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Revolutionary artificial intelligence or rogue technology? The promises and pitfalls of ChatGPT

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ABSTRACT

Objective: The objective of the article is to offer a thorough exploration and comprehension of the obstacles and potential advantages linked to the application of generative artificial intelligence (GAI) in the business realm, particularly emphasizing ChatGPT.

Research Design & Methods: The research utilized a narrative and critical examination of existing literature and constructed a conceptual framework grounded in prior studies. Our theoretical framework was developed through a deductive reasoning approach to ensure the logical and effective organization of the study. Consequently, this work should be considered a conceptual article that sheds light on one hand on the promises and opportunities, and on the other hand on the controversies and risks associated with generative artificial intelligence in the fields of management and economics, using ChatGPT as a specific case study.

Findings: In recent years, artificial intelligence has experienced rapid progress, leading to its widespread applications. The chatbot industry, exemplified by ChatGPT, has garnered considerable attention, with experts and researchers asserting that generative artificial intelligence and ChatGPT could transform our work routines and daily existence. Although these technologies have the potential to revolutionize data analysis and report generation, concerns have been raised about their societal impacts, particularly in areas such as ethics, privacy, and security.

Implications & Recommendations: The regulation of the GAI market is imperative to ensure fairness, competitive balance, and safeguard intellectual property and privacy while addressing potential geopolitical risks. With the evolving job landscape, individuals must continuously acquire new digital skills through education, particularly in response to the growing prominence of AI system training. Ethical considerations, such as prioritizing user privacy and security, are crucial for GAI developers to mitigate risks related to personal data violation and social surveillance, emphasizing responsible AI practices and adherence to ethical guidelines to prevent social manipulation and maintain goodwill.

Contribution & Value Added: The article structures scientific knowledge on the advantages and drawbacks of the generative artificial intelligence in business. The articles attempted to put together the main aspects of this new phenomenon.

Article type:	research article
Keywords:	artificial intelligence (AI); generative artificial intelligence (GAI); ChatGPT; technology adoption; digital transformation; OpenAI; chatbots
JEL codes:	O33; L26; M15; L86

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INTRODUCTION

The emergence of groundbreaking artificial intelligence (AI) has ignited global discussions, raising inquiries about its potential as a transformative power (*Korzynski et al*., 2023b) or its potential to become rogue technology (Wach *et al*., 2023). Advocates contend that AI's groundbreaking skills provide the potential to address intricate issues, propel medical investigation, and augment overall human effi-

ciency. Nevertheless, skeptics raise apprehensions over the possible exploitation of advanced AI, resulting in ethical quandaries and unforeseen repercussions. The issue of whether AI will have positive impacts or become a dangerous technology depends on the proper advancement and application of these technologies. The emergence of autonomous systems, machine learning, and advanced algorithms has sparked debates over the ethical principles that should regulate AI in order to prevent abuse and protect human welfare. The concern over AI becoming rogue technology revolves around situations in which robots surpass human control, potentially resulting in disastrous consequences. The essential issue lies in finding a balance between harnessing the transformative potential of AI and avoiding the risks that come with uncontrolled technological progress. Ensuring that AI advances constructively and does not become a destabilizing force is contingent upon ethical considerations, transparency, and international cooperation. The continuous discussion highlights the necessity for strong regulatory frameworks and ethical standards to govern the appropriate advancement and implementation of artificial intelligence. In the age of groundbreaking artificial intelligence, it is crucial to approach it with caution and take proactive steps to maximize its advantages while reducing the potential dangers of it becoming uncontrollable technology.

The article aims to offer a thorough exploration and comprehension of the obstacles and potential advantages linked to the application of generative artificial intelligence (GAI) in the business realm, particularly emphasizing ChatGPT. The article poses the following exploratory research questions:

RQ1: What are the pros and cons of using generative artificial intelligence like ChatGPT in economics, finance, and management?

RQ2: Is generative artificial intelligence more a revolutionary technology (a game changer) or a rogue technology (a pitfall)?

Excluding the introductory and concluding sections, the primary focus of the article will be on the literature review. The initial segment will delve into the exploration of advantages of GAI treating this revolutionary technology as a breaking-through innovation, while the subsequent section will expound upon the discussion of GAI as a pitfall summarising main disadvantages of this new technology . The concluding segment will pivot towards the comprehensive analysis and resulting deductions.

