learning and neural networks. For instance, ChatGPT, developed by OpenAI, is based on the Generative Pre-trained Transformer (GPT) architecture, representing a breakthrough in natural language processing and generation [23]. Similarly, other platforms like Claude, Bard, Copilot, and Copy.ai have leveraged advanced ML algorithms to offer unique capabilities, ranging from conversational AI to content creation and decision support. These advanced AI tools have been integrated into various domains, demonstrating their versatility and effectiveness. In sectors such as customer service, healthcare, finance, and marketing, these AI platforms enhance efficiency, provide insights, and improve user experiences [1]. The ability of these tools to process and analyze vast amounts of data has also made them invaluable in research and development activities. However, despite the potential of these systems, issues such as data privacy, algorithmic bias, and the ethical implications of AI are critical concerns that researchers and developers are actively addressing [30,9,31]. Moreover, the continuous evolution of these tools, driven by ongoing research and technological advancements, suggests a promising future where AI will be more integral to various aspects of life and work, although with highly critical challenges that must be navigated carefully [32,16].

## 2.2 Individual Analysis of Each AI Tool

### 2.2.1 ChatGPT

ChatGPT, a groundbreaking AI tool from OpenAI, is a landmark in natural language processing (NLP) evolution. Rooted in the Generative Pretrained Transformer (GPT) series, its development began with GPT-3, a model renowned for its then-unprecedented scale and capability. The subsequent iterations, GPT-3.5 and GPT-4, marked continuous processing power, understanding, and text generation improvements. ChatGPT's evolution reflects the rapid advancements in AI, transitioning from simple language models to complex systems capable of intricate interactions and providing

insightful responses. Its development journey mirrors the broader trajectory of AI, showcasing increasing sophistication in handling language and contextual understanding [3,33].

ChatGPT's core capabilities are anchored in its advanced language generation and processing. It creates coherent, contextually relevant text, making it ideal for various linguistic tasks [34]. Beyond basic conversation, ChatGPT can write essays, poetry, and stories, assist with coding, and offer summaries of complex materials. Its proficiency in language translation and ability to process a wide range of queries further enhance its utility. ChatGPT's versatility extends to generating creative content, demonstrating a depth of understanding and creativity uncommon in AI models [34,3]. These capabilities make ChatGPT a powerful tool for content creation, educational purposes, and as a conversational agent [35].

Performance metrics for ChatGPT focus on accuracy, response time, and user interaction quality. The model is known for its fast response times, maintaining coherence and relevance even in lengthy interactions. Accuracy, however, can vary; while generally high, it can be affected by the complexity of the query and limitations inherent in the training data. User interaction with ChatGPT is generally positive, marked by an intuitive and engaging conversational style model [34,3]. However, the model can sometimes generate responses based on incorrect or outdated information (known as "hallucinations"), highlighting the need for ongoing improvements in data quality and model refinement [36].

ChatGPT's applications span a broad range of sectors. It assists in tutoring, providing explanations, and generating educational content in education. ChatGPT is a responsive virtual assistant for customer service, handling inquiries, and improving user engagement. Content creation aids writers and marketers by generating ideas and drafts [34,3]. The tool also finds use in software development, assisting with coding and debugging. ChatGPT's creative applications, like storytelling and poetry writing, have opened new avenues in the arts [34,3]. Each application domain benefits from ChatGPT's adaptability, showcasing its potential to enhance productivity and creativity across diverse fields.

ChatGPT is acclaimed for its user-friendly interface, making advanced AI accessible to a

broad audience. Its simple, conversational format allows users with varying technical skills to interact effectively. The tool's ability to understand and respond to a wide range of queries in a natural, human-like manner significantly enhances user experience [12]. This approachability fosters engagement and allows for varied applications, from casual conversations to professional tasks. Despite these strengths, the interface's simplicity sometimes masks the complexity of the underlying technology, leading users to expect more than the AI can deliver, especially regarding nuanced or highly specialized queries [37].

ChatGPT's societal impact is profound, reshaping communication, content creation, and information dissemination. However, ethical considerations are paramount. Data privacy concerns arise from the vast amount of data used in training, raising questions about consent and data use [23]. Bias in AI models, including ChatGPT, is another critical issue, as these tools can perpetuate and amplify existing societal biases. Additionally, the impact of ChatGPT on employment, particularly in writing and customer service roles, is a subject of debate [23]. Ethical deployment and use of ChatGPT are crucial to realize its benefits without compromising privacy, fairness, or social well-being.

### 2.2.2 Claude

Claude, developed by Anthropic, a company co-founded by former OpenAI members, represents a significant stride in AI development [38]. Its creation stemmed from a desire to address AI safety concerns more stringently than its predecessors. The development of Claude, particularly its latest iteration, Claude 2.1, reflects a focused effort on aligning AI with ethical principles. The journey from Claude 1 to the advanced Claude 2.1 demonstrates Anthropic's commitment to AI safety and ethical AI use, underscoring the evolving nature of AI development where safety and alignment with human values are becoming as critical as technical capabilities [38].

Claude's core capabilities center around advanced language processing, akin to ChatGPT, but with distinct features emphasizing ethical AI use and safety. Its language model enables natural, text-based conversations, adept in summarization, decision-making, Q&A, and code-writing. Unique to Claude is its commitment

to constitutional AI principles, guiding its responses and interactions [23]. This ethical grounding differentiates Claude's approach to generating responses, ensuring they align with predefined ethical guidelines [37]. The model's ability to process and understand large volumes of text simultaneously further sets it apart, making it a robust tool for analyzing extensive documents and data [38].

Evaluating Claude's performance involves assessing its accuracy, response time, and alignment with ethical principles [39]. The model is designed to reduce hallucinations (false statements) significantly, enhancing its reliability. It has also demonstrated improvements in understanding and summarizing complex texts. Claude's performance is especially noteworthy in scenarios requiring adherence to ethical guidelines, as it is trained to hesitate rather than provide incorrect or ethically ambiguous information [39]. However, like other AI models, its accuracy can vary depending on the complexity of queries and the quality of training data, highlighting ongoing challenges in AI development [40].

