

Exploring Generative Artificial Intelligence (GAI): Business Professionals' Surveys and Perceptions on GAI

Danxia Chen

Dallas Baptist University

Cicely Jefferson

Dallas Baptist University

Joanne Hix

Dallas Baptist University

Nathan Qin

Carroll ISD

Yumeng Cao

Dallas Baptist University

Generative AI (GAI) marks significant advancements in technology and machine learning models. It has achieved a newer and higher level of creativity and innovation through the AI system. With such rapid growth and boom in GAI, gaps exist in the current literature about the organizations and individual levels of applying GAI. The researchers conducted a mixed-methods study to explore business professionals' experiences and perceptions of using GAI. This current study examined the purpose of using GAI and the statistically significant differences in productivity before using GAI versus after using GAI. The impact of gender, age, and educational background on work productivity while using GAI was also investigated. Furthermore, this study researched the most prominent GAI tools these business professionals use. The advantages and disadvantages of using GAI were analyzed through detailed content analyses of the qualitative data using NVIVO and SQL. This study highlights the vital impact of GAI in improving efficiency, increasing productivity, and fostering innovation. It also calls for strategic planning to maximize the GAI benefits in organizational implementations while addressing overreliance, ethics, security, hallucination, and user experience concerns.

Artificial Intelligence (AI) is a term first coined by John McCarthy in his Dartmouth Research Project proposal (1955). Later, he clearly states that AI is “the science and engineering of making intelligent machines” (McCarthy, 2007, p. 2). IBM also defines AI as “technology that enables computers and machines to simulate human intelligence and problem-solving capabilities” (IBM, n.d.). Both definitions provide vivid descriptions of the nature of AI. The development of AI and the debut of ChatGPT in November of 2022 has brought an exciting new wave of generative AI products and experimentations. Feuerriegel et al. (2023) define the term “generative” as an AI system’s capacity to generate new material autonomously that cannot be distinguished from humans. GAI (Generative AI) marks advancements in Artificial Intelligence. It has achieved a newer and higher level of creativity and innovation that surpasses human capabilities. ChatGPT, one of the great examples of GAI tools, exceeded records as the fastest-growing consumer app in history. OpenAI states that more than 92% of Fortune 500 companies and 100 million weekly active users are using their platform (Hadi et al., 2023). On May 13, 2024, OpenAI introduced a new flagship model GPT-4o, which sparked a new level of user-friendly AI that can

reason across video, audio, and text in real-time.

With such a rapid development and boom in AI, questions arise on: How AI is related to productivity? How can business professionals improve statuses using GAI, and what are current perceptions about GAI? These are critical questions that this current research study seeks to answer. Gender, age, and educational differences in using GAI are another key focus of this research. In addition, the researchers are also eager to determine whether there is a statistically significant difference in productivity before using GAI versus after using GAI. The frequency analysis of the number of GAI tools and some of the most frequently used GAI tools were also examined. Furthermore, the pros and cons of GAI were carefully studied through intensive interviews and detailed content analysis. This study intends to shed light on the GAI research, bringing recommendations and suggestions to improve companies' GAI implementation and their organizational innovation and development.

Literature Review

History of Automaton

To begin the literature review, the researchers first began with the history of automaton. The history of automa-

ton can be traced back thousands of years. For example, inside Liezi (Liezi, 400 B.C.E.), there was a vivid description of an encounter between King Zhou (1023–957 B.C.E.) and the mechanical engineer Yen Shih. Shih presented the King with a realistic, detailed, life-size, human-shaped robot.

The king stared at the figure in astonishment. It walked with rapid strides, moving its head up and down, so that anyone would have taken it for a live human being. The artificer touched its chin, and it began singing, perfectly in tune. He touched its hand, and it began posturing, keeping perfect time. . . As the performance was drawing to an end, the robot winked its eye and made advances to the ladies in attendance.” (Liezi, 400 B.C.E./1912, p.n70, Book 5)

Automaton in Europe can be found through the descriptions in the Encyclopedia Britannica (Gregersen, 2024). The Greek philosopher Plato’s friend Archytas constructed a wooden pigeon. It moved elegantly with the help of compressed air. Several centuries later, Heron, another Greek-Egyptian mathematician and engineer, wrote about automated machines that were operated by steam, water, and moving weights. His inventions included steam-powered engines, a vending machine, an organ powered by wind, and many automatic musical instruments for the Greek theaters. The numerous unique and exquisite European clocks and watches that were made during the late Medieval and Renaissance periods are another excellent example of automaton. With such a rich background and history in human development of automation and engineering, AI’s origination becomes predictable.