MATERIAL AND METHODS

Literature reviews differ from original articles in that they do not introduce new data. Instead, their purpose is to evaluate existing publications and give the most reliable information currently available (Ferrari, 2015; Derish & Annesley, 2011; Pautasso, 2013). The study employed a narrative and critical literature review methodology, following the guidelines set by and Ferrari (2015). A narrative literature review is a conventional, thorough, discerning, and unbiased examination of the existing understanding on a particular subject (Table 1). A comprehensive analysis of current literature and desk research was conducted to develop a conceptual framework. The research inquiries and theoretical framework were established based on an examination of relevant literature and desk research, as the topic is relatively new in the field of economics and business. We investigated secondary sources using the combination of two screening terms: ‘(generative) artificial intelligence’ and ‘advantages’ or ‘disadvantages’. The careful gathering and careful choosing of resources were essential in reducing possible constraints in future advanced literature studies, positioning this work as a conceptual paper that originates from a thorough literature survey and desk research. The research technique utilized a qualitative study approach, incorporating indirect observation, causal analysis, theoretical modelling, and synthesis (Ratten, 2023). In order to guarantee the cognitive advantages of the research process, scientific research followed a protocol that was grounded on pre-established processes. The study utilized Fisher’s (2010) five-stage methodology for conducting a comprehensive evaluation of the literature. The objective was to condense, integrate, assess, and interpret the available corpus of research on the examined topic. The inquiry included multiple objectives, including exploration, description, analysis, and prescription. The main focus was on doing a literature evaluation that included constructive criticisms.

Table 1. Main differences between narrative and systematic reviews

Dimensions	Narrative reviews	Systematic reviews
Main Features	- Describe and appraise published articles but the methods used to select the articles may not be described.	- The query is well defined [review question, secondary question(s) and/or subgroup analyses]. - Clearly defined criteria for the selection of articles from the literature. - Explicit methods of extraction and synthesis of the data. - Comprehensive research to find all the relevant studies. - Application of standards for the critical appraisal of the studies quality.
Uses/applications	- General debates, appraisal of previous studies and the current lack of knowledge. - Rationales for future research. - Speculate on new types of interventions available.	- Identify, assess and synthesize the literature gathered in response to a specific query. - Collect what is known about a topic and identify the basis of that knowledge. - Comprehensive report with explicit processes so that rational, assumptions and methods are open to examination by external organizations.
Limitations	- The assumptions and the planning are not often known. - Selection and evaluation biases not known. - Not reproducible.	- The scope is limited by the defined query, search terms, and the selection criteria. - Usually reader needs to reformulate the alternative questions that have not been answered by the main query.

Source: Ferrari (2015, p. 231).

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

There is no question about the widespread influence of digital technology on numerous aspects of business, economy, and social life. The ongoing digital transformation involves a diverse array of technologies, including as information and communication technology (ICT), mobile technologies, cloud computing, Blockchain, big data analytics, the internet of things, social media, augmented reality, and virtual reality (Głodowska *et al*., 2023). The revolutionary impact extends beyond the technology realm, embracing cultural and societal facets. The significance of evolutionary algorithms (Sieja & Wach, 2019) and artificial intelligence (Korzynski *et al.*, 2023b) in modern business is emphasized, since they have a profound impact on organizational culture, establish distinct ecosystems, and influence external stakeholders. The overall digital infrastructure is characterized as novel, creative, adaptable, and integrative, highlighting its inclusive and adaptable nature for extensive utilization.

During the initial phases of AI research, the main emphasis was on creating rule-based systems that performed tasks according to predetermined rules. Machine learning techniques have evolved since the 1980s, allowing AI systems to acquire knowledge from data and enhance their performance progressively. The progress in generative artificial intelligence (GAI) in recent years can be credited to the utilization of deep learning (DL) techniques, specifically neural networks. General Artificial Intelligence (GAI) is utilized in diverse fields such as natural language processing, picture and audio recognition, and autonomous systems (Wach *at al.*, 2023; Bengio *et al*., 2013). Significantly, there has been considerable interest in general artificial intelligence (GAI) in domains such as business, management, and economics.

The chatbot business has gained significant attention within the larger field of artificial intelligence, and ChatGPT (Generative Pretrained Transformer) is a notable example of this (Costello, 2023). ChatGPT, built using the transformer architecture, is a highly popular generative model known for its ability to generate language that sounds realistic (Radford *et al*., 2019). ChatGPT, developed by OpenAI in 2018, uses advanced deep learning and machine learning algorithms to provide text-based responses that closely resemble human-like conversation (Korzynski *et al.*, 2023b; Slapeta, 2023). GPT-1, the first iteration, exhibited outstanding performance with 117 million parameters. Following versions, GPT-2 and GPT-3, escalated the parameter count to 1.5 billion and 175 billion, respectively, positioning them as

some of the most extensive language models ever developed (Radford *et al*., 2019). OpenAI initially imposed restrictions on the distribution of GPT-2 due to apprehensions about its capacity to generate deceptive or detrimental content, despite its impressive capabilities (Radford *et al*., 2019). Korzynski *et al*., (2023c) notice that a more and more sophisticated version of OpenAI's GPT series has significantly improved the ability of prompting models to enhance the understanding of user context.