Claude's applications extend across various domains where ethical AI use is paramount. Claude's ethical grounding makes it a trusted tool for decision support and information processing in the education, healthcare, and finance sectors [37]. Its ability to process large volumes of text also positions it well for use in legal and technical fields, where accurate summarization and analysis of complex documents are crucial [41]. Additionally, its conversational capabilities make it suitable for customer service and content generation, with its ethical framework ensuring appropriate and sensitive responses. These diverse applications showcase Claude's potential as a versatile AI tool that balances technical proficiency with ethical considerations [39].

Claude's user interface is designed to be intuitive and accessible, much like ChatGPT. Its chat-based interface allows users to interact naturally, making it user-friendly for various applications. The simplicity of the interface, combined with its robust language processing capabilities, ensures a smooth user experience [40]. However, the unique aspect of Claude's interface is its alignment with ethical guidelines, which can occasionally limit its responses compared to less restricted AI tools. This ethical alignment may affect user experience, especially when users

expect creative or unrestricted responses, but it also instills trust and safety in its interactions.

Claude's development is deeply rooted in addressing ethical considerations in AI. Its alignment with constitutional AI principles sets a precedent for responsible AI development, emphasizing user privacy, opposition to inhumane treatment, and freedom [37]. This approach has significant societal implications, as it demonstrates a commitment to developing AI that is safe, reliable, and aligned with human values. However, this focus on ethics also challenges balancing freedom of expression and creativity with ethical constraints. Therefore, Claude's societal impact lies in its potential to redefine how AI models are developed and deployed, prioritizing safety and ethical considerations alongside technical advancements [37].

### 2.2.3 Bard

Google Bard's development reflects Google's strategic response to the growing prominence of AI in search and conversational interfaces. Announced in February 2023, Bard was introduced as an extension of Google's search and natural language processing expertise. Leveraging the LaMDA (Language Model for Dialogue Applications) and later the PaLM 2 (Pathways Language Model 2), Bard represents Google's commitment to integrating AI more deeply into everyday digital experiences [42]. This evolution from a traditional search engine to an AI-driven interactive tool demonstrates Google's focus on staying at the forefront of AI technology, particularly in response to competitive advances like OpenAI's ChatGPT [43].

Bard's core capabilities center around advanced conversational AI, allowing it to engage in natural, text-based dialogues. Primarily designed to enhance Google's search functionality, Bard can generate responses based on web information, offering a more interactive and contextual search experience [44]. Unlike traditional search engines, Bard can handle complex queries, provide detailed responses, and even engage in follow-up questions. Its integration with Google's vast information resources allows it to pull data from various Google services, making it a versatile tool for information retrieval, decision-making assistance, and creative tasks like content generation,

summarization, and translation across multiple languages [37].

Evaluating Bard's performance involves considering its accuracy, response time, and conversational fluidity. Bard aims to provide up-to-date information by leveraging Google's extensive data resources, although its accuracy can vary depending on the query's complexity and available web data [41]. Bard's integration with various Google services enhances its utility, although there have been factual inaccuracies, as seen during its initial demo [37]. The chatbot's ability to engage in natural, flowing conversations is a key metric, with ongoing improvements needed to refine its responses and ensure they remain relevant, accurate, and contextually appropriate [41].

Google Bard finds applications across diverse domains, primarily enhancing Google's search functionality by providing more interactive and detailed answers. It's particularly useful in educational contexts, where users seek comprehensive explanations or summaries [12]. Bard's capabilities extend to travel planning, creative writing assistance, and language translation, making it a valuable tool for personal and professional use. Its potential applications in customer service, content creation, and learning environments highlight its versatility. However, its effectiveness varies across domains, dependent on the quality and availability of web-based information and the complexity of user queries [37,45].

Bard's user interface is designed for simplicity and ease of use, reflecting Google's emphasis on user-friendly design. The conversational AI integrates seamlessly with Google's existing search interface, allowing users to interact as they would with a search engine but with the added benefit of AI-driven, conversational responses [41,46]. This approach to UI design enhances the overall user experience by providing a familiar yet innovative interaction model. Bard's ability to understand and respond to natural language queries conversationally improves the user experience, making information retrieval more intuitive and engaging [39,47].

Like other AI technologies, Bard raises important ethical considerations and societal impacts. As an AI-driven tool, it must navigate challenges related to data privacy, information accuracy, and potential biases in AI responses [41]. Google's

commitment to responsible AI development is crucial in addressing these concerns, especially as Bard interacts with many users and contexts [37]. The societal impact of Bard includes changing how people access and interact with information online, potentially influencing decision-making, learning, and creativity. However, the reliance on AI for information retrieval also underscores the need for critical thinking and verification, as AI systems can inadvertently propagate misinformation or biased perspectives.

#### 2.2.4 Copilot

Copilot, initially known as Bing Chat, marks Microsoft's significant foray into integrating advanced AI into its search engine, Bing. Launched in early 2022, Copilot utilizes OpenAI's GPT-4, a more advanced generative AI model than its predecessors [48]. This development reflects Microsoft's strategy to enhance its search capabilities and compete with emerging AI tools. The rebranding from Bing Chat to Copilot symbolizes a broader vision of creating an AI assistant that transcends traditional search functions. It embodies Microsoft's ambition to merge AI-driven conversational capabilities with its strong foundation in search technology and data indexing [49].

Copilot's core capabilities revolve around its advanced conversational AI, enabling it to perform various tasks beyond conventional search queries. It can generate creative content, provide detailed answers with web-based footnotes, solve complex mathematical problems, assist in coding, and integrate image generation features [50]. Copilot's unique strength lies in its internet connectivity, allowing it to access and provide current information, a distinct advantage over some of its competitors [51]. This AI tool significantly enhances user interaction with search engines by offering more detailed, context-aware, and interactive responses, making it a versatile assistant for various personal and professional tasks.

Evaluating Copilot involves assessing its accuracy in delivering up-to-date information, response time, and the quality of interaction. Its use of GPT-4 ensures improved reliability and intelligence compared to previous models. The chatbot's ability to provide current information through internet connectivity is a key performance metric. Its effectiveness in understanding and responding to user queries,

along with the relevance and accuracy of its search results, is crucial. Copilot's performance also hinges on its ability to seamlessly integrate diverse functionalities, such as coding assistance and creative content generation, providing a comprehensive and efficient user experience [52].

