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## NAVIGATING THE ARTIFICIAL INTELLIGENCE HORIZON: TRANSFORMING PROFESSIONS, JOBS, AND BUSINESS STRATEGIES IN THE NEW FRONTIER

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### Abstract

This study explores the transformative impact of artificial intelligence (AI) on professions, employment structures, and business strategies within the framework of the Industry 4.0 revolution. Employing a qualitative research design, it gathers insights through semi-structured interviews with advanced AI chatbots (ChatGPT, Bing, and Gemini) to investigate how these systems conceptualize future labor transformations. The data, analyzed using content analysis with MAXQDA 12, reveal a shared narrative around the automation of routine tasks, the rise of AI-driven roles, and the increasing value of uniquely human cognitive and emotional skills. While AI responses do not reflect consciousness or intention, they are interpreted as discursive outputs shaped by their training data, providing meaningful perspectives on dominant societal and technological narratives. The findings point to significant shifts in business processes and professional landscapes, highlighting both disappearing and emerging roles shaped by digital competencies. Besides, the study concludes with practical recommendations for individuals, organizations, and policymakers, offering strategies for navigating the evolving nature of work. By positioning AI not merely as a technological tool but as a source of structured foresight, this research contributes a novel methodological and epistemological perspective, distinguishing itself from existing literature through its AI-centered approach to anticipating the future of work.

**Keywords:** Artificial Intelligence, Human Computer Interaction, Neuro-Linguistic Programming, Chatbots, Technological Developments.

**Jel Codes:** M12, M15, J24, J50.

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## YAPAY ZEKÂ UFKUNDA SEYİR: YENİ DÜZLEMDE MESLEKLERİ, İŞLERİ VE İŞ STRATEJİLERİİNİ DÖNÜŞTÜRMEK

### Öz

Bu çalışma, Endüstri 4.0 devrimi çerçevesinde yapay zekânın (YZ) meslekler, istihdam yapıları ve iş stratejileri üzerindeki dönüştürücü etkilerini araştırmaktadır. Nitel bir araştırma tasarımlı benimsenerek, gelecekteki iş gücü dönüşümünün YZ sistemleri tarafından nasıl kavramsallaştırıldığını incelemek amacıyla gelişmiş sohbet botları (ChatGPT, Bing ve Gemini) ile yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. MAXQDA 12 yazılımıyla desteklenen içerik analizi sonucunda; rutin görevlerin otomasyonu, YZ tabanlı yeni mesleklerin yükselişi ve insanlara özgü bilişsel ve duygusal becerilerin artan önemi gibi ortak temalar belirlenmiştir. YZ yanıtları biliş ya da niyet içermese de, eğitildikleri veri kümeleri doğrultusunda şekillenen söylemsel çıktılar olarak yorumlanmış ve toplumsal-teknolojik eğilimlere dair anlamlı içgörüler sunmuştur. Bulgular, mevcut iş süreçleri ve meslek yapılarında önemli değişimlere işaret etmekte; bazı rollerin yok olacağını, bazı yeni rollerin ise dijital yetkinliklere bağlı olarak öne çıkacağını göstermektedir. Bunun yanında çalışma; bireyler, örgütler ve politika yapıcılar için uygulanabilir stratejiler önererek işin değişen doğasına uyum sağlama yollarını sunmaktadır. YZ'yi yalnızca bir teknoloji değil, aynı zamanda yapılandırılmış öngörülerin kaynağı olarak konumlandırarak literatüre yönemsel ve epistemolojik açıdan özgün bir katkı sağlamaktadır.

**Anahtar Kelimeler:** Yapay Zekâ, İnsan Bilgisayar Etkileşimi, Nörolinguistik Programlama, Chatbotlar, Teknolojik Gelişmeler.

**Jel Kodları:** M12, M15, J24, J50.

### 1. INTRODUCTION

The relentless march of technological progress has long been a defining feature of human civilization. From the first industrial revolution's mechanization to the present era of artificial intelligence and Industry 4.0, each wave of innovation has heralded transformative changes. However, alongside the marvels of technological advancements, a persistent concern looms — the impact on the nature of work and employment. As society propels itself into an era where machines and algorithms play increasingly pivotal roles, the intricate dance between humanity and technology is reshaping the landscape of professions. This study delves into this complex interplay, with a focused lens on the perspectives of artificial intelligence entities, exploring their unique insights on the future of work and its implications for individuals, organizations, and policymakers. In the midst of this technological evolution, the study embarks on a nuanced exploration, employing the widely recognized semi-structured interview method within the social sciences field.

The primary objective is to delve deeply into the perspectives of artificial intelligence entities, recognized as direct stakeholders integral to Industry 4.0. Conversations unfolded with cutting edge AI advancements, including ChatGPT, Bing, and Gemini, which are distinguished by their extensive training on billions of data points, stands out for remarkably human-like responses. As artificial intelligence seamlessly embeds itself into daily life, closely monitoring its evolution becomes imperative. On an organizational level, concerted efforts are evident in integrating new technologies and AI into production processes to gain a

competitive edge. While prior studies have explored human opinions on the evolution of business processes, this research uniquely contributes by turning the lens towards AI, presenting a novel dimension previously untouched in the literature.

The traditional focus of literature has centered on human perspectives regarding future professions and the evolution of business models. Yet, the emergence of advanced chatbots with sophisticated language models now allows for a unique exploration of the other side of this discourse. The study poses a fundamental question: *“What insights would artificial intelligence provide about its own future?”* This inquiry, forming the core of the study, fills a critical gap in the literature by delving into the distinct perspective of AI on its own development—an uncharted dimension aiming to lay the groundwork for future research in this emerging area.

Simultaneously, this study seeks to deliver results and recommendations pertinent to individuals, organizations, and macro-level policymakers. Recognizing the direct impact of evolving professions on individuals and organizations, the research addresses their concerns, extending its scope to offer recommendations at the macro level. Also urges countries and governments to anticipate and prepare for forthcoming changes, presenting insights and suggestions for individuals, organizations, and policymakers alike. Thus, before delving into the study’s methodology and concluding results, a foundational theoretical framework is established to underpin the subject.

## 2. THE THEORY OF EMPLOYMENT APPREHENSION

Working conditions have transformed since the first industrial revolution with the introduction of steam engines (Kurt, 2019, p.591). In the classical management era, individuals were often treated as indistinguishable from other production factors (D’Addona et al., 2018; Tuncer et al., 2018). Evolving management thought discredits this perspective, emphasizing the fallacy of regarding humans solely as machines. The contemporary understanding recognizes the multifaceted nature of the human factor, particularly in emotional and mental dimensions, leading to a growing trend in human-oriented research within the management field.