In the following two sections we will address the first research questions: What are the pros and cons of using generative artificial intelligence like ChatGPT in economics, finance, and management?

The Promises of ChatGPT

Based on the conducted in-depth and extensive query of academic literature, as well as professional press and Internet portals, we identified various promises, opportunities, benefits, merits, strengths, and advantages of GAI, in particular, ChatGPT. Subsequently, we categorized the found opportunities into clusters to succinctly illustrate the eight primary benefits we have uncovered. According to our perspective, the following are:

1. Automated content generation, improved content quality and increased content variety (Schweidel *et al*., 2023; Lee *et al*., 2020; Korzynski *et al*., 2023c);
2. New product design and creative amplification (Doanh *et al*., 2023; Cappa *et al*., 2021);
3. Time and cost savings (Dumrak, & Zarghami, 2023; Yaiprasert, & Hidayanto, 2024);
4. Personalized content and hyper-personalisation (Gao & Liu, 2023; Jaiwant, 2023);
5. Optimization, enhanced efficiency and productivity (Aly, 2022; Wamba-Taguimdje *et al.*, 2023);
6. Data synthesis and market research (Kumar *et al.*, 2023a; Doanh *et al*., 2023);
7. Enhanced knowledge and discovery (Sundaresan & Zhang, 2022);
8. Improve customer experience (Kumar *et al.*., 2023a; He & Zhang, 2023).

Automated Content Generation, Improved Content Quality and Increased Content Variety

GAI, as demonstrated by ChatGPT, facilitates the automated creation of content, hence optimizing human resources and enhancing the efficiency of producing a wide range of material. GAI, such as ChatGPT, enhances content quality by utilizing sophisticated language models and linguistic subtleties (Schweidel *et al*., 2023). This results in a wider array of content options, guaranteeing that the produced materials are not only of superior quality but also varied and flexible for various situations (Lee *et al*., 2020). Large-scale AI models for language and graphics provide an automated resolution for generating material, including articles, blog posts, and social media content. This application is highly efficient and saves time for organizations and professionals that often create material (Korzynski *et al*., 2023c). AI-generated material frequently exceeds that produced by humans due to its ability to learn from vast amounts of data and detect patterns that may defy human awareness. As a result, the content that is produced is typically more precise and provides a greater amount of information. AI models demonstrate their versatility by generating a wide range of content forms, such as text, photos, and videos. This allows businesses and professionals to create diverse and captivating content that appeals to a larger audience.

New Product Design and Creative Amplification

Furthermore, it provides innovative enhancement, aiding in the generation and advancement of imaginative and distinct material, including also a new product design (Doanh *et al*., 2023). The utilization of GAI in product design is advantageous because it has the ability to explore extensive design possibilities, produce a wide range of creative and original solutions, and optimize designs according to predetermined criteria (Kwong *et al*., 2016). The application of GAI in exploring creative design options and generating optimal product designs, while considering user-defined parameters, is unquestionable (Cappa *et al*., 2021). In disciplines like architecture and design, artificial intelligence algorithms rapidly produce building designs according to given parameters, accelerating the design process. Moreover, the technology examines input from stakeholders and market trends to produce inventive product ideas. Based on the bibliometric analysis, in order to categorize existing research, Mariani *et al*. (2023) divided the academic papers into two distinct groups: the factors that drive the adoption of artificial

