2024

The examination of workplace well-being in the context of conversations on artificial intelligence

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THE EXAMINATION OF WORKPLACE WELL-BEING IN THE CONTEXT OF CONVERSATIONS ON ARTIFICIAL INTELLIGENCE

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Philosophy in Global Leadership and Change

by

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June, 2024

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This dissertation, written by

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ACKNOWLEDGEMENTS

I am grateful for those who have supported me along this journey. Thank you to my Chair, Dr. Espino, for your authenticity, kindness, and direction. Your introduction to the world of QE opened doors I never imagined, and learning from you has been a privilege. I fondly recall Copenhagen in 2022, hoping for you to be my Chair, and I'm thankful to now be here on the other end. To my committee members, Dr. Lee and Dr. Song, your rigorous classroom instruction and willingness to challenge me in my writing and ideas helped me to reach new heights. I'd also like to acknowledge the many other faculty at Pepperdine GSEP who helped pave the way for me to reach this milestone.

I want to acknowledge my beautiful family. To my mom for always being a positive voice I could call. Despite my rambling, your love and encouragement always shined through and helped me carry on. To my dad for igniting my curiosity. You have been foundational in steering me toward falling in love with learning. To my sister, Savannah, you push me to dream bigger, aim higher, and set grand goals. And to my sweet nieces, Eliana and Isabella, thank you for the joy and smiles you bring into my life. To all my other family members, grandparents, great-grandparents, uncles, and aunts, thank you for the love you have given me.

I want to acknowledge the influential women who helped me see what's possible. Dr. Jorgensen, Dr. J, you truly changed the trajectory of my time in academia; because of you, I always had in the back of my mind that I might teach at University one day. Thank you for your time and enthusiasm. To Hallie Boger, thank you for championing my research idea from day one without a question. I told you the idea; the next thing I knew, you were putting time on people's calendars. You helped to make this happen, and I am thankful for your support. To my girl gang who kept me grounded these past 3 years–Julia, Sasheen, Pat, and Bethany–what began

as a class assignment blossomed into a friendship that provided stability and support through these 3 years. To Cohort 1, our late-night laughter and shared aspirations will always hold a special place in my heart. To my colleagues who checked in, gave me space for this work, asked how it was going, and rooted for me, thank you. To all the leaders and participants who helped make this research happen, thank you for your trust and collaboration.

Lastly, but most importantly, I want to acknowledge my partner Scott Patrick Kennedy. Your support came in many forms: listening to me talk about my topic at length, cooking me meals while I'd be working away into the night, cleaning on the weekends so I could feel at peace, talking me through my ideas, and so much more, you helped to make this possible. Although we gave up some fun aspects of our lifestyle, you helped make the moments of this journey so rich. Thank you for your unwavering belief in me. I love you, and I'll see you at the top!

VITA

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ABSTRACT

This study explored the relationship between technological advancements in the workplace, particularly artificial intelligence (AI), and employee well-being. As the use of AI in organizational practices increases, this study sought to examine how fostering social connections, primarily through AI-focused conversations, could enhance employee well-being amid these technological shifts. This research employed a mixed-methods framework with an embedded convergent core design to collect qualitative and quantitative data from employees at a global organization that made recent, significant investments in AI. This methodology integrated pre- and post-intervention surveys to assess changes in employee well-being and an analysis of team discussions about AI to gather more profound insights into their experiences and perceptions. Although not statistically significant, the findings indicated a positive impact of AI-centered team conversations on employee well-being, highlighting the vital role of social connections in mitigating the adverse effects of rapid technological advancements. Quantitative data revealed stability and slight improvements in subjective well-being post-intervention, while qualitative analysis uncovered the strategic, balanced, and forward-looking discussions on AI. The study showed that engaging employees in meaningful conversations about AI could enhance their well-being and prepare them for the evolving workplace dynamics influenced by technological advancements. Additionally, the findings emphasized the importance of maintaining human-centric approaches in the AI-driven organizational landscape, suggesting that fostering social connections can serve as a buffer against the potential challenges posed by such technological shifts.

Keywords: Employee well-being, artificial intelligence, social connection, mixed methods

Chapter 1: Introduction

Employee well-being has increasingly gained attention, especially in the face of rising workplace stress levels since 2009 (State of the Global Workplace Report, 2023). This escalating stress is partly fueled by the growth of technological advancements, including emerging technologies like artificial intelligence (AI). Despite its transformative impact on work processes and roles, the overall effect of technology on employee well-being has been viewed negatively, as outlined in various studies (Enholm et al., 2022; Pansini et al., 2023). With AI platforms like OpenAI's Chat GPT receiving unheard-of user engagement just months after its launch, there is a growing need to understand the technology's impact on organizational dynamics, including its role in impacting employee well-being (Chow, 2023). Social connection, crucial for various positive organizational outcomes, has positively influenced employee well-being (Holt-Lunstad, 2018a). Understanding employee well-being amid organizational changes, such as AI, and the mitigating impact of social connection is vital for academic and practical perspectives, especially in formulating organizational change management strategies and policy decisions. Further background information on these topics will be provided below.

Background of Study

In the ever-evolving history of humanity, work has stood as a constant yet dynamically changing element, reflecting the relentless drive for humans to adapt and evolve. The journey from the nomadic tribes relying on hunting and gathering to the settled agricultural communities marked humanity's first significant shift towards structured work (Kellerman & Seligman, 2023). This evolution continued through the Industrial Revolution, bringing about mechanization and mass production, drastically altering societal structures and economies. In today's digital age, defined by technology and information, work prioritizes knowledge, connectivity, and

innovation, indicating an ongoing transformation of work and its societal implications (Schwab, 2016).

The contemporary workplace reflects significant transformations and challenges, comprehensively analyzed through the Political, Economic, Social, Technological, Environmental, and Legal (PESTEL) framework in Chapter 2. The PESTEL framework was developed in the 1960s by Harvard professor Francis Aguilar. This analytical tool examines political, economic, social, technological, environmental, and legal factors impacting industries and organizations (Aguilar, 1967). The relevance of each element in today's organizational context is undeniable, as they collectively shape the business landscape, influencing strategies, operations, and ultimately, the employees that make up the workforce, as well as their well-being. Each of these factors will be briefly touched on below to provide context around the current organizational landscape, with a deeper analysis provided in the Literature Review section in Chapter 2.

Politically, the global business environment grapples with the rise of nationalism and evolving immigration policies, reshaping workforce dynamics and posing unique challenges for multinational companies (Martin & Reeves, 2022). Economically, the transition to the gig economy exemplifies a fundamental shift in work arrangements, offering flexibility but also introducing uncertainty and a lack of traditional job security (Donovan et al., 2016). Socially, the entrance of Gen Z into the workforce and an increasing focus on work-life balance and mental health signal a shift in workplace culture and employee expectations (Barber et al., 2016; Kumar, 2023).

Technologically, individuals are witnessing a revolution, particularly with the advent of AI and automation, fundamentally changing job roles and skill requirements. This technological

surge represents a frontier in organizational evolution, with AI playing a pivotal role in shaping future work practices (Chui et al., 2023; Kraus et al., 2022). AI technologies, capable of automating routine tasks, promise increased efficiency and innovation. However, they also raise critical questions about job security, the necessity for new skill sets, and ethical considerations around AI-generated content (Chui et al., 2023). The integration of AI in the workplace, while offering opportunities for efficiency, poses challenges in job displacement, continuous upskilling, and workplace anxiety, necessitating a balanced approach to AI implementation (Bankins & Formosa, 2023; Cebulla et al., 2023; Liu et al., 2023).

Environmental factors, such as climate change and sustainability, are increasingly pressing concerns. Companies are expected to adopt eco-friendly practices, balancing operational efficiency with environmental responsibility (Farri et al., 2022; Winston, 2021). The evolving landscape with new regulations in labor standards, data protection, and equal employment opportunities presents complex compliance challenges for organizations (Rikken et al., 2019; Tikkinen-Piri et al., 2018).

This multifaceted environment, characterized by volatility, uncertainty, complexity, and ambiguity (VUCA), encapsulates the essence of the modern global business landscape (Bennett & Lemoine, 2014). Additionally, the emergence of 'wicked problems, such as ethical dilemmas in technology and environmental issues, adds complexity to these challenges (Camillus, 2016). The COVID-19 pandemic, a prime example of a disruptive force, has further accelerated trends like remote working and digital transformation, fundamentally altering the workplace (Kniffin et al., 2021). As organizations navigate this intricate and dynamic terrain, the impact on employee well-being becomes increasingly pronounced. Over recent years, set against this backdrop as outlined briefly above of various upheavals in political, economic, social, technological,

environmental, and legal realms, there has been a noticeable rise in workplace-related stress and burnout, job insecurity, and feelings of isolation (McRae et al., 2023). These are not isolated phenomena but interconnected with organizations' ongoing transformations.

As defined by Lazarus and Folkman (1984), workplace stress involves physical and emotional responses when job requirements do not align with an employee's capabilities, resources, or needs. Burnout, closely related to stress, is characterized by emotional exhaustion, cynicism, and a decline in professional efficacy, often stemming from prolonged workplace stress (Heinemann & Heinemann, 2017; Maslach et al., 1997). Recent global surveys, like Gallup's State of the Global Workplace Report (2023), indicated a sharp increase in worker stress levels. The technological surge, especially AI, has sometimes exacerbated this, leading to an always-on culture and complexities in job roles that heighten stress and the potential for burnout (Sandoval-Reyes et al., 2019; Sen et al., 2022).

The notion of job insecurity, a concern gaining prominence since the late 20th century, relates to the perceived threat of job loss and uncertainty about future employment (Greenhalgh & Rosenblatt, 1984; Shoss, 2017). Economic downturns and industrial shifts often exacerbate these feelings, leading to stress, diminished job satisfaction, and mental health issues (McDonough, 2000; Sennett, 1999). Reports from the International Labour Organization and Pew Center indicate a rise in non-standard, less stable employment forms, often exacerbated by AI and automation, fueling job insecurity even in skilled professions (Gihleb et al., 2023; Kochhar, 2023).

Workplace isolation, a growing concern particularly with the rise of remote work, refers to the physical or emotional disconnection from colleagues, often leading to loneliness (Hawkley & Cacioppo, 2010; Marshall et al., 2007). The shift towards individualistic work practices and

digital communication tools has contributed to this isolation, as surveys show remote workers feeling less connected (Harter, 2023; Lal et al., 2023). By reducing the need for human interaction in tasks like customer service, AI can further contribute to this trend (Singh et al., 2022; Tai, 2020). These organizational changes, such as rapid technological advancements, particularly AI, have led to significant shifts in workplace dynamics, affecting stress levels, job security, and social interactions. These changes necessitate an evaluation of their impact on employee well-being and adopting strategies to mitigate these adverse effects. Understanding and addressing these challenges becomes imperative as organizations navigate these changing dynamics to maintain a healthy, engaged, and productive workforce.

In response to the challenges of increased stress, burnout, job insecurity, and isolation employees face due to organizational changes and the rise of AI, there is a growing imperative for organizations to shift towards a well-being mindset. This approach addresses these negative impacts and cultivates a positive and supportive work environment. Well-being, recognized for its complexity and multidimensionality, has philosophical underpinnings that date back to Ancient Greece (Keyes et al., 2002; Ryan & Deci, 2001). The Greeks distinguished between hedonic beliefs, centered around pleasure and the avoidance of pain, and eudaimonic beliefs, focused on fulfilling one's potential and purpose in life. *Hedonism*, derived from the Greek word *Hedone* for pleasure, posits that life's goal is to maximize pleasure and minimize pain (Diogenes, 2020). In contrast, *eudaimonia*, rooted in the Greek words *Eu* (well) and *daimon* (spirit), suggested that true well-being comes from fulfilling one's unique potential and living per rationality and virtues (Aristotle, 335 BCE/2011; Kraut, 2022). These concepts, developed by philosophers like Aristippus and Aristotle, have significantly influenced contemporary well-being theories (Cohen et al., 2016; Layard & De Neve, 2023).

Transitioning from its philosophical origins, well-being has evolved into a measurable and empirical construct across various disciplines, including psychology, neuroscience, and economics. The field has expanded to include frameworks like evaluative, hedonic, and eudaimonic measurements, each offering a different perspective on assessing well-being (Lee et al., 2021). This interdisciplinary approach has allowed a more nuanced understanding of well-being, encompassing subjective experiences and broader societal impacts.

For this study, De Neve and Ward (2023) defined *workplace well-being* as encompassing three key components: job satisfaction, workplace emotional experience, and the sense of purpose and meaning in work. This definition aligns with the broader research on subjective well-being and offers a comprehensive view of employee well-being in the workplace. The contributions from positive psychology, positive organizational behavior, and positive organizational scholarship have enriched this understanding. These fields have highlighted the importance of fostering strengths, motivation, and a thriving work environment, contributing significantly to the conceptualization of workplace well-being (Cameron et al., 2003; Luthans, 2002; Seligman & Csikszentmihalyi, 2000)

As the field of workplace well-being continues to develop, it has become increasingly evident that social connection is a crucial driver of well-being. The importance of social connection in the human experience, particularly in the workplace, cannot be overstated. It transcends mere interaction to encompass relationship building, fostering community, and creating an environment where individuals feel valued and understood (Holt-Lunstad, 2018a). Social connection is key in today's professional settings, characterized by digital transformations and evolving work cultures (Firoz et al., 2023; Wool, 2022). Social connection frameworks like

Holt-Lunstad's (2018b) provide insights into the dynamics of connection in society, including modern workplaces.

Holt-Lunstad's (2018a) framework categorizes social relationships into three components: structural, functional, and quality. First, structural support refers to the quantifiable aspects of social connections, such as the size of one's social network or the frequency of social interactions. For example, a person with many friends and frequent social activities exhibits structural solid support. Secondly, functional support involves the practical and emotional resources these relationships provide, like a family member offering a listening ear or a friend helping with moving homes, highlighting perceived or received support. Lastly, quality support focuses on the emotional nature of relationships, encompassing both positive and negative aspects. A harmonious, supportive friendship represents high-quality support, whereas a conflict-filled relationship indicates poor-quality support. This framework underscores that each of these components plays a crucial role in determining the overall impact of social connections on an individual's health and well-being.

Furthermore, high-quality connections are instrumental in understanding workplace dynamics (Dutton, 2003). These interactions, characterized by mutual respect, trust, and positive regard, form the foundation of a thriving work environment. High-quality connections, though transient, have lasting positive effects on employees, enhancing resilience, energy, and a sense of belonging (Burke & Richardson, 2019). Positive relationships and high-quality connections foster an environment of support and trust, which is crucial for employee well-being (Dutton, 2003; Dutton & Ragins, 2007). In addition, social capital, which encompasses bonding, bridging, and linking, emphasizes various social networks and their implications on collective well-being (Putnam, 2001). Social connections in the workplace, bolstered by the practice of high-quality

connections and the ideas of social capital, play a critical role in employee well-being. Recognizing and nurturing these connections provides an opportunity for organizations aiming to promote well-being and achieve success in today's dynamic work landscape.

Problem Statement

Organizations are undergoing extensive changes, predominantly driven by the rapid advancement of technology and the increasing adoption of AI (Chui et al., 2023; Schwab, 2016). While fostering innovation, these developments impact employee well-being (Floridi & Cowls, 2022). These organizational challenges, such as the integration of AI and digital tools into the business, have led to a dynamic shift in work patterns, intensifying issues like stress, burnout, job uncertainty, and a growing sense of isolation among employees (Gihleb et al., 2023; Heinemann & Heinemann, 2017; McRae et al., 2023). Additionally, the rise of an always-on culture, fueled by technological advancements, has further compounded these challenges, leading to longer work hours and reduced downtime, thus straining the mental health and overall well-being of the workforce (Sandoval-Reyes et al., 2019; Sen et al., 2022).

This evolving landscape presents a complex problem where the benefits of technological progress are paradoxically intertwined with potential detriments to employee well-being. The accelerated pace of change and the increasing reliance on AI in various job functions are reshaping organizational structures and altering the traditional dynamics of workplace interactions (Chui et al., 2023; McRae et al., 2023). Consequently, there is a growing need to understand and address the negative impacts of these technological and organizational changes on employees, especially considering the vital role of social connections and interpersonal relationships in fostering a healthy and productive work environment (Dutton, 2003; Holt-Lunstad, 2018b). The challenge lies in balancing the technological imperatives with the human

aspects of work, ensuring that the drive for efficiency and innovation is consistent with the fundamental need for social connection and well-being in the workplace.

Purpose of Research

This research sought to explore the role of social connection in enhancing employee well-being, especially in the context of significant organizational changes driven by technological advancements, such as the integration of AI (Javaid et al., 2023; Schwab, 2016). The setting of this study, a leading global organization in business and management ideas, has recently made significant investments in its technology stack, including embedding AI features and functionalities in its products, affecting various roles from product development to customer support. Furthermore, due to the mission of this organization, which is to improve the practice of management in a changing world, client-facing teams such as sales and customer success are also frequently asked about this technology, such as the organization's point of view, as well as practical ways to implement it into organizations. This integration of AI, while advancing operational efficiency and supporting product development, poses potential challenges for the workforce. The absence of any company-wide AI training could contribute to increased stress, burnout, job uncertainty, and feelings of isolation and loneliness among employees, as indicated by existing research on workplace dynamics and technological integration (Gihleb et al., 2023; Heinemann & Heinemann, 2017; McRae et al., 2023).