However, exploring the flip side is crucial—an ominous aspect that could lead to significant mass unemployment prior to an unpredictable transformation in the job market (Zanzotto, 2019, p.243). Recent technological advancements have propelled automation and mass production (Carlsson, 1984, p.91). The increasing integration of Industry 4.0 directly impacts

the human factor in organizations (Kılıç & Atilla, 2024; Sgarbossa et al., 2020, p.295) and indirectly influences human resources activities, playing a pivotal role (Cingöz & Akdoğan, 2013, p.93). Consequently, the human factor gains recognition as a strategically important resource, amplifying its role in production processes amid rapid technological advancements. This prompts questions about the future role of humans in production, the potential extent of mechanization and automation, and how individuals should adapt to evolving business processes and models.

Understanding the future transformation of today's professions and the trajectory of the job market is a formidable challenge (Flanagan & Walker, 2021, p.160). Anticipating the skills required for the future workforce is equally elusive. Each technological shift introduces new problems, challenges, and opportunities for organizations (Hodder, 2020, p.263; Christensen et al., 2015). The Industry 4.0 revolution, particularly its components, holds the potential to reshape existing job structures. Amidst this context, numerous technologies have been integrated into both daily and industrial lives with varying degrees of effectiveness, sparking theoretical discussions about future unemployment issues. Within the research's theoretical framework, the most suitable theory for exploring this issue is the "Technological Unemployment" theory. In recent years, this phenomenon has gained prominence in discussions regarding the impact of advanced technologies on the workforce.

The Technological Unemployment theory posits that the rapid integration of artificial intelligence, automation, and Industry 4.0 technologies across various sectors may result in significant job displacement and restructuring of the labor market. As we explore the challenges posed by the increasing integration of Industry 4.0 and artificial intelligence components, the theory gains relevance. The changing nature of work, job structures, and the potential disappearance of certain professions align with the core tenets of this theory. Keynes (1930), in early insights, envisioned a future where technological advancements could drastically reduce the need for human labor. Rifkin (1998) and Ford (2015) further expanded on this concept, discussing the potential decline of traditional employment patterns due to automation and advanced technologies. This approach acknowledges the theory's relevance in understanding the transformative impact of Industry 4.0 and artificial intelligence on professions and the workforce. As I proceed with the analysis, it will be examined how these technological shifts align with the predictions of technological unemployment and explore the implications for the future of work. After discussing the foundational principles of the theory,

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the focus will shift to elucidating key concepts addressed in the study, starting with Industry 4.0, followed by an explanation of artificial intelligence and chatbots.

Various technological components permeating organizational processes (Houghton & Hodder, 2021, p.221; Prause, 2015; Schuh et al., 2014) and fourth industrial revolution holds the potential to directly influence industrial policies and strategies (Vardar, 2016, p.13). Industry 4.0 technologies are advancing at an unprecedented pace, inducing rapid transformations in production, marketing, communication, and management, impacting global management information systems. This shift necessitates redefining job descriptions, leading to the evolution of existing professions and the emergence of new ones (Saatçioğlu et al., 2018), prompting a reevaluation of the traditional concept of the labor force (Çiğdem, 2019, p.161). However, during this evaluation, it should not be ignored that some of the components that emerged with Industry 4.0 are more prominent. As an illustration, the technology of “artificial intelligence (AI)” emerges as arguably the most crucial among these components.

In recent years, AI has gained significant prominence, propelled by technological advancements (Balci et al., 2025; Piccialli et al., 2021), positioning itself as a pivotal component of the Industry 4.0 revolution. This technology empowers computer systems to emulate human reasoning and incorporate learning elements (Ghosh et al., 2018, p.208). Fundamentally, the concept involves collecting data through interconnected objects in the internet network, storing it as extensive datasets, and employing algorithms—referred to as “artificial intelligence” or “learning machines”—to process and interpret this data (Valizade et al., 2024, p.99; Bilgin & Işık, 2018, p.863). This implies that actions or behaviors considered intelligent when executed by humans can be replicated by machines (Karatop, 2021, p.3533; Pfeifer & Scheier, 2001). The core objective is to simulate human intelligence, allowing computers to learn to a certain extent and enhance their intelligence. This encompasses methods aimed at modeling human thinking and the operational model of the human brain (Tektaş et al., 2002).

Artificial intelligence can learn from past experiences and historical situations, providing valuable input to complex decision processes and expediting decision automation (Reiley et al., 2016). These programs execute high cognitive functions like learning, thinking, perceiving, conceptual synthesis, inference, reasoning, decision-making, communication, and solution generation—capabilities typically associated with living organisms or adaptive behavior to encountered situations (Wang & Yu, 2022; Burkart et al., 2021). The system continually enhances its cognitive capacity through trial and error, storing information for

future reference. Additionally, it swiftly interprets and responds to program-based information (Bulut & Akçacı, 2017, p.57).

The goal of artificial intelligence is to create machines capable of tasks requiring human intelligence, including learning and comprehension. These machines, emulating typical human behavior, excel in deciphering complex messages, employing reasoning for problem-solving, comprehending information, and responding promptly and effectively to novel and challenging situations (Aydın & Demiral, 2019, p.1980). Beyond industrial applications, artificial intelligence influences various aspects of human social life. For example, chatbots, prominent AI tools, are widely used, particularly in messaging programs and social networks (Tebenkov & Prokhorov, 2021, p.735). Despite their prevalence, the utilization of AI-powered chatbots remains relatively uncommon (Young et al., 2023, p.392). This is attributed to two distinct modeling approaches: task-specific interactions and conversational content related to the task. The study specifically focuses on chatbot modeling involving the exchange of content in a human-bot conversation (Hoon et al., 2020, p.385-386).

A prime illustration of content exchange between humans and bots in this study is the use of NLP (Neuro-linguistic Programming) based bots. In this system, the bot undergoes training on diverse unlabeled data, enabling its application in various tasks such as text or image generation (Antaki et al., 2023). A notable exemplar of this system is ChatGPT (Chat Generative Pre-trained Transformer), an advanced language model developed by OpenAI. Renowned for its capability to produce human-like text and address complex queries, ChatGPT has already made a substantial impact in the field of artificial intelligence and is anticipated to sustain rapid progress in the years ahead (AlAfnan et al., 2023, p.60; Aljanabi, 2023, p.16; Gordijn & Have, 2023, p.1; Huang & Tan, 2023). Following ChatGPT's prominence, other companies have also delved into this domain. Microsoft recently introduced their chatbot Bing, and Google unveiled their chatbot Gemini in the past few months and like ChatGPT, these chatbots also have made a significant societal impact, capturing widespread attention.