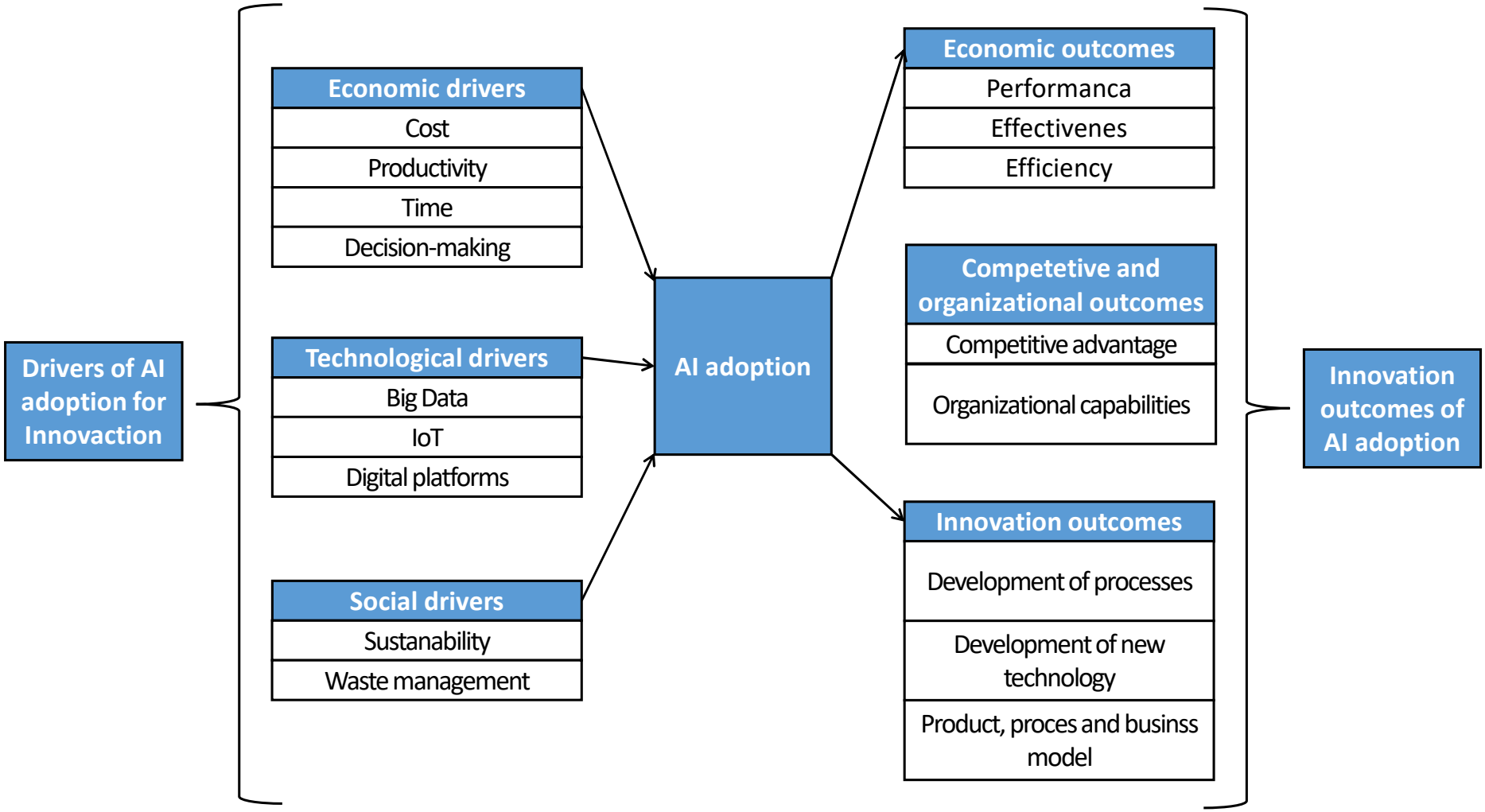

Figure 1. Framework encompassing the drivers and outcomes of AI adoption for innovation

Source: Mariani *et al*. (2023).

intelligence for innovation, and the results that arise from the use of artificial intelligence (Figure 1), which shows the drivers and the outcomes of GAI in the product development process.

Time and Cost Savings

The implementation of GAI, such as ChatGPT, leads to substantial efficiency and cost reductions in content development procedures (Dumrak, & Zarghami, 2023). Automated generation minimizes the requirement for significant human participation, hastening production schedules and diminishing related operating expenses. Generative AI, with its automation capabilities, plays a crucial role in saving time and reducing costs by taking over tasks that formerly necessitated human participation (Yaiprasert, & Hidayanto, 2024). Generative AI offers significant benefits by automating operations that formerly required human intervention, resulting in time efficiency and reduced operating expenses. The ability to quickly evaluate large amounts of data and offer design recommendations is a major factor in its effectiveness.

Personalized Content and Hyper-Personalisation

Generative AI has the potential to enhance the customer experience through hyper-personalization, analyzing individual customer data to generate personalized product recommendations and tailored offers. GAI enables the development of customized content that is specifically designed to cater to individual preferences and requirements (Gao & Liu, 2023). By leveraging its capacity to analyze user data, ChatGPT may accomplish hyper-personalization, guaranteeing that the content aligns with specific audience categories, hence augmenting engagement and relevancy (Jaiwant, 2023). Additionally, in voice-automated customer support for e-commerce, it can introduce dynamically changing personalized voices, eliminating frustration and creating a more human-like and natural interaction compared to monotonous, robotic voices.