Therefore, this research investigated whether facilitating social connections among teams, mainly through conversations centered around AI, can positively influence or impact individual employee well-being. Given the organization's global leadership position and the need for client-facing employees to stay informed about AI trends, it is crucial to understand how team dynamics and social interactions around AI discussions can mitigate the potential negative

impacts of these rapid technological shifts. This mixed-methods research aims to examine how team conversations about AI can influence employee well-being during a period of heightened AI investment. Utilizing a mixed methods intervention with an embedded convergent core design, the study compared qualitative insights with quantitative data collected before and after teams engage in conversations about AI. This approach provided a comprehensive view of the participants' experiences and perceptions. The research hypothesized that individual employee well-being would be positively impacted by these discussions, as social connection amid AI-related organizational changes could play a critical role in mitigating adverse effects and enhancing workplace well-being. By evaluating the dialogues from team conversations, the study aims to uncover patterns and themes among employees when discussing AI and its implications for their well-being in an organization increasingly investing in AI technologies. The research sought to provide valuable insights into the role of social connection as a buffer against the potential challenges posed by rapid technological change in the workplace.

Research Questions

This study primarily aims to answer the following two research questions.

- RQ1: How do virtual team conversations on the topic of AI influence the subjective well-being of individual employees at an organization expanding its use of AI technologies?
- RQ2: What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies?

Methodological Approach

This study adopted a mixed methods intervention with an embedded convergent core design, a methodology suited for comprehensively understanding participants' experiences during an intervention. This design allows for integrating qualitative data collection within the pre- and post-intervention quantitative data collection framework, providing a holistic view of the intervention's impact. Specifically, the research employed surveys to assess employees' well-being, hypothesizing that engaging in discussions with their teams about AI positively influenced individual employees' subjective well-being at the organization. Additionally, transcripts of these intervention discussions were analyzed to gain deeper insights into the employees' experiences and perceptions of workplace well-being amid AI implementations.

The rationale for incorporating both quantitative and qualitative data lies in the need to evaluate not only the outcome of employee well-being but also the process through which team conversations influence it during the adoption of AI. According to Creswell and Creswell (2018), data analysis in a convergent design encompasses three distinct phases. The first phase involves qualitative data analysis, and this study used epistemic network analysis (ENA), a method suited for quantitatively exploring the connections within qualitative data. The second phase entailed a quantitative analysis, explicitly employing a paired samples t-test, to examine changes in well-being metrics. The final phase integrated both datasets, allowing for an integrated analysis that provides a more comprehensive understanding of how AI-related team discussions impact employee well-being. This approach aligned with Creswell and Creswell’s framework for mixed methods research, ensuring a robust and multi-dimensional analysis of the intervention's effectiveness.

Researcher Assumptions

This dissertation made several foundational assumptions to guide the research process. Firstly, all participants were assumed to have honest and accurate responses during the data collection (Bryman & Bell, 2015). Additionally, the researcher believed that social connection, specifically on AI, could positively influence employee's well-being. This premise is supported by Holt-Lunstad's (2018a) work on social connection, which has influenced the research questions and design. The choice of a mixed-methods intervention with an embedded convergent core design further reflected the researcher's belief in the necessity of a multifaceted approach to comprehensively capture the nuanced views of employees and the influence of team conversations during AI adoption. The emphasis on contrasting qualitative insights with quantitative data and specifically examining dialogues team interactions indicated an assumption that both subjective and objective measures provided a holistic understanding of the dynamic between team conversations and employee well-being amid AI integration.

Limitations & Delimitations of the Study

This study inherently possessed certain limitations. A primary limitation was that the research was conducted within a single organization, potentially constraining the generalizability of findings to other professional settings or industries (Creswell & Plano Clark, 2018). The culture, history, and nature of AI implementation at this company differed from others, impacting employee well-being in unique ways. Another limitation was the potential for biases introduced through self-reported survey data, as participants might provide socially desirable responses or need more introspective capability to assess their well-being accurately (Paulhus & Vazire, 2007). Another study limitation was that all the conversations were held virtually on Webex, a video conferencing platform. Conducting research exclusively online can limit the

depth and richness of data collection, as non-verbal cues and contextual insights are often lost in virtual settings (Fielding et al., 2017). Alternatively, one limitation was that all participants, regardless of their native language, would speak English for data analysis and interpretation. Forcing all participants to speak English in this study could have introduced a language bias, potentially skewing results by favoring those who are fluent in English and disadvantaging those for whom English is not their first language. This limitation could have compromised the generalizability of the findings, as the experiences and responses of non-native English speakers may not have been accurately captured.

As for delimitations, the researcher intentionally focused on the social connection influencing employee well-being during AI implementation, potentially omitting other significant factors such as employees' prior experiences with technology, training programs, or personal attitudes towards AI. The decision to use a mixed-methods intervention with an embedded convergent core design while providing depth also delimits the study by shaping the specific kinds of data collected and, consequently, the insights that can be derived (Teddlie & Tashakkori, 2009).

Positionality Statement

As a researcher focused on workplace well-being in the context of conversations on AI, the researcher’s background and experiences inevitably shape the perspectives brought to this study. This positionality statement aims to make explicit these influences. The researcher was female, born, raised, and educated in the United States, and Western norms and ideologies primarily shaped her understanding of well-being and workplace dynamics. This could have limited the generalizability of her findings to non-Western contexts. Secondly, the researcher was employed at the organization where the research was conducted at the time, which could

have posed a conflict of interest. She was mindful of this as she collected data and analyzed results, striving for objectivity to the best of her ability. Lastly, the researcher engaged in a Conversation Starter with her team at the organization. This provided a technical and experiential understanding of one of the study's instruments, which could potentially cause bias.

While the researcher's background and experience within this environment provided her with a unique vantage point, they also came with inherent biases and limitations that she continually strived to recognize and address. As such, the researcher was committed to applying rigorous methodologies and diverse data-gathering techniques, including surveys and participant observations, to mitigate these limitations. In disclosing this information, the researcher sought to make the perspective from which she approached this study transparent. Acknowledging her positionality is not to discount the research but to enrich it, inviting critical discourse and interpretation from multiple angles.

Theoretical Framework

The theoretical framework is the foundation that guides the research and the organization and synthetization of fundamental theories, concepts, and variables examined. According to Maxwell (2013), a theoretical framework is essential for grounding research questions and hypotheses in a broader context, providing a roadmap for interpretation and analysis. The workplace well-being and social connection frameworks underpin this section. First, workplace well-being is examined through job satisfaction, workplace emotions, and purpose at work, building on existing research in subjective well-being (Deiner et al., 2017; De Neve & Ward, 2023). Second, the theoretical framework looked at social connection, anchored by Holt-Lunstad's (2018a) definition encompassing structural, functional, and quality supports. Together,

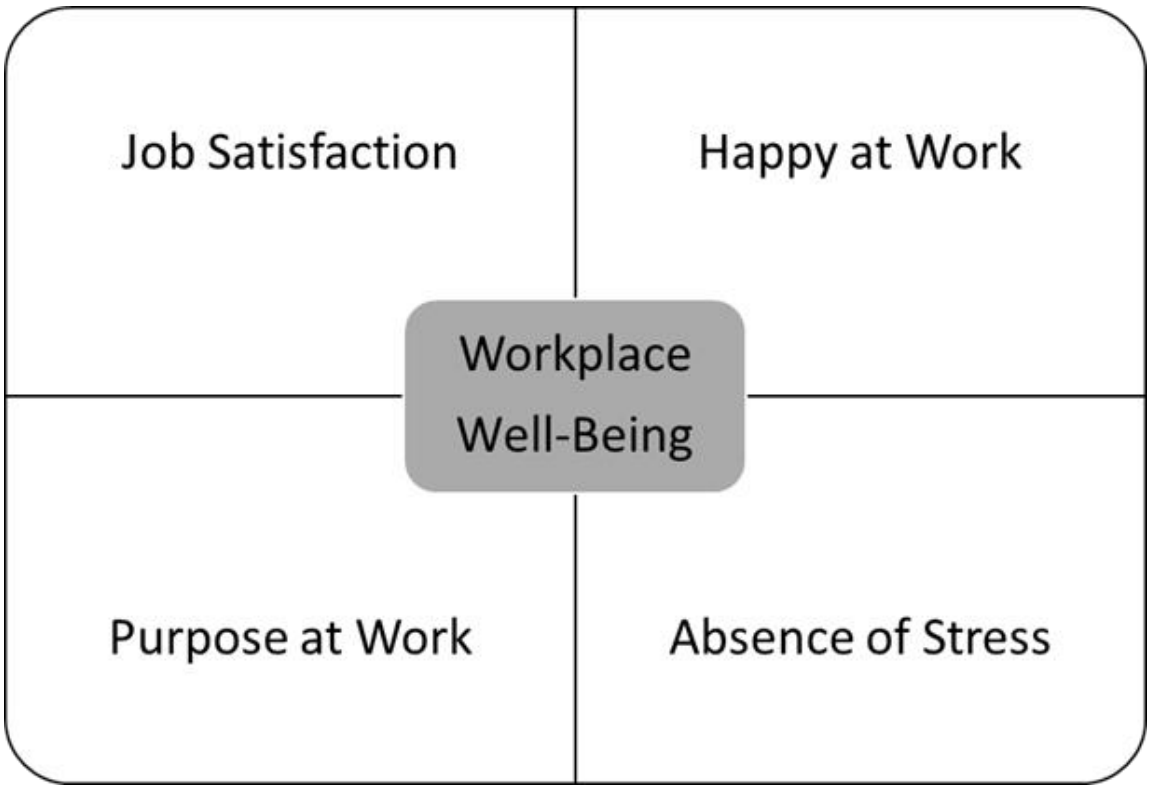
these frameworks provided a lens through which employee well-being was examined in the context of team conversations on AI.

Workplace Well-Being

Workplace well-being extends the concept of subjective well-being into work (Deiner et al., 2017). This adaptation aims to provide a nuanced understanding of how individuals feel at work and about their work (De Neve & Ward, 2023). Like the broader concept, workplace well-being also consists of three core dimensions, as seen in Figure 1: job satisfaction, the emotional experiences associated with work, and the sense of purpose or meaningfulness in one's work. Job satisfaction serves as the evaluative dimension within the workplace and assesses how an individual perceives their role and responsibilities. Job satisfaction operates similarly to evaluative well-being in the broader construct, allowing for a cognitive assessment of one's satisfaction with one's work (Judge et al., 2017). Emotional experiences capture the affective aspect of workplace well-being. It includes the highs and lows an employee may experience during their workday, thereby closely aligning with affective well-being in the general subjective well-being framework (Knight et al., 2018). Purpose or meaningfulness, related to eudaimonia in the broader construct, considers the deeper layers of work beyond mere job tasks, capturing the degree to which work adds meaning and purpose to one's life (Cassar & Meier, 2018).

Figure 1

Workplace Well-Being Framework



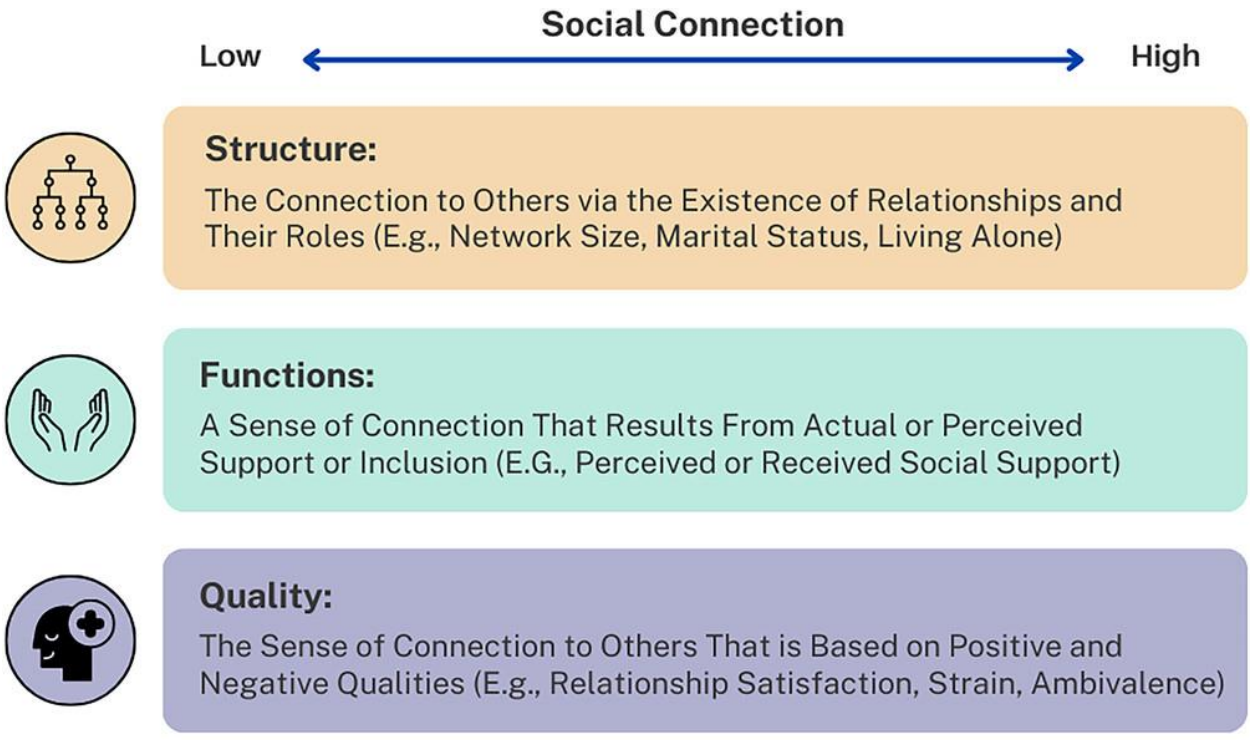
The conceptualization of workplace well-being served as an integrated framework designed to clarify the study of well-being within the work context. By categorizing existing research on job satisfaction, emotional experiences at work, and the meaningfulness of work under this unified framework, it distinguishes well-being from its drivers and outcomes, enabling a more focused inquiry (De Neve & Ward, 2023). Workplace well-being is a vital part of the theoretical framework. By dissecting and understanding the different dimensions that contribute to well-being at work, there is an opportunity for organizations to create better policies and practices aimed at enhancing employee well-being, which in turn can have far-reaching implications for productivity, employee retention, and overall organizational success (De Neve et al., 2023).

Social Connection

Julianne Holt-Lunstad's (2018a) social connection framework provides a holistic view of how social connections influence human health and well-being. Figure 2 categorizes the complexities of social relationships into three distinct but interconnected components: structural, functional, and quality support. This framework underscores that social relationships are not merely about the number of connections one has but also about the quality and functionality of these connections. It highlights how social connections affect physical health, psychological well-being, cognitive functioning, and longevity.

Figure 2

Social Connection Framework



The first component, structural support, refers to the measurable, external aspects of one's social network (Holt-Lunstad, 2018a). It includes factors such as the size of the social network, frequency of social interactions, marital status, and living arrangements. Structural

support can be exemplified by a person with a large group of friends and family members they interact with regularly, offering a tangible, physical presence in their social environment. This component emphasizes the importance of social ties' presence (or absence) and the regularity of these interactions. Research within this framework suggests that a more extensive, diverse social network can provide a buffer against health risks and promote resilience in life's challenges (Proctor et al., 2023).

The second component, functional support, explores the roles and resources that social connections provide (Holt-Lunstad, 2021). This includes emotional support, informational assistance, and tangible aid. Functional support is about more than just the availability of help but the perception and quality of the support received. An example of functional support is a close friend or family member who provides emotional support during difficult times or practical help like childcare or financial assistance. This aspect of social connection is crucial in determining how individuals perceive and interact with their social environment, influencing their psychology.

The final component, quality support, focuses on the emotional quality of relationships, encompassing both positive and negative interactions (Holt-Lunstad, 2021). It includes relationship satisfaction, intimacy, and the presence or absence of conflict and stress within relationships. For instance, a supportive and understanding relationship with a partner denotes high-quality support, enhancing emotional well-being. Conversely, relationships characterized by frequent conflict or emotional distance can have detrimental effects on mental health, highlighting the significance of not just having social connections but the importance of their emotional quality.

This framework allows for a comprehensive analysis of social relationships, providing a theoretical basis for investigating how our social world shapes physical and mental health. By focusing on Holt-Lunstad's (2018b) framework, this research offered valuable insights into the multi-dimensional nature of social connections and their implications for health and well-being, particularly in the constantly changing workplace dynamic.

Definition of Terms

- *Virtual team conversations* refer to the dialogues and interactions among team members collaborating remotely, typically through digital communication tools. This concept is significant in remote and hybrid work and management. Research in this area often focuses on how technology-mediated communication affects team dynamics, productivity, and interpersonal relationships. Gibson and Gibbs (2006) emphasized the challenges and opportunities in virtual team communication, such as overcoming time zone differences and building trust without face-to-face interaction. Furthermore, Martins et al. (2004) explored the evolving nature of virtual teamwork, highlighting how communication technologies shape team processes and outcomes. These conversations blend synchronous (real-time) and asynchronous (delayed) interactions using various platforms like email, video conferencing, and collaborative software, underscoring the importance of effective communication strategies in remote work environments. Virtual team conversations in this study referred to 8 to 30 employees meeting synchronously on WebEx, the enterprise-wide video conferencing platform used at the research site. During this synchronous conversation, the team conversed with one another on AI using materials sent to be completed asynchronously beforehand.