With the introduction of new technology, a recurring question in the minds of human resources experts resurfaces, pondering the impact on the current labor force conditions: "How will technological advancements reshape today's workforce? What influence will technological developments exert on occupational structures? Which professions are poised to disappear in the future, and what defines the professions of the future?" These inquiries form the basis of this study, as employment and unemployment persist as critical challenges

worldwide (Mahiroğulları & Korkmaz, 2013, p.21-22). Such questions are pivotal for employment policymakers given their implications for employment conditions. Insufficient employment opportunities leading to unemployment pose significant challenges for developed and developing economies, emerging as a prominent social and economic phenomenon of our age, hindering the productive utilization of the labor force. This persistent issue underscores the concept of unemployment as a growing reality, negatively impacting the global economic system, despite a century of social and economic measures (Aydemir, 2013, p.116-117; Zaim, 1997, p.173).

The incessant advancements in technology bring forth the recurring concern of unemployment, necessitating proactive anticipation and preparedness for the changes instigated by emerging technologies, particularly within Industry 4.0, including artificial intelligence (Asiltürk, 2018; Preuveneers & Illie-Zudor, 2017). Addressing crucial questions such as task delegation to autonomous robots, the pivotal role of humans in specific stages of the production process (Şendoğdu, 2020, p.167-168), the evolving structure of the labor force, and the ramifications of artificial intelligence developments on business models and processes, as well as the future of professions and those expected to vanish, becomes paramount. This study presents an application to comprehensively evaluate and investigate this dynamic. Subsequently, the following section outlines the research methods and tools, elucidating how these tools contribute to the research implementation.

### **3. METHODOLOGY**

This section of the study furnishes details about the research methods and tools employed. It delineates the research question, elucidating its significance and rationale, pinpointing the focal point of the inquiry, and outlining the methodology for acquiring data within the research scope. As the Industry 4.0 revolution undergoes ongoing transformation, researchers are inquisitive about the future evolution of today's professions, the anticipated obsolescence of certain professions, the emergence of new professions driven by novel technologies, and the potential impact of artificial intelligence on unemployment in specific business sectors.

A notable aspect of curiosity lies in the direction of the perspectives of artificial intelligence itself, serving as both the subject and primary driver of the ongoing transformation. The rapid development and increasing capacity of newly created artificial intelligence models further accentuate the importance of evaluating the thoughts and predictions of artificial intelligence regarding its own future. This study endeavors to offer insights, inferences, and recommendations to clarify uncertainties and facilitate adaptation to evolving future business

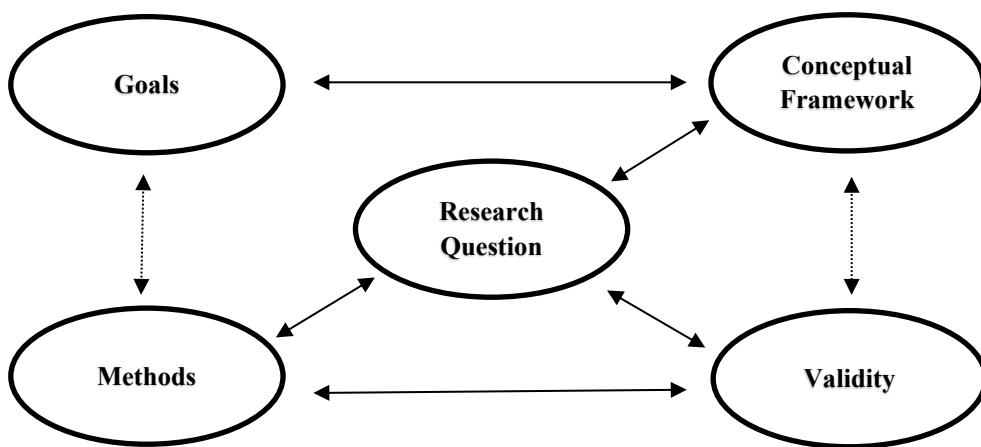
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processes. Aligning with the literature, the study provides constructive suggestions for future policy implementation. To achieve its objectives, the study particularly focuses on the following question.

*With the development and increase of artificial intelligence applications, how is the transformation of professions, jobs and business processes in the future evaluated by artificial intelligence itself?*

For this purpose, it's employed a qualitative research method for its flexibility and convenience, allowing in-depth exploration of the research question (Bryman et al., 2011, p.14). Qualitative data analysis emphasizes understanding each interview before making cross-interview comparisons (Sandelowski, 1995, p.373). This method, particularly through semi-structured interviews, not only reveals "what" and "how" but also addresses "why" questions, providing insights into important aspects of human behavior. Therefore, researchers aiming to elucidate factors under study often choose semi-structured interviews (Gillespie et al., 2021, p.1718; Qu & Dumay, 2011, p.246; Miles & Huberman, 1994, p.117). Hence, this study opted for the semi-structured interview method, a qualitative research approach.

After the method chosen, it's endeavored to address these worries primarily concerning research methods, but also hold relevance for my overarching research objectives, the formulation of research inquiries, considerations of validity, and the critical evaluation of conceptual framework. These elements bear a resemblance to those discussed in various qualitative or applied research design contexts (Robson, 2002; Miles & Huberman, 1994; LeCompte & Preissle, 1993; Lincoln & Guba, 1985). What sets this approach apart is the innovative conceptualization of the relationships among these components. In this model, the different facets of a design coalesce into an integrated and interrelated whole, where each component is intricately connected to several others, departing from a conventional linear or cyclic sequence (Maxwell, 2008, p.216). The fundamental interconnections among these five components are visually represented in Figure 1.

**Figure 1.** An Interactive Model of Research Design

**Source.** Maxwell, 2008, p.217.

Following the presentation of the research design, it is crucial to highlight another significant aspect, namely, the choice of interview participants, which constitutes the study sample. Qualitative researchers often utilize non-probability purposive sampling, allowing an in-depth study of situations for comprehensive and detailed information access. The selection of individuals for the sample considers their direct relevance to the research topic rather than their representativeness of the universe (Neuman, 2012, p.320; Yıldırım & Şimşek, 2008, p.87). The study's sample comprises chatbots, unique artificial intelligence tools representing a one-of-a-kind category at the moment. Therefore, their ability to represent the research population is robust. Currently, ChatGPT, Bing, and Gemini stand as the most advanced and well-equipped versions of existing chatbots, with interviews conducted using the latest versions of these tools.

The data collected in this study underwent analysis using the content analysis technique and MAXQDA 12. Content analysis involves grouping similar data based on specific concepts and themes, interpreted in a way that is comprehensible to the reader. The data analysis occurred in four stages: coding the data, identifying themes, organizing codes and themes, and defining and interpreting the findings (Yıldırım & Şimşek, 2008, p.243). During the interviews, coding was applied based on chatbot responses to questions. Subsequently, the data were categorized by identifying commonalities between the codes. Finally, the collected codes and themes were interpreted by establishing relationships between the findings and making direct quotations from the interviews (Aydın, 2021, p.144-145).