Optimization, Enhanced Efficiency and Productivity

Through the automation of content development and the streamlining of numerous operations, GAI greatly boosts overall efficiency and productivity (Aly, 2022). ChatGPT's prompt responsiveness and capacity to manage repetitive assignments enhance workflow efficiency, enabling human resources to concentrate on more valuable endeavours. Generative AI empowers businesses to automate intricate and time-intensive processes, leading to the optimization of workflows, increased efficiency, and effective resource allocation. In manufacturing, AI algorithms can produce optimized production schedules, reducing waste and maximizing overall efficiency (Wamba-Taguimdje *et al.*, 2023). Moreover, in contact centers, generative AI aids customer support agents by providing ticket summarizations and suggesting responses and tones that align with the context of customer queries, significantly enhancing their productivity.

Data Synthesis and Market Research

GAI, which includes ChatGPT, demonstrates exceptional proficiency in amalgamating huge quantities of information. It has the capability to examine and merge data from several sources, resulting in a thorough and unified comprehension that may be difficult for conventional methods to get. The notable efficacy of generative AI is in its capacity to swiftly analyze extensive quantities of data, offering efficient design suggestions. The application of generative AI in data synthesis is highly intriguing. AI models can utilize their capacity to examine various datasets to synthesize extensive volumes of data and produce significant insights. Generative AI in the financial sector may examine market trends, customer behaviour, and economic indicators to create prediction models (Doanh *et al.*, 2023). These models help organizations make informed investment decisions. Generative AI utilizes data synthesis to enable firms in many sectors to access valuable insights and achieve a competitive advantage in today's data-centric environment (Kumar *et al*., 2023a).

Enhanced Knowledge and Discovery

GAI facilitates knowledge growth and discovery by utilizing its extensive knowledge base. The expansive access and adept processing capabilities of ChatGPT empower users to delve into novel perspectives, remain abreast of pertinent subjects, and arrive at judicious choices. Generative AI can facilitate the discovery of knowledge by extracting insights from diverse sources (Sundaresan & Zhang, 2022). Furthermore, it has the ability to automatically organize and categorize vast repositories of knowledge. By employing machine learning techniques, these systems may identify and categorize information based on subjects, patterns, and connections, simplifying the processes of accessing and retrieving data. Korzynski *et al*. (2023a) underscore that without any doubt, new technologies such as ChatGPT will have a positive impact on the current leadership.

Improve Customer Experience

The incorporation of GAI, such as ChatGPT, in customer interactions improves the entire customer experience and boost sales (Kumar *et al*., 2023a). The system's capacity to produce contextually appropriate and customized responses enhances the quality of interactions, leading to increased customer happiness. The early and substantial use of generative AI lies in enhancing consumer experiences, especially through the use of dynamic AI agents (He & Zhang, 2023). These agents, which have the ability to provide responses that resemble those of humans, improve consumer interactions by offering more extensive and advanced answers to requests. In addition to answering, generative AI empowers dynamic AI agents to serve as assistants in customer service, leveraging natural language processing to improve agent-customer exchanges by accessing pertinent resources.

The Pitfalls of ChatGPT

Through an exhaustive examination of academic literature, professional press, and Internet portals, we have discovered numerous controversies, dangers, hazards, faults, and drawbacks associated with GAI, namely ChatGPT. Subsequently, we categorized the discovered dangers into clusters to succinctly illustrate the seven primary threats we have uncovered. According to our perspective, the following points can be highlighted:

1. No wider regulation of the AI market (Pagallo *et al*., 2022);
2. Job losses and displacement caused by automation (Rawashdeh, 2023; Hoque *et al*., 2022; Singh & Chouhan, 2023);
3. AI-related technostress (Kumar *et al*., 2023b; Korzynski *et al*., 2021);
4. Algorithmic bias, prejudice and absence of quality control (Janssen & Kuk, 2016; Janssen *et al.*, 2020);
5. Disinformation, deepfake content, social manipulation (Karinshak, & Jin, 2023);
6. Privacy and personal data violation, human rights violation and social surveillance (Mazurek & Małagocka, 2019; Chatterjee *et al.*, 2022; Zang *et al*., 2023);
7. Weakening ethics and goodwill (Mazurek, 2023; Peres *et al*., 2023; Smits & Borghuis, 2022);
8. Widening socio-economic inequalities (Nair, 2019; Efe, 2022; Lutz, 2019; Kitsara, 2022).