Copilot has applications in various domains, including academic research, creative writing, coding, and general knowledge queries. Its ability to provide updated information makes it a valuable tool for researchers and students [12]. It assists in content generation in the creative domain, from writing poems to drafting emails [51]. Copilot's coding capabilities make it useful for developers seeking coding assistance or debugging help. Additionally, its conversational nature and access to vast online information make it a handy tool for everyday queries, travel planning, and decision-making support, showcasing its adaptability across various user needs [52].

Copilot's user interface is designed to be intuitive, blending seamlessly with Microsoft's Bing search engine and Edge browser. The conversational AI format allows users to interact naturally and human-likely, enhancing the overall user experience [50] by making information search and interaction more engaging and effective. The integration of Copilot into familiar Microsoft platforms ensures a smooth and user-friendly experience, encouraging users to utilize its AI capabilities in various contexts. The AI tool's ability to understand and respond to complex queries in a conversational format significantly elevates the user experience, making digital interactions more intuitive and productive [52].

Like other AI tools, Copilot raises ethical considerations, including data privacy, accuracy of information, and potential biases [37]. Microsoft's approach to AI ethics is crucial in navigating these challenges, ensuring that Copilot operates responsibly and transparently [51]. The societal impact of Copilot includes changing the dynamics of information access and retrieval, influencing decision-making processes, and learning methods. It also highlights the growing reliance on AI for information and tasks, underscoring the importance of critically evaluating AI-provided data. As AI becomes more integrated into daily life, it's imperative to balance its benefits with

ethical considerations and potential societal implications [53].

### 2.2.5 Copy AI

Copy AI, founded by Paul Yacoubian and Chris Lu, emerged in 2020 as an innovative AI writing tool [54]. It harnesses the power of OpenAI's GPT-3 technology to generate various types of content like emails, social media posts, and web copy [54]. The tool's evolution reflects a growing demand for efficient content creation solutions in a digital landscape. Its ability to adapt and generate content in multiple languages demonstrates a commitment to meeting diverse user needs. Copy AI's development journey from a startup to a widely used platform with over 2 million users indicates its success in filling a critical niche in content generation [55].

Copy AI excels in generating creative and diverse content, ranging from blog headlines to product descriptions and social media posts. Its integration with GPT-3 allows for human-like text generation, facilitating various content creation tasks [55]. The platform's strengths lie in its ease of use, intuitive interface, and the ability to produce content quickly. It offers over 90 copywriting templates, catering to different content needs [55]. The multilingual support extends its usability globally, making it an inclusive tool. Additionally, features like the built-in plagiarism checker enhance its functionality, making it a comprehensive tool for content creators and marketers [56,57].

Evaluating Copy AI's performance involves assessing its content quality, versatility, and user experience. The tool's ability to generate coherent, engaging, and contextually relevant content is paramount [55]. The diversity of content types also gauges the performance it can produce and the efficiency of its AI in understanding and responding to user inputs. User feedback and satisfaction levels, indicated by the growing user base, are critical metrics [56]. The speed of content generation and the accuracy of its multilingual capabilities are also essential performance indicators. User testimonials and case studies offer valuable insights into the tool's effectiveness and impact [58,59].

Copy AI serves a wide range of applications in content creation. It is particularly useful for digital marketing, enabling the creation of engaging ad copy, email marketing content, and social media



posts. The tool is beneficial for bloggers and freelance writers, aiding in brainstorming ideas, generating headlines, and creating drafts [58,60]. E-commerce platforms can leverage it for product descriptions and promotional content. Its multilingual support broadens its applicability to global markets, catering to businesses and individuals needing content in various languages. Its simplicity and user-friendly interface make it accessible to beginners and professionals, expanding its utility across different skill levels [58].

Copy AI's user interface is designed for simplicity and ease of use, making it accessible to a wide range of users, from beginners to experienced content creators [54]. The platform's layout is intuitive, with clearly defined templates and tools for various content types. The ability to quickly generate content and receive multiple options enhances user experience by providing flexibility and choice. The tool's efficiency in delivering quick results without compromising quality

contributes to a positive user experience [55]. Additionally, the integration of a plagiarism checker and the ability to handle multiple languages further enrich the user experience, making Copy AI a versatile and user-friendly tool.

Copy AI, like other AI writing tools, raises ethical considerations around authenticity and the potential for misuse in creating misleading or harmful content [37]. Ensuring responsible use and avoiding plagiarism are significant ethical concerns [23,61]. The societal impact of Copy AI includes its influence on content creation processes, potentially reducing the time and effort required for writing tasks. It also raises questions about the future role of human writers and the value of original human creativity. The accessibility of such tools democratizes content creation, allowing a broader range of people to produce professional-quality content. However, it also necessitates a critical approach to content consumption and verification.

**Table 1. Strengths and limitations of AI tools**

AI Tool	Strengths	Limitations
<b>ChatGPT</b>	<ol style="list-style-type: none"> <li>1. Excellent conversational capabilities for a range of scenarios.</li> <li>2. Can simulate various personalities and styles in text-based interactions.</li> <li>3. Versatile in content creation, coding, and customer support tasks.</li> </ol>	<ol style="list-style-type: none"> <li>1. No real-time internet access, limiting its data to training cut-off.</li> <li>2. Restricted to text-based interactions without visual or audio capabilities.</li> <li>3. Relies heavily on training data, which can limit response diversity.</li> </ol>
<b>Claude AI</b>	<ol style="list-style-type: none"> <li>1. Specializes in nuanced conversations with a focus on context.</li> <li>2. Adaptable to a variety of uses, including complex queries.</li> <li>3. Emphasizes emotional intelligence in interactions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Limited availability of detailed public information.</li> <li>2. Relatively new in the market, so less proven track record.</li> <li>3. Possible integration challenges with existing systems.</li> </ol>
<b>Google Bard</b>	<ol style="list-style-type: none"> <li>1. Integrates real-time web information for up-to-date responses.</li> <li>2. Supports over 40 languages, making it highly accessible.</li> <li>3. Features multimodal search capabilities, including image inputs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Integration with Google services could limit third-party applications.</li> <li>2. It May need more refinement to match competitors in AI sophistication.</li> </ol>
<b>Copilot (Bing Chat or Bing AI)</b>	<ol style="list-style-type: none"> <li>1. Accesses GPT-4 technology for advanced response generation.</li> <li>2. Multimodal input capabilities, including image recognition.</li> <li>3. Direct integration with Microsoft's ecosystem.</li> </ol>	<ol style="list-style-type: none"> <li>1. Limited to Microsoft platforms, which may restrict usage.</li> <li>2. The initial controversy over response accuracy and limitations.</li> <li>3. Relies on Bing's data, which may not be as comprehensive as Google's.</li> </ol>