- *Virtual teams* are groups of geographically and organizationally dispersed individuals collaborating electronically. This concept, central in modern organizational studies, addresses the challenges and opportunities of remote collaboration. Lipnack and Stamps (2000) explored how virtual teams operate across diverse time zones, cultures, and electronic mediums, emphasizing the importance of trust, communication, and technology in bridging physical distances. Further, Bell and Kozlowski (2002) categorized virtual teams into different types based on their interactions and objectives, highlighting the varied nature of such teams. These studies and others indicate that virtual teams rely heavily on digital communication technologies, such as email, video conferencing, and collaborative software, to accomplish shared goals and tasks. This marks a shift from traditional, co-located team structures. This evolution reflects broader trends in globalization and technological advancements, reshaping how organizations and individuals work together. In the context of this study, virtual teams refer to eight to forty employees who report to a people leader in the company. Team members might be in the same or different cities, states, or countries and work and collaborate across enterprise-wide technological tools such as Outlook email, Slack, Zendesk, Jira, Box, or Confluence.
- *Subjective well-being* is a multi-dimensional concept that serves as a comprehensive measure for understanding happiness and is how people experience and evaluate different aspects of their lives (Heintzelman et al., 2017). It is self-reported and comprises three primary facets: evaluative well-being, which is a cognitive assessment of one's overall life satisfaction; affective well-being, referring to the emotional experiences, both positive and negative, that people encounter over some

time; and eudaimonia, which encapsulates the sense of purpose and meaningfulness in one's life (Diener, 2000). This construct has gained prominence in various academic disciplines, providing insights into factors influencing happiness and how well-being impacts human decision-making (Layard & De Neve, 2023). Additionally, this definition of subjective well-being is being used by governments and organizations around the world to inform policy, such as the United Kingdom Office of National Statistics, the Organisation for Economic Co-operation and Development (OECD), and the Treasury of New Zealand (De Neve & Ward, 2023). Subjective well-being in the context of the study refers to a foundational concept and area of study, widely used worldwide, that supports the workplace subjective well-being construct, which is the construct being measured in this study through research participants completing a pre and post-survey.

- *Workplace subjective well-being* is an adaptation of the general concept of subjective well-being tailored explicitly to the work environment. It is how we feel at work and about our work (De Neve & Ward, 2023). It encompasses three primary dimensions: job satisfaction, an evaluative measure of how an individual assesses their work; the emotional experiences associated with work, capturing the affective aspect; and the degree to which an individual finds their work purposeful or meaningful, aligning with eudaimonia. The aim of defining workplace well-being in this way is to bring conceptual clarity to the study of well-being within the workplace context, integrating existing research on job satisfaction, emotional experiences at work, and the meaningfulness of work under a unified framework, thus separating well-being from its drivers and outcomes. Workplace subjective well-being in the context of the study

refers to four questions research participants will answer on a pre-and post-survey about job satisfaction, positive emotion at work, negative emotion at work, and meaning at work.

- *Artificial intelligence (AI)* is defined as algorithms, models, and systems that enable machines to perform tasks that traditionally require human intelligence (Russell & Norvig, 2021). These tasks include learning from data, reasoning, problem-solving, perception, and natural language understanding (Russell & Norvig, 2021). According to Russell and Norvig (2021), AI is not just about creating machines that can perform tasks that typically require human intelligence. It is about creating agents to adapt, learn, and optimize their actions for the best possible or expected outcomes in a given environment. The definition of AI in the context of this study is twofold. First, AI is a topic that virtual teams discuss during a synchronous team conversation. Before attending the discussion, participants read an article called "*Three Steps to Prepare Your Culture for AI*," the author gives a few practical examples of AI, such as intelligent writing assistance, smart calendaring, and AI-powered search. Participants prepared for the conversation by asynchronously writing their reactions to this article with specific guiding questions provided during the pre-work. Many of the questions centered on their feelings about AI. This study's second way of defining AI was based on organizational investment. This fiscal year, the research site made significant financial investments in its technology products, including AI. Thus, AI intelligence in this context refers to chatbots, content generation, internally developed large language models, and AI-powered content personalization. The organization's mission is to empower leaders with breakthrough ideas that solve problems, elevate

performance, and unlock the leader in everyone. With this in mind, client-facing employees must have a foundational knowledge of AI in their market group to informatively speak to the clients and customers they work with about AI within the client's business environment.

- *Social connection* is a multifaceted construct encompassing human relationships' depth and breadth and impact on health and well-being (Holt-Lunstad, 2021). It includes structural support, which refers to social networks' physical and measurable aspects, such as the number of relationships and frequency of social interaction. Functional support highlights the practical and emotional support derived from these relationships, focusing on the perceived availability and quality of support. Quality support delves into the emotional nature of relationships, assessing satisfaction, intimacy, and the presence of conflict or support. Lack of social connection is a significant risk factor for various forms of morbidity and mortality, sometimes exerting as much impact as traditional risk factors like smoking, physical inactivity, or obesity (Holt-Lunstad et al., 2017). Social connection in the context of the study referred to 8–30 virtual team members at the research site coming together for an hour of virtual conversation on AI.

Significance of the Proposed Study

The significance of this study was built upon its exploration of the dynamic relationship between rapid technological advancements, particularly AI, and its impact on employee well-being. This research offered a nuanced view of the modern workplace by exploring the paradoxical nature of technological progress, where innovation and efficiency coexist with challenges like job displacement and increased workplace stress (Chui et al., 2023; McRae et al.,

2023). It helped to bridge the historical evolution of work, from the early days of nomadic tribes to the present digital age, to contextualize the current transformations driven by AI (Kellerman & Seligman, 2023; Schwab, 2016). This approach allowed for a comprehensive understanding of how these technological shifts are reshaping employee experiences in the workplace, a subject of growing importance for organizations (Turner, 2020).

Additionally, this study contributed to various interdisciplinary fields by deepening the understanding of workplace well-being, drawing on historical and philosophical concepts, and contemporary empirical research. It revisited ancient Greek ideas of hedonism and eudaimonia, linking them to modern theories of well-being within the workplace environment (Cohen et al., 2016; Ryan & Deci, 2001). This historical perspective and analysis of current workplace dynamics influenced by AI offered valuable insights into the evolving nature of employee satisfaction, stress, and overall mental health. The research highlighted the critical need for a balanced approach to AI integration, ensuring that technological advancements enhance rather than detract from the quality of work life.

A central argument of the research was the crucial role of social connections in mitigating the harmful effects of AI in workplaces. It posited that fostering social interactions, especially those centered around AI, can significantly enhance employee well-being (Gihleb et al., 2023; Javaid et al., 2023). This perspective is particularly relevant as it counters the isolation and stress often associated with the 'always-on' culture and AI-driven changes in work patterns. By focusing on the potential of social connections to improve workplace dynamics in the era of AI, the study opened new avenues for research and practice in organizational development and employee management.

Employing a mixed-methods intervention with an embedded convergent core design, the study aimed to stand out for its methodological rigor (Creswell & Creswell, 2018). This approach enabled a comprehensive understanding of how AI-related team discussions impact employee well-being, integrating qualitative and quantitative data. Additionally, this research was academically significant and offers practical implications for organizations navigating the complexities of technological advancements. It aimed to guide the creation of balanced, human-centric workplaces in the AI era, ensuring that technological progress is in harmony with the fundamental need for well-being and social connection at work.

Chapter Summary

In addressing the evolving work landscape and its impact on employee well-being, this research filled a gap in the current understanding of how technological advancements, particularly AI, intersect with workplace dynamics. Historically, as Kellerman and Seligman (2023) highlight, the transition of work from primitive societies to the digital age has been well-documented. However, the nuanced effects of these changes, especially the integration of AI in modern business practices, on employee well-being still need to be explored. This study utilized Aguilar's (1967) PESTEL framework to dissect the multifaceted influences shaping today's organizational environments, emphasizing the need to understand their collective impact on workforce dynamics and employee well-being. The rise in workplace challenges such as stress, burnout, job insecurity, and isolation, as noted by researchers like McRae et al. (2023) and Heinemann and Heinemann (2017), underscores the urgency of this research.

This study addresses the gap by focusing on the role of social connections in enhancing employee well-being amidst the backdrop of AI-driven organizational changes. Conducted in a global organization that has recently integrated AI into its structure without widespread AI

training, the research offers a valuable opportunity to examine how AI impacts employee dynamics and well-being. The mixed-methods approach, with an embedded convergent core design, allowed for a holistic analysis of qualitative and quantitative data. This research design enabled exploration into the effects of team discussions about AI on employee well-being, providing a comprehensive understanding of the challenges and potential mitigating factors in the AI-impacted workplace. By bridging this research gap, the study contributed to academic discourse. It offered practical insights for organizations striving to balance technological innovation with maintaining a healthy, productive, and mentally resilient workforce in the ever-evolving work landscape.

Chapter 2: Review of Relevant Literature

In the rapidly evolving landscape of modern work, the study and implementation of well-being have become central to understanding and enhancing the human experience within organizational contexts. This chapter explored the academic literature surrounding well-being, exploring its complex dimensions and impact on the workplace. Drawing from interdisciplinary research, this exploration was pulled from psychology, neuroscience, economics, and organizational behavior. It examines how these fields converge to paint a comprehensive picture of well-being, moving beyond traditional notions of managerial success, such as profits and maximizing shareholder value, to encompass emotional, social, and environmental factors (Layard & De Neve, 2023; Lee et al., 2021; Ryff, 1989).

This chapter explored the concept of well-being, once a philosophical construct, that has significantly transformed into a quantifiable and empirical idea. Researchers such as Carol Ryff (1989), Martin Seligman (2011), and Jan Emmanual De Neve (2018) have played an essential role in this transition, highlighting well-being as a societal goal that transcends economic prosperity. Their work emphasizes the importance of happiness, life satisfaction, and the intricate interplay between genetics, environment, and personal choices. In the context of the workplace, these studies gain additional relevance as the modern workplace is reshaped by global trends such as technological advancements, globalization, and recent challenges like the COVID-19 pandemic, presenting new opportunities and challenges in maintaining and enhancing employee well-being (Atkeson, 2020; Brynjolfsson et al., 2023).

Next, the chapter shifted to positive organizational behavior, where well-being was about addressing workplace challenges and fostering positive attributes like employee satisfaction, motivation, and productivity. The work of Seligman and Csikszentmihalyi (2000), Cameron et

al. (2003), and Luthans (2002) offers valuable insights into how organizations can cultivate environments that not only mitigate negative aspects but actively promote positive experiences and personal strengths. Adopting the comprehensive framework proposed by De Neve and Ward (2023), the chapter examined the core aspects of workplace well-being: job satisfaction, emotional experiences at work, and the sense of purpose and meaning in work. It also acknowledged the need for further research in this area, particularly in understanding the cultural nuances of well-being (Hofstede, 2011; Lu & Gilmour, 2004).

Next, the literature review explored the introduction of digital technologies and AI into the workplace, as highlighted by scholars like Kellerman and Seligman (2023) and Schwab (2016), presenting a new frontier in the study of well-being. It will explore how these technological advancements reshape work dynamics and affect employee well-being. Additionally, the literature review will investigate the challenges posed by AI, such as increased stress, burnout, and job insecurity, and how organizations can adapt to these changes to maintain a healthy and productive workforce. Lastly, the chapter will explore the role of social connection, high-quality connections, and social capital in fostering a supportive and collaborative work culture, as put forth by researchers like Holt-Lunstad (2018a), Dutton (2003), and Putnam (2001). By synthesizing these diverse perspectives, this literature review aimed to provide a comprehensive understanding of well-being in the modern workplace, offering insights and guidance for academic and practical applications.

Philosophical Approaches to Well-Being

Scholars have recognized that well-being is complex and multidimensional (Ryan & Deci, 2001). For over 40 years, it has been defined by its philosophical roots that go back to Ancient Greece. From this time, distinctions were drawn between hedonic and eudaimonic

beliefs regarding living a good life (Keyes et al., 2002). Recently, others in the field have worked toward creating a unified definition of well-being to allow for integration across disciplines to support the progress of social and political agendas and increase the health of humanity (Lee et al., 2021).

Defining well-being alone is not enough. To understand it and track its progress, influence, and network, or lack thereof, having an agreed-upon measure goes hand in hand with the definition. The topic of well-being is woven into many disciplines, such as economics, psychology, public health, philosophy, sociology, statistics, and theology. With well-being tied into many different disciplines, having a singular definition poses a challenge. Lee et al. (2021) suggest there are currently three commonly used ways to measure well-being: evaluative, hedonic, and eudaimonic. Evaluative focuses on an individual's overall satisfaction with life or different domains of life. Hedonic measurements focus on whether an individual experiences pleasure and lacks pain. Eudaimonia focuses on an individual's sense of fulfilling a purpose in life. Further exploration of the philosophical roots of well-being was explored within this chapter.

In the 6th century BCE, ancient Greek philosophers, such as Heraclitus, Plato, and Epicurus, used critical rationality to discuss and define what it meant to be well and live a good life (Cohen et al., 2016). Two ancient philosophers, Aristippus and Aristotle, were commonly referenced in well-being literature as paramount to teachings on pleasure and happiness (Layard & De Neve, 2023). From these two philosophers, the theories of hedonism and eudaimonism begin taking shape, which have been seen as differing views on what constitutes well-being (Cohen et al., 2016). Those who followed Aristippus’s teachings, hedonism, were called Cyrenaics, named after the city of Cyrene, and believed that there were two states, pleasure and

pain (Diogenes, 2020). The word hedonism derives from the Greek word hedone, meaning pleasure (Oxford Learner's Dictionary, n.d.). The pleasure was seen as agreeable, and for the hedonist, it was the goal of life rather than pain, which was seen as repulsive to all living beings (Diogenes, 2020).

O'Keefe (2013) postulated that Cyrenaic hedonism was based on the belief that pleasure was more than just being free from mental turmoil and pain. Being free from pain was equivalent to that of a corpse. Moreover, Tsouna (1998) suggested that the Cyrenaic considered experiencing bodily pleasure in the present moment as the moral end and worthy of pursuit for its own sake. On the other hand, happiness is seen as a collection of pleasures that someone would experience during a lifetime and is sought for the sake of the component pleasures. This belief was continually emphasized by philosophers such as Bentham, who believed pleasure was the only reasonable and pain was evil (Bentham, 1790/1996). Additionally, John Stewart Mill (1863) wrote in Chapter II of Utilitarianism that actions are right in promoting happiness and wrong in producing the reverse of happiness.

In contrast, Aristotle taught that the good life is one where all actions are aimed at eudaimonia (Aristotle, 335 BCE/2011). Eudaimonia comes from two Greek words: Eu, meaning well, and daimon, meaning divinity or spirit (Kraut, 2022). Eudaimonia comes from a thing fulfilling its essential function (Cohen et al., 2016). For humans, the unique feature is rational abilities, so this is the determining factor of well-being, which Aristotle states is the activity of the soul by reason (Aristotle, 335 BCE/2011). Ryan and Deci (2001) posited that eudaimonic theories differ from hedonic in that the outcomes a person values might not lead to well-being.

Furthermore, Ryan and Deci (2001) stated that pursuing a pleasurable outcome might not promote well-being or be inherently good for an individual. Hursthouse and Pettigrove (2022)

suggested that virtues are a defining feature of eudaimonia. In their context, virtues are traits that contribute to or form eudaimonia.

Since ancient Greek philosophers asked what it meant to live a good life, these two stances on well-being have guided individuals in defining and assessing well-being in research and literature (Kesebir & Diener, 2008). Some scholars have approached well-being solely from the hedonic approach, while others have approached it only from the eudaimonic approach. Another population of scholars and researchers has combined the two into an integrative approach. Well-being was further discussed around these three approaches within this literature review.

Hedonic Well-Being

Hedonic well-being focuses on attaining pleasure and avoiding pain as the primary determinants of a person's quality of life (Ryan & Deci, 2001). The hedonic approach to well-being is rooted in ancient Greek philosophy, notably the ideas of Epicurus, and posits that well-being is a product of the balance of positive over negative affective experiences (Kahneman et al., 2003). The utilitarian philosophers of the 19th century, such as Jeremy Bentham, further refined the concept by arguing that the moral quality of an action could be judged by its ability to maximize pleasure and minimize pain.

After a lull, the hedonic approach gained renewed academic interest in the late 20th and early 21st centuries, particularly with the rise of positive psychology (Seligman & Csikszentmihalyi, 2000). Kahneman et al. (2003) announced a new field of psychology with their book, *Well-Being: Foundations of Hedonic Psychology*. They define hedonic psychology as the study of what makes life experience pleasant. Further, Kahneman et al. (2003) noted that hedonic psychology covers a full spectrum of not only pleasant experiences but also unpleasant

experiences in a range of contexts, from societal to biological. Hedonic well-being is often operationalized and measured through self-report scales that gauge life satisfaction, frequency and intensity of positive and negative emotions, and overall happiness (Diener, 1984). The Experience Sampling Method (ESM) and Day Reconstruction Method (DRM) have been widely used to track moment-to-moment fluctuations in affective states, thus measuring the hedonic experience of a person's life (Kahneman et al., 2003).

While the pursuit of hedonic well-being is often criticized for its potential to lead to negative long-term consequences (Kashdan et al., 2008), well-being is not intrinsically detrimental. Some scholars argue that focusing solely on immediate pleasure can result in neglect of meaningful but challenging life activities, such as cultivating deep relationships or engaging in fulfilling but demanding work (Huta & Ryan, 2010). However, the drive for pleasure and the avoidance of pain are foundational to human experience and serve adaptive functions (Fredrickson, 1998). Studies focusing on hedonic well-being have examined various topics, from income's impact on happiness to the correlation between social relationships and well-being. For example, a study by Kahneman and Deaton (2010) examined the relationship between income and emotional well-being, concluding that emotional well-being rises with income up to a certain threshold, beyond which additional income has a diminishing impact. Another study by Diener et al. (2010) extended this work globally, revealing that while wealthier nations tend to be happier, other factors, such as social support, significantly determine happiness. Additionally, research by Fredrickson and Losada (2005) investigated the ratio of positive to negative emotions, suggesting that experiencing positive emotions in a particular ratio to negative emotions can enhance overall well-being. These studies collectively indicate that while hedonic

well-being is influenced by external factors like income and social support, it is also subject to internal emotional dynamics.