No Wider Regulation of the AI Market

Lack of comprehensive laws in the AI business presents a substantial risk, as there is no broader oversight in place. In the absence of proper supervision, the unrestrained advancement and implementation of General Artificial Intelligence (GAI), such as ChatGPT, could give rise to ethical issues, misuse, and significant hazards to society. The regulation is AI market has been a huge challenge for the EU policymakers (Pagallo *et al.*, 2022). The EU AI Act is the first so wide regulation on artificial intelligence in the world, which was provisionally accepted by the EU Council, the European Parliament and the European Commission in early December 2023. According to Article 5 of this act, unacceptable practices in the field of artificial intelligence include, among others:

1. Cognitive-behavioural manipulation of individuals through the use of subliminal techniques or influencing the vulnerabilities of a specific sensitive group (e.g., based on age, disability, or mental disorders), as well as other techniques intentionally manipulating humans.
2. Citizen scoring: classifying individuals based on their behaviours, socio-economic status, or personal attributes.
3. Biometric categorization systems that classify individuals based on sensitive or protected attributes and characteristics, as well as on inferences about these traits or properties.
4. Biometric identification used in publicly accessible places by law enforcement or on their behalf for law enforcement purposes.
5. Emotion recognition used in law enforcement, border management, workplace, or educational institutions.
6. Creating or expanding facial recognition databases using mass scraping of biometric data from social media or CCTV recordings.
7. Forecasting the risk of citizens committing crimes.

Job Losses and Displacement Caused by Automation

The heightened automation enabled by General Artificial Intelligence (GAI), shown by ChatGPT, gives rise to apprehensions over employment reduction and displacement (Rawashdeh, 2023). With the increasing automation of operations, there is a potential for a reduction in employment prospects, especially in businesses that primarily depend on manual or repetitive work (Hoque *et al*., 2022). The advent of automation has resulted in the reduction of employment opportunities and the displacement of workers, as technology progressively assumes control of mundane and repetitive assignments. Automation improves efficiency and productivity, but it also requires the labour to acquire new skills and adapt in order to stay competitive in changing industries (Singh & Chouhan, 2023). Policymakers and enterprises must address the task of minimizing the adverse effects on employment by implementing strategic workforce planning and providing support systems.

AI-Related Technostress

AI-related technostress is the psychological burden and unease that individuals may undergo as a result of incorporating artificial intelligence technologies into their work environment. The swift incorporation of AI technologies, such as GAI, can potentially lead to technostress among humans who are adjusting to these breakthroughs (Kumar *et al.*, 2023b). The presence of employment uncertainty, skill obsolescence, or worry stemming from technical complexity might negatively impact one's mental well-being. With the increasing prevalence of AI systems, employees may experience a sense of being overwhelmed by the swift pace of changes, apprehension about job stability, or difficulty in coping with the requirements of adjusting to new technology (Korzynski *et al.*, 2021). Organizations must give priority to the well-being of their employees and offer sufficient training and support to mitigate technostress caused by AI and promote a healthy work environment. Implementing proactive strategies to mitigate the impact of AI on employee mental health can facilitate a seamless transition and enhance overall job satisfaction.

Algorithmic Bias, Prejudice and Absence of Quality Control

GAI systems, if not effectively regulated and monitored, can lead to substandard outputs and biased algorithms. Algorithmic bias or prejudice stems from erroneous data, since algorithms might unintentionally sustain biases, preserve past discrimination, conform to particular political views, or fortify harmful practices (Janssen & Kuk, 2016). The effectiveness of ChatGPT's results is heavily reliant on the caliber and inclusiveness of its training data. Hence, if this data harbours biases such as racial or gender prejudices, these biases would be evident in the produced responses. The model's inherent bias towards specific interests and exclusion of others contradicts the intended impartiality it was created to uphold (Janssen *et al.*, 2020).

Disinformation, Deepfake Content, Social Manipulation

ChatGPT and GAI in general elicit problems pertaining to disinformation, deception, deepfake content and material, and social manipulation. ChatGPT, for example, may unintentionally generate information that is incorrect, deceptive, or mirrors inherent biases seen in the training data. The capacity of these technologies to produce writing that resembles human language increases the potential for malevolent individuals to employ them for the purpose of fabricating deceptive storylines, manipulating public sentiment, and disseminating inaccurate information. The capacity of these tools to enhance the production of intricate and persuasive deepfake content intensifies the difficulties in countering misinformation. To effectively tackle these concerns and avoid the exploitation of ChatGPT and GAI in disseminating false information and manipulating society, it is essential to engage in diligent surveillance, adhere to ethical principles, and ensure responsible implementation. The capacity of GAI, such as ChatGPT, to produce authentic text presents a risk in relation to disinformation, deepfake material, and social manipulation (Karinshak, & Jin, 2023). The technology has the potential to be utilized for the creation of misleading stories, the manipulation of public sentiment, and the dissemination of false information. ON the other hand GAI can be used to detect and eliminate disinformation (Bonet-Jover *et al*., 2023).