History of Modern AI

Modern AI development history features some recent historical individuals and significant events. For example, Alan Turing was one of the founding fathers of modern AI. As early as the 1950s, he discussed the possibility of machines using the available information to solve complicated problems and make wise decisions like human beings. He included this logical framework in his paper “Computing Machinery and Intelligence,” built mathematical models, and further explained how to build these smart machines and test their intelligence (Turing, 1950). He suggested building machines that competed with humans. One of the best activities that he recommended was playing chess. In 1997, IBM’s Deep Blue computer beat the world chess champion, Gary Kasparov, in a chess tournament (Anyoha, 2017).

Five years later, the first AI program, Logic Theorist, was developed. Initialized by Allen Newell, Cliff Shaw, and Herbert Simon, this AI program was designed to mimic human problem-solving skills (Anyoha, 2017). The 1956 Dartmouth Summer Research Project by McCarthy et al. was introduced during the Artificial Intelligence conference and significantly catalyzed the next 20 years of AI research. As a result, AI has experienced tremendous growth and rapid development.

AI Growth and Development

Furman and Seamans (2018) highlighted a dramatic increase in the use of AI over the past 10 years. Their research found that startup funding for AI has increased from \$500 million in 2010 to \$4.2 billion in 2016. There was a growth spurt of 40 percent between 2013 and 2016. Figure 1 by Baruffaldi et al. (2020) showed a rapid growth of AI being used in open-source software.

According to the Future of Jobs Report by the World Economic Forum (2023), AI and big data were among the top three skills in supply and demand. Figure 2 shows the rankings of skill demands. AI and big data were listed in a prominent place as Figure 2 demonstrates.

AI and Productivity

Several research studies have shown that AI has significantly impacted economic growth as other general-purpose technologies have (Aghion et al., 2017; Agrawal et al., 2018; Brynjolfsson et al., 2018). Brynjolfsson et al. (2021) developed a comprehensive model to show the productivity J-curve with AI. Their study highlighted the great potential of AI to enhance productivity through innovation, creativity, and business process improvement. They applied the U.S. data to their framework. The data analysis results supported the hypothesis of the underestimation of productivity growth in the early AI years. Productivity growth was overestimated as the benefits of intangible investments in AI were harvested. The authors also declared a very impressive growth in the economy during the early AI adoption cycle. Their study results yielded a much higher total factor productivity (TFP level), which was 15.9 percent higher than the official measures at the end of 2017. Their study clearly demonstrated that “the more transformative the new technology, the more likely its productivity effects will initially be underestimated” (p. 40).

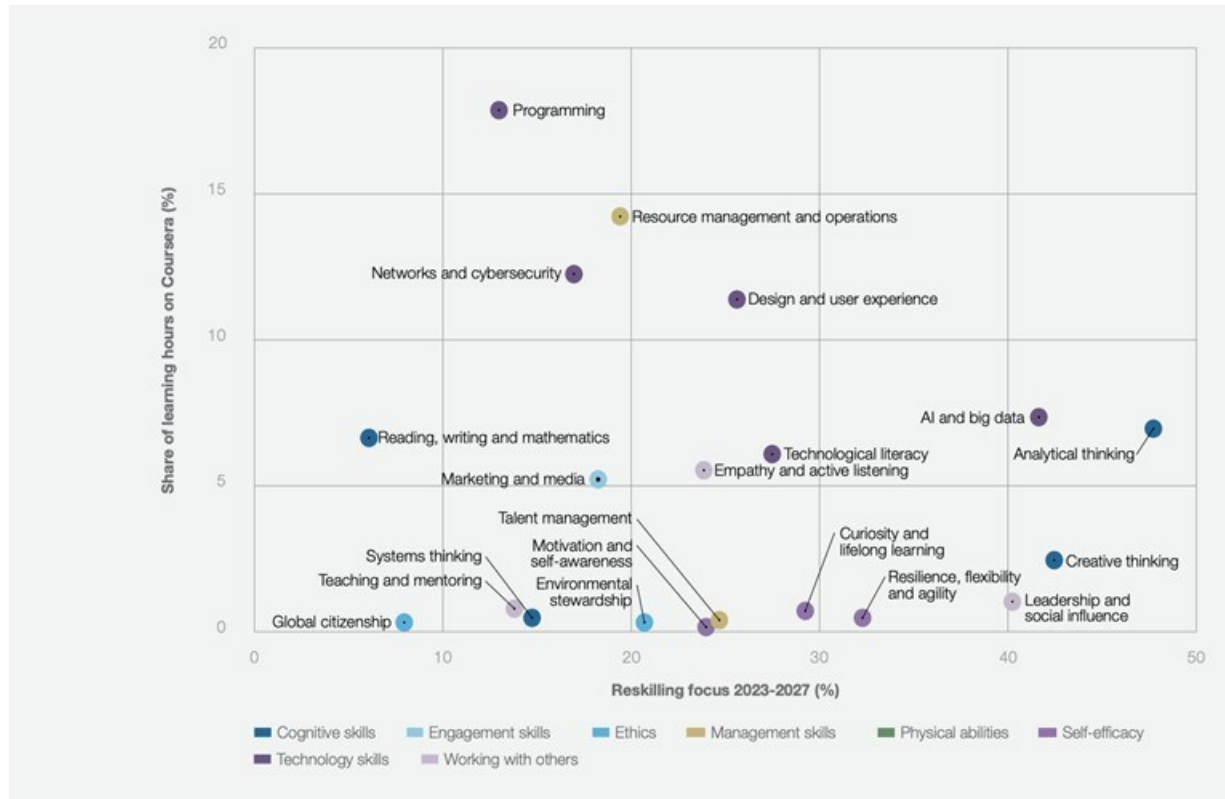
Gonzales (2023) researched the impact of AI on economic growth. The researcher pointed out that “AI drives economic growth by stimulating gains both from the supply side and the demand side” (p.7). On the supply side, AI increases productivity through improved automation processes with robots and the enhancement of the labor force with AI technologies. On the demand side, by providing highly personalized and customer-specific tailored/designed products and services, AI generates a much higher increase in consumer demand. Rao and Verweij (2017) predicted that AI could contribute up to \$15.7 trillion to the global economy by 2030. North America is likely to see the fastest boost in the next few years. They also pointed out that AI produced a great uplift in the gross domestic product (GDP) in North America. These gains were amplified and accelerated by applications of advanced technological and consumer readiness for AI, along with the impact of the rapid accumulation of assets. They concluded that AI is set to be the key source of transformation, disruption, and competitive advantage in today’s fast-changing economy.