Eudaimonic Well-Being

Eudaimonic well-being also has deep theoretical roots, like hedonic well-being. Ryff and Keys (1995) developed a definition of well-being that they define as psychological well-being, aligning with the eudaimonic views of Aristotle, that well-being is not only attaining pleasure but an individual realizing their full potential and striving for excellence. It has grown from research predominantly in the domain of psychology, such as Erikson's (1994) view on personal development, Rogers's (1963) ideas on a fully functioning person, Maslow's (1943) self-actualization, Jung's (1933) individuation, Frankl's (1959) will to meaning, Allport's (1961) maturity model, the basic life tendencies coined by Buhler (1935), and Jahoda's (1958) developments in mental health. Ryff (2013) stated that these theorists' themes overlap in describing what it means to be fully functioning, self-actualized, optimally developed, and individuated. Aligning these points, Ryff deducted six components of well-being: (a) self-acceptance, (b) purpose in life, (c) environmental mastery, (d) positive relationships, (e) personal growth, and (f) autonomy.

Huta and Waterman (2014) theorized that many ways have been used to measure eudaimonic well-being, specifically highlighting 12 instruments included in studies. These instruments come from scholars such as Deci and Ryan's (1985) General Causality Orientations Scale, Diener et al.'s (2010) Flourishing Scale, Keyes's (2002) Mental Health Continuum, and Waterman et al.'s (2010) Questionnaire for Eudaimonic Well-Being. Huta and Waterman (2014) reviewed these and other instruments measuring eudaimonic well-being and found that the most commonly used was Ryff's (1989) Psychological Well-Being Scale. The Psychological Well-

Being Scale has six subscales to be responded to on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*; Ryff et al., 2021).

1. Measuring autonomy: “I have confidence in my opinions, even if they are contrary to the consensus” (Ryff et al., 2021, p. 97).
2. Measuring environmental mastery: “In general, I feel I am in charge of the situation in which I live” (Ryff et al., 2021, p. 97).
3. Measuring personal growth: “I think it is important to have new experiences that challenge how you think about yourself and the world” (Ryff et al., 2021, p. 98).
4. Measuring positive relations with others: “People would describe me as a giving person, willing to share my time with others” (Ryff et al., 2021, p. 98).
5. Measuring purpose in life: “Some people wander aimlessly through life, but I am not one of them.” (Ryff et al., 2021, p. 98).
6. Measuring self-acceptance: “When I look at the story of my life, I am pleased with how things have turned out” (Ryff et al., 2021, p. 98).

Ryff (2013) highlighted that since the construction of the psychological well-being scale, it has been used in over 350 publications in more than 150 scientific journals, emphasizing the interest in the topic. Furthermore, the publications span multiple scientific disciplines, such as psychology, sociology, and biological research. Ryff suggested that the most informative psychological well-being advances were linked to physical health, neuroscience, and biological regulation. For example, Keyes (2005) found that completely mentally healthy adults reported the fewest chronic conditions, suggesting it may act as a protective factor in aging. Similarly, Boyle et al. (2009) found that greater purpose in life is associated with a reduced risk of all-cause

mortality among community-dwelling older persons. As indicated, this research has been gaining momentum and has the potential to impact advances in the medical field significantly.

An Integrated Approach to Well-Being

An integrated approach to well-being brings together the hedonic and eudaimonic philosophical underpinnings and has gained in popularity with researchers and across academic disciplines. Ryan and Deci (2001) hypothesized that through research evidence, well-being can best be seen as a multidimensional approach using hedonic and eudaimonic research. When comparing the two, Keyes et al. (2002) recognize that both traditions are rooted in humanistic principles that focus on understanding the elements contributing to a fulfilling life (Keyes et al., 2002). Kashdan et al. (2008) have asserted the danger in separating hedonic and eudaimonic approaches to well-being because of the implicit and explicit notion that there is a moral hierarchy to well-being with the eudaimonic tradition being morally valid and objective in comparison to the hedonic approach.

As the study of well-being has increasingly become a topic of interest to individuals across disciplines, there is an opportunity to begin working across academic silos toward an integrated approach. In Measuring Wellbeing: Interdisciplinary Perspectives from the Social Sciences and Humanities, Lee et al. (2021) summarize that their publication aims to focus on diverse perspectives on well-being measurement to move the field toward integration and possibly synthesis. Moreover, Lee et al. posited that their hope for the growing field was that scholars would use their specific expertise to broaden the conversation to increase shared understanding on improving the global population's health.

The volume *Measuring Wellbeing: Interdisciplinary Perspectives from the Social Sciences and Humanities* came from the *Interdisciplinary Workshop on Happiness, Well-Being,*

and Measurement (Lee et al., 2021). The focus of the workshop and, inherently, the publication was to move past well-being debates on eudaimonic versus hedonic, toward a well-order science of well-being and toward the development of tools that can be used for social and political processes (Farrelly, 2021; Lee et al., 2021). One of the conclusions made by Lee et al. (2021) was to position recommendations to the field about which well-being measures to use in various contexts. Additionally, Lee et al. suggested that the recommendations are still developing but continue to stimulate discussion and refinement.

From the recommendations, Lee et al. (2021) suggested guidance around the number of items on a survey and allowing flexibility based on the context, such as governmental use, multiple cohorts, or specifically for psychological well-being. Most importantly, Lee et al. posited that if only able to include one question on well-being, it should be one around evaluative well-being. This would align with the question regarding life satisfaction, which is on a 0-10 response scale where 0 is not at all and 10 is complete. The question asked was, Overall, how satisfied are you with your life these days? It is important to note that within this finding, a dissent to this conclusion was made by Ryff et al. (2021) on the basis that a single-item assessment would perpetuate a simplistic view of well-being.

Among the integrated approaches to well-being is the construct of subjective well-being, which Diener et al. (2017) define as how people experience and evaluate different aspects of their lives. Subjective well-being is divided into three main categories: evaluative, affective, and eudaimonic. The affective or hedonic and eudaimonic aspects of well-being were detailed above. The integrated approach of subjective well-being brings these two together. It includes an evaluative aspect that concerns cognitive judgments about one's life satisfaction, which serves as a long-term, stable assessment of well-being (Diener et al., 2018).

The evaluative aspect of subjective well-being traces roots to early social indicator research, which sought to move beyond economic measures like gross domestic product (GDP) to provide a more comprehensive understanding of societal well-being (Easterlin, 1974). This perspective was later formalized by Diener (1984), who introduced the idea of life satisfaction as a cognitive, judgmental process. In this model, individuals assess their life quality by comparing their circumstances against self-defined criteria or societal standards (Diener et al., 2018). Diener et al. (2018) laid the foundation for evaluative well-being as a subject of empirical research, and they developed several scales and methodologies for its measurement, including the Satisfaction with Life Scale (SWLS). Subsequent scholars like Easterlin (1995) and Veenhoven (1991) expanded on this, examining the relationship between income, societal factors, and life satisfaction. The evaluative dimension has also been shaped by researchers who have explored the cross-cultural applicability of life satisfaction measures and how they are influenced by variables like age, gender, and cultural norms (Tov & Diener, 2009).

Incorporating evaluative, affective hedonic, and eudaimonic dimensions into a comprehensive understanding of subjective well-being reflects an interdisciplinary effort to capture the complexity of human well-being (Lee et al., 2021). Diener's foundational work on life satisfaction and emotional well-being set the stage for considering evaluative and affective components together (Diener, 1984). Meanwhile, Ryff's Psychological Well-Being scales introduced the eudaimonic perspective into mainstream psychological literature, emphasizing purpose, personal growth, and autonomy (Ryff, 1989; Ryff & Keyes, 1995). Over time, scholars such as Seligman (2011) incorporated these dimensions into broader frameworks like Positive Psychology, arguing that a complete understanding of well-being must include happiness and life satisfaction, meaning, and engagement. Fredrickson (2001) also enriched this discourse by

exploring how positive emotions contribute to human flourishing and eudaimonic well-being through her broaden-and-build theory.

According to Diener et al. (2018), in the past 15 years, about 170,000 articles and books have been published on subjective well-being. Research on subjective well-being has cut across disciplines and subjects and covered areas such as well-being concerning income, religion, and culture (Oishi & Gilbert, 2016; Stevenson & Wolfers, 2013; Tay et al., 2014). Additionally, subjective well-being has been studied concerning influencing public policies around employment, social welfare, and the natural environment (Boyd-Swan et al., 2013; Lucas et al., 2004; MacKerron & Mourato, 2013). In 2011, the United Kingdom's Office for National Statistics added four subjective well-being questions to its Annual Population Survey, intending to widen the definition of progress beyond GDP and to move toward better politics (Allin, 2021). More than 40 nations' governments and agencies have assessed subjective well-being through surveys (Diener et al., 2018).

This integrative approach has been further supported by research on the validity and reliability of combining these aspects for a more holistic measure of subjective well-being (Keyes et al., 2002). Reliability, or the consistency of a measure, has been demonstrated in both test-retest scenarios and across different measures of the same underlying concept of subjective well-being (Bjørnskov, 2010; Diener et al., 2013; Krueger & Schkade, 2008). Aggregate-level data, particularly country-level averages, have shown high test-retest reliability. As for validity, or the extent to which a measure captures the intended concept, several approaches have confirmed the strength of subjective well-being measures. Face validity is supported by respondents' ease and low refusal rates in answering subjective well-being questions (De Neve & Ward, 2023). Convergent validity is established through strong correlations between individual

self-reports and assessments by close acquaintances (Schneider & Schimmack, 2009). Behavioral and biological markers, such as job satisfaction leading to quits (Clark, 1998) and correlations with brain activity (Urry et al., 2004) and cortisol levels (Steptoe et al., 2009), have also supported the validity of subjective well-being measures. Finally, subjective well-being measures exhibit high levels of construct validity, aligning well with theoretical expectations and objective metrics, such as how unemployment or divorce affects life satisfaction (Blanchflower & Oswald, 2008; Clark, 2018; Kaiser & Oswald, 2022; Oswald & Wu, 2010).

Summary

Well-being research has made substantial strides in integrating hedonic, eudaimonic, and evaluative dimensions into a coherent, multi-dimensional framework. This shift towards integration aligns with an interdisciplinary, humanistic ethos, offering a more complete understanding of what contributes to a good life (Ryff, 1989). As the field continues to evolve, its growing complexity only makes it more relevant and essential for navigating the challenges of the modern world, fulfilling its original humanistic aspiration: to elevate our understanding of what makes life genuinely good (Lee et al., 2021). This is especially necessary for the workplace, where globalization, technology, and the COVID-19 pandemic have collectively reshaped the landscape, ushering in both opportunities and challenges for addressing the subjective well-being of workers (Atkeson, 2020; Brynjolfsson et al., 2023).

The Science of Well-Being

The concept of well-being, traditionally a subject of philosophical debate as documented above, has evolved into a measurable, empirical construct thanks to advancements in psychology, neuroscience, economics, and related fields. The hard science of well-being focuses on quantifiable factors contributing to human happiness and life satisfaction. It intersects various

disciplines, offering a multidimensional approach to understanding a fulfilling life (Diener et al., 2018). This section reviews the significant contributions of leading researchers to the science of well-being, the causes and drivers of well-being, and the outcomes of well-being.

Layard and De Neve (2023), both economists, posit that well-being as the ultimate good reemerged due to skepticism towards income as a sole problem solver. This has been closely developed with the growing notion of going beyond GDP (Stiglitz et al., 2018). Scholars have been developing social indicators alongside GDP for half a century, with Nobel Laureate Amartya Sen highlighting the essential capabilities for effective functioning (Sen, 2001). However, Layard and De Neve (2023) argue that a singular objective is needed to rank alternative policies coherently, suggesting the construction of a single objective of how people feel about their lives or subjective well-being. This well-being approach advocates for well-being as the societal, policy, and individual goal, encouraging complex, empirical research on well-being to be brought to the forefront of various aspects of societal life and policy.

Research and contributors have influenced the science of well-being over the last decade. Daniel Kahneman's exploration into the dichotomy of experiencing the self versus remembering the self offers insights into how individuals perceive happiness. This distinction has implications for understanding the complexities of human well-being (Kahneman, 2011). In parallel, Richard Layard's (2006) work has been influential in integrating happiness into economic theory. His research demonstrates that after reaching a certain income level, subjective well-being is influenced more by social and psychological factors than economic ones.

Ed Diener, known for his comprehensive research on subjective well-being, also provided an essential understanding of happiness. Diener's research emphasized that well-being is not just the absence of negative emotions but also the presence of positive emotions and life

satisfaction (Diener et al., 1999). This approach has shifted the focus from material wealth to broader aspects of life, such as relationships and personal fulfillment. Jan Emmanual De Neve's contributions have enriched the field by examining genetic influences on happiness. Their studies suggest that while genetics influence an individual's predisposition to happiness, external factors like environment and personal choices significantly influence well-being (De Neve et al., 2012). Lastly, John F. Helliwell has developed and promoted the World Happiness Report, an essential global resource for understanding and improving well-being (Helliwell et al., 2023).

Global Impact and Policy Influence on Well-Being

The prevalence of well-being research has significantly influenced government policies worldwide, integrating happiness and well-being metrics in national policy-making. The World Happiness Report, an initiative of the United Nations Sustainable Development Solutions Network, exemplifies this trend (Helliwell et al., 2023). This report, which ranks countries by the happiness of their citizens, has prompted governments to consider happiness as a measure of social progress alongside economic indicators. A notable example is New Zealand's Wellbeing Budget, introduced in 2019. This budgetary approach aims to prioritize citizen well-being over economic growth, focusing on mental health, child poverty, and domestic violence, among other factors, as key measures of national success (Mintrom, 2019).

Organizations like the OECD and Gallup have played an essential role in measuring and reporting global well-being trends. The OECD's Better Life Index and guidelines for measuring subjective well-being have been instrumental in standardizing how well-being is assessed across different countries, providing valuable data for comparing life satisfaction and happiness globally (OECD, 2013). Similarly, Gallup's (2023) Global Emotions Report offers insights into

how people in more than 140 countries experience their lives, contributing to a deeper understanding of global well-being trends and the factors influencing them.

Causes and Drivers of Well-Being

The growing focus on the science of well-being has deepened the research and literature around its key drivers. This enhanced comprehension highlights several significant factors contributing to well-being, each of which will be explored further below. These factors include the impact of the physical environment, the critical role of health and healthcare services, the influence of employment status and the quality of work, the importance of income, the foundation provided by family, and support from the community.

Research consistently highlights the significant impact of the environment on well-being. For example, exposure to nature, such as trees, plants, green space, and water, has demonstrated effects on our physical health, behavior, crime, and well-being (Alcock et al., 2014; Kuo & Sullivan, 2001). A study by Hartig et al. (2014) emphasized the psychological benefits of interaction with natural environments, including reduced stress and improved mood. Additionally, the World Health Organization (WHO) has documented the adverse effects of environmental pollutants on physical health, linking them to various diseases, from respiratory infections to cancer (WHO, 2023).

The correlation between healthcare accessibility and well-being is well-documented. Marmot and Wilkinson (2006) illustrated how access to healthcare services and the quality of these services significantly influence health outcomes and life expectancy. As discussed by WHO, mental health is equally critical, with mental well-being being foundational to overall health (WHO, 2022). Mental and physical illness are intimately related as both cause pain in the same area of the brain and reduce humans' ability to function normally (Vadivelu et al., 2017).

Physical pain is an essential determinant of life satisfaction, and physical health has been shown to prolong life (Krueger & Stone, 2008).

The quality of work or not having work also greatly influences well-being. The detrimental effects of unemployment on well-being are well-established in economic and psychological research. For instance, Paul and Moser (2009) demonstrate that unemployment significantly increases the risk of mental health problems, such as depression and anxiety. This is attributed to the financial strain caused by unemployment and the loss of social status, identity, and routine. Additionally, the social aspects of work often prove to be more important determinants of well-being than income (De Neve, 2018). These include positive working relationships, work/life balance, exciting work, and purpose.

The relationship between income and well-being is complex, as Kahneman and Deaton (2010) noted in their study, which showed that while higher income is associated with improved life evaluation, its effect on emotional well-being plateaus after a certain threshold. This underscores the diminishing returns of income on happiness and life satisfaction. Additionally, the Easterling Paradox states that while happiness is directly related to income at a specific time, showing wealthier individuals are happier due to social comparison, this correlation does not hold long-term as everyone's income rises. Over time, the relative advantage and resulting happiness diminish as incomes increase. Critics of the paradox often confuse short-term positive relationships between happiness and income without a long-term correlation (Easterlin & O'Connor, 2020).

Lastly, the importance of social relationships in well-being is a cornerstone of research in the field. A study by Umberson and Karas Montez (2010) highlights the impact of social relationships on mental and physical health, noting that strong social support networks are vital

to coping with stress and improving overall life satisfaction. Additionally, community networks increase the average well-being of a society (Fowler & Christakis, 2008). These networks depend heavily on volunteers, and volunteering benefits both the community members who are served and the volunteers themselves (Carlson et al., 2015). The importance of social connectedness to well-being was emphasized in greater detail, as it was foundational to the research in this study.

Outcomes of Well-Being

Just as there are specific determinants of well-being, the science of well-being also shows there are clear outcomes of well-being. There is a well-established link between well-being and physical health. Studies have consistently shown that higher levels of well-being are associated with better immune system functioning, lower incidences of chronic diseases, and longer lifespans. For instance, a study by Diener and Chan (2011) concluded that subjective well-being predicts health and longevity. This relationship is partly explained by the fact that individuals with higher well-being are more likely to engage in health-promoting behaviors such as regular exercise, a balanced diet, and adhering to medical advice.

Well-being is also intrinsically linked to mental health. According to research by Lyubomirsky et al. (2005), higher levels of well-being are associated with lower rates of mental health disorders, such as depression and anxiety. Furthermore, well-being is linked to resilience, allowing individuals to better cope with stress and adversity. This is echoed in the work of Fredrickson (2001) in her broaden-and-build theory of positive emotions, which posits that positive emotions broaden individuals' thought-action repertoires and build their physical and social resources.