Privacy and Personal Data Violation, Human Rights Violation and Social Surveillance

The ability of GAI to evaluate and generate content based on user interactions raises concerns over the violation of personal data, social surveillance, and breaches of privacy (Mazurek & Małagocka, 2019). Insufficient protection of user data may result in its exploitation, hence compromising privacy. The technology (artificial intelligence of things), while providing personalized services, is suggested to invade individuals' information, physical, and social spaces, introducing unique privacy challenges that haven't been extensively studied before (Zhang *et al.*, 2023). The utilization of GAI has the potential to both benefit and detriment society, even by compromising fundamental human rights (Chatterjee *et al*., 2022). GAI can provide potential dangers and negatively impact society, especially when it comes to the realm of human rights. If AI systems are not adequately regulated and ethically supervised, their implementation can result in problems such as privacy breaches, discriminatory practices, and encroachments on individual freedoms.

Weakening Ethics and Goodwill

The unethical utilization of GAI, such as ChatGPT, presents a peril to societal ethical standards and goodwill. Deploying these technologies without a robust ethical framework may lead to a deterioration in moral principles, undermining trust and positive relationships within communities and organizations. The ethical implications of employing ChatGPT and related AI systems for content generation within corporations are primarily centered around the issue of plagiarism. The utilization of AI tools, such ChatGPT, among students and researchers in academic settings has sparked debates over plagiarism, as there have been cases where generated text is provided without appropriate attribution (Mazurek, 2023). Moreover, the utilization of artificial intelligence poses the potential danger of violating intellectual property rights, as there are ongoing discussions on the unauthorized utilization of copyrighted content for AI training (Peres *et al*., 2023; Smits & Borghuis, 2022). Organizations that employ AI technology must effectively manage legal intricacies, which involve dealing with matters about ownership of content and taking into account the possible consequences for using unlicensed content in AI training (Appel *et al*., 2023). The unresolved issue of whether intellectual property rights can be applied to content produced by AI necessitates developers and organizations to adopt precautionary measures and comply with legal obligations (Peres *et al*., 2023; Smits & Borghuis, 2022).

Widening Socio-Economic Inequalities

The unequal distribution and application of GAI technology may worsen the already existing socio-economic disparities. If only specific individuals or organizations possess the financial means and capability to acquire and implement these technologies, it may exacerbate a digital gap, leading to the increased marginalization of particular populations (Nair, 2019). Although ChatGPT may not directly create socio-

economic inequalities, the way it is developed and implemented might potentially sustain and exacerbate pre-existing socio-economic disparities (Lutz, 2019; Kitsara, 2022). There is a strong connection between significant socio-economic disparities and digital inequalities, as demonstrated by research conducted by Efe (2022) and Pahl (2023). These inequalities can be observed in three different aspects, as identified by Lutz (2019). The first dimension pertains to inequalities in accessing ChatGPT, while the second factor relates to differences in digital skills and exploitation of technology. The third and last aspect of digital inequality involves the advantages or disadvantages that result from using ChatGPT. Referred to as 'AI divides,' these digital disparities caused by ChatGPT lead to discrepancies in competitive advantages, variations in skillsets, variances in developmental levels, and gaps in economic growth among nations, corporations, educational institutions, and individuals (Kitsara, 2022).

DISCUSSION

In this section we will address the second research question: Is generative artificial intelligence more a revolutionary technology (a game changer) or a rogue technology (a pitfall)? GAI) can be seen as a groundbreaking or disruptive technology with the potential for both positive and negative outcomes, depending on how it is used and the ethical factors involved (Aly, 2022). One the one hand, GAI has the capacity to completely transform several industries through the automation of intricate jobs, improvement of productivity, and facilitation of groundbreaking solutions (Doanh *et al.,* 2023). It has the potential to significantly impact industries such as content generation, customer service, and information discovery. However, the utilization of GAI gives rise to apprehensions regarding ethical implications, privacy, and the possibility of abuse. Algorithmic prejudice, the production of deceptive content, and the effects on employment are potential drawbacks or obstacles linked to GAI (Wach *et al.*, 2023). Ensuring the responsible development, deployment, and regulation of General Artificial Intelligence (GAI) is essential for maximizing its positive impact while minimizing potential hazards. Hence, the perception of GAI as either groundbreaking or a potential drawback hinges on the manner in which it is executed, supervised, and governed. Although GAI and ChatGPT provide several above mentioned benefits, such as automated content creation and enhanced efficiency, it is crucial to cautiously weigh these advantages against potential drawbacks such as ethical issues, algorithmic