AI Tool	Strengths	Limitations
Copy AI	<ol style="list-style-type: none"> <li>1. Specializes in quick, high-quality text generation for marketing.</li> <li>2. Offers a diverse range of templates for various content types.</li> <li>3. Accessible to non-technical users with an easy-to-use interface.</li> </ol>	<ol style="list-style-type: none"> <li>1. Primarily focused on short-form content, less effective for long-form.</li> <li>2. May require manual editing for accuracy and relevance.</li> <li>3. Lack of advanced features like real-time content optimization.</li> </ol>

*This table provides a comparative overview of five AI tools, highlighting their unique strengths and limitations to cater to user needs and preferences*

**Table 2. Comparative analysis of Chat GPT, Claude, Copilot, Google Bard, and Copy AI**

Tools	Operational Performance	Industry Performance		Summary
		Market Position	Adoption Rate	
<b>Chat GPT</b>	Excellent in generating human-like responses, creative content, and technical writing. Known for diverse applications in conversation, learning assistance, and content creation. ChatGPT shows a high degree of contextual understanding and tone adjustment in a task like drafting an email.	Widely recognized and adopted, especially post-integration with Microsoft's Bing.	High across different industries, from education to business, due to its versatility.	ChatGPT has gained significant traction across various sectors for its versatile AI capabilities. Its integration with Microsoft Bing has expanded its reach, making it a go-to solution for casual and professional users seeking AI-assisted writing and problem-solving.
<b>Claude</b>	Notable for nuanced and sophisticated dialogue handling, potentially better understanding of complex queries. When dealing with intricate conversational scenarios, Claude might excel in maintaining context and providing more nuanced responses compared to others.	Emerging, with potential growth due to its sophisticated conversation handling.	Currently, it is more limited but growing as awareness and access increase.	Claude is gaining momentum as a sophisticated AI tool, especially in domains that require more advanced conversational abilities. Its market presence is growing as more users discover its capabilities in handling intricate dialogues and complex queries.
<b>Google Bard</b>	Strong in integrating search and AI, offering comprehensive and detailed answers with visual elements. Bard can provide a more holistic response in a search-related query, often integrating different media types for a richer answer.	Strong, backed by Google's extensive resources and reach.	Expected to be high, especially with integration into Google's ecosystem.	With Google's backing, Bard is positioned to become a major player in AI-powered search and information delivery. Its integration into Google's services is

Tools	Operational Performance	Industry Performance		Summary
		Market Position	Adoption Rate	
				likely to drive widespread adoption, particularly among users who rely heavily on Google's ecosystem.
<b>Copilot</b>	Combines search engine capabilities with conversational AI, excelling in providing current, sourced information. Copilot can offer up-to-date answers with source references for current affairs or data-driven questions, outperforming others in this aspect.	Strong due to Microsoft's backing and integration with the Bing search engine.	High in sectors relying on up-to-date information and web search integration.	Microsoft's Copilot has cemented its place in the market by enhancing the Bing search engine with AI capabilities. Its adoption is notably high in sectors where current information and data-backed answers are essential, benefiting from Bing's established user base.
<b>CopyAI</b>	Specializes in content creation like marketing copy, blogs, and product descriptions, focusing on ease of use and diversity of templates. For generating e-commerce product descriptions, Copy AI can quickly produce various creative options, showcasing its strength in this area.	Popular in the content creation and digital marketing domain.	High among marketers, bloggers, and e-commerce platforms, valued for its content generation capabilities.	Copy AI has carved a niche in the digital marketing and content creation, becoming a popular tool for quick and diverse content generation. Its user-friendly platform makes it a favorite among marketers, bloggers, and e-commerce platforms for streamlining content production.

*In conducting a comparative analysis of ChatGPT, Claude, Bard, Copilot, and Copy AI, let's explore their performance benchmarks, market position, and adoption*

Each tool has carved out a unique position in the market, catering to specific user needs ranging from general-purpose AI conversation to specialized content creation and information retrieval. Their adoption rates reflect the diverse applications and the strengths each brings to different industry sectors. Following this review, the study proposes these hypothesis:

**H<sub>1</sub>:** There is a significant impact of artificial intelligence tools on the performance of professionals in recent times

**H<sub>2</sub>:** Artificial intelligence tools have a significant impact on conventional job availability.

**H<sub>3</sub>:** There is a growing concern about the dangers of artificial intelligence tools and social balance.

### 3. METHODS

The study chose a cross-sectional survey design for this study, focusing on various professions where AI tools are prominently used. To get a broad and representative understanding, the

study targeted participants from sectors such as healthcare, education, technology, finance, marketing, and creative industries. In total, data was collected from 1623 participants selected using a stratified random sampling method to ensure that all the major professional fields utilizing AI tools were adequately represented. The sample included individuals of varied ages, professions, educational backgrounds, and levels of technical expertise with AI tools. This diverse group allowed us to gain insights into the wide-ranging impacts of AI across different demographics and professional contexts.

The primary tool for data collection was a structured questionnaire divided into several sections. The first section gathered basic demographic information, including age, profession, and educational background. Another section was dedicated to understanding the functionality and usage of AI tools, including the frequency and purposes for which these tools were employed in professional settings. A crucial part of the survey focused on gauging satisfaction and trust in AI tools to understand how satisfied users were with these technologies and their trust level in the outputs provided by AI systems.