Well-being also has significant socioeconomic implications. Research indicates that individuals with higher well-being are more productive at work, have higher earnings, and are more likely to contribute positively to their communities. Helliwell and Huang (2008) found that happiness positively affects productivity and job performance. Furthermore, evidence suggests that well-being contributes to societal prosperity by promoting cooperative behaviors, trust, and community engagement, as Putnam (2001) discussed in *Bowling Alone: The Collapse and Revival of American Community* and further emphasized in a later section below.

Summary

The science of well-being has evolved from a philosophical concept into a measurable, empirical field, intersecting disciplines like psychology, neuroscience, and economics. This evolution, as highlighted by researchers like Layard, De Neve, Kahneman, and Diener, emphasizes well-being as a societal goal beyond material wealth, focusing on factors like happiness, life satisfaction, and the interplay of genetics, environment, and personal choices. The field's impact on global policy is notable, with initiatives like the World Happiness Report influencing government policies to integrate well-being metrics. Research has identified various causes of well-being, including environmental factors, healthcare access, employment quality, income, and social relationships, underscoring their complex interrelations with mental and physical health. The outcomes of well-being are far-reaching, affecting physical health, mental resilience, work productivity, and social prosperity, thereby shaping individual lives and societal structures. This comprehensive approach to well-being advocates for a holistic understanding of happiness, encompassing economic prosperity and emotional, social, and environmental well-being.

Well-Being in the Workplace

Workplace well-being, a concept of growing importance to professional life and organizations, reflects the interplay between an individual's experiences and their work environment. Hofmeester and Linden (2017) described work as generating beneficial goods or services within a society deeply rooted in human history and evolution. From ancient hunter-gatherer societies to the intricacies of the modern global economy, work has been a cornerstone of human progress and identity (Lucassen, 2021). This historical perspective underscores the profound influence of work on an individual's life, extending well beyond mere survival and productivity. As noted by Wrzesniewski et al. (2003), work significantly shapes personal identities and contributes to psychological well-being, with individuals spending a considerable portion of their lives engaged in work (Naber, 2007).

Considerable work has been done in positive organizational behavior, positive organizational scholarship, and positive psychology, each offering unique insights into workplace well-being. Positive organizational behavior focuses on work life's strengths and motivational aspects (Luthans, 2002), while positive organizational scholarship examines the factors contributing to a thriving and resilient work environment (Cameron et al., 2003). In its application to the workplace, positive psychology delves into the individual aspects of well-being, such as personal fulfillment and happiness at work (Seligman & Csikszentmihalyi, 2000). These perspectives have enriched the understanding of well-being in the workplace and will be briefly described in this paper to provide a comprehensive backdrop.

However, for the specific scope of this paper, the definition of workplace well-being proposed by De Neve and Ward (2023) was primarily utilized. De Neve and Ward defined workplace well-being as how people think about and feel at work, incorporating three key

components: job satisfaction, workplace emotional experience, and the sense of purpose and meaning in work. This definition was built on extensive research on subjective well-being by Clark (2018) and Diener et al. (2018) and offers a holistic view of well-being in the workplace. The following sections explore De Neve and Ward's (2023) framework in greater detail.

Well-Being in the Global Workplace

Globally, the measurement of well-being in the workplace encompasses a diverse array of approaches, reflecting the varied cultural, economic, and social contexts of different regions. In Western contexts, well-being is often quantified through psychological assessments and employee surveys focusing on job satisfaction, mental health, and work-life balance. Pioneering studies by researchers like Diener and Suh (1997) have laid the groundwork for these approaches, emphasizing subjective measures of life satisfaction and happiness. In contrast, Eastern perspectives, influenced by scholars such as Uchida and Ogihara (2012), may integrate community and societal harmony as significant components of well-being. This global diversity in measurement reflects the multifaceted nature of well-being and underscores the importance of context-specific approaches.

Cross-cultural studies have revealed significant variations in how well-being is perceived and measured. For instance, Hofstede's (2011) cultural dimensions theory provides a framework for understanding these differences. In collectivist societies, where group harmony and social cohesion are highly valued, measures of well-being often emphasize relational and community aspects (Hofstede, 2011). This contrasts with individualistic cultures, where personal achievement and autonomy might be more central to well-being assessments. For example, Lu and Gilmour (2004) have shown that in East Asian cultures, social harmony is a critical component of well-being, while in Western cultures, individual emotional states are often the

focus. Additionally, socioeconomic factors play a crucial role in shaping well-being measures, with developing countries sometimes prioritizing the fulfillment of basic needs and job security in their well-being assessments (Boarini et al., 2014).

Emerging trends in global well-being measurement are increasingly focusing on holistic and integrative approaches. The rise of positive organizational scholarship, for instance, has led to a broader consideration of well-being factors such as purpose, engagement, and workplace relationships (Cameron et al., 2003). Challenges, however, still need to be solved in creating universally applicable measures. One significant challenge is balancing universal constructs of well-being with culturally specific elements. Researchers like Seligman (2011) in positive psychology have advocated for a more inclusive understanding of well-being that transcends cultural boundaries while respecting cultural uniqueness. Additionally, the increasing globalization of the workforce and the rise of remote and digital work environments pose new challenges and opportunities for measuring well-being, requiring adaptable and dynamic assessment tools that cater to a diverse global workforce.

Positive Psychology

Positive psychology, a relatively new branch of psychology, emerged in the late 1990s as a counterbalance to the traditional focus on pathology and mental illness (Seligman & Csikszentmihalyi, 2000). Spearheaded by Martin Seligman during his presidency of the American Psychological Association (APA) in 1998, this field sought to shift the focus of psychology from repairing the worst things in life to building positive qualities. Seligman and Mihaly Csikszentmihalyi are credited with formally introducing positive psychology as a distinct study area. They advocated for a more holistic approach to understanding human behavior and well-being, emphasizing the need to study positive emotions, strengths, and virtues. This marked

a significant shift in the psychological research landscape and has paved the way for a deeper exploration of what constitutes a fulfilling and meaningful life.

The principles of positive psychology have found a natural application in the realm of workplace well-being. Central to this field is the study of how positive emotions, engagement, relationships, meaning, and accomplishment, components of Seligman's model, contribute to employee satisfaction and productivity (Seligman, 2018). The well-being model is known as PERMA, which stands for (a) positive emotions, (b) engagement, (c) positive relationships, (d) meaning, and (e) accomplishment. Research has demonstrated that positive emotions can enhance creativity, problem-solving abilities, and resilience in facing challenges. For example, Fredrickson (2004) demonstrated that positive emotions broaden individuals' thought-action repertoires, leading to more creative and expansive thinking in the workplace. Additionally, Csikszentmihalyi's (2009) concept of *flow*, complete immersion, and enjoyment in an activity has been linked to higher productivity and job satisfaction.

The field of positive psychology has yielded numerous key findings relevant to workplace well-being. For instance, research by Boehm and Lyubomirsky (2008) has highlighted the importance of happiness at work, showing that happier employees tend to be more successful and effective in their roles. Another significant contribution is the work of Carol Dweck (2008) on mindset, illustrating how a growth mindset can lead to greater motivation and resilience. These contributions underscore the value of cultivating positive psychological traits and environments in the workplace, leading to enhanced well-being and performance.

The foundational principles and research in positive psychology have laid the groundwork for the fields of positive organizational behavior and positive organizational scholarship. These fields, while distinct, build upon the core ideas of positive psychology,

extending them to organizational contexts. Positive organizational behavior focuses on applying positive psychological attributes at the individual level within organizations, while positive organizational scholarship examines these concepts at a systemic level, looking at how organizations can cultivate positive environments and cultures (Cameron et al., 2003; Luthans, 2002). The evolution of these fields reflects an ongoing interest in understanding and optimizing the human experience in the workplace.

Positive Organizational Behavior

Positive organizational behavior represents a shift in organizational studies, focusing on the strengths and virtues that enable individuals and organizations to thrive. Pioneered by scholars like Fred Luthans, this field emerged as a response to traditional organizational behavior's often problem-focused approach, advocating for a perspective that emphasizes positive qualities and outcomes (Luthans, 2002). Central to positive organizational behavior is the concept of psychological capital, a cluster of positive psychological states comprising hope, self-efficacy, resilience, and optimism (HERO; Luthans & Youssef-Morgan, 2017). Luthans and Youssef-Morgan (2017) have extensively researched these constructs, demonstrating their impact on employee performance, job satisfaction, and overall well-being. This focus on positive attributes aligns closely with the broader positive psychology movement, which seeks to understand what makes life worth living and how individuals can lead fulfilling and productive lives (Seligman & Csikszentmihalyi, 2000).

The influence of positive organizational behaviors on workplace well-being has been significant. By spotlighting the positive aspects of work life, such as engagement, fulfillment, and positive relationships, positive organizational behavior shifts the focus from merely mitigating problems to actively promoting well-being (Avey et al., 2011). Research in this field

has shown that fostering psychological capital among employees can lead to lower levels of job stress, higher job satisfaction, and better mental health. For instance, Avey et al. (2011) found that psychological capital positively correlates with employee engagement and performance and is negatively associated with turnover and burnout.

Research in positive organizational behavior extends beyond individual positive traits to include organizational practices and cultures that foster a positive work environment. For instance, the work of Cameron and Quinn (2011) on the competing values framework illustrates how organizational cultures can be developed to enhance positivity and effectiveness. Another significant area of study within positive organizational behavior is the role of positive emotions in the workplace, as explored by Fredrickson. Her broaden-and-build theory suggests that positive emotions broaden an individual's thought-action repertoire, leading to more creative and expansive thinking, which is crucial in organizational settings (Fredrickson, 2004). Additionally, research on employee engagement and well-being by scholars like William Kahn has contributed significantly to understanding and measuring the impact of positive organizational practices (Kahn & Fellows, 2013).

Positive Organizational Scholarship

Positive organizational scholarship is a field of study that focuses on the dynamics within organizations that lead to exceptional performance, resilience, and positive environments. Distinguished from traditional organizational studies by its emphasis on the positive aspects of organizational life, positive organizational scholarship was developed in the early 2000s by scholars such as Kim Cameron, Jane Dutton, and Robert Quinn at the University of Michigan (Cameron et al., 2003). This field investigated how strength, vitality, and flourishing contributed to organizations' success and members' well-being. Positive organizational scholarship differs

from positive organizational behavior in its broader focus, examining systemic qualities of organizations rather than individual attributes (Cameron et al., 2003). This approach has opened new avenues for understanding how organizational structures and cultures can be designed to enhance the well-being and productivity of employees.

In workplace well-being, positive organizational scholarship has significantly contributed to understanding how social connections and positive organizational relationships impact employee health and happiness. Research in this field has shown that positive social interactions at work, such as supportive teamwork, recognition, and a sense of belonging, can lead to higher job satisfaction, lower stress levels, and overall better mental health (Hackman, 2011; Maslach et al., 2001; Rath & Harter, 2010). Jane Dutton's (2003) work on high-quality connections and their role in organizational life is particularly noteworthy to well-being, especially regarding the social aspects contributing to it. These connections are characterized by mutual positive regard, trust, and active engagement, which have been found to enhance individual and collective well-being (Dutton, 2003). Additionally, Kim Cameron's (2021) studies on positive leadership and virtuous practices within organizations highlight how fostering a positive climate can encourage solid social connections and a supportive work environment. While this section has highlighted the role of social connections in workplace well-being, a further detailed exploration of this topic, including its various dimensions and implications, was discussed in the chapter.

Organizational Departments that Impact Workplace Well-Being

The historical role of human resources in organizations has predominantly centered on compliance, adhering to labor laws, and maintaining workplace standards (Gosney & Hughes, 2016). HR's engagement with employee well-being was often limited to fundamental occupational health and safety aspects. Over time, however, this role expanded to encompass a

broader range of responsibilities to support the workforce. One significant development in this direction was the introduction of employee assistance programs. These programs were designed to offer support services to employees, addressing various personal and professional challenges (Roche et al., 2018). Despite their well-intentioned inception, research and practical experience have increasingly shown that employee assistance programs, in isolation, are only sometimes effective in comprehensively supporting employee well-being (Csiernik, 2011).

This realization, along with additional societal influences, has led to a paradigm shift in how organizations approach the well-being of their employees. Responsibility for employee well-being has begun to extend beyond traditional human resource functions to include various departments and roles. Organizational departments such as diversity, equity, inclusion, and organizational development have become increasingly involved in initiatives to enhance workplace well-being (Greenwood & Anas, 2021; Stevenson, 2021). These departments focus on creating an inclusive and supportive work environment, recognizing that employee well-being is deeply intertwined with the cultural and structural dynamics of the organization (Stevenson, 2021).

Furthermore, the emergence of the chief wellbeing officer role epitomizes this shift (Herron, 2023). Chief well-being officers are dedicated to strategically integrating well-being into every organization's operations, signifying a holistic and top-down commitment to employee wellness. This expansion reflects a growing recognition that employee well-being is multifaceted, necessitating diverse strategies and interventions.

Workplace Well-Being Defined for This Research

As previously mentioned, the definition and framework of workplace well-being used for this research is set forth by Jan Emmanual De Neve and George Ward (2023). Jan Emmanuel De

Neve and George Ward are scholars in economics and psychology known for their contributions to understanding workplace well-being. De Neve, with a background in economics, has focused on the intersection of economics, psychology, and public policy, exploring how these areas influence happiness and productivity in the workplace (De Neve, 2023). George Ward, also working at the crossroads of economics and psychology, has dedicated his research to studying well-being, happiness, and mental health, especially in labor markets (Ward, 2023). They have defined workplace well-being as how an individual feels at and about their work (De Neve & Ward, 2023). This definition of workplace well-being has three components that map to the research on general subjective well-being: job satisfaction (evaluative), workplace emotional experience (affect), and finding work purposeful, worthwhile, or meaningful (eudemonic). Extensive research has been done on these components as individual constructs, and De Neve and Ward aim to bring them together under one umbrella.

Defining workplace subjective well-being in this way serves two purposes. It brings job satisfaction, workplace emotional experience, and finding meaningful work together to develop more evidence on the topic and simplify the conceptual terrain of workplace well-being (De Neve & Ward, 2023). In addition, defining workplace well-being with the three aspects, each with its own extensive body of evidence, provides a clear framework to separate the drivers and outcomes of well-being at work and begin understanding what aspects shape well-being at work. Another aim of this definition is that by bringing this body of literature together, clear drivers and outcomes can be defined to inform leaders, policymakers, and employees better. Job satisfaction, workplace emotions, and purpose at work have been intensely studied, and a brief review of the literature on these concepts will be explored below. However, before that, the research conducted using this measurement of workplace well-being is described.

Although still a working paper, the most extensive workplace well-being study can offer essential insights into well-being as a predictor of organizational financial success. The study integrated the concepts of job satisfaction, workplace emotion, and purpose at work and was conducted by De Neve et al. (2023). They looked at over 3,000 employee responses across 1,600 companies in the United States to assess workplace well-being and whether it could predict firm performance. The data came from Indeed, a significant job platform that collects a Work Wellbeing Score from past and present employees to help people find better work and inspire companies to foster environments where everyone can thrive. The Work Wellbeing Score measures the critical outcomes of work well-being that align with De Neve and Ward's (2023) definition: happiness, purpose, satisfaction, and stress. To date, Indeed has collected over 15 million surveys from employees.

De Neve et al. (2023) took firm performance data from Compustat's North America Annual Fundamentals database to look at two indicators: Tobin's Q as a measure of firm value and return on assets as a measure of profitability. To understand if there is a relationship between workplace well-being and firm performance, they conducted cross-section regression analyses. The analysis found a strong correlational relationship between average company happiness levels and all three firm performance indicators. A one-point increase in company happiness predicts around a 0.15 log-point increase in Tobin's *q*(ln), a 1.7% increase in return on assets, and a $2–3 billion USD increase in annual profit (De Neve et al., 2023). The literature on the components of workplace well-being, as defined by De Neve and Ward (2023), job satisfaction, workplace emotions, and purpose at work, were explored further.

Job Satisfaction. Job satisfaction, a core indicator of employee well-being, has been the subject of extensive research in organizational behavior and psychology. Locke (1976)

conceptualized job satisfaction as a positive emotional state resulting from the appraisal of one's job or job experiences. Weiss (2002) provides another definition, stating that job satisfaction is an individual's evaluative judgment about their job. This definition offers a focused lens for understanding how individuals perceive their work environment, highlighting the evaluative and judgmental aspects inherent to human psychology.

Judge et al. (2017) built on this foundation by conducting a comprehensive review that spans a century of literature on job attitudes and satisfaction. Their review indicated that the terminology used to describe the relationship between people and their work evolved. Concepts such as morale, engagement, and job satisfaction have been explored in varying contexts. Among these, job satisfaction stands out as the most researched concept. The focus on job satisfaction stemmed from its critical role in influencing various aspects of organizational life, such as productivity and performance.

Internally, numerous factors have been identified that influence an individual's level of job satisfaction. J. M. George and Brief (1992) discussed the role of personality in shaping attitudes toward work. They argue that inherent traits, such as optimism and extroversion, often lead to a more favorable outlook on one's job. Martinez-Ponz (1990) explored the impact of intrinsic rewards, like a sense of accomplishment or skill development, and found that they significantly contribute to job satisfaction. Okpara (2004) examined demographic variables, such as age, gender, and ethnicity, to determine their influence, concluding that these variables do have a subtle but noticeable impact on how job satisfaction is perceived.

Externally, various elements of the work environment also play pivotal roles. Studies by Derlin and Schneider (1994) on pay and George and Zakkariya (2018) on promotion opportunities indicate that these factors significantly shape job satisfaction. Aamodt (2016)

discussed job content and supervision, stating that the nature of the work and the quality of management directly correlate with job satisfaction levels. Robbins and Judge (2018) emphasized the role of peer relationships, finding that camaraderie among coworkers can significantly improve one's attitude toward work. Further, job security (George & Zakkariya, 2018) and work setting (Spector, 1997) have also been cited as essential contributors to job satisfaction.