Table 2. Main advantages and disadvantages of generative artificial intelligence

Advantages, promises, opportunities, benefits, merits, strengths	Disadvantages, pitfalls, threats, risks, defects, weaknesses, controversies
Automated content generation, improved content quality and increased content variety (Schweidel *et al*., 2023; Lee *et al*., 2020; Korzynski *et al*., 2023c)	No wider regulation of the AI market (Pagallo *et al*., 2022)
New product design and creative amplification (Doanh *et al*., 2023; Cappa *et al*., 2021)	Job losses and displacement caused by automation (Rawashdeh, 2023; Hoque *et al*., 2022; Singh & Chouhan, 2023)
Time and cost savings (Dumrak, & Zarghami, 2023; Yaiprasert, & Hidayanto, 2024)	AI-related technostress (Kumar *et al*., 2023b; Korzynski *et al*., 2021)
Personalized content and hyper-personalisation (Gao & Liu, 2023; Jaiwant, 2023)	Algorithmic bias, prejudice and absence of quality control (Janssen & Kuk, 2016; Janssen *et al.*, 2020)
Optimization, enhanced efficiency and productivity (Aly, 2022; Wamba-Taguimdje *et al*., 2023)	Disinformation, deepfake content, social manipulation (Karinshak, & Jin, 2023)
Data synthesis and market research (Kumar *et al*., 2023a; Doanh *et al*., 2023)	Privacy and personal data violation, human rights violation and social surveillance (Mazurek & Małagocka, 2019; Chatterjee *et al.*, 2022; Zang *et al*., 2023)
Enhanced knowledge and discovery (Sundaresan & Zhang, 2022)	Weakening ethics and goodwill (Mazurek, 2023; Peres *et al*., 2023; Smits & Borghuis, 2022)
Improve customer experience (Kumar *et al*.., 2023a; He & Zhang, 2023)	Widening socio-economic inequalities (Nair, 2019; Efe, 2022; Lutz, 2019; Kitsara, 2022)

Source: own elaboration based on the listed authors.

biases, and the potential for spreading misinformation. In order to guarantee responsible utilization, it becomes crucial to employ human supervision for the assessment of final outcomes. The exercise of human judgment is essential in evaluating the subtle elements of created information and reducing the potential dangers linked to the utilization of advanced AI technology. Thus, we must balance all possible benefits and risks associated with GAI (Table 2).

CONCLUSIONS

The spreading concept of industry 5.0 will stimulate to use artificial intelligence in various aspects of management, finance and economics, especially in marketing and manufacturing (Jaiwant, 2023). GAI has had remarkable progress in recent years, leading to a wide range of applications that are becoming more prevalent, in particular when we discuss the chatbot market. In addressing RQ1 question, the use of GAI/ChatGPT has its advantages and disadvantages.

Following an extensive exploration of academic literature, our analysis has revealed various promises, opportunities, and advantages associated with GAI, specifically ChatGPT. We should highlight the following benefits: automated content generation, improved content quality, and increased content variety; new product design and creative amplification; time and cost savings; personalized content and hyper-personalization; optimization, enhanced efficiency, and productivity; data synthesis and market research; enhanced knowledge and discovery; and improved customer experience. These identified benefits underscore the potential of GAI, emphasizing its positive impact across diverse domains and applications.

Through a comprehensive examination of scholarly publications, our analysis has shown a multitude of disputes, hazards, and limitations linked to GAI, particularly ChatGPT. These concerns encompass the absence of comprehensive regulation in the AI market, the potential for job displacement caused by automation, technostress related to AI, bias in algorithms and the lack of quality control, the spread of disinformation and manipulation on social platforms, violations of privacy and increased surveillance, declining ethical standards, and the widening gap in socio-economic inequalities.

In addressing the question of whether GAI is a revolutionary technology or a rogue technology (RQ2), the analysis reveals a dual nature of GAI, with the potential for both positive and negative outcomes depending on its application and ethical considerations (Aly, 2022). To maximize the positive impact and minimize hazards, responsible development, deployment, and regulation of GAI are crucial. Balancing the benefits and risks, especially considering ethical issues and potential misinformation, underscores the importance of human supervision in ensuring responsible utilization of advanced AI technology.

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