Additionally, the study explored the perceived reliability of these tools in professional settings, assessing the impact of AI on job dynamics to understand how AI tools influence professional efficiency and the broader implications for job availability in conventional roles. This part of the questionnaire was designed to capture the participants' perceptions and predictions of their professions in the context of AI.

The study employed online platforms, professional networks, and direct mailing lists to distribute the questionnaire, ensuring a wide reach and diverse responses. The data collected were then subjected to rigorous statistical analysis. Descriptive statistics was used to summarize and present the data, while correlation and regression analyses were used to test the hypotheses identifying the relationships between the variables.

#### 4. RESULTS AND DISCUSSION

The study result shows the age distribution of respondents (see appendix for distribution table). A distinct trend was observed: younger demographics, particularly those under 30, are the most active users/adopters of AI tools, signifying their openness, comfort, and

adaptability to emerging technologies. This suggests that AI tools should be designed with features appealing to a tech-savvy audience and tailored for educational and early career development. Conversely, the lower engagement among older age groups, particularly those over 40, highlights a digital divide, which indicates the high need to convince older demographics of the adoption and use of AI. This finding is indicative of the findings of [62], which highlights the reluctance of older demographics to adopt new technologies, usually because of fear of the unknown and resistance to change, which is associated with older demographics. Thus, providers of AI tools must adopt measures related to this demographic to convince them to utilize the tools.

The study explored the use of AI tools among various professions from diverse sectors, and the findings reflect the wide-reaching influence of AI across industries. Notably, Technology and IT specialists constituted the largest group, accounting for 16.4% of the respondents (see appendix for distribution table). This prevalence aligns with their work's tech-centric nature and familiarity with AI applications. It is also indicative of the necessity of users in the IT field to adopt these tools, as they are essential for effectiveness. Furthermore, [63] affirm that the adoption of AI in tech-related fields is due to the lack of resistance to technology in the field, as professionals do not find it challenging to use. The graph below further shows the distribution of the findings:

Other significant representations came from Marketing and Advertising, Research and Development, and Entrepreneurs, each making up around 10% of the responses. This suggests that AI tools are increasingly integral in strategic planning, creative industries, and entrepreneurial ventures. Meanwhile, sectors like Healthcare and Education, though essential, showed lower AI adoption rates, possibly due to regulatory constraints or the necessity of human touch in these fields.

**Table 3. Demographic results**

Age	Respondents	Percentage
Under 20	458	28.1%
21-30	734	45%
31-40	239	14.6
41-50	163	9.9
51-60	32	2%
Over 60	6	0.4
<b>Total</b>	<b>1632</b>	<b>100%</b>

Furthermore, the study investigated users' preferences among the AI tools to ascertain how users rank their preferences and find the tools relevant. The result is presented in the graph below (detailed table in appendix):

ChatGPT emerged as the most popular choice, with 84% of the survey respondents affirming its usage. This high usage rate could be attributed to ChatGPT's versatility and widespread media coverage, making it a familiar tool for many. Also, being the first generative AI tool, it can be implied that it enjoys a first-mover advantage in the industry. Claude followed as the second most utilized AI tool, with a 54.6% usage rate. This indicates a strong preference for AI tools that offer conversational capabilities, reflecting the growing trend of using AI for communication and content creation tasks.

Furthermore, the tool, designed by former members of Open AI (parent company of ChatGPT), leverages the former's weaknesses, thus serving critics of ChatGPT. Google Bard and Copilot, with usage rates of 32% and 36.9%, respectively, demonstrated a moderate level of adoption. Their specific functionalities, such as programming assistance in Copilot's case, might appeal to niche user groups, explaining their lower but significant usage rates. Copy AI also had a notable presence, used by 52.5% of

participants, suggesting its effectiveness in content generation tasks. The "Others" category, which included a variety of less common AI tools, was selected by 31.8% of respondents. This indicates a diverse range of AI tools being explored and utilized, catering to specific needs and preferences outside the mainstream options.

The study further delves into the purposes for which these AI tools are used (see appendix for distribution table). The result shows a substantial leaning towards using AI in business and task management, with 59% of respondents incorporating these tools in their workflows. This trend highlights AI's pivotal role in optimizing business processes, automating routine tasks, and enhancing overall operational efficiency. Furthermore, Content creation is another key area of AI tool application, as indicated by 52.2% of participants. This underlines the growing reliance on AI for generating creative and engaging digital content, reflecting the evolving landscape of content management and digital marketing. Arguably, this is the reason for a large volume of usage of Copy AI (highlighted earlier) since the tool is more adaptive to content creation. Researching, chosen by 44.6% of respondents, signifies AI's impact on streamlining information gathering and analysis processes, which is crucial in data-driven industries and academic research. Education and