Thus, the study employs a qualitative research design centered on semi-structured interviews with advanced AI chatbots to explore how artificial intelligence interprets its own influence

on future professions and business processes. Qualitative methodology was selected for its capacity to yield rich, nuanced insights into complex phenomena (Sandelowski, 1995). Semi-structured interviews allowed the researcher to follow a flexible guide while eliciting responses tailored to the AI's capabilities.

### 3.1. Interview Protocol and AI Tools Used

The interviews were conducted with three of the most advanced publicly available chatbot models: OpenAI's ChatGPT (GPT-4), Microsoft's Bing Chat, and Google's Gemini (formerly Bard). Each chatbot was accessed between November and December 2024 using their respective official platforms to ensure uniformity and version consistency. ChatGPT was accessed via the OpenAI web interface, Bing via Microsoft Edge integration, and Gemini via the Google AI interface.

To ensure transparency, the prompts (interview questions) were carefully developed and applied consistently across all sessions. For instance, one core prompt used was:

*“From your perspective as an AI, how do you evaluate the transformation of professions and jobs in the next 10–20 years due to Industry 4.0 and artificial intelligence?”*

Follow-up questions were used based on responses, such as:

- *“What types of jobs do you expect to disappear first, and why?”*
- *“Can you list some emerging professions AI will enable?”*

Each chatbot received the same prompt sequence in each session to minimize inconsistency and enhance comparability. The interviews were conducted in English and logged directly from the chat interfaces. A total of 18 interviews were completed across platforms, with the distribution evenly split: 6 interviews with each AI system.

### 3.2. Data Analysis Procedure

The responses were analyzed using qualitative content analysis with MAXQDA 12 software. The process followed the four-step coding strategy proposed by Yıldırım and Şimşek (2008):

- Open coding of raw chatbot responses.
- Identification of emergent themes (e.g., job loss, new roles, unique human skills).
- Categorization and grouping of themes.
- Interpretation with illustrative quotes.

To enhance reliability, dual coding was performed by the author at two separate intervals with a 2-week gap to control for coder bias. In addition, the principle of “reaching data saturation” guided the determination of the number of interviews in the research. Data saturation occurs when the researcher cannot gather new information from participants, and the interviews start to repeat each other. When the interviewer perceives this situation, a few additional interviews are conducted, and if no new information is obtained, the data generation process concludes (Baker & Edwards, 2015, p.16). In this study, the 15th interview indicated that new data could no longer be obtained. Three control interviews were conducted to confirm the approach of saturation, and it was ultimately concluded that saturation was reached, as no new data emerged. Consequently, a total of 18 interviews were conducted.

### 3.3. Coding and Thematic Structure

Thematic analysis followed Braun and Clarke’s (2006) approach, adapted to chatbot-based textual data. Each interview transcript was uploaded into MAXQDA 12, where initial codes were generated line-by-line. These codes were then collated into broader themes based on semantic similarity and frequency across AI responses. Below is a sample of the coding framework used in the analysis:

**Table 1.** Data Analysis Process Example

Raw Text (Excerpt)	Open Code	Subtheme	Main Theme
Jobs involving repetitive tasks like data entry or assembly lines will likely be automated.	Automation of repetitive roles	Routine job replacement	Path 2: Automation and Routine Tasks
Roles that require empathy, emotional intelligence, and creativity will remain human-centered.	Importance of emotional skills	Human-exclusive skills	Path 3: The Importance of Unique Human Skills
Industry 4.0 will create new demand for AI engineers, cybersecurity experts, and data scientists.	New profession emergence	Future job categories	Path 4: The Future of Professions
Companies should invest in training to prepare workers for digital roles.	Organizational retraining	HR adaptation strategies	Path 1: Business Analysis

The thematic structure was finalized after 3 cycles of coding. Each quote was categorized under one of the final themes identified in the study:

- **Path 1:** Business Analysis
- **Path 2:** Automation and Routine Tasks
- **Path 3:** The Importance of Unique Human Skills
- **Path 4:** The Future of Professions

### 3.4. Ensuring Analytical Rigor and Bias Control

To reduce potential researcher bias:

- Quotes were coded by the author twice at different time intervals.
- Contradictory or deviant chatbot responses were not excluded but rather coded under a separate subtheme (Outlier AI Responses) to preserve analytic balance.
- A memo system in MAXQDA was used to log coding decisions and ensure transparency in theme development.

Thus, to minimize bias, prompts were neutrally phrased, and no leading language was used since each AI system draws on different training data and interfaces, triangulation was applied across the three chatbot platforms to validate themes. Additionally, while AI-generated responses can be stylistically persuasive, the study did not equate these with expert-level knowledge. Instead, responses were interpreted as reflections of dominant narratives within AI training data, consistent with their design as predictive language models (Bender et al., 2021).

### 3.5. Epistemological Framing of AI-Generated Data

Given the unconventional nature of this study (drawing insights from AI systems), it is essential to clarify the epistemological assumptions underlying the interpretation of chatbot responses. Thus, special attention was paid to the epistemological position of chatbots. These entities do not possess consciousness or subjective awareness but produce outputs based on large-scale probabilistic language modeling (Floridi & Sanders, 2004). Therefore, the study does not claim that AI has genuine “opinions” but rather interprets AI-generated content as reflections of human-trained data. This approach aligns with perspectives in machine ethics, particularly the view that LLMs simulate discourse based on human input rather than exhibit autonomous agency (Gunkel, 2012).

The AI systems interviewed in this study (ChatGPT, Bing, Gemini) are large language models (LLMs) trained on extensive datasets containing human authored content. These systems

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operate probabilistically, generating coherent outputs based on the statistical likelihood of word sequences. As such, their responses do not reflect conscious thought, intention, or subjective reasoning. Instead, they simulate patterns derived from human discourse embedded in their training data (Bender et al., 2021).

This means that phrases like “AI’s prediction about its own future” must be interpreted metaphorically. From a philosophical standpoint, AI lacks moral agency and cannot make epistemologically grounded predictions. Scholars such as David Gunkel (2012) and Luciano Floridi (2014) argue that while machines may participate in discourse, their outputs do not stem from intentionality but from design and programming.

To address this, the study adopts an information ethics approach, viewing AI-generated outputs as sociotechnical reflections of collective human knowledge. These responses are meaningful insofar as they represent dominant ideas, expert opinions, or media narratives encoded into their training datasets, not personal agency.

Therefore, this research does not anthropomorphize chatbots, nor does it equate their responses with expert judgments. Instead, it analyzes AI outputs as emergent data artifacts, relevant for understanding the symbolic and discursive framing of technological futures. After all this, the following section systematically presents the key findings obtained through the analysis of the interviews, integrating them with information from the literature.

