

A CONCEPTUAL FRAMEWORK ANALYZING THE EMOTIONAL DEPENDENCY OF WORKING PROFESSIONALS ON ARTIFICIAL INTELLIGENCE

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Abstract

The rapid advancement of artificial intelligence (AI) has transformed the 21st century into the "AI era", where individuals across all age groups and professionals utilize AI for their work. This evolution has shifted societal outlooks toward technology and accelerated the change across industries; whether in healthcare, IT, or education, no industry has been left untouched. Today, AI is not just a tool; it has become an interactive entity that operates based on user prompts. In the workplace, it acts as a colleague, and in personal life, it often serve as a companion. However, as the saying goes, an excess of anything can be harmful.

In the same way, overdependence on artificial intelligence can lead to negative impacts on both professional and personal lives. This conceptual framework illustrates the influence-based relationships among factors that create a "tri-effect" i.e., the psychological, emotional, and behavioral impacts of generative AI on working professionals. It provides a structured understanding of its dual effects on personal and professional life. Through this study, the author proposes "AI Compulsivity Theory," describing a phenomenon where individuals face a strong psychological urge and repetitive behavioral tendency to rely on generative AI, which the individual relies on and repeatedly engages with generative AI, which eventually becomes difficult to regulate. This creates a loop in which users initially adopt AI as a tool for efficiency, but ultimately begin treating it as a human companion, forgetting they are interacting with a non-conscious being.

Grounded in a qualitative synthesis of emotional dependency on AI and prior empirical findings, this study suggests that these relationships produce subjectively real consequences, that deserve rigorous conceptual analysis. Ultimately, the author proposed a framework to explain the influence-based relationship among factors contributing to Generative AI dependency among working professionals. This study helps the reader to understand the appropriate boundaries of AI usage, encouraging its conscious and responsible use to maximize positive outcomes.

Keywords

AI dependency, AI compulsivity, Cognitive offloading, mental fatigue, Leader Emotional Support, Dual Driver, Job Insecurity

Introduction:

Generative artificial intelligence has fundamentally changed modern lifestyles and preferences. Initially, AI was merely a tool based on simple rules and instructions for completing specific jobs, but it has now become a significant portion of our daily lives. The evolution of AI makes the 21st century the “AI ERA,” where multiple generations have adopted AI for their work. Modern AI systems are highly interactive, adaptive, and respond in human-like ways. This technological advancement is utilized as a supporting aid across various industries, including healthcare, education, business, and management. In the workplace, AI acts as a co-worker that provides scaffolding for competing tasks, enhancing efficiency and decision-making processes. Furthermore, AI has deeply integrated into everyday life by assisting with personal tasks, communication and emotional support. By creating a sense of being heard and understood, it can trigger addictive patterns among emotionally vulnerable users. Despite its

potential drawbacks, artificial intelligence offers numerous advantages. AI is no longer merely a tool, it has become a transformative force that is revolutionizing the digital world (Yankouskaya et al., 2025).

1. Problem statement

The rapid expansion of AI in the workplace has fostered a culture of efficiency and support. However, the enduring consequences of prolonged exposure can create a tri-effect, i.e., psychological, emotional, and behavioral impacts, which can disturb both professional and personal lives. Employees may experience “technostress”, “cognitive overloading,” and “mental fatigue” due to the pressure of adapting to rapidly changing AI systems. As working professionals delegate cognitive tasks to AI, they may experience “AI guilt,” which in turn fosters feelings of job insecurity. Awareness of AI’s capabilities can increase the fear of becoming obsolete, causing individuals to question of their self-worth and career stability. Although AI is a helpful tool,

overdependency can result in mental fatigue, emotional exhaustion, workplace loneliness, and disconnection from real human beings. These AI-induced stressors do not only affect professional environments but also spill over into personal lives, causing issues like work-family conflict and the deterioration of mental and physical health (Riley et al., 2025).

2. Objective of the study

This study aims to explore how working with AI helps working professionals feel better in situations where they lack trustworthy human confidants to share their personal or work-related stress. In such scenarios, generative AI often becomes the sole entity available for emotional support. However, just as a coin has two sides, AI reliance has negative impacts, overdependency leads to mental exhaustion, feeling of guilt and skill degradation. Additionally, AI alters employee behavior, often causing individuals who might otherwise take leadership roles to become withdrawn and isolated. The effects of AI extend beyond the professional realm, influencing family dynamics by creating emotional distance from real relationships. Finally, this study provides suggestions to help working professionals maintain a balanced approach when working with AI, ensuring they maximize the positive effects while avoiding the negative ones (Riley et al., 2025).