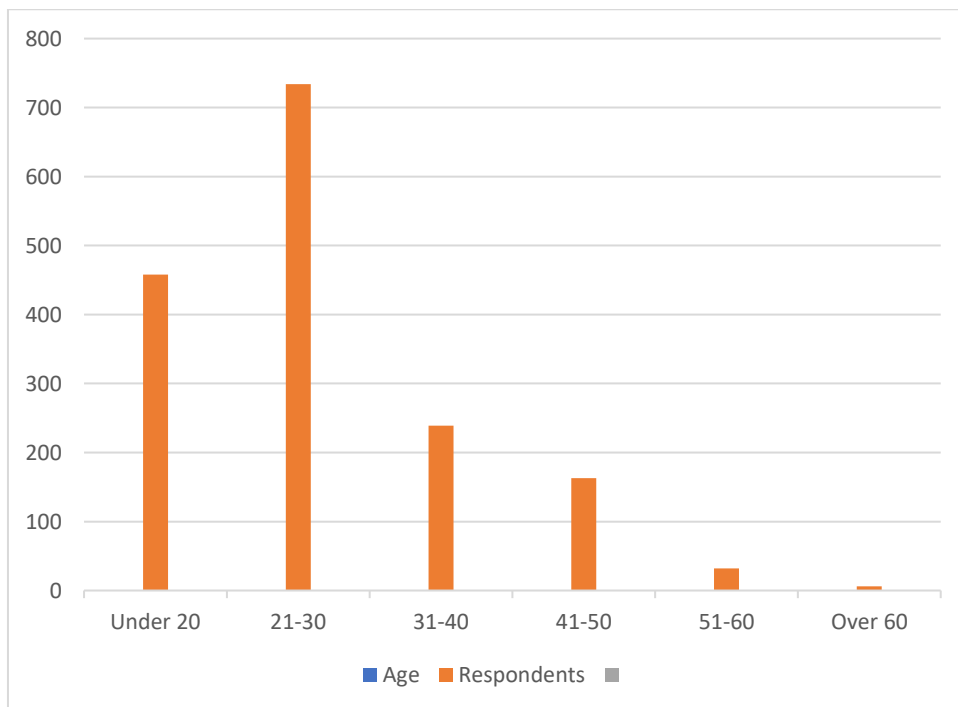
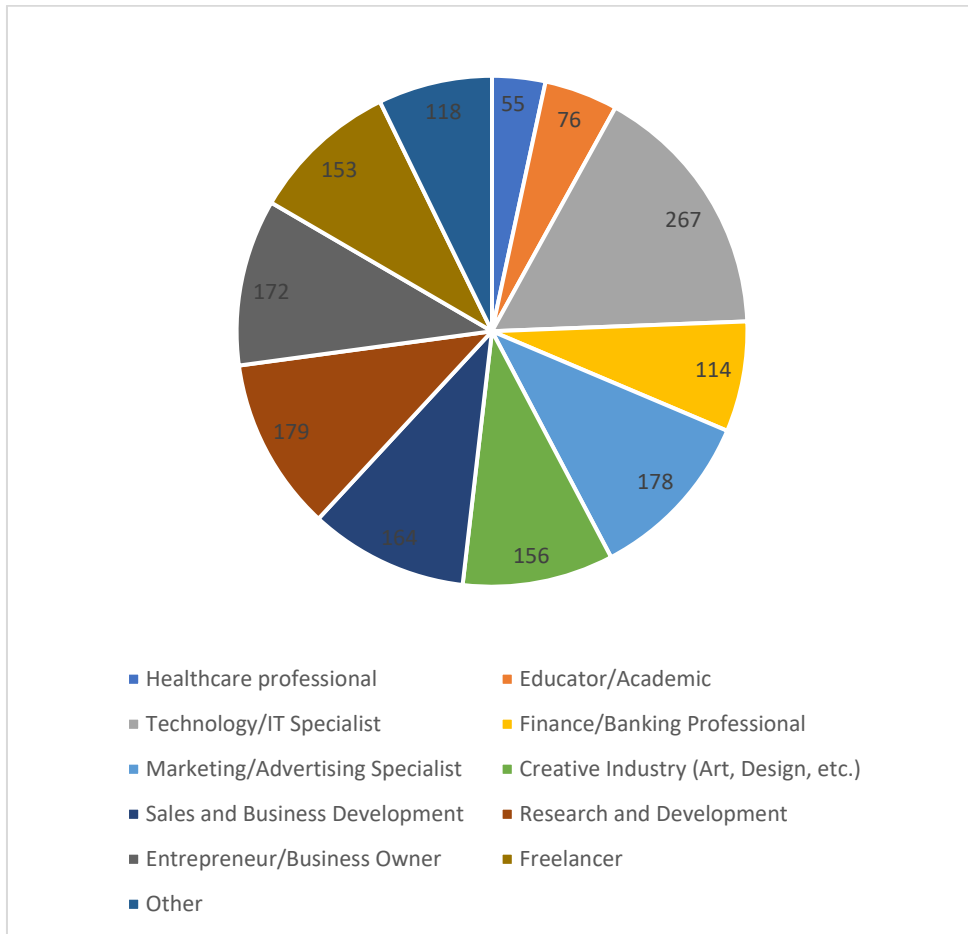
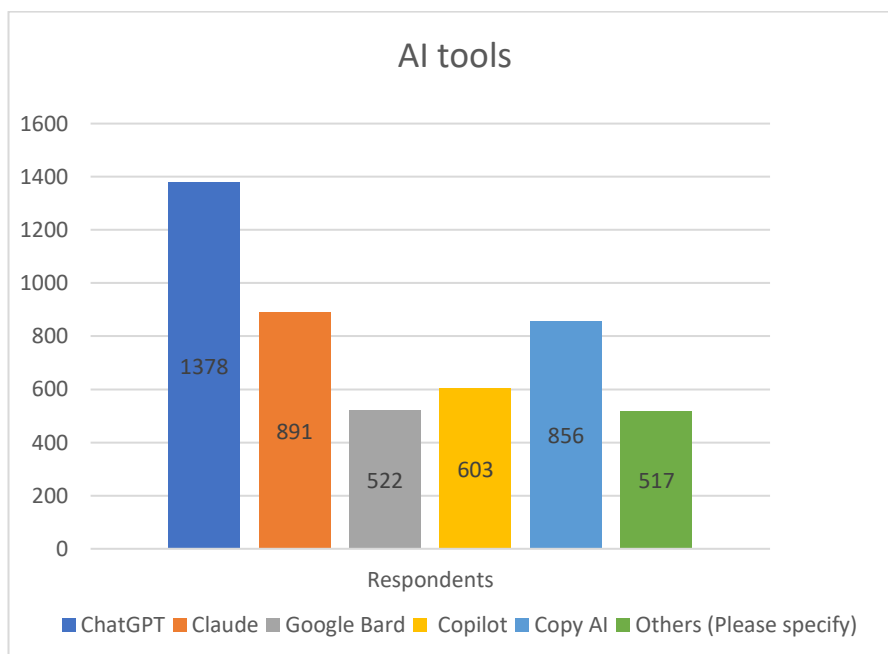


Fig. 1. Age distribution frequency



**Fig. 2. Pie chart showing profession distribution**



**Fig. 3. Users' preferences among the AI tools**

learning, with 35.8% of responses, demonstrate AI's increasing influence in education and learning. Data analysis, selected by 22.4% of the participants, points to AI's vital role in interpreting complex data sets, which is essential for decision-making and strategic planning in various fields. Lastly, the category "Others" (32.4%) suggests that AI tools are employed differently beyond conventional applications, reflecting their flexibility and potential for future growth across different sectors.