Job satisfaction also has implications for organizational outcomes. Dickson and Lorenz (2009) found that low job satisfaction often leads to high turnover rates. George and Zakkariya (2018) extended this to absenteeism, revealing that dissatisfied employees are likelier to miss work. In the domain of performance, Judge and Bono (2001) discovered a strong correlation between job satisfaction and job performance. Beyond the immediate work environment, Hur et al. (2015) demonstrated that employee job satisfaction positively affects customer satisfaction, creating a ripple effect. Other studies have also touched on how job satisfaction has a direct connection with the broader organizational climate (Griffin, 2001), employee participation (García et al., 2018), and even organizational citizenship behavior, which involves going above and beyond one's job requirements (LePine et al., 2002).

Workplace Emotions. Workplace emotions are a subject of increasing research focus, particularly in affective events theory. This theory, initially proposed by Weiss and Cropanzano (1996), posited that specific workplace events prompt emotional reactions and that these emotional responses subsequently influence both attitudes and behaviors within the work setting. The theory extends beyond the idea of emotional states as a static phenomenon, presenting them as dynamic reactions to the ever-changing workplace landscape.

Affective events theory provides a framework for understanding the emotional dimensions of work. Weiss and Cropanzano's (1996) seminal work suggested that workplace events elicit a range of emotional reactions from employees, whether positive, like promotions, or harmful, like conflicts. These emotions can be transient or enduring, impacting employee attitudes and behaviors. Over the years, the theory has been refined and expanded, laying the foundation for much of the contemporary research on workplace emotions.

Ashkanasy et al. (2002) further explored the concept of emotional intelligence as a critical aspect of managing these emotional reactions. Emotional intelligence refers to an individual's ability to recognize, comprehend, and manage their own emotions, as well as to understand and influence the feelings of others. Moreover, Ashkanasy et al. contended that high levels of emotional intelligence are especially crucial for managers and supervisors, who often must navigate complex emotional terrains. Côté (2005) furthers this idea by highlighting the link between emotional intelligence and job performance. He found that employees with higher emotional intelligence scores managed their emotions better and outperformed their less emotionally intelligent counterparts. This led to an increased focus on training programs to enhance emotional intelligence in the workplace.

Emotional labor is another concept that has gained considerable attention in recent years. Grandey and Sayre (2019) examined the emotional cost of managing feelings and expressions as part of one’s job role. In jobs like customer service or healthcare, employees are often required to suppress their true feelings to maintain a professional demeanor, a process known as surface acting. Further, Grandey and Sayre highlighted that this kind of emotional regulation could lead to emotional exhaustion and job dissatisfaction, emphasizing the importance of providing employees with the tools to manage emotional labor effectively.

Purpose at Work. The purpose of work and the sense of meaning have gained recent attention. Early work by Hackman and Oldham (1976) laid the foundation for this area, emphasizing that a sense of purpose at work can be a potent motivator for employees. Subsequent research has sought to explore the underlying mechanisms, pathways, and outcomes associated with meaningful work, highlighting its influence on a range of positive outcomes such as job satisfaction, engagement, and performance (Bailey et al., 2019). Hackman and Oldham's (1976) foundational study argued that a sense of purpose is not just an abstract concept but a tangible driver of employee behavior. Their work laid the foundation for more research, exploring how meaningful work can improve job satisfaction and increase employee engagement and performance.

Rosso et al. (2010) identified four pathways through which meaningful work arises: authenticity, self-efficacy, self-transcendence, and cultural and interpersonal identification. Authenticity refers to the alignment between one's work and authentic self. Self-efficacy speaks to an individual's belief in completing tasks and achieving goals. Self-transcendence addresses the connection to something greater than oneself, and cultural and interpersonal identification relates to the collective sense of belonging and understanding within a group or organization. Rosso et al. argued that these pathways are not mutually exclusive; they often intersect and overlap in complex ways.

More recently, Bailey et al. (2019) developed an integrative framework that links meaningful work to various positive organizational outcomes. They found that employees who perceive their work as meaningful are more likely to experience job satisfaction, higher levels of engagement, and improved performance metrics. Bailey et al.’s framework underscored the importance of creating a work environment where employees find purpose. Similarly, Allan et al.

(2019) highlighted the link between meaningful work and positive outcomes, specifically focusing on work engagement, commitment, and job satisfaction.

Summary

The importance of well-being in the workplace is increasingly recognized, evident in the substantial progress made within fields like positive psychology, positive organizational behavior, and positive organizational scholarship (Cameron et al., 2003; Luthans, 2002; Seligman & Csikszentmihalyi, 2000). Positive psychology has shifted from merely addressing workplace challenges to enhancing positive qualities like employee satisfaction and productivity (Seligman & Csikszentmihalyi, 2000). Building on this, positive organizational behavior explores personal strengths and motivational aspects of work life, while positive organizational scholarship explores the systemic dynamics that create thriving work environments (Cameron et al., 2003; Luthans, 2002). This multi-faceted approach across various academic fields underscores the growing significance of well-being in organizational culture and practices.

For this study, the definition of workplace well-being by De Neve and Ward (2023) was adopted, offering a comprehensive measure valuable for organizations and future research. Their framework encapsulated three core aspects: (a) job satisfaction, (b) emotional experiences at work, and (c) the sense of purpose and meaning in work (De Neve & Ward, 2023). This holistic approach integrates various dimensions of well-being, providing a practical and inclusive measurement. However, it is crucial to acknowledge that global research in this area requires further exploration, especially considering cultural differences in well-being perceptions and practices (Hofstede, 2011; Lu & Gilmour, 2004). Traditional human resources functions are transforming in response to the global evolution of workplace well-being. Roles within departments, such as diversity, equity, and inclusion, organizational development, and the

emerging position of the chief well-being officer reflect a shift towards comprehensively prioritizing employee wellness, catering to the diverse needs of a global workforce (Herron, 2023).

The Future of Work: Global Factors and Their Impact on Well-Being

The evolution of work traces a fascinating journey through human history, reflecting the continuous adaptation of people and societies to their environments and technological advancements. For 95% of human history, people relied on fishing, hunting, and gathering as their form of 'work' merely to survive (Kellerman & Seligman, 2023). From this era of nomadic tribes, where survival hinged on hunting and gathering, humanity transitioned into the agricultural age, marking a significant shift towards settled life and community building. The agrarian era is defined by humans thinking about the future, or prospection, leading to fear and worry over everything that could go wrong. The Industrial Revolution brought another monumental change, ushering in an era of mechanization and mass production, transforming work, societal structures, and economies. Today, individuals find themselves in an age defined by digital technology and information, where the nature of work has evolved to prioritize knowledge, connectivity, and innovation (Schwab, 2016). This progression from manual labor and agriculture to industry and now to a knowledge and service-based economy emphasizes the dynamic nature of work and its impact on humans and societal structures.

In recent years, the workplace has been defined by significant transformations and challenges, which will be analyzed using the PESTEL framework, developed in the 1960s by Harvard professor Francis Aguilar (1967). This approach examines political, economic, social, technological, environmental, and legal factors impacting industries or organizations. For example, politically, the rise of nationalism and evolving immigration policies are reshaping

workforce dynamics. Economically, the gig economy illustrates the shift towards more flexible yet uncertain work arrangements. Socially, changes in demographics and attitudes towards work-life balance are altering workplace culture. Technologically, the advent of AI and automation is revolutionizing job roles and skill requirements.

These changes occur in a broader context marked by volatility, uncertainty, complexity, and ambiguity (VUCA), which captures the essence of the current global business environment (Bennett & Lemoine, 2014). Additionally, the concept of 'wicked problems', complex, multifaceted challenges with no clear solutions, like climate change and ethical dilemmas in technology, further complicates this landscape (Camillus, 2016). The 2020 global pandemic, a prime example of a sudden and disruptive force, has also profoundly affected the workplace, accelerating trends like remote working and digital transformation (Kniffin et al., 2021). Each PESTEL factor, along with these overarching themes, significantly influences employee well-being, with implications for their mental and physical health. The subsequent sections will further explore each aspect, noting how they shape the modern work environment and impact the workforce.

Political Factors

In today's globalized business environment, the political element of the PESTEL framework is shaping organizational strategies and operations. The political landscape facing modern businesses is characterized by its dynamic and often unpredictable nature, which can have far-reaching effects on managerial practices and employee experiences (Martin & Reeves, 2022). Key political factors include government policies, political stability or instability in various regions, trade regulations, and labor laws. These factors collectively influence how businesses operate and compete on the global stage.

Government policies, ranging from fiscal decisions to labor regulations, directly impact how businesses manage their workforce and operations. For instance, changes in tax laws or minimum wage regulations can alter a company's financial strategies and employee compensation structures (Streeter, 2022). Similarly, international trade policies and agreements affect market access and competitive dynamics, compelling businesses to adapt their strategies accordingly (Grossman, 2016). Moreover, political stability or instability in different parts of the world can affect supply chains, market access, and the overall risk assessment for multinational operations (Shih, 2020). These political realities require businesses to be agile and responsive, often necessitating quick strategic shifts that can impact the workplace environment and the well-being of employees.

Economic Factors

The rise of the gig economy has influenced the economic landscape of modern businesses. This trend represents shifting from traditional, long-term employment to more flexible, freelance, and short-term job opportunities (Donovan et al., 2016). This model offers workers greater autonomy and adaptability, appealing to a desire for a better work-life balance and personal freedom. However, it also introduces challenges such as job insecurity, the absence of stable income, and a lack of traditional benefits like healthcare and retirement plans. These aspects of the gig economy have profound implications on employees' financial stability and mental well-being.

Businesses today are also affected by broader global market trends and economic cycles. Periods of economic growth and recession can directly impact organizational health, influencing decisions related to hiring, wages, and investments (Frasquilho et al., 2015). In times of economic downturn, the resultant downsizing or hiring freezes can heighten job insecurity and

workplace stress. Conversely, while there might be growth opportunities during economic booms, challenges such as talent shortages or inflationary pressures can arise, affecting employee morale and job satisfaction.

The current global economic climate is marked by a degree of uncertainty. Fluctuations in commodity prices, trade tensions, and evolving consumer behaviors pose continual challenges to business resilience and adaptability (Boone & Pinaud, 2021). This economic volatility can affect employees, leading to concerns about job stability, career progression, and overall well-being. Navigating these economic challenges necessitates strategic and empathetic organizational responses, emphasizing understanding and mitigating employees' concerns amidst changing economic conditions.

Societal Factors

The social fabric of the modern workplace is undergoing shifts driven by changing demographics and evolving workforce expectations. The entrance of Gen Z into the workforce brings a new set of values and priorities, including a strong emphasis on diversity, inclusivity, and corporate social responsibility (Kumar, 2023). These generational changes are prompting organizations to rethink their workplace culture and policies to align with the expectations of a younger, more socially conscious workforce. Additionally, the aging population in many developed countries presents challenges regarding workforce planning, knowledge transfer, and adapting workplaces to suit a more diverse age range (Barakovic Husic et al., 2020). These demographic shifts can impact organizational dynamics and employee relations, potentially affecting employee engagement, retention, and overall workplace harmony.

Another significant societal trend impacting the workplace is the increasing focus on work-life balance and mental health. Employees today are more aware of the importance of

mental well-being and seek work environments that support this (Barber et al., 2016). The traditional 9-to-5 workday is being reevaluated, with flexible working hours and remote work options becoming more prevalent (Semuels, 2023). This societal shift towards valuing mental health and work-life balance challenges organizations in structuring work environments and managing employee expectations. While these changes can lead to a more satisfied and productive workforce, they also require organizations to be more adaptable and sensitive to the varied needs of their employees (Shifrin & Michel, 2022).

The rise of social media has also transformed the employer-employee relationship. Employees today often serve as brand ambassadors, with their online presence and opinions reflecting on the company (Sterescu, 2022). Social media platforms provide a space for employees to voice their experiences and views, which can significantly influence public perception of an organization. This new dynamic requires companies to be more mindful of their employer brand and the experiences they provide to their employees. Negative experiences shared on social media can quickly damage a company's reputation, affecting its ability to attract and retain talent (Horn et al., 2015). Conversely, positive portrayals can enhance an organization’s image and appeal to potential employees.

Environmental Factors

Environmental challenges, most notably climate change, are exerting an impact on modern global organizations. Companies are increasingly expected to adopt sustainable practices and reduce carbon footprints (Winston, 2021). This shift towards sustainability is a response to regulatory pressures and a reaction to growing consumer and employee expectations. Employees seek to work for organizations that demonstrate environmental responsibility, which is essential to workplace satisfaction and morale (Hastwell, 2023). However, implementing sustainable

practices can be challenging and require significant changes in operational processes, creating uncertainty and adjustment demands for employees (Farri et al., 2022). Balancing the transition to sustainability while maintaining employee engagement and productivity is essential for organizations navigating these environmental challenges.

Environmental factors such as pollution, resource depletion, and ecological degradation, directly and indirectly, affect employee health and well-being. For instance, poor air quality and environmental pollutants can lead to health issues, which affect employee absenteeism and productivity (Bari et al., 2022). Additionally, the psychological impact of environmental concerns, often termed *eco-anxiety*, is becoming increasingly recognized (Dodds, 2021). Employees concerned about global environmental issues may experience stress and anxiety, affecting their mental health and job performance. Organizations must be cognizant of these environmental health impacts and consider them in their employee wellness programs and workplace policies.

Corporate environmental responsibility is gaining traction, wherein businesses acknowledge their role in contributing to and mitigating environmental problems. This responsibility extends beyond compliance with environmental regulations to encompass broader efforts such as reducing waste, promoting recycling, and supporting environmental initiatives (Latif et al., 2022). These practices contribute to environmental conservation and enhance the company's image as a socially responsible employer. This can boost employee pride and loyalty, as workers increasingly prefer to be associated with environmentally responsible organizations. However, it also requires companies to invest in employee education and actively involve them in sustainability initiatives, which can be a change management challenge.

Legal Factors

Organizations around the world are increasingly navigating a complex and evolving legal landscape. New regulations and laws in areas such as labor standards, data protection, and equal employment opportunity are constantly being introduced. Compliance with these legal requirements is crucial for businesses to avoid penalties and maintain their reputation. For instance, regulations like the General Data Protection Regulation (GDPR) in the European Union have significant implications for how companies handle personal data, necessitating major changes in organizational policies and practices (Tikkinen-Piri et al., 2018). Adapting to these legal changes can create challenges within the workplace, including the need for employee training, adjustments in operational procedures, and the potential stress associated with ensuring compliance. While these legal requirements are designed to protect individuals and promote fairness in the workplace, adapting to them can temporarily increase workload and pressure on employees, impacting their overall well-being (Li et al., 2020).

Additionally, legal challenges can directly impact employee rights and protections, influencing workplace well-being. Laws regarding minimum wage, working hours, anti-discrimination, and workplace safety are critical in shaping the work environment. Organizations that operate in multiple jurisdictions may find it particularly challenging to navigate the varied legal frameworks and ensure that employee rights are consistently upheld (Rikken et al., 2019). Failure to comply with these laws risks legal repercussions and can affect employee trust and morale (Gunningham et al., 2005). On the positive side, adherence to legal standards regarding employee treatment can enhance a sense of fairness and security among the workforce, promoting a positive organizational culture (Curtice, 2005). In this way, while posing operational

difficulties, legal challenges also allow organizations to reinforce their commitment to employee well-being and ethical practices.

Technological Factors

This section was purposely brought to the final part of the PESTEL analysis, rather than in the middle, due to its rising impact on organizations in the past few decades and because this topic is a foundational element to this research. The technological landscape in which modern organizations operate is marked by rapid and continuous evolution, presenting various challenges (Kraus et al., 2022). Key among these is the need to keep pace with emerging technologies and integrate them into existing business processes. This integration often requires significant investment in new systems and employee training. Another challenge is cybersecurity, as the increasing reliance on digital technology has made organizations more vulnerable to cyber threats and data breaches (Huang et al., 2023). Furthermore, the digital divide, the gap between those with easy access to digital technology and those without, poses a challenge in ensuring equitable access to technology for all employees (Chakravorti, 2021). These broad technological challenges require organizations to be agile, forward-thinking, and proactive in their technology adoption and management approach.

The revolution and evolution of technology in the workplace have dramatically transformed how organizations function, and people work. From the introduction of personal computers in the late 20th century to the widespread adoption of the internet and mobile technology, each technological advancement has brought significant changes to work patterns and organizational structures (Grodal et al., 2023). Digital transformation, which refers to integrating digital technology into all business areas, has been a critical focus of recent research (Vial, 2021). This transformation has led to more efficient processes, improved communication,

and the creation of new business models. However, it has also brought challenges, such as the need for continuous learning and adaptation among employees, potential job displacement, and the blurring of work-life boundaries, which will be explored further in a later section (Li, 2022).

AI, particularly generative AI, has emerged as a pivotal development in the latest wave of technological advancement (Chui et al., 2023). Generative AI, which refers to AI algorithms that can generate new content, be it text, images, or code, based on the data they are fed, has gained significant attention over the past year (Martineau, 2021). Its applications in the workplace range from automating routine tasks to enhancing creative processes, offering the potential for increased efficiency and innovation (Chui et al., 2023). However, introducing such advanced AI technologies raises questions about job replacement, new skill sets, and ethical considerations around AI-generated content (Bankins & Formosa, 2023). The emergence of generative AI represents a frontier in the ongoing evolution of technology in the workplace, signaling a future where human-AI collaboration becomes increasingly integral to organizational operations.