3. Research question

- How does prolonged dependency on AI affect a working professionals' mental health, critical thinking and decision-making abilities?

- What factors induce the "dual face" of AI, where it acts as a friend on one side and a foe on the other?

- How does AI act as a workplace stressor, leading to negative professional and personal outcomes?

- what measures can be utilized by manager in workplace and by users in their personal lives to mitigate these negative effects?

4. Significance of the study

This study illustrates how to engage with artificial Intelligence ethically and responsibly so that it contributes to the greater good. It emphasizes that AI should be used as a supporting aid to humans, not as a replacement for human intellect. The research helps assess the behavioral costs of AI, which are intangible but significantly affect organizational culture. It provides a new perspective to human resource managers, encouraging them to rethink policies, implement AI literacy training, and create supportive systems that eliminates workplace loneliness. The ultimate goal is to ensure that people understand they are using AI, rather than being used by AI. By remaining conscious and rational, society can leverage this technology to improve both work and life. 2.

Literature Review

1. Artificial intelligence in 21st century

Artificial intelligence (AI) has become an integral part of our lives. It has transformed the way of

living and the work culture of organizations. Earlier, an AI system was merely a tool that followed specified rules, but modern AI systems are interactive, adaptive and human-like, which can blur the distinction between real human beings and digital, non-conscious entities (such as AI chatbots) (Meng et al., 2025). Furthermore, They can assist in critical thinking and decision-making, which has made AI an important tool across various industries such as healthcare, education, business, management, and finance (Aghaziarati & Rahimi, 2025).

2. AI in Professional life

In the workplace, AI helps in completing tasks effectively and efficiently and assists in making timely decisions. Various companies use AI for data analysis, automating tasks, and for customer service. For example, SBI uses SIA, Paytm uses support chatbots, and HDFC Bank uses EVA. Similarly, many other companies and industries use AI systems according to their specific needs. With these advanced features, AI can make work easier and help in managing time effectively. As we can observe, sometimes AI works as a co-worker that helps in completing tasks, and It can also provide guidance and act like a mentor, which makes it highly useful and reliable in the workplace (Meng et al., 2025). Therefore, AI is not just a tool; it is perceived as a mentor and coworker who helps in getting things done quickly. Some people rely on AI to such an extent that it becomes an important part of their lives; they use it for getting reassurance, direction, and support, which is important because such dependency can influence an individual's identity, relationships

at work, and behavior in the working environment (Aghaziarati & Rahimi, 2025).

3. AI in Personal life

As discussed in previous sections, and as many people have either experienced themselves or heard from others, AI is not used only for work but also used for personal life. People use AI assistants, like Siri or Google Assistant, for personal use such as reminders, messages, and entertainment. AI can also act as a companion when individuals feel lonely and stressed. It provides a space where there is no judgment and criticism, which makes it attractive to emotionally vulnerable individuals. AI has changed the way of living, professionally as well as personally. Earlier, humans used to share their feelings with other humans, but now, due to the interactive and adaptive features of AI, some individuals may begin to withdraw from real human interaction. It gives feedback and creates a sense of trust and familiarity, where some people express themselves without fear of judgment. However, prolonged dependency on AI can create problems. It may make individuals feel comfortable with AI while becoming uncomfortable with real human interaction, which can lead to loneliness, isolation, and a disconnection from the real world. It is like having a friend who is always available but not present in the real world (Saracini et al., 2025).

4. Emotional Dependency on AI and its cognitive and behavioral impact

Emotional dependency on AI means that working professionals rely on AI not only for work-related tasks but also for emotional

support. Prolonged use of AI can make individuals feel comfortable and safe because of its adaptive algorithms, which create a perception that AI is a friend, companion, or confidant. As stated in previous studies, emotionally vulnerable individuals project their needs onto AI, which leads to the theory of Techno-Projection Relationship (Saracini et al., 2025). This makes individuals feel safe, understood, and less alone. AI adapts to users' behavior and provides personalized feedback, which can lead to a one-sided connection with a non-conscious being. This type of bond has been referred to in previous studies as a pseudo-social bond (Yankouskaya et al., 2025). Such dependency is more prone to develop among emotionally vulnerable individuals. While AI can be helpful, it can also become harmful if users rely on it irrationally or become overdependent on it.