Furthermore, examining users' experience with the AI tools, the study found insightful correlations between user satisfaction, perceived reliability of AI tools, and the frequency of errors or issues experienced (see appendix). Firstly, the findings reveal that a significant majority find AI tools beneficial, meeting or exceeding their expectations in terms of performance and utility. This level of contentment is a strong indicator of the effectiveness of these tools in various professional settings. In tandem with satisfaction, the reliability of AI tools also registers predominantly positive responses, which aligns with the satisfaction data, implying that the tools meet user needs and do so consistently and dependably. However, these positive indicators

contrast with the fact that a substantial 77% of users have experienced errors or issues with AI tools, suggesting that while AI tools are generally reliable and satisfactory, they are not without flaws, which, despite not heavily impacting overall satisfaction or perceived reliability, indicates areas for improvement in AI technology. The coexistence of high satisfaction and reliability ratings with a notable frequency of errors highlights a complex user relationship with AI tools. Users seem to recognize and appreciate AI tools' overall benefits and strengths, which outweigh the challenges posed by occasional errors or issues. This nuanced view reflects a growing understanding and adaptation to AI technologies, where users are increasingly comfortable navigating their advantages and limitations. It also underscores an opportunity for continued development and refinement of AI tools, aiming to reduce error rates while maintaining or enhancing their effectiveness and reliability in various professional contexts.

**4.1 HYPOTHESIS TESTING**

**Hypothesis 1:** There is a significant impact of artificial intelligence tools on the performance of professionals in recent times

**Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.970 <sup>a</sup>	.941	.941	.338

a. Predictors: (Constant), Artificial intelligence tools

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1183.309	1	1183.309	10380.726	.000 <sup>b</sup>
	Residual	73.866	648	.114		
	<b>Total</b>	<b>1257.175</b>	<b>649</b>			

a. Dependent Variable: Performance of professionals

b. Predictors: (Constant), Artificial intelligence tools

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	-.083	.032		-2.586	.010
	Artificial intelligence tools	.489	.005	.970	101.886	.000

a. Dependent Variable: Performance of professionals

Hypothesis One tested the relationship between the dependent variable (Performance of professionals) and the independent variable (Artificial intelligence tools). The result shows that a positively significant relationship exists between these two variables ( $r=.970$ ,  $p=.000$ ). The Beta value, which is closer to 1 (Beta = .970), also affirms the significance of the positive relationship, which connotes artificial intelligence tools have a positive impact on the performance of professionals in recent times. Therefore, the hypothesis is accepted.

Hypothesis two tested the relationship between the dependent variable (Conventional job availability) and the independent variable (Artificial intelligence tools). The result shows that a positively significant relationship exists between these two variables ( $r=.970$ ,  $p=.000$ ). The Beta value, which is closer to 1 (Beta = .970), also affirms the significance of the positive relationship, which means artificial intelligence tools have a strong significant effect impact on conventional job availability. Therefore, the hypothesis is accepted.

**Hypothesis 2:** Artificial intelligence tools have a significant impact on conventional job availability

**Hypothesis 3:** There is a growing concern about the dangers of artificial intelligence tools and social balance.

**Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.970 <sup>a</sup>	.941	.941	.66933

a. Predictors: (Constant), Artificial intelligence tools

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4650.600	1	4650.600	10380.726	.000 <sup>b</sup>
	Residual	290.306	648	.448		
	Total	4940.906	649			

a. Dependent Variable: Conventional job availability

b. Predictors: (Constant), Artificial intelligence tools

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.520	.061		8.536	.000
	Artificial intelligence tools	1.923	.019	.970	101.886	.000

a. Dependent Variable: Conventional job availability

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.963 <sup>a</sup>	.927	.927	.373

a. Predictors: (Constant), Artificial intelligence tools

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1150.824	1	1150.824	8253.665	.000 <sup>b</sup>
	Residual	90.352	648	.139		
	Total	1241.175	649			

a. Dependent Variable: Social balance

b. Predictors: (Constant), Artificial intelligence tools



**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.298	.034		8.772	.000
	Artificial intelligence tools	.957	.011	.963	90.850	.000

a. Dependent Variable: Social balance

Hypothesis 3 evaluated the relationship between the dependent variable (Social balance) and the independent variable (Artificial intelligence tools). The result shows a positive significant relationship between these two variables ( $r=.963$ ,  $p=.000$ ). The Beta value closer to 1 (Beta = .963) affirms the significant growing concern about the dangers of artificial intelligence tools and social balance. Hence, the hypothesis is accepted.

The study demonstrates a strong positive correlation between using AI tools and enhancing professional performance. The significant relationship ( $r=.970$ ,  $p=.000$ ) underscores how AI technologies like ChatGPT, Claude, Bard, Copilot, and Copy AI are increasingly integral in various professional contexts. This finding is consistent with the increasing reliance on AI for tasks ranging from data analysis to content creation and decision-making support. The high beta value (Beta = .970) indicates that professionals leveraging AI tools are likely experiencing substantial gains in efficiency, accuracy, and overall productivity. This aligns with literature suggesting that AI tools enable professionals to focus on more strategic tasks through automation and advanced data processing capabilities, thereby elevating their work quality and output [64].

The analysis reveals a pronounced impact of AI tools on conventional job availability ( $r=.970$ ,  $p=.000$ ). The data supports the hypothesis that AI tools significantly influence job dynamics, corroborating concerns about AI-induced job displacement. The high beta value (Beta = .970) highlights the profound effect of AI on traditional job roles, particularly in sectors where automation and AI capabilities can replace routine human tasks [64]. This outcome calls for a strategic approach to workforce planning and skills development, emphasizing the need for continuous learning and adaptation to the evolving job market. It suggests that while AI brings efficiency and innovation, it also necessitates reshaping the workforce, with an increased focus on roles that leverage human

creativity and complex problem-solving skills that AI cannot replicate.