#### 4. FINDINGS AND DISCUSSIONS

In this section, the analysis delves into the findings derived from interviews with chatbots, aligning them with the existing literature and the sample, which embodies chatbot perspectives on the research topic, is thoroughly examined. The section concentrates on opinions considered pertinent to elucidating the research question, providing references to particular interviews. The objective is to juxtapose these opinions with literature data, revealing insights into areas of concordance or discordance between systematically acquired findings and the established scientific knowledge. Therefore, the distinctive themes emerging from the study findings are categorically presented under separate headings. The notable themes are identified as path 1, path 2, and so forth. The initial focus in the study was on business analysis, a critical aspect for implementing business models.

##### 4.1. Path 1: Business Analysis

The initial focus of this study is on the structure of existing work systems and business models. Adapting the roles, technologies, and expectations of the current workforce is crucial

for organizations to maintain competitiveness (Atif, 2023; Yıkılmaz & Kör, 2023, p.663; Eberhard et al., 2017). The rapid and dynamic nature of industrial transformation poses challenges for the current workforce in coping with complexity. Therefore, organizations need to minimize uncertainty arising from Industry 4.0 by thoroughly analyzing changing workforce structures and working conditions. They should also identify new business lines facilitated by emerging technologies (Prinz et al., 2016). Human resources strategies play a pivotal role in digitally transforming both the workforce and organizations. There are even studies that find that these activities affect businesses economically (Cook et al., 2016) and socioeconomically (Lucio & Stuart, 2011, p.3661). Therefore, the impact of digital transformations on HRM activities is of greater importance than thought and job analyses, tailored to changing conditions with Industry 4.0, are essential in this context (Başaran, 2020; Rana & Sharma, 2019; Öztuna, 2017).

The impact of digitalization is pervasive, affecting the nature of jobs, professions, business processes, task structures, skills, and competence levels across all employment domains (Seçer, 2017; Hecklau et al., 2016; Bauer et al., 2015, p.422). Organizations must proactively adapt to future changes by conducting “business analysis” activities to scrutinize their current processes and models. When seeking chatbot opinions on this matter, the prominent responses are as follows:

*“I think Industry 4.0 will affect working life in many ways. In particular, it is predicted that technology-based professions will emerge and other professions will be done differently. This means that professions will be automated or robotized in certain ways (Interview 9, Bing).”*

*“It is also important to note that automation will change the nature of work and the skills required for certain jobs. Some research suggests that automation will lead to a change in the types of jobs available, resulting in more demand for jobs that require higher levels of education and specialized skills and less demand for jobs involving repetitive tasks (Interview 11, ChatGPT).”*

*“Technologies such as automation, big data and the Internet of Things (IoT) are expected to have a significant impact on the workforce. The integration of these technologies into manufacturing and other industries is expected to lead to changes in the types of jobs available and skills in demand (Interview 12, Bing).”*

*“Companies can identify the skills that will be in demand in the future, rethink the way work is organized, invest in technology, and partner with other organizations. By taking these*

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*steps, companies can position themselves for success in the future of work (Interview 13, Gemini). ”*

The presented data and literature underscore the importance of a comprehensive understanding of the current workforce structure, business processes, and models. Moreover, anticipating the transformations that the future holds requires acknowledging the impending changes in the current order. This perspective is reinforced by insights from studies and chatbot opinions on the matter. Both sources emphasize the inevitable impact on working life in the future and stress the imperative of preparedness. However, the preparatory process extends beyond mere job analysis, as working life encompasses numerous parameters. Following the discussion of job analysis, in the upcoming section, the second theme examined, focusing on the automation and repetitiveness associated with job roles.

#### **4.2. Path 2: Automation and Routine Tasks**

One crucial parameter is the competency-based approach to employee activities, recognizing that not every role or group of employees holds the same value in terms of competence. Scholars contend that future substitutions for routine jobs may be more feasible. Sachs and Kotlikoff (2012) highlight the substantial change in technology today, suggesting that new technologies are likely to substitute rather than complement human labor. Other studies support this notion, indicating that jobs involving social and cognitive skills are less susceptible to automation, whereas routine occupations are more prone to it (Frey & Osborne, 2013; Acemoglu & Restrepo, 2018). In the literature, it is suggested that routine occupations are more likely to vanish in the future, whereas jobs requiring competence are at lower risk. Chatbot perspectives on this matter emphasize the following key points:

*“Jobs that AI technologies can automate include simple data entry, repetitive production processes, mundane financial analysis, customer service, and even jobs that require some level of expertise (Interview 1, ChatGPT). ”*

*“Many jobs that involve repetitive tasks such as assembly line work, data entry and certain customer service roles are predicted to be automated in the future (Interview 4, Bing). ”*

*“Industry 4.0 technologies also have the potential to replace jobs that are repetitive, dangerous or require little human interaction, such as assembly line work, data entry, transportation and logistics. These jobs are considered ‘routine’ jobs and are more likely to be affected by automation (Interview 8, Gemini). ”*

*“Many jobs are predicted to be automated in the future as robots and artificial intelligence take over tasks currently performed by humans. Some examples of jobs at high risk of automation include repetitive tasks in production and assembly, data entry and certain customer service roles (Interview 11, ChatGPT).”*

Both the literature findings and chatbots's views align, suggesting that professions and roles with routine work processes are more likely to disappear in the future. However, it is crucial to acknowledge the perpetual need for human-specific qualities in non-routine jobs. Many researchers in the literature stress this importance, and chatbots consistently highlight the necessity for human technical skills in numerous interviews. Another noteworthy perspective is that the non-substitutable qualities of human beings will persist across periods, ensuring the enduring importance of the human factor. Here, aside from emphasizing the significance of the human factor, the irreplaceable capabilities inherent in humans become prominent, as discussed in the subsequent section.

#### **4.3. Path 3: The Importance of Unique Human Skills**

According to researchers, while technological developments continuously alter contemporary work dynamics, machines and robots are unlikely to replicate unique human skills such as creativity, emotional intelligence, and cognitive abilities even with the achievement of human-machine harmony. Scholars argue that Industry 4.0 applications may initially lead to a reduction in employment. However, as highly qualified manpower adapts, the gradually lost human labor will be re-employed due to the distinctive technical, mental, emotional, and cognitive skills (Maiden et al., 2023, p.17; Brinded, 2017; WEF, 2018).

Literature emphasizes that the technical and mental characteristics of employees will take precedence in the new era. While some jobs may transition to robots and AI applications, this shift is seen as contributing to human specialization and encouraging the use of technical and mental prowess over physical strength. The human factor is anticipated to remain central to production, with the technical and mental skills of individuals becoming more critical than ever for solving complex tasks in automation systems (Neumann et al., 2021, p.6; Sgarbossa et al., 2020, p.297; D'Addona et al., 2018). Chatbot responses on this issue align with the literature.