Artificial Intelligence's Impact on the Workplace

The journey of AI is deeply rooted in history, stretching back to philosophical inquiries about cognition and consciousness (McCorduck, 2004). Aristotle's early work on logic laid a foundational understanding of rational thought, a concept central to AI (Russel & Norvig, 2021). However, Alan Turing's (1950) groundbreaking ideas in the mid-20th century, particularly his 1950 paper proposing the Turing Test, formally conceptualized the potential of machine intelligence. This test evaluated a machine's ability to exhibit intelligent behavior indistinguishable from a human's. In 1956, the term *artificial intelligence* was coined at the Dartmouth Conference, marking the beginning of AI as a formal field of study (Bringsjord &

Govindarajulu, 2022). The conference was critical, setting the direction for future research in machine learning, natural language processing, and robotics.

Throughout the 1960s and 1970s, AI research focused on problem-solving and symbolic methods, leading to early systems like the SHRDLU natural language system and the MYCIN medical diagnosis program (Nilsson, 2010). These developments demonstrated AI's potential in understanding human language and aiding complex decision-making. The advent of machine learning in the 1980s and 1990s marked a shift towards systems that learn from data and improve performance over time, leading to modern applications like speech recognition and online recommendation systems (Schmidhuber, 2015).

Today, AI's impact on organizations is profound and multifaceted. AI technologies are employed in process automation, predictive analytics, enhancing customer experience, and aiding decision-making (Chui et al., 2023). Robotic process automation, for example, handles repetitive tasks, increasing efficiency in processes like invoice processing and inventory management (Lacity & Willcocks, 2016). Predictive analytics using AI enables businesses to forecast trends and anticipate market changes (Maisel et al., 2022). In customer service, AI-powered bots like Salesforce's Einstein Bots automate routine tasks, enhancing service efficiency (Masane, 2023).

However, the integration of AI into workplaces also presents challenges. While process automation increases efficiency, it can only partially replace human judgment, and predictive analytics depend heavily on data quality, risking flawed outcomes if the data is biased (Babic et al., 2021). Additionally, AI-driven decision-making lacks human intuition and ethical considerations, raising concerns about transparency and fairness (Guidotti et al., 2018). Additionally, integrating AI in the workplace has significant implications for employee well-

being. Automating tasks can lead to concerns about job displacement and the need for continuous upskilling, potentially increasing stress and job insecurity (Liu et al., 2023). AI systems' constant monitoring and performance evaluation could also contribute to workplace anxiety (Cebulla et al., 2023). However, it is essential to note that AI also presents opportunities to alleviate some job-related stressors by automating mundane tasks and facilitating efficient decision-making (Zirar et al., 2023).

The Impact of Organizational Changes to Workplace Well-Being

In light of these organizational changes and challenges presented in each aspect of the PESTEL analysis, and particularly the transformative influence of AI in the workplace, it is evident that these external and technological forces affect critical areas of employee well-being. Over the past decade, amidst the backdrop of political, economic, social, technological, environmental, and legal upheavals, there has been an increase in concerns related to stress and burnout, job insecurity and uncertainty, and increased isolation and lack of social interaction (McRae et al., 2023). These areas of employee well-being are not isolated phenomena but are deeply intertwined with ongoing organizational changes and challenges. This next section will explore these aspects to understand how the evolving work landscape reshapes employees' experience.

Increased Stress and Burnout. Workplace stress refers to the physical and emotional responses when a job's requirements do not match an employee's capabilities, resources, or needs (Lazarus & Folkman, 1984). Burnout, a related concept, is characterized by emotional exhaustion, cynicism, and reduced professional efficacy, often resulting from prolonged exposure to workplace stress (Heinemann & Heinemann, 2017). The academic discussion on these topics gained prominence in the 1970s, with Herbert Freudenberger (1974) being one of

the first to describe the symptoms of burnout. Christina Maslach, a key figure in this field, later developed the Maslach Burnout Inventory, a widely used tool to measure burnout levels (Maslach et al., 1997).

The study of workplace stress and burnout has evolved significantly over the decades. Early work by psychologists like Robert Karasek (1979) focused on job demands and employee control as key factors contributing to workplace stress. Maslach's research furthered understanding in this field by linking burnout to factors like workload, control, reward, community, fairness, and values congruence (Maslach & Leiter, 2016). Scholars have recently continued exploring the nuances of burnout, particularly relating to workplace environment and employee engagement.

Research from organizations across the globe unanimously shows increases in workplace stress. Gallup's (2023) most recent State of the Global Workplace Report found that 44% of employees worldwide reported experiencing significant stress the previous day, marking the second consecutive year of record-high worker stress levels. While the pandemic likely contributed to the spike in employee stress in 2020, this trend has escalated for over a decade. The WHO has recognized burnout as an occupational phenomenon, indicating its prevalence in the global workforce (WHO, 2019). The American Institute of Stress reports that job stress is the primary source for American adults and has escalated progressively over the past few decades (Boyd, 2023).

The rise of technology, especially AI, has influenced workplace stress and burnout. Firstly, technology has led to the 'always-on' culture, where employees are expected to be constantly connected, leading to longer work hours and reduced downtime (Sandoval-Reyes et al., 2019). AI, in particular, has introduced complexities in job roles, with the need for

continuous learning and adaptation to new systems adding to job stress (Sen et al., 2022). For instance, AI-driven analytics tools require employees to perform regular tasks and interpret and make decisions based on complex data sets, increasing cognitive load.

Job Insecurity and Uncertainty. Job insecurity and uncertainty refer to the perceived threat of losing one's job and the general feeling of uncertainty about the future of one's employment (Shoss, 2017). These concepts began to gain significant attention in academic circles during the late 20th century, particularly with global economic changes and the shift toward less stable employment practices. Scholars like Leonard Greenhalgh and Zehava Rosenblatt have been instrumental in studying job insecurity, examining its psychological impacts and the factors contributing to it (Greenhalgh & Rosenblatt, 1984). This research has shown that job insecurity can lead to various adverse outcomes, including stress, reduced job satisfaction, and mental health issues.

The literature intensified its discussion of job insecurity during economic downturns and industrial shifts when mass layoffs and restructuring became more common (Greenhalgh & Rosenblatt, 1984). Richard Sennett's (1999) work on the corrosion of character in the new economy highlighted the psychological impacts of unstable work life. McDonough’s (2000) research further explored the health-related consequences of job insecurity, underlining its significance in occupational health psychology.

The International Labour Organization regularly reports on employment trends and has noted an increase in non-standard forms of employment, which often carry higher risks of job insecurity (Gihleb et al., 2023). Research at the Pew Center revealed that around 19% of American workers are in jobs highly exposed to AI, with a more significant impact seen in higher-paying, analytical fields requiring college education (Kochhar, 2023). Even if

unemployment is low around work, job insecurity can persist and impact employee's well-being. Despite efforts by some employees to enhance their performance and adhere to company policies under job insecurity, the stress and cognitive load associated with this insecurity often counteracts any positive effects (Shoss et al., 2022). Furthermore, job insecurity can lead to behaviors like rule-breaking and prioritizing visible over valuable work, creating vicious cycles that exacerbate job insecurity and harm organizational outcomes.

Technological advancements like AI have contributed to job insecurity and uncertainty (Gihleb et al., 2023). Automating tasks traditionally performed by humans has led to concerns about job displacement. For instance, AI and robotic process automation have replaced several job functions in manufacturing and customer service industries, leading to uncertainty among employees about their future roles. AI's potential to perform complex cognitive tasks has extended this insecurity to more skilled professions, exacerbating concerns about long-term career viability.

Isolation and Lack of Social Interaction. Isolation and lack of social interaction in the workplace refer to the experience of being physically or emotionally disconnected from colleagues, leading to feelings of loneliness and disengagement (Marshall et al., 2007). Academic interest in these topics has grown in recent years, particularly with the rise of remote work and digital communication technologies. Scholars like Robert Putnam and Louise Hawkley have been key figures in studying social isolation. Putnam (2001), in his work Bowling Alone, discussed the decline in social capital and community engagement, while Hawkley focused on loneliness's psychological and physiological effects (Hawkley & Cacioppo, 2010).

The discussion around workplace isolation began to gain prominence with the shift towards more individualistic work practices and the rise of remote work (Hawkley & Cacioppo,

2010). The late 20th and early 21st centuries saw an increasing focus on the psychological well-being of employees, with researchers exploring how workplace design and culture influence social interactions and employee mental health (Litchfield et al., 2016). Research in this area has also been linked to broader studies on mental health and the impact of social networks on individual well-being (Office of the Surgeon General, 2023).

Globally, there is a growing concern about workplace isolation, especially with the increase in remote and telecommuting work arrangements (Office of the Surgeon General, 2023). Surveys, such as those conducted by Gallup, have highlighted that remote workers often feel less connected to their colleagues and workplace culture (Harter, 2023). The pandemic has exacerbated this issue, with many employees working from home and experiencing reduced face-to-face interaction (Lal et al., 2023).

Technology, particularly AI, has influenced workplace social dynamics in several ways. Firstly, the rise of digital communication tools, while facilitating remote work, has also reduced the need for in-person interactions, potentially leading to feelings of isolation (Singh et al., 2022). AI-driven systems and automation can also contribute to isolation by reducing the need for collaboration and human intervention in specific tasks (Tai, 2020). For example, AI-powered customer service bots may lessen the need for human customer service teams, limiting employee social interaction opportunities.

Summary

The evolution of work has been a constant in human history, marked by significant shifts from the times of nomadic tribes to the present digital age (Kellerman & Seligman, 2023). Today, we are in an era dominated by digital technology and information, focusing on knowledge, connectivity, and innovation (Schwab, 2016). Analyzing the global corporate

landscape through the PESTEL framework reveals various factors reshaping the workplace and impacting employee well-being (Aguilar, 1967). Key among these is the technological revolution, particularly the rise of AI, which poses additional challenges for organizations, leaders, and employees (Gihleb et al., 2023). The integration of AI into workplaces has led to increased stress and burnout, job insecurity, and feelings of isolation among employees, as it demands continuous adaptation and learning while also altering traditional job roles and work environments (Chui et al., 2023; McRae et al., 2023). These impacts are critical considerations for organizations as they navigate the changing dynamics of work and strive to maintain a healthy and productive workforce.

Wired for Connection: Social Connection and Well-Being

In the evolving landscape of the modern workplace, social connection plays a vital role in supporting employee well-being (Holt-Lunstad, 2018b). The previous section's PESTEL analysis reveals a world in flux, characterized by shifting economic paradigms, evolving societal norms, and rapid technological advancements such as AI. While contributing to progress and innovation, these global changes also bring forth challenges such as heightened stress and burnout, escalating job insecurity, and a pervasive sense of isolation and loneliness (Chui et al., 2023; McRae et al., 2023). In this context of change and uncertainty, social connection is an influential dynamic, offering resilience and support to individuals navigating the complexities of the contemporary work environment (Holt-Lunstad, 2018a).

This section explored the multifaceted nature of social connection and its correlation with well-being, particularly in the dynamic and often unpredictable workplace environment. Julianne Holt-Lunstad’s (2018a) multi-factorial construct of social connection provides a comprehensive framework for understanding these interactions within a social systems approach. Following this,

the concept of high-quality connections was reviewed, as articulated by Jane Dutton (2003), emphasizing their significance in nurturing a supportive and thriving work atmosphere. Finally, the role of social capital, an extension of social connection, will be discussed in enhancing well-being and fostering resilient workplace communities (Putnam, 2001). This exploration aimed to illuminate how social connections could endure and thrive, particularly in times of significant change and uncertainty.

Defining Social Connection

Julianne Holt-Lunstad's research has highlighted the importance of social connections for health. She has shown that social relationships are crucial for both psychological well-being and physical health, similar in impact to established health determinants like diet and exercise (Holt-Lunstad et al., 2017). Holt-Lunstad's research, particularly her insights into the effects of social ties on health outcomes, was even instrumental in shaping the Surgeon General's approach towards addressing what is termed as the epidemic of loneliness (Office of the Surgeon General, 2023). As a Professor of Psychology and Neuroscience at Brigham Young University, her work emphasizes the multidimensional nature of social connections, including their structural, functional, and qualitative aspects.

Holt-Lunstad (2018a) defined social connection as a multifaceted construct encompassing three key components: structural, functional, and qualitative aspects of social relationships. The structural aspect focuses on the observable elements of social networks, such as the size and frequency of one's social interactions, where more extensive networks and more frequent interactions are generally seen as beneficial (Holt-Lunstad, 2021). For example, having a wide circle of friends or regularly attending social events would fall under this category. The functional aspect concerns the perceived availability and actual receipt of support, including

emotional, informational, and tangible aid from one's social network (Holt-Lunstad, 2021). An instance of this would be feeling assured that friends or family members are there to offer help or advice when needed. Lastly, the qualitative aspect deals with the emotional quality of these relationships, including the satisfaction, love, and care experienced, as well as potential negative aspects like conflict or strain (Holt-Lunstad, 2021). A robust and supportive marriage or a deeply bonded friendship exemplifies positive qualities, whereas constant arguments or feelings of neglect in a relationship illustrate negative attributes.

Holt-Lunstad's (2018b) studies reveal that social isolation and loneliness significantly impact physical health. These factors pose risks comparable to those of smoking and obesity, highlighting the necessity of social ties in reducing mortality and preventing various health issues. Her findings suggest that the absence of social connections can lead to cardiovascular diseases and weaken the immune system. In the workplace context, Holt-Lunstad's research underlines the impact of social interactions on health and productivity. She advocates for work environments that encourage meaningful social connections, improve health, greater job satisfaction, and increase employee productivity (Holt-Lunstad, 2021). This aspect of her research indicates the implications of social relationships in various domains of life.

Holt-Lunstad's (2021) definition of social connection is multifaceted, encompassing structural, functional, and qualitative elements, each playing a crucial role in determining the impact of social networks on health and well-being. This broad understanding of social connection lays the groundwork for further exploring the nuances of interpersonal relationships. Transitioning from this foundational concept, high-quality connections were explored. Dutton's (2003) work on high-quality connections shifts the focus to the nature and depth of these interactions, exploring how the quality of connections, rather than just their existence or

functionality, significantly influences psychological and physiological health. This perspective offers a more detailed exploration of the characteristics that make certain relationships not just present but beneficial.

High-Quality Connections

As defined by Dutton (2003), high-quality connections extend beyond deep, intimate relationships to encompass even brief, meaningful interactions. These connections, as Dutton describes, are marked by their vitality and enriching qualities, making them essential in various settings, including the workplace. High-quality connections are technically characterized by three principal attributes: (a) emotional carrying capacity, which facilitates the expression and management of emotions (Dutton & Heaphy, 2003), (b) tensility, indicating the connection's resilience and ability to endure stress (Dutton, 2003) and, (c) connectivity, the degree of mutual responsiveness and attunement between individuals (Dutton & Heaphy, 2003). These traits contribute to the robustness and depth of a relationship, whether it is a longstanding or fleeting one.

In a workplace context, high-quality connections often arise from everyday interactions rather than deep, personal relationships. Simple exchanges like brainstorming sessions, shared humor, or moments of empathy can lead to high-quality connections (Dutton, 2003). Such interactions, though brief, can significantly impact job satisfaction, creativity, and collaboration, enhancing the organizational environment (Dutton & Heaphy, 2003). The role of high-quality connections in the workplace lies in their potential to create a supportive and engaging organizational culture. As Dutton (2003) pointed out, these connections serve as channels for emotional and professional support, facilitating the flow of information and constructive feedback. When an environment encourages the development of high-quality connections, it can

significantly improve employee well-being, team dynamics, and overall organizational success (Dutton, 2003).

Social Capital

There is the notion of social capital, transitioning from the individual-focused concept of high-quality connections to a broader societal framework. Social capital, a term popularized by Putnam (2001), refers to the value derived from social networks, fostering reciprocity, trust, and cooperation for mutual benefit. This concept is intrinsically linked to social connections and overall well-being, as it emphasizes the importance of relationships in building a supportive and thriving community or organization.

Social capital manifests in three forms: bonding, bridging, and linking. Bonding social capital refers to the connections within a homogeneous group, such as family or close friends, providing strong emotional support and a sense of belonging (Putnam, 2001). Bridging social capital, on the other hand, involves more inclusive connections across diverse groups, fostering broader identities and social cohesion. It is instrumental in bringing together people from different backgrounds, thus facilitating information exchange and broadening perspectives. Linking social capital further establishes connections between individuals or groups and those in institutional power or authority positions. This type of social capital is crucial for accessing resources, information, and opportunities that might otherwise be out of reach (Woolcock & Narayan, 2000).

Social capital is vital in shaping the social environment and enhancing collective well-being in communities and organizations. Bonding social capital creates a sense of security and trust among close-knit groups, whereas bridging social capital broadens one's network and provides access to new resources and ideas. Linking social capital enables communities and

organizations to leverage external resources and influence, facilitating growth and development (Putnam, 2001; Woolcock & Narayan, 2000).

The impact of social capital on individual and collective well-being is notable. In organizations, it fosters a collaborative culture, enhances knowledge sharing, and improves overall performance (Clausen et al., 2019). In communities, it leads to greater civic engagement, improved public health, and enhanced economic prosperity (Putnam, 2001; Woolcock & Narayan, 2000). Social capital, therefore, is not just about individual relationships but about the quality and nature of connections within and across societal levels, impacting both personal and communal well-being.

Summary

This section reviews the role of social connections in the workplace, drawing on Holt-Lunstad's (2018a) research and Dutton's (2003) concept of high-quality connections. Holt-Lunstad's (2018b) work highlights social ties' critical impact on mental and physical health. At the same time, Dutton's insights focus on the vitality of even brief interactions in enriching the workplace environment. Furthermore, the concept of social capital, spanning bonding, bridging, and linking, emphasizes the diverse nature of social networks and their implications on collective well-being (Putnam, 2001). This exploration underscored the importance of nurturing social connections amidst evolving workplace dynamics and illuminated their potential to foster resilient, supportive communities in the face of change and uncertainty.