Figure 1*AI Growth Trend*

Note. This figure captures the dramatic AI growth from 2010 to 2017. From “Identifying and Measuring Developments in Artificial Intelligence: Making the Impossible Possible,” by S., Baruffaldi, et al., 2020, *OECD Science, Technology and Industry Working Papers*. Copyright 2020 by OECD foundation.

Accenture, a leading global professional consulting company conducted research on 12 developed economies (U.S., Finland, U.K., Sweden, Netherlands, Germany, Austria, France, Japan, Belgium, Spain, and Italy) in 2016. The impact of AI technologies on business was projected to boost labor productivity by up to 40 percent. AI fundamentally changed the way work is done and reinforced the role of people to drive business growth. It forecasted that by 2035, AI could double annual global economic growth rates. Szczepański (2019) described that AI drives this growth in three important ways. First, it leads to a strong increase in labor productivity with innovative technologies and efficient time management. Second, AI creates a new virtual assistant that can solve problems, serve customers’ needs, and accelerate self-learning. Third, AI diffuses technological innovations into a much wider economic infrastructure, thus creating new revenue.

The study by Naqbi et al. (2024) discussed how generative AI tools can significantly enhance productivity by augmenting human capabilities. It highlighted three scenarios where AI can either complement human work, fully automate certain tasks, or transform the nature of creative work, leading to new opportunities and efficiencies. Through detailed and extensive content analysis, significant trends and gaps in AI applications were identified. Their bibliometric analysis especially noticed that ChatGPT was the center of AI’s evolution. The authors concluded that the integration of GAI in various organizations marks a significant leap in digital transformation and creativity enhancement. AI’s application in different fields such as business, engineering, and communications is quickly revolutionizing work productivity and increasing work efficiency.

Figure 2*Skill Demands by Future of Jobs Report*

Note. This figure reveals the outlook for jobs and skills in the next five years with Coursera data. From “The Future of Jobs Report 2023,” by World Economic Forum, 2023. Copyright 2023 by World Economic Forum.

Through an extensive literature review, the researchers noticed that most of the recent research studies were focused on the macroeconomic impacts of GAI, and limited research studies have been conducted on GAI at the organizational and individual levels. This current research study intends to provide useful insights from business professionals’ standpoint, focuses on analyzing the potentials of AI and their use at work, and explores the relationship between work productivity and GAI usage. This study also uniquely applies both quantitative and qualitative methods to highlight the pros and cons of GAI. It serves as a helpful guide for organizations and decision-makers that are keenly interested in applying this revolutionary transformative GAI to various fields. The research study emphasizes the vital role of AI in improving efficiency and fostering innovation. It also calls for strategic planning to maximize the benefits of AI while addressing ethical and user experience concerns.

Methodology

This research study used a mixed research method. Initially, quantitative data were collected. Based on the quantitative data results, purposely selected participants were interviewed to collect qualitative data. The following research questions were examined:

What are the current statuses of using AI? For work,

personal, or both?