The study's third hypothesis finds a significant relationship between the use of AI tools and concerns about societal balance ( $r=.963$ ,  $p=.000$ ). This finding reflects growing apprehensions about the ethical, privacy, and societal implications of rapidly advancing AI technologies. The near unity beta value (Beta = .963) indicates a widespread perception that AI, while beneficial, poses challenges to societal equilibrium. This includes concerns about data privacy, algorithmic bias, and the unequal distribution of AI's benefits and risks [65]. It underscores the importance of addressing the ethical dimensions of AI deployment, including Transparency, fairness, and accountability in AI development and usage. Moreover, it calls for a balanced approach to AI adoption, ensuring that technological advancements do not exacerbate societal inequalities but contribute positively to social welfare [66].

Overall, the study highlights the multifaceted impact of AI tools on professional efficiency, job dynamics, and societal concerns. This findings corroborates with the assertions of [67] stating that while AI tools significantly enhance professional performance and bring numerous advantages to various industries, they pose challenges to conventional job roles and raise critical concerns about societal balance. These findings suggest a need for a balanced approach to AI integration, emphasizing ethical considerations, workforce reskilling, and societal impact mitigation. As AI continues to evolve, it is imperative for policymakers, industry leaders, and AI developers to collaboratively address these challenges, ensuring responsible and equitable AI deployment.

**5. CONCLUSION AND RECOMMENDATION**

This study presents a comprehensive analysis of the impact of artificial intelligence tools on professional performance, job availability, and

societal balance. The findings indicate that AI tools like ChatGPT, Claude, Bard, Copilot, and Copy AI significantly enhance professional efficiency and offer various applications across various industries. However, they also challenge traditional job roles and raise critical societal concerns. The high adoption and satisfaction rates among younger professionals contrast with the apprehension and lower engagement in older demographics. These insights underscore AI's transformative yet complex nature in the modern world, highlighting the need for a nuanced approach to its integration and utilization. The study recommends that AI developers and companies prioritize ethical considerations in AI design and deployment. This includes ensuring data privacy, addressing algorithmic biases, and enhancing Transparency in AI operations. Also, the study propose that educational institutions and organizations focus on reskilling initiatives to prepare the workforce for an AI-augmented future. Emphasis should be placed on developing skills AI cannot replicate, such as critical thinking, creativity, and complex problem-solving.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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## APPENDIX

### Participant Information:

#### 1. Age:

- Under 20
- 21-30
- 31-40
- 41-50
- 51-60
- Over 60

#### 2. Profession:

- Healthcare Professional
- Educator/Academic
- Technology/IT Specialist
- Finance/Banking Professional
- Marketing/Advertising Specialist
- Creative Industry (Art, Design, etc.)
- Sales and Business Development
- Research and Development
- Entrepreneur/Business Owner
- Freelancer
- Other

#### 3. Technical Expertise with AI Tools:

- Novice
- Intermediate
- Expert

### Section A: Demographics and AI Tool Usage

#### 4. How frequently do you use AI tools?

- Daily
- Weekly
- Monthly
- Rarely
- Never

#### 5. Which types of AI tools do you use? (Select all that apply)

- ChatGPT
- Claude
- Google Bard
- Copilot
- Copy AI
- Others (Please specify)

#### 6. What is the purpose of using AI tools? (Select all that apply)

- Data analysis
- Content creation
- Business and task management
- Researching
- Education and learning
- Others

### Section B: Functionality and Reliability of AI Tools

**7. How satisfied are you with the functionality of AI tools?**

- Very Dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very Satisfied

**8. How reliable do you find AI tools?**

- Very Unreliable
- Unreliable
- Neutral
- Reliable
- Very Reliable

**9. Have you experienced errors or issues with AI tools?**

- Yes
- No

### Section C: Impact of AI on Professional Efficiency

**10. Do AI tools enhance your work efficiency?**

- Yes
- No

**11. To what degree have AI tools impacted your professional effectiveness and efficiency?**

- No impact
- Slight impact
- Moderate impact
- Significant impact
- Very significant impact

**12. Do you believe AI tools have the potential to replace job roles?**

- Yes
- No

### Section D: Job Dynamics and Future Implications

**13. Have AI tools impacted job availability in your field?**

- Yes
- No

**14. How do you see the future of your profession with advancements in AI?**

- Very negative
- Somewhat negative
- Neutral
- Somewhat positive
- Very positive

**15. How concerned are you about the future impact of AI on your profession?**

- Not concerned
- Slightly concerned
- Moderately concerned
- Highly concerned
- Extremely concerned



### Section E: Trust and Satisfaction in AI Tools

**16. How much do you trust the outputs provided by AI tools?**

- Do not trust at all
- Trust a little
- Neutral
- Trust mostly
- Completely trust

**17. What factors influence your trust in AI tools? (Select all that apply)**

- Accuracy of outputs
- Reliability over time
- Transparency of processes
- Ethical considerations
- Peer recommendations

**18. Overall, how satisfied are you with AI tools for professional needs?**

- Very Dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Very Satisfied

### Section F: Hypotheses Testing

**Hypothesis 1: There is a significant impact of artificial intelligence tools on the performance of professionals in recent times.**

**19. To what extent do you agree with the following statement: "Artificial Intelligence tools have significantly improved my professional performance."**

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

**20. Rate the level of efficiency in your professional tasks before and after the adoption of AI tools.**

**Before AI Tools Usage:**

- Very Inefficient
- Inefficient
- Neutral
- Efficient
- Very Efficient

**After AI Tools Usage:**

- Very Inefficient
- Inefficient
- Neutral
- Efficient
- Very Efficient

**Hypothesis 2: Artificial intelligence tools have a significant impact on conventional job availability.\*\***

**21. To what extent do you agree with the following statement: "Artificial Intelligence tools are replacing traditional roles in my field."**

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

**22. In your opinion, what is the likelihood of AI tools drastically reducing the need for human labor in your profession within the next 5 years?**

- Very High
- High
- Moderate
- Low
- Very Low

**Hypothesis 3: There is a growing concern about the dangers of artificial intelligence tools and social balance.**

**23. To what extent do you agree with the following statement: "The rapid advancement in AI technology poses a threat to social balance."**

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

**24. How concerned are you about the ethical implications of AI tool usage in your profession?**

- Extremely Concerned
- Moderately Concerned
- Slightly Concerned
- Not Concerned

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