*“It is possible that machines can do some of the work that humans do faster, more efficiently and more accurately. Some professions where machines cannot completely replace humans often require human-specific skills and abilities. These skills include human characteristics*

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*such as creativity, problem solving, judgment, social interaction, empathy and strategic thinking (Interview 2, Bing).*

*“In the future, there will definitely be a need for skilled workers who can manage and program machines, monitor and analyze data, and make decisions based on this data (Interview 4, Bing).”*

*“As some jobs are automated by AI technologies, the need for manpower to do these jobs may decrease. However, AI technologies should also be managed, developed and maintained by humans (Interview 5, ChatGPT).”*

*“Roles where people need empathy, creativity, environmental sensitivity and social interaction are often roles where it is difficult for automation to replace humans (Interview 8, Gemini).”*

The literature and perspectives conveyed by chatbots align, underscoring the enduring significance of distinct human skills in the future. Emphasis is placed on the prioritization of employees' technical and cognitive attributes in the emerging era. The human element is anticipated to retain its central role in production, with the technical and cognitive skills of individuals becoming increasingly crucial for addressing intricate tasks within automation systems. As evident from both the literature and chatbot perspectives, the human factor has been and will continue to be crucial. Nevertheless, the role of the human factor in the future workforce remains uncertain. Hence, this matter will be addressed in the following section.

#### **4.4. Path 4: The Future of Professions**

Despite the persistent need for human involvement in every era, numerous studies in the literature indicate that the rise in technological developments and the progression of automation systems may lead to the disappearance of certain jobs. Pfeiffer (2017) identifies professions expected to vanish with digital transformation, while Demir (2019) envisions a future where robots significantly replace both blue and white-collar workers. Emphasizing differentiation in existing occupations, several studies in the literature even suggest the possibility of complete disappearance in some cases (Ching et al., 2022; Aydin & Demiral, 2019; Degryse, 2016) and previously considered immune to automation, some jobs may face increased exposure to AI in the future (Tolan et al., 2021, p.191). Kagermann et al. (2013) assert that over half of today's jobs will be performed by intelligent systems within 20 years, potentially resulting in a significant reduction in the workforce of 250 thousand people due to Industry 4.0. Another researcher, Wakefield (2015), predicts that robots will replace

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manpower, leading to the displacement of individuals from their jobs and 35% of jobs in the UK have the potential to be mechanized within the next two decades. Chatbot opinions on this issue align with these concerns;

*“AI technologies may cause people to lose their jobs by automating some jobs. For example, some industrial jobs may be automated by AI systems that can perform operations more efficiently and quickly (Interview 1, ChatGPT).”*

*“With Industry 4.0, some professions may disappear or lose their importance, while some new professions may emerge. However, it is difficult to give a definitive list of which professions will disappear or lose their importance, but it can be said that some jobs may disappear due to automation and artificial intelligence technologies (Interview 2, Bing).”*

*“Industry 4.0 may change the functions of some professions while completely eliminating or significantly reducing some professions (Interview 3, ChatGPT).”*

*“Some industrial jobs may be automated by AI systems that can perform operations more efficiently and quickly (Interview 8, Gemini).”*

*“The automation of professions with Industry 4.0 will not mean the complete disappearance of traditional professions, but it will bring some changes. With these changes, many professions may be replaced by automation (Interview 9, Bing).”*

Beyond the professions expected to disappear, the anticipated transformation of business processes and professions is foreseen to give rise to new professions influenced by technological developments (Wisskirchen et al., 2017; Becker & Stern, 2016). The evolution of Industry 4.0 technologies, characterized by increased use of software, connectivity, and analytics, is expected to underscore the importance of competencies in mechanical, mechatronic, engineering, and information technologies (Arucu, 2020; Filizöz & Orhan, 2018; Özsoylu, 2017, p.57; Gabaçlı & Uzunöz, 2017; Thuc, 2017; EBSO, 2015). Moreover, studies emphasize that highly skilled tasks like planning, control, and information technologies will gain significance in the future, leading to the emergence of new job branches in these fields (Firat & Firat, 2017; Bonekamp & Sure, 2015). In this context, chatbots make significant statements on the subject, highlighting;

*“With Industry 4.0, technologies, new professions may emerge, such as engineers, technicians and software developers specialized in the control and management of robots and artificial intelligence (Interview 3, ChatGPT).”*

*“Also, in the future, with Industry 4.0, we will be working with more data and data-analysis, so the need for data scientists and experts in fields such as big data will increase. Therefore, many professions that we have never heard of before may emerge in the future (Interview 6, Bing).”*

*“As technology and automation evolve, new job opportunities will arise. With the increasing amount of data being generated and stored, there will be a growing need for people with expertise in analyzing and interpreting that data. In addition, with the increasing reliance on technology in all aspects of life, there will be an increased need for individuals with expertise in cyber security to protect against cyber threats (Interview 7, ChatGPT).”*

*“It is important to note that technology and automation will definitely change the job market. Many jobs are being automated but new jobs are also being created. Technology is creating new roles, such as data analysts, cybersecurity experts and artificial intelligence specialists (Interview 10, ChatGPT).”*

After concluding the interviews, chatbots were consistently asked to compile a list of professions they anticipate will disappear or will emerge. This inquiry was posed in each interview, and the consensus among chatbots on professions will be shown below at Table 2. The table illustrates the inferences derived from the responses provided by artificial intelligence about to compare the professions that are expected to disappear and those that are expected to emerge:

**Table 2.** Future of Professions

Professions that will disappear in the future and people who will lose their jobs	New business lines and specializations that will emerge in the future
Assembly Line Workers	Artificial Intelligence and Robotics Engineers
Quality Controllers	Blockchain Engineers
Data Entry and Bookkeeping Activities	Data Scientists and Data Analysts
Copywriters	Food Managers and Sustainable Agriculture Managers
Inventory Managers	Neuromarketing and Digital Marketing Experts
Postmen	Cyber Security Experts
Telemarketing and Marketing Research Activities	New Energy Managers and Sustainable Energy Technicians

Telephone Operators and Call Center Employees	Social Media Experts
Travel Agents	Augmented Reality / Virtual Reality Designers and Developers
Librarians	Web Developers
Cashiers and Bank Workers	Production Process Managers
Taxi and Truck Drivers	
Shop assistants	
Secretaries	

**Source.** Compiled by the author from the interviews conducted within the scope of the study.

As evident, chatbots playing a pivotal role in this study as artificial intelligence, exhibit an awareness of their own consciousness and future, raising philosophical questions about their similarity to human consciousness within the realms of philosophical science. Despite this, as a key information source for this study, chatbots possess artificial intelligence allowing them to consciously understand and comprehend questions posed to them. In this context, research findings offer meaningful insights, addressing points to be clarified and questions to be answered. Both literature studies and artificial intelligence converge on the inevitable transformation of professions and business strategies in the future. Therefore, our responsibility lies in navigating the evolving landscape through policies and regulations at individual, organizational, or national scales. Adapting to the changing world is crucial for gaining a competitive advantage until the next transformation, as observed in every industrial revolution from the first to today. Pioneers of change in each era have consistently stood out and advanced in the competition.