Is there any statistically significant difference in work productivity before using GAI versus after using GAI?

Are there any statistically significant gender, age, and educational background differences in productivity while using GAI?

What are some of the prominent GAI tools being used?

What are some of the pros and cons of applying GAI?

To answer these research questions, a survey questionnaire was developed that contained items about demographic data such as gender, age, educational level, and job title. The survey also included items about GAI usage, the type of GAI tools, the main purpose of using AI, and scoring items on individual productivity when using GAI and when not using GAI. Three hundred and sixty-five (365) invitations were sent out to collect data with a return of 344 volunteer participants. A large majority of the participants were organizational business professionals. Most of the data came from the U.S. participants, with some participants from Asia, South America, Europe, and Africa.

Once the data were collected, descriptive statistics were first examined to find out the answers to Research Question 1. Follow-up analyses were also conducted to find

out the statistical significance and correlations. For Research Question 2, a paired-sample t-test discovered work productivity levels among the participants before using GAI versus after using GAI. For Research Question 3, an independent samples t-test was conducted to examine the gender difference in productivity while using GAI; a Pearson correlation was run to determine the correlation between age and productivity; and one-way ANOVA was applied to learn the impact of the educational background on work productivity while using GAI. Further analysis was conducted to answer Research Question 4 regarding the number of GAI tools used and their usage frequency.

For Research Question 5, based on the quantitative data of 344 participants on various levels of productivity while using GAI or not, the researchers divided them into three strata. Strata 1 had no usage or low usage of AI; Strata 2 had a medium level of productivity while using GAI and medium usage of GAI; and Strata 3 had a high level of productivity and high usage of GAI. Three individuals from each stratum were randomly selected. Intensive interviews were conducted with these nine individuals about their opinions on using GAI, and the advantages and disadvantages of GAI. Content analysis was conducted to identify the themes and trends from the qualitative data.

Results

Summary Statistics and Research Question 1

The descriptive statistics showed that among these 344 participants, there were 165 males and 176 female participants. Tables 1 and 2 show the educational level of the participants and their GAI use purpose. One hundred and eighteen participants have undergraduate degrees, 209

participants have graduate degrees, and 17 have doctoral degrees. Visual graphs of these two frequencies (educational level and GAI use purpose) are also listed in Figures 3 and 4. Most of the participants have graduate degrees or higher. It is worth noting that 90% of participants use GAI, for personal or business/company use, or both.

Research Question 2

A paired-sample t-test was conducted to compare the productivity before using GAI versus after using GAI. The results are shown in Tables 3, 4, and 5. There is a statistically significant difference in the work productivity scores ($t=10.365$, $p<.001$) with a medium effect size ($d=.665$). Work productivity using GAI is much higher than without using GAI.

Research Question 3

Among the GAI users, an independent samples t-test was conducted to find out whether male and female participants differ in their productivity in using GAI. Tables 6 and 7 show there is no statistically significant difference ($t= -.197$, $df=279$, $p=.844$).

There is a small negative correlation between age and work productivity while using GAI, however, the correlation does not produce any statistical significance (See Table 8).

A one-way ANOVA was conducted to investigate whether there is a statistically significant difference in productivity when using GAI among various educational levels. There is a difference in the mean scores while the results yielded no statistically significant difference. Tables 9, 10, and 11 indicate the findings.

Table 1

Educational Level Frequency Table

	Frequency	Percent	Valid Percent	Cumulative Percent
Undergraduate	118	34.3	34.3	34.3
Graduate	209	60.8	60.8	95.1
Doctoral	17	4.9	4.9	100.0
Total	344	100.0	100.0	