Prolonged use of AI can affect working professionals in three major ways: cognitively, emotionally, and behaviorally.

4.1. Cognitive Impact

When working professionals become overdependent on AI, they may gradually lose the ability to think independently, solve problems, and make decisions without the help of AI. This pattern can make an individual dependent on AI, which may lead to "AI guilt" and reduce confidence in their own abilities (Riley et al., 2025). Overdependence can cause serious cognitive problems.

2.4.2 Emotional Impact

AI can affect emotions by providing a comfortable, safe, and supportive space. Over time, users may begin to feel anxious, stressed, and insecure in the absence of AI. Excessive dependence can create feelings of weakness, vulnerability, and emotional dependence. This may become harmful, especially for emotionally vulnerable individuals who want reassurance and support primarily from AI rather than from real human relationships, engaging in interactions to artificially fulfill unmet psychological needs (Saracini et al., 2025).

4.3. Behavioral Impact

Finally, AI dependency can affect behavior by making users less interested in having conversations with humans and more likely to withdraw from real human interaction. If users are not careful enough to control their use of AI, excessive reliance may create unhealthy habits, leading to diminished interpersonal skills, isolation and disconnection from the real world (Yankouskaya et al., 2025). This is a major problem because it affects not only the user but also their family, coworkers, and overall well-being.

5. Conceptual and Theoretical Foundations

There are various theories that can help us to understand why users become dependent on AI. One theory is the Technology Acceptance Model (TAM), which suggests that people are more likely to use technology when they perceive it as useful and easy to use (Kan, 2021; Liu, 2025). Another relevant theory is the Computers Are Social Actors (CASA) framework, which says that people treat computers like humans when AI

starts mimicking human-like manners (Saracini et al., 2025). There is also media dependence theory, which states that individuals become dependent on media for information, support, and orientation (Liu, 2025; Yuan et al., 2024). Finally, the Job Demand-resource (JDR) model explains that AI acts as both a support system as well as a stressor in workplace settings (Jia et al., 2025; Zheng & Zhang, 2025).

All of these theories help us to understand why people become dependent on AI. They also help in finding the effects of AI dependency on professional and personal relationships. By understanding these theories, individuals can become more aware and rational in their behavior and ensure that they are not relying too much on AI.

Research Gap

Despite the rapid expansion of literature on AI in the workplace, most studies have focused on quantitative data to measure specific economic or operational outcomes such as productivity or job loss, leaving a lack of empirical research on how people actually experience and use AI in real-life. Therefore, more research is needed to develop a systematic understanding of existing studies and examine the dual effects of AI. On one hand, AI has positive effects on working professionals, such as expediting task completion, enhancing efficiency, and supporting complex decision-making. On the other hand, AI can also have negative effects on working professionals, including mental exhaustion, the loss of professional identity, and workplace loneliness. A qualitative study is needed to synthesize these existing findings into

a comprehensive and unified understanding of how prolonged dependency on AI simultaneously reshapes professional identity, interpersonal relationships in the workplace, and the overall personal well-being of the modern workforce (Sharma et al., 2025).

Methodology

This study adopts a conceptual approach to explore how AI has transformed from a basic tool into an interactive co-worker. It examines the effects of AI on working professionals' lives, both personally and professionally. Literature was collected from database such as Google Scholar and Scopus. Keywords including "AI dependence," "Emotional dependency on AI," and "effects of AI on working environment" were used to find relevant studies. The literature utilized in this conceptual review was primarily obtained from peer-reviewed journals and conference papers published between 2023 and 2025. This study synthesizes how AI has changed the workplace and how AI dependency influences emotions and behavior in professional settings.

As a conceptual review based on existing research, the findings suggest that AI is increasingly seen as a co-worker presenting a dual-force phenomenon, it is both helpful and a potential source of dependency (Meng et al., 2025). Future empirical studies should collect primary data through longitudinal research to examine human-AI interaction across diverse workplace settings (Jia et al., 2025).

Proposed Conceptual Framework

The proposed conceptual framework illustrates

how working professionals initially use AI for functional tasks and gradually develop emotional and psychological dependency on it over time. It follows a cause-and-effect structure in which cognitive, emotional, and behavioral drivers lead to “AI fever” and dependency, ultimately resulting in cognitive, emotional, and behavioral consequences. This framework emphasizes the pattern through which AI transforms from a supportive tool to a companion in a user’s life.