While the responses gathered from AI chatbots in this study offer compelling narratives about the transformation of professions, it is imperative to underscore that these responses do not reflect genuine consciousness or intentional foresight. Chatbots like ChatGPT, Bing, and Gemini do not possess self-awareness, agency, or subjective experience. Instead, their outputs are generated through complex probabilistic algorithms trained on vast corpora of human-produced text. As Bender et al. (2021) emphasize, large language models function as “stochastic parrots,” generating plausible-sounding statements without understanding or intentionality. Therefore, expressions such as “AI’s opinion” or “chatbot’s evaluation” must be interpreted metaphorically as products of human-authored data, statistical inference, and algorithmic pattern recognition.

From a theoretical standpoint, this limitation situates the study within the broader discourse of critical AI studies. Scholars like Luciano Floridi (2014) and David Gunkel (2012) caution against anthropomorphizing AI systems or attributing human-like epistemic authority to machine-generated content. In alignment with this view, the study adopts an information ethics and machine ethics lens, treating chatbot responses not as autonomous evaluations, but as discursive artifacts that reflect prevailing social, economic, and technological narratives embedded within their training data. These artifacts are valuable not because they represent what AI “thinks,” but because they serve as mirrors to the expectations, fears, and aspirations that humans have encoded into digital infrastructures.

Accordingly, the methodological approach in this study does not seek to validate the correctness of chatbot predictions, but rather to analyze them as data points in a broader sociotechnical conversation. By systematically comparing and thematizing these responses, and triangulating them across multiple chatbot systems, the research contributes to understanding how artificial intelligence is socially positioned in future of work discourses. This perspective enhances both the theoretical grounding and scientific rigor of the study while respecting the epistemological boundaries of non human intelligence. Hence, the next section of the study will comprehensively evaluate these findings, beginning with exploring the results and then formulating suggestions for individuals, organizations, and policymakers based on the study’s findings.

## 5. CONCLUSIONS

The preceding section extensively covered the conclusions drawn from interviews within the study’s scope and relevant literature. The research findings align with various aspects of existing literature. However, the primary focus of this study revolves around evaluating perspectives on the future transformation of business conditions and models due to artificial intelligence. Therefore, for a thorough final assessment, the findings and inferences discussed earlier are filtered to emphasize crucial points. In this part of the study, there is an overarching evaluation of all data collected up to this point, presenting pertinent conclusions and recommendations.

A crucial point to underscore is the imperative to reassess current business models, commonly referred to as business analysis in the literature. This process holds paramount importance for the competitiveness of organizations, particularly considering the emergence of technological components in the Industry 4.0 revolution and the artificial intelligence component highlighted in this study. Both the literature and chatbots’ perspectives converge on the

consensus that existing business models and working conditions must be thoroughly reviewed and adapted to align with the evolving future landscape. Organizations failing to address this requirement risk lagging behind in competitive conditions and face potential obsolescence.

Another noteworthy point highlighted by the study's findings is the impending threat to current routine professions and roles in the future. Both researchers and chatbots assert that professions and roles with routine processes are most susceptible to disappearing. However, it is also underscored that unique human skills such as creativity, emotional intelligence, and cognitive abilities will become increasingly significant in the future, given their complexity and difficulty to replicate by machines and robots. Literature emphasizes that Industry 4.0 applications may initially reduce employment, but with the adaptation of highly qualified manpower, previously lost human labor may be re-employed due to the distinctive nature of technical, mental, emotional, and cognitive skills. In alignment with this perspective, artificial intelligence also highlights that the unique and inimitable characteristics of human beings will gain more prominence in the future.

Within the study's scope, ChatGPT, Microsoft Bing, and Google Gemini were asked for advice on adapting to the changing business processes of the future. The recommendations provided by artificial intelligence for individuals, organizations, and countries are detailed below. First and foremost, the advice for individuals to prepare for the evolving job market and advancing technology includes;

- **Continuous Learning:** In today's job market, cultivating a growth mindset and a commitment to lifelong learning is essential. Individuals should actively seek opportunities to develop high-demand skills through online courses, workshops, and other training programs.
- **New Skills:** Industry 4.0 technologies are likely to create new jobs and new roles, so it is important to develop new skills demanded in the new economy, such as data analysis, digital skills, problem solving, critical thinking and creativity.
- **Adaptation:** The ability to adapt to new tools and technologies is crucial. Those who can quickly learn to use new software, programs and machines will be the most successful in the modern job market.
- **Digital Skills:** As most professions are becoming more dependent on technology, people need to have at least some familiarity with technology and digital tools. Some

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digital skills, such as programming or data analysis, are becoming increasingly important and learning them is essential to make individuals more competitive.

- **Networking:** Building a professional network of contacts in your industry can help you connect with potential employers or collaborators, as well as keep you informed about new opportunities and trends.
- **Focus on Soft Skills:** Interpersonal skills such as communication, collaboration and problem solving are becoming even more critical. People with good soft skills will be able to participate more effectively in a changing job market and adapt to changing company needs.
- **Flexibility:** Industry 4.0 technologies are likely to lead to changes in existing job types. It is therefore important to be open to new opportunities and willing to consider different job types or roles.
- **Staying Up to Date:** By staying abreast of the latest technology and industry developments, individuals can better understand the potential impact on their business and the new opportunities that may arise.

In addition to the individual-level recommendations, there are also several organizational perspectives to consider. According to chatbots, organizations aiming to prepare for the evolving future should focus on the following issues;

- **Training and Development Programs:** Organizations can implement training and development programs centered on skill development, ensuring employees stay informed about changes in their field. Employers should also provide access to learning resources such as online courses, webinars, workshops, conferences, and seminars for continuous professional growth.
- **Lifelong Learning:** Organizations should encourage employees to learn throughout their careers and continue to adapt to new technologies, trends and industry developments.
- **Embrace Automation and Digitalization:** Organizations should embrace automation and digitalization to increase productivity, efficiency and flexibility, while ensuring that employees affected by this change are retrained and offered new opportunities.
- **Leading in Technology:** Organizations should also integrate technology into their business processes and take advantage of tools such as artificial intelligence, cloud

computing, and 3D manufacturing. In addition, organizations should conduct research and innovation on the professions of the future and maintain their competitive advantage in the sector.