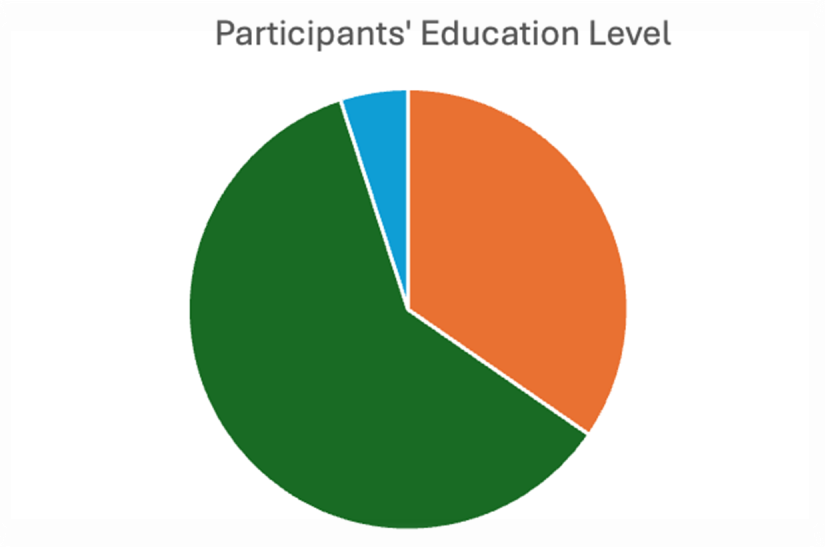
Table 2

GAI Use Purpose Frequency Table

		GAI Purpose			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not in Use	17	4.9	5.2	5.2
	Business/Company	82	23.8	25.1	30.3
	Personal	91	26.5	27.8	58.1
	Both	137	39.8	41.9	100.0
	Total	327	95.1	100.0	
Missing	System	17	4.9		
Total		344	100.0		

Figure 3

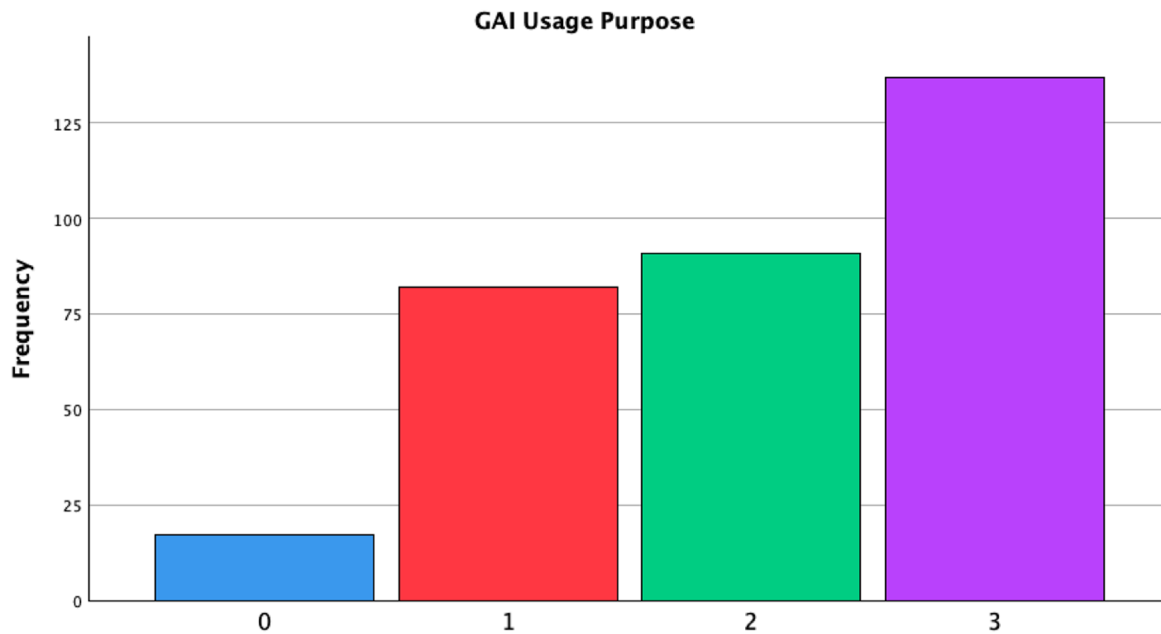
Participants' Educational Level Pie Chart



Note. 1(Orange)-Undergraduate; 2(Green)-Graduate; 3(Blue)-Doctoral Level.

Figure 4

GAI Purpose Bar Graph (0=not use, 1=business, 2=personal, 3=both)



Research Question 4

After a text coding analysis was run among the 344 research participants' responses, this study discovered a mix of both general-purpose GAI tools and specialized applications being used across various domains (See Table 12). ChatGPT appeared to be the most prominent GAI

tool being used by these research participants. The next popular tool is Gemini. The next two commonly used tools by the participants are Grammarly and GitHub Copilot. Among the 344 research participants, 281 use ChatGPT, 196 use Gemini, 167 use Grammarly, and 110 use GitHub Copilot. Figure 5 highlights the visual presen-

Table 3*Paired Sample T-Test Statistics for Productivity Using AI*

	Mean	N	Std. Deviation	Std. Error Mean
Productivity using GAI	7.51	243	1.751	.112
Productivity without using GAI	5.78	243	1.873	.120

Table 4*Paired Samples T Test Result*

Productivity	mean	Std. Dev.	95% CI		t	df	Two-sided <i>p</i>
			Lower	upper			
With vs. Without GAI	1.739	2.615	1.408	2.069	10.365	242	<.001