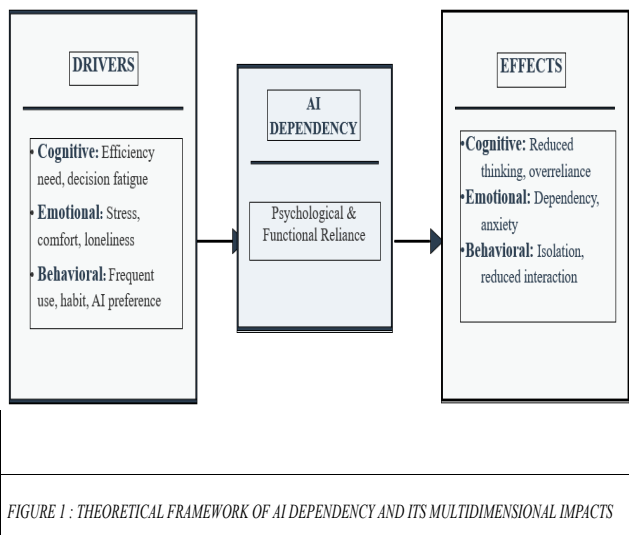


FIGURE 1 : THEORETICAL FRAMEWORK OF AI DEPENDENCY AND ITS MULTIDIMENSIONAL IMPACTS

1. Key Drivers of AI Dependency

The major drivers that lead to AI dependency among working professionals can be analyzed through cognitive, emotional, and behavioral factors (Liu, 2025). Cognitive aspects include the need for efficiency at work, the desire for quick answers, and the goal of reducing mental effort. Emotional aspects include work stress,

feelings of burnout, workplace loneliness, and the psychological need for a space where individuals feel comfortable and supported without judgments (Zheng & Zhang, 2025). Behavioral aspects include the habit of using AI through regular, repeated interaction in work-related tasks, which slowly strengthens the user’s reliance on the technology (Yankouskaya et al., 2025).

2. AI Dependency Theory and AI Fever

AI dependency often begins with a foundational need for efficiency and task completion (Jia et al., 2025). However, with prolonged use, individuals may enter a stage that can be described as “AI fever” (Ragolane & Patel, 2025). In the state, individuals become compulsively attracted to AI due to its speed, continuous accessibility, and capability to stimulate human-like empathy. As user trust and comfort deepen, AI gradually shifts from being viewed merely as a supportive tool to being perceived as a reliable companion, which facilitates deep emotional and psychological dependency (Saracini et al., 2025).

3. Effects of AI Dependency

AI dependency creates profound cognitive, emotional, and behavioral impacts on a working professional’s life. Cognitive effects include a reduction in independent critical thinking and an over-reliance on AI for problem-solving and decision-making, leading to skill decay (Riley et al., n.d.). Emotional effects involve the development of deep emotional attachment, heightened vulnerability, and a loss of confidence in one’s

own abilities, particularly when AI is unavailable (Naseer et al., 2025). Finally, Behavioral effects manifest as a reduced interest in authentic human interaction, individual may withdraw from social engagements in both the workplace and in personal life, ultimately leading to severe loneliness and isolation (Aghaziarati & Rahimi, 2025). Therefore, while AI offers unprecedented support, excessive dependency severely compromises a professional's holistic well-being.

Conclusion

In conclusion, the integration of AI into the workplace offers significant benefits, particularly in accelerating task completion and enhancing overall productivity. However, this study highlights that prolonged dependency on AI systems can introduce severe cognitive, emotional, and behavioral challenges. Overreliance on AI generates negative consequences, such as diminishing independent critical thinking, increasing emotional vulnerability, and weakening real-world human interactions. These factors result in workplace loneliness, heightened stress, and social withdrawal. This framework demonstrates that while AI is highly beneficial when used rationally, emotional overdependency negatively impact both personal and professional lives. Therefore, organizations must adopt a balanced and human-centric approach in the workplace to ensure that AI remains a supportive tool rather than a substitute for genuine human connection and intellect.

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to all the authors, whose published work has significantly contributed to the development of this conceptual review paper. I also acknowledge the support and guidance I received during the course of this study. Their valuable insights and contributions helped shape the conceptual foundation of this paper.

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