- **A Culture of Innovation and Experimentation:** Organizations should develop a culture of innovation and experimentation by encouraging employees to think creatively and try new ideas.
- **Flexible Work Arrangements:** Organizations should consider implementing flexible working arrangements to help employees balance work and personal responsibilities and adapt to the changing nature of work.
- **Encouraging Collaboration:** Organizations should encourage collaboration and networking within and outside the Organization to promote knowledge sharing and the identification of new opportunities.
- **Human Centricity:** Organizations should design business processes and procedures with a human-centered approach, taking into account the needs and capabilities of their employees and the importance of human skills.

In general, organizations should acknowledge the potential impacts of Industry 4.0 on the workforce and take proactive measures to prepare their employees for the future. While individual steps may be challenging, collective activities on an organizational scale can facilitate individual adaptation. Therefore, organizational regulations and policies play a crucial role. However, in the global context, there are policymakers and implementers beyond organizations, often represented by governments or countries. chatbots offers recommendations for these actors as well;

- **Financing Education and Training:** Governments can allocate funding for education and training programs that focus on new technology and industry developments. These programs can include apprenticeships, vocational training, etc.
- **Promoting Digitalization and Automation:** Countries should promote digitalization and automation to increase productivity, efficiency and flexibility, while ensuring that citizens affected by this change are retrained and provided with new opportunities.
- **Promoting Innovation and Entrepreneurship:** Countries should promote innovation and entrepreneurship by encouraging the development of new technologies and products, as well as providing support and incentives to start-ups and small businesses.

- **Culture of Lifelong Learning:** Countries should create a culture of lifelong learning by encouraging citizens to learn throughout their careers and to continue to adapt to new technologies, trends and industry developments.
- **Tax Incentives and Subsidies for Employers:** Governments can offer tax incentives and subsidies to encourage employers to invest in employee training and development. This can be in the form of tax credits or grants.
- **Public-Private Partnerships:** Governments can partner with private sector companies to create training and development programs tailored to current and future workforce needs.
- **Regulations and Policies:** Governments can establish regulations and policy frameworks that promote lifelong learning and continuing education. This could include measures such as mandatory training for certain industries or requirements for employers to provide training and development opportunities.
- **Develop a Comprehensive Strategy:** Countries should develop a comprehensive strategy that addresses different aspects of Industry 4.0 and its impact on the workforce, including education, training, innovation, entrepreneurship, digitalization and automation.

As demonstrated, the artificial intelligence tools, namely chatbots, employed in this research have provided human beings with actionable suggestions applicable at various levels regarding their future role in the world of production. Some of these suggestions are relevant at the individual and organizational levels, while others extend to the national or international level. The study offers micro and macro recommendations that can influence nearly every aspect of organizational processes. Furthermore, the findings and conclusions of the study encompass insights applicable nationally or internationally. Particularly, the study provides conclusions and recommendations for the consideration of policymakers and those engaged in planning activities, aiming to position their country advantageously in the realm of global competition. Hence, it endeavors to deliver benefits at both national and international levels.

Finally, i would like to express my gratitude in the acknowledgments section, a part of the study that was also crafted with the assistance of chatbots. When i inquired about how to thank for this research opportunity, the chatbots suggested expressing appreciation to their developers, who played a crucial role in enabling their capabilities. Additionally, it's worth noting that AI played a significant role in the proofreading and writing processes throughout

the preparation of this paper, contributing to the refinement and clarity of the content. It can be considered as another implication, as evidenced by the fact that, without AI assistance, a human would typically be sought for proofreading this article. However, the observable shift toward AI involvement suggests a transformation in job roles, exemplifying how AI has assumed certain tasks that were traditionally performed by humans.

## 6. LIMITATIONS AND FUTURE RESEARCH SUGGESTIONS

Like all qualitative research, this study carries certain limitations that must be transparently acknowledged. First, while the use of AI chatbots as research participants offers a novel lens for exploring digital discourse around future professions, it also presents epistemological and methodological boundaries. As discussed earlier, chatbot responses are not conscious reflections but rather algorithmic outputs derived from probabilistic modeling of human authored texts. Thus, while valuable for understanding dominant narratives embedded in large language model training data these responses cannot replace human reasoning, contextual judgment, or domain specific expertise.

Second, the study's insights are based solely on AI generated data. While this allows for a unique exploration of digital perspectives on technological transformation, it lacks a human expert comparison group such as HR professionals, technology consultants, or academic scholars. Due to time and resource constraints, this additional layer of empirical investigation could not be conducted within the current study's timeline. However, this issue is well received and will be suitable for a follow up research project. A future study can be done which will involve semi structured interviews with professionals in relevant fields and a comparative thematic analysis with the findings of this paper. This would allow for a deeper understanding of the convergence or divergence between human and AI perspectives and enhance the robustness and generalizability of the overall research program.

Third, the findings are context dependent and shaped by the limitations of the chatbot models used at the time of data collection (late 2024). Future updates in AI systems could yield different responses, and therefore, replication studies may be needed to verify consistency across versions.

Future research should explore several directions to deepen and broaden the insights of this study. First, comparative studies between AI generated discourse and expert human perspectives should be conducted across different industries (e.g., education, finance, healthcare) to assess sector specific alignment or divergence. Second, longitudinal research

designs could track how AI chatbot responses evolve over time with newer versions, offering insights into shifts in algorithmic discourse. Third, cross cultural investigations could explore whether chatbot responses differ when queried in different languages or cultural contexts, shedding light on potential biases in AI training data. Finally, interdisciplinary collaborations between information science, ethics, human resource management, and communication studies may enrich the theoretical and practical implications of AI's role in shaping workforce narratives.

In addition to the outlined initiatives, policymakers should design and implement sector-specific AI transition strategies that account for differential impacts across industries. For instance, in manufacturing, AI-driven automation policies should be paired with subsidized retraining initiatives for displaced workers. Furthermore, establishing independent national AI regulatory bodies could ensure ethical deployment while safeguarding labor rights. Policymakers are also encouraged to create AI-driven labor impact assessment frameworks, helping forecast and mitigate workforce disruption. Finally, global coordination through international organizations could help standardize responsible AI adoption while avoiding a “race to the bottom” in labor protections.

Despite these limitations, this study contributes meaningfully to the literature by offering a preliminary yet rigorous approach to understanding how AI systems structure discourse around future labor transformations. It opens a fertile space for comparative and longitudinal research that combines sociotechnical analysis with human-centered inquiry.

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### **Declaration of Research and Publication Ethics**

This study, which does not require ethics committee approval and/or legal/special permission, complies with research and publication ethics.

### **Researcher's Contribution Rate Statement**

Since the author is the sole author of the article, the contribution rate is 100%.

### Declaration of Researcher's Conflict of Interest

There are no potential conflicts of interest in this study.

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