Table 5*Paired Samples Effect Sizes*

Pair	Productivity using GAI – Productivity without GAI	Standardize	Point Estimate	95% Confidence Interval		
				Lower	Upper	
1		Cohen's d	2.615	.665	.525	.803
		Hedges' correction	2.623	.663	.524	.801

Note. This table provides effect sizes for paired samples t test results. Cohen's d uses the sample standard deviation of the mean difference. Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Table 6*Descriptive Statistics for the Male and Female Participants Who Used GAI*

Productivity	gender	N	Mean	Std. Deviation	Std. Error Mean
Using GAI	Male	133	7.44	1.974	.171
	Female	148	7.49	1.672	.137

Table 7*Independent Samples T-Test Results*

Productivity using GAI	F	Sig	t	df	Two-sided p	95% CI lower	95%CI upper
Equal Variance	2.860	.092	-.197	279	.844	-.471	.385

Table 8*Age and Productivity Correlations*

		Age	Productivity using GAI
Age	Pearson Correlation	1	-.063
	Sig. (2-tailed)		.292
	N	344	281
Productivity using GAI	Pearson Correlation	-.063	1
	Sig. (2-tailed)	.292	
	N	281	281

Table 9*Educational Level's Impact on Productivity Using GAI Descriptive Statistics*

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean upper Bound	Minimum	Maximum
1	100	7.35	2.070	.207	6.94	7.76	1	10
2	164	7.50	1.707	.133	7.24	7.76	1	10
3	17	7.82	1.185	.287	7.21	8.43	6	10
Total	281	7.47	1.818	.108	7.25	7.68	1	10

Note. 1=Undergraduate, 2=Graduate, 3=Doctoral.

Table 10*Educational Levels on Productivity Using GAI Tests of Homogeneity of Variances*

Productivity Using GAI	Levene Statistic	df 1	df 2	Sig.
Based on Mean	3.237	2	278	.041
Based on Median	1.958	2	278	.143
Based on Median and with adjusted df	1.958	2	259.612	.143
Based on trimmed mean	2.920	2	278	.056

Table 11*Educational Levels on Productivity Using GAI ANOVA Output*

ANOVA					
Productivity Using GAI	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.708	2	1.854	.559	.572
Within Groups	921.721	278	3.316		
Total	925.429	280			

Table 12*GAI Tools Used by the Research Participants*

GAI Tools	Usage	Percentages
ChatGPT	281	81.68%
Gemini	196	56.97%
Grammarly	167	48.54%
GitHub Copilot	110	31.97%

tation of the top four usage percentages for the GAI tools. By identifying the frequently used GAI tools, researchers will be able to provide better suggestions and insight for companies on training and development in GAI for employees.

Research Question 5: Pros and Cons of GAI

After collecting the quantitative data, data were also sorted in descending order according to the productivity score while using GAI. Then the data were stratified into three groups: high productivity, medium productivity, and low productivity while using GAI. Three individuals from each stratum were randomly selected. Interviews were

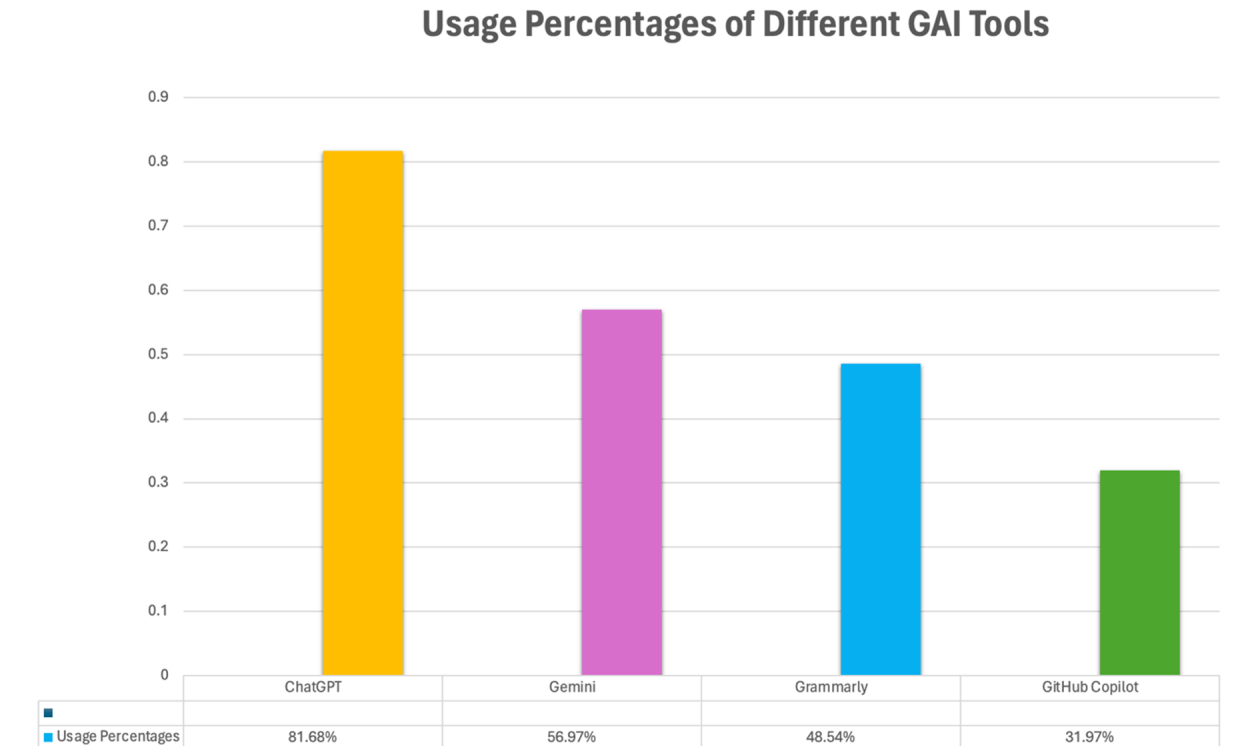
conducted among these nine individuals. Fortunately, they all agreed to be interviewed. After the interviews, NIVI-VO software was utilized to analyze the qualitative data. In addition, content analyses from the survey items were also conducted using SQL. The following statements briefly summarize the major themes.

Pros of GAI

Efficiency. Regarding the advantages of GAI, the participants highlighted again that GAI use increases efficiency and productivity. It automates repetitive tasks, speeds up processes, and increases overall productivity. It can quickly gather and summarize information, providing help such as email management, coding, and data analysis. It is a great time-saver.

Accuracy. GAI use also increases accuracy. By utilizing GAI tools, complex data operations can be performed with high precision, thus reducing human error. One of the examples that several interviewees mentioned is that professionals in medical fields who use GAI tools can diagnose symptoms more precisely.

Speed. With AI's assistance, users can generate ideas quickly and draft content easily. One of the participants

Figure 5*Usage Percentage of Different GAI Tools*

especially mentioned Sora, which is OpenAI's text-to-video model. It generates video content up to a minute based on users' prompts while maintaining high-level visual quality. It can create videos with complex scenes, various characters, and detailed backgrounds. By utilizing the innovative approaches and deep insights provided by GAI, users will be able to create new products, services, and solutions at a much faster pace, thus fostering their own creativity and innovation.

Personalized Support. GAI also provides personalized support. An interview participant mentioned the newest model of ChatGPT-4o. This version of ChatGPT seamlessly provides native integration of text, voice, and vision for more natural interactions. It also enables real-time responsiveness and enhances non-English language capabilities. In essence, it becomes a highly personalized and accessible tutor. One of the interviewees described her experience in learning a foreign language by utilizing AI as her tutor. With her prompt, ChatGPT generated flashcards in this specific foreign language with pictures and images and guided her well by providing her with instant pop quizzes. These powerful AI tools open doors to a new era of learning, teaching, and interacting with technology.

Cons of AI

Overdependency. Though AI has many benefits and advantages, it also has its disadvantages. One of the themes that emerged from both the interviews and content

analysis is dependence on AI. Overreliance on AI can weaken independent thinking and problem-solving skills, leading to a lack of creativity and critical evaluations.

Biased. GAI is not always trustworthy, which is a theme frequently mentioned by the interviewees and surveys. Information provided by AI may sometimes be inaccurate or difficult to verify, necessitating manual reviews. One of the participants described that she tested ChatGPT for a made-up and non-existent phenomenon. ChatGPT produced a very specific answer with several famous experts' references. The participant checked into details and noticed none of the references existed. For another example, ChatGPT was trained using a massive dataset of text written by humans that was pulled from online resources. Its responses can be biased depending on the training data used by the original authors. If ChatGPT encounters unknown prompts or lacks training data, ChatGPT will tend to make up an answer to the best of its ability. This raises accuracy and trust issues. One of the interviewees specifically pointed out a case when AI was trained in an under-representative sample in his company. Under such a condition, AI quickly hallucinated patterns and features that reflected these biases. The person in charge of this case did not realize the errors and biases generated by the AI model and trusted the results without careful reviews, which caused a substantial financial loss for his company.

Ethical and Moral Issues. Content analysis and summary of the interviews also uncovered the ethical and moral issues that face those who utilize various GAI tools. GAI use can cause unfair practices and outcomes. At times, it can place users in serious ethical dilemmas. One of the interviewees mentioned an ethical dilemma that he was facing. He is a business professional working 50+ hours weekly and attending graduate school simultaneously. The professor in one of his courses requested students not to use ChatGPT for coding assignments. Nevertheless, due to time constraints in working and attending school, it would be much more efficient to use ChatGPT to generate codes instead of manually writing codes on his own. This posed a substantial ethical and moral issue for him.

Privacy and Security Issues. AI systems often require a lot of personal data and information, which raises certain issues related to data privacy and security. GAI tools being used by the wrong person are extremely dangerous. For example, scammers use AI to commit crimes. One of the interviewees mentioned a terrible experience that happened to his friend. Scammers cloned his friend's voice and fabricated a call to his mom. The clone phone call claimed that his friend was in a medical emergency and needed a large amount of money. His parents were so nervous and immediately wired money to the account that was designated over the phone. It turned out to be a scammer because nothing had happened to his friend. Although AI brings benefits, humans currently are becoming more vulnerable to adversarial attacks generated by the GAI models.

Challenging and Confusing. Certain GAI tools are highly technical and complex, which demands strong technical expertise. They can be very challenging and confusing. Several of the low AI /no AI usage interviewees expressed their serious concerns and fears about AI. One of them said, "AI is daunting." Automation of AI can lead to the loss of certain entry-level jobs, which places certain groups of people at risk.

In conclusion, the surveys and interview data reveal that while AI offers significant benefits in terms of efficiency, accuracy, and convenience, it is crucial to use it judiciously, being aware of its limitations and potential impact on privacy, security, and independent thinking.

Conclusion and Future Implications

This research study highlights various perspectives on GAI. Through a mixed-methods design, it emphasizes GAI's vital impact on productivity and efficiency. Furthermore, this current study pinpoints the downsides of GAI, such as dependency, bias, hallucination, and security issues. The quantitative data results indicate that there is a statistically significant difference in productivity before using GAI versus after using GAI. However, there is no gender or educational level difference in using GAI. Although age has a small negative relationship with productivity while using GAI, the correlation is not statistically significant. This study also explores the commonly

used GAI tools and discovers that the top four most frequently used GAI tools among these 344 research participants are: ChatGPT, Google Gemini, Grammarly, and GitHub Copilot.

The qualitative data clearly demonstrated the huge benefits of GAI such as efficiency and accuracy. GAI models' amazing speed in generating new content and summarizing results is beyond imagination. The specifically tailored and highly personalized support provided by GAI is instrumental. In addition to this, GAI effectively facilitates creative ideas and innovations across different fields. While GAI makes significant contributions to organization and business growth by enhancing productivity and efficiency across multiple sectors, it also involves complicated and complex challenges. Overreliance on AI will place roadblocks on creativity and innovation. GAI's ethical and privacy issues should be carefully addressed. It is extremely critical to safeguard GAI from high-tech crimes and security data breaches. Business professionals need continuous support and effective training to help them develop GAI mindsets, embrace this revolutionary technology, and make transformational changes to organizations.

Future Implications

The implications for these GAI technologies are almost frightening in their sheer scope, size, and scale. However, companies and business professionals cannot afford not to engage with these GAI technologies. The GAI possibilities are too profound to be neglected.

Considering these emerging revolutionary opportunities, together with the tremendous challenges and risks that organizations need to tackle and manage, this research study calls for strategic planning to maximize the benefits of AI while addressing ethical and user experience concerns. Organizations should clearly establish their chosen AI system's responsibilities and limitations to steer the GAI technology and its use in a responsible and sustainable direction. Furthermore, vigilance in the AI training and checking phases is paramount. Companies should actively explore various ways and strategies to train and develop the GAI skills of their employees. Effective training and ongoing encouragement are vital for employees to be actively engaged with AI and unleash their great potential for applying GAI.

This research study also strongly recommends constantly and diligently establishing guardrails to protect AI tools against adversarial attacks and enhance their fraud and security threat detection abilities. Organizations need to take vigorous steps in developing and keeping AI models optimal, without risking any unauthorized use and confidentiality breaches.

The researchers urge a strong collaboration over a broad body of scholars, scientists, and practitioners. By conducting interdisciplinary GAI research, the researchers hope to extend GAI knowledge and skills to provide effective GAI management and direction. With collective wisdom and widespread efforts, GAI solutions can be

smoothly and seamlessly integrated into organizational infrastructures, thus contributing to the overall development of society.

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Danxia Chen (danxia@dbu.edu)

Cicely Jefferson (cicelyj@dbu.edu)

Joanne Hix (joanne@dbu.edu)

Nathan Qin (nathanq221@gmail.com)

Yumeng Cao (ycao9619@dbu.edu)