Conclusion

In conclusion, exploring well-being within the organizational context underscores its critical importance in the modern workplace. The multidimensional nature of well-being, encompassing emotional, social, and environmental factors, goes beyond traditional measures of

success, highlighting the necessity for a holistic approach to employee satisfaction and productivity (Lee et al., 2021; Ryff, 1989). The significance of well-being lies in its contribution to individual health and happiness and its impact on organizational effectiveness and societal prosperity. This shift in focus from material wealth to a more nuanced understanding of what constitutes a good life represents a pivotal change in how organizations and societies perceive and value human experiences.

The current organizational landscape, marked by rapid technological advancements, globalization, and unforeseen challenges like the COVID-19 pandemic, presents unique challenges to maintaining and enhancing employee well-being. Integrating technologies such as AI has introduced complexities like increased stress, job insecurity, and isolation among employees (Chui et al., 2023; Kellerman & Seligman, 2023; McRae et al., 2023; Schwab, 2016). These developments necessitate a strategic approach to managing well-being in the workplace, considering the evolving nature of work and its impact on humans. In this context, social connection emerges as an essential factor. Holt-Lunstad (2018a) emphasized the value of social connection in the workplace, which can foster a supportive and collaborative work culture and enhance well-being and productivity.

For future research and practice, there is a need to explore interventions that leverage social connections to address the challenges posed by AI and other technological advancements. Such interventions could focus on enhancing mutual respect, trust, and reciprocal support in the workplace, thereby mitigating the negative impacts of technology on well-being. Investigating how these social connection strategies can be effectively integrated into organizational practices, particularly in environments heavily influenced by AI, will provide valuable insights into maintaining a healthy, productive, and satisfied workforce. This line of inquiry holds promise for

improving employee well-being and contributing to the broader understanding of how technology and human interactions can coexist harmoniously in the evolving landscape of work.

Chapter 3: Research Design and Methodology

In today's dynamic work environment, focusing on well-being is vital to comprehending and improving how individuals experience their roles in organizations, particularly those impacted by technological changes such as AI. The mixed methods study explored the impact team conversations on AI have on workplace well-being at an organization that has recently increased its investments in AI technologies for its digital products and knowledge base across employees. Employing a mixed methods intervention with an embedded convergent core design, the research juxtaposed qualitative team discourse with quantitative pre and post-survey data to paint a comprehensive picture of participants' experiences. Through the workplace well-being survey instrument, designed to measure workplace well-being, the study hypothesized that team conversations about AI would positively impact employees' well-being. By analyzing the discourse transcripts from the team conversation, this study sought to understand the discourse patterns surrounding workplace well-being during a discussion on AI at an organization increasing its investments in this technology. The dual data collection approach was geared towards a holistic understanding of the journey and the outcome of employee well-being.

Research Questions

This study sought to answer the following two research questions:

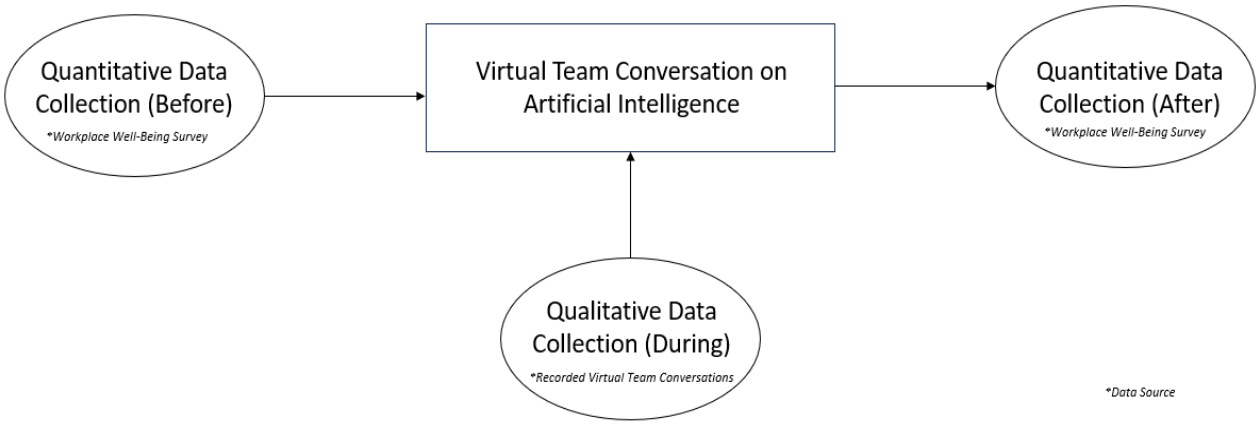
- RQ1: How do virtual team conversations on the topic of AI influence the subjective well-being of individual employees at an organization expanding its use of AI technologies?
- RQ2: What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies?

Research Design

This mixed methods study aims to explore the impact of team conversations about AI on employee well-being during the implementation of AI at a global education and media company. A mixed methods intervention with an embedded convergent core design will be used, as seen in Figure 3. This is a type of design in which qualitative data collection is embedded in the pre-and post-implementation quantitative data collection to understand participants' intervention experience. The study will use the workplace well-being survey instrument to test workers' subjective well-being, which predicts that team conversations on AI will positively influence individual employees' well-being at the organization. The transcript of the intervention discourse will explore discourse patterns of workplace well-being amid AI implementation for employees at the global organization. The reason for collecting quantitative and qualitative data is to evaluate both the process and the outcome of employee well-being and the impact of team conversations about AI during the increased investment of AI in the organization.

Figure 3

Study Research Design: Mixed Methods w/ Embedded Convergent Core Design



The philosophical worldview underpinning this approach is the pragmatic worldview. Pragmatism is rooted in a 19th-century American philosophical discourse and underscores the

interconnectedness of action, experience, and ensuing beliefs (Maxcy, 2003; Morgan, 2014). Notable figures like John Dewey influenced pragmatism, and central to its philosophy is the idea that knowledge is experiential and that our understanding of reality, although ever-changing and influenced by action, is open to empirical examination (Dewey, 1938; Maxcy, 2003). Challenging traditional dichotomies, pragmatists advocate for empirical research methods stressing the practical application of ideas (Morgan, 2014). The pragmatic worldview aligned with the study's intention to analyze the impact of team conversations about AI on employee well-being during increased AI investments within an organization through a mixed-methods approach. It suggested that the nature of reality is what is practically applicable and that which works is true (Morgan, 2014). The core tenet is that research questions should drive the methods rather than the converse (Creswell & Plano Clark, 2018). The need for this study is reflected by the need for empirical studies on the intersection of employee well-being, team conversations, and AI, which underscores the need for mixed methods. This methodology integrated qualitative and quantitative data, thus bringing more insight into the problem. The synergy of both methods captured various facets of the phenomena, supporting the pragmatic foundations of this work (Yvonne Feilzer, 2010).

Adopting the pragmatic worldview, this study sought to bridge qualitative and quantitative data, going deeper into the team conversations about AI’s impact on employee well-being during AI investments. Pragmatism emphasizes selecting methods driven by the pursuit of practical outcomes (Johnson & Onwuegbuzie, 2004). Therefore, the proposed mixed-method intervention study design mirrored a pragmatic inclination, comprising the workplace well-being survey and discourse analysis. While the quantitative survey provided measurable data on employee well-being, qualitative discourse analysis deepened the grasp of employee experiences.

Such a pragmatic stance assured scientific rigor and holds relevance for leaders and organizations (Creswell & Plano Clark, 2018).

The mixed methods intervention with an embedded convergent core design is a complex approach combining qualitative and quantitative methods within a single study to analyze the research problem comprehensively. In the case of the embedded design, one data type provides a supportive role to the other, typically embedded at different stages of the research process (Creswell & Plano Clark, 2018). Creswell and Plano Clark (2018) explained that mixed methods design originated in the social sciences, with recognition growing over the last few decades for combining the strengths and compensating for the weaknesses of both qualitative and quantitative approaches. Therefore, this design in the present study allowed for combining objective, numerical data from a survey instrument with in-depth, qualitative data from the conversation. This resulted in a more robust understanding of the impact of team conversations about AI on employee well-being during increased organization investments in AI.

The choice to use a mixed-methods intervention with an embedded convergent core design is informed by the study's aim to investigate the intervention's process and outcomes. Creswell and Plano Clark (2018) noted that this design simultaneously answers multiple research questions by converging qualitative and quantitative data to give a comprehensive picture of the phenomenon under study. In this study, using an embedded convergent core design allowed for examining both the numerical indicators of workplace well-being and the qualitative experiences of employees during the conversation, thereby providing a comprehensive understanding of employee well-being in the context of conversations on AI.

Human Subjects Considerations

Following the ethical standards surrounding human subject research, the investigator ensured strict adherence to the necessary protocols and obtained approval from the Institutional Review Board (IRB) of Pepperdine University. This ensured the safeguarding of human subjects by prioritizing their rights, welfare, and safety throughout the study's duration. The US National Research Act of 1974, in conjunction with the Belmont Report, outlines these considerations for human subjects involved in research studies originating within the United States, embodying an intention to embed ethical principles in research and protect participant rights (U.S. Department of Health & Human Services, n.d.).

Before submitting the study to the IRB for review, the researcher had to secure a training certificate via the Collaborative Institutional Training Initiative (CITI) Program (see Appendix A). This program offered comprehensive training on the historical and ethical perspectives outlined in the Belmont Report and the National Research Act of 1974, aimed at protecting human subjects. Three core principles critical to human subject protection emerged: respect for persons, beneficence, and justice (U.S. Department of Health & Human Services, n.d.). Respect for persons ensures participant consent is given voluntarily, while beneficence promises ethical treatment, whereby participants' decisions are respected, their welfare ensured, and harm avoided. This principle embodies “doing no harm” and maximizing potential benefits while minimizing possible risks. Justice, the third principle, aspires to balance the distribution of burdens and benefits.

Participants were thoroughly informed about the study's purpose and nature and then indicated their willingness to participate by completing the pre-implementation worker well-being survey. Upon completing the survey, participants also agreed to be recorded. It was shared

with participants that these recordings were to be stored under pseudonyms on a password-protected computer and secure cloud server. The recordings, stored in a secure cloud server, would be deleted after 3 years. Additionally, it was clear to participants in the consent form that should they choose the alternative not to participate, their relationship with their employer would not be affected whether or not they participated in the study.

The confidentiality of participants was ensured through the following steps. All collected data was stored on a secure, password-protected computer and was accessible only to the researcher. Identifying information, such as names and emails, was separated from the actual data and replaced with unique codes. Recorded conversations were anonymized, with any personally identifiable information or comments redacted during transcription. Data shared for analysis or publication were aggregated, ensuring individual responses would not be traced back to participants. Finally, all identifiable information was permanently deleted at the study's conclusion, retaining only the anonymized data for future research.

The researcher applied for IRB approval and received this approval on November 29, 2023 (see Appendix B). In addition, the researcher asked for site approval from the IRB. The recruitment process commenced once approval was granted for using the site (see Appendix C).

Data Sources

Setting

This study occurred at a global media and education company that produced content and products around management insights and practices for a worldwide audience, including organizations, professionals, educators, students, and social media followers. The company aimed to empower leaders with innovative ideas that address challenges, enhance performance, and foster leadership qualities. The leadership at this organization approved the conduct of this

study. The organization was founded in 1994 as a not-for-profit, wholly-owned subsidiary of a prestigious Business School, aiming to empower leaders with breakthrough ideas that solve problems, elevate performance, and unlock the leader in everyone. When this study was conducted, approximately 600 employees worked in the company worldwide. The headquarters is in Boston, Massachusetts, with global offices in India, Mexico, Europe, Australia, Singapore, and the United Arab Emirates. The organization reaches three distinct markets to achieve its mission: academic, corporate, and individual managers. Additionally, the organization serves these three groups through technology and media content such as books, articles, videos, case studies, learning programs, and digital tools.

The academic market, higher education, serves global institutions and educators. It specializes in the non-textbook business material niche, holding approximately half the market share, earning $96 million in the financial year 2021/2022. The company's second market group is positioned to serve the individual manager in the global business media market. The content created by this group generates 78% of the company revenue. The organization's third market is corporate learning, which serves the $60 billion-plus global corporate learning marketplace for organizational leadership development.

Digital technology is the backbone of the organization's operations, aiming to facilitate a seamless customer experience across its various market groups. Within the higher education sector, it provides an extensive range of digital resources, including case studies, courses, and tutorials aimed at a global audience of educators. Additionally, it offers simulation products, allowing students to immerse themselves in realistic business situations. These simulations challenge students to apply concepts they have learned to make decisions under pressure. On the media front, the company delivers its popular magazines and articles via a digital platform. The

division is also in the final stages of launching an app for both Apple and Android devices, further expanding its digital reach.

Moreover, the corporate learning market, geared towards organizational leadership, boasts a trio of digital products purchased and accessed by leaders worldwide. The company's executive team has allocated significant resources for the 2024 fiscal year to expand its digital product offerings across all its market groups. Integrating AI into many new products is critical to this strategic roadmap. This makes the subject of AI timely and highly relevant to the entire organization.

In the past 6 months, the company has restructured its organization to facilitate cross-functional collaboration, beginning with the expansion of the executive team. Originally composed of three leaders overseeing market-focused groups, the executive team now includes 11 executives responsible for various business units and functions. The company has a tiered leadership structure: C-suite roles serve as the highest sitting executives, followed by executive vice presidents, senior vice presidents, vice presidents, senior directors, directors, and associate directors who serve as frontline leaders. Typically, a leader at the company supervises between two and eight team members. For this study, leaders or team members guided their teams through a discussion on AI utilizing a Conversation Starter. It is important to note that the teams that had these discussions for the study were the same team members who collaborated and functioned with one another in regular business operations.

Target Population

This study's target population encompassed the 600-employee workforce at the research site. The company's employees represented diverse professionals contributing to its unique threefold market focus: academic, corporate, and individual managers. All employees,

irrespective of their geographical location or functional roles within the organization, comprised the target population of this study. The specific makeup of the organization's employee base was critical to the structure and execution of this study. The diversity within the organization mirrored the rich diversity within its market groups: (a) higher education, which serves global higher education institutions and educators; (b) their media group catering to individual managers around the world; and (c) the corporate learning market, targeting the global corporate learning marketplace.

Sampling Method

The sampling strategy for this study involved using a single-stage convenience sample design, which sought to reach 100 individuals who would participate in the study. This approach is an example of a non-probability sampling technique that allowed the researcher to select participants based on their accessibility and willingness to participate (Etikan et al., 2015). The convenience sampling strategy was employed due to its practicality and efficiency, mainly when resources such as time and funds are limited and when the researcher expects a reasonable level of homogeneity in the population (Bryman, 2012). Despite some criticism concerning its generalizability and potential for bias, convenience sampling remains a popular and practical approach for exploratory research, where the primary focus is to gain insights and familiarity with the phenomenon under investigation (Sedgwick, 2013).

There are specific advantages and disadvantages of using a single-stage convenience sample design. The single-stage design provides a streamlined data collection method, where all selected individuals are sampled once and simultaneously (Teddlie & Yu, 2007). This design is particularly beneficial in reducing potential attrition and minimizing response variation due to time and context changes. However, given the inherent biases associated with convenience

sampling and its lack of random selection, the findings may only be broadly generalizable to some of the population (Bhattacherjee, 2012). Due to the nature of this study being time-bound and having limited additional resources, such as other researchers, to contribute, the single-stage convenience sample design remained a viable option for this study. The criteria for inclusion and exclusion indicated the conditions under which individuals were selected to participate in the study.

Criteria for Inclusion. The criteria for inclusion refers to the specific conditions or attributes that participants must meet to participate in a research project (Creswell & Plano Clark, 2018). The following criteria aimed to create a uniform and relevant sample that aligned with the research questions and objectives of the study.

- Participants must be employees at the research site.
- Participants must be willing to speak English during the discussion to analyze the data.
- Participants must be willing to participate in all three phases of data collection.
- Participants must be willing to complete the conversation online using Webex.
- Team member participants must have a leader who has agreed to participate in the study.
- Leader participants must be a people leader of two or more individuals.

Criteria for Exclusion. The criteria for exclusion are the conditions or attributes that disqualify potential participants or studies from being included in a research project (Creswell & Plano Clark, 2018). Thus, the following criteria helped to eliminate confounding variables and ensured the integrity and validity of the study's findings.

- Participants must not speak a language other than English during the conversation.

- Participants must be in the office and available during all three data collection phases.
- Participants must not conduct the conversations in person or conduct the virtual discussion on a platform other than Webex.
- Team member participants can only participate if their leader has agreed to participate in the study.
- Leaders with one or no direct reports cannot participate.
- Leaders facilitating a discussion must also refrain from participating in the conversation with their leader.

Recruitment

Recruitment for the study took place through multiple stages, as seen in detail in Table 1. The first stage was to raise awareness of the opportunity at the organization by writing a post on the Intranet for all employees to see (see Appendix D). The blog had a link where those interested in participating could fill out a form indicating their name, email, role, and number of team members. A blog description was featured in an organization-wide newsletter that goes out monthly to raise awareness, linking to the blog where leaders could indicate interest. This raised initial awareness about the opportunity for leaders at the organization.

Once leaders expressed interest in the study through the interest form (see Appendix E), emails were sent to those who indicated interest with further details about the study, the time commitment needed to be involved, and prompting them to choose a day and time on Calendly to hold their conversation with their team, and an email template for them to send to their team members with similar information sharing about the opportunity and the details. Confirmation to participate was indicated by scheduling time through Calendly. After leaders shared the research opportunity with their team (see Appendix F), the researcher emailed all participants, leaders,

and each team member with the pre-survey link, the Conversation Starter link, and the date and time the conversation was to be held (see Appendix G). Informed consent was sent to participants who were willing to participate (see Appendix H).

Table 1

Recruitment and Research Detailed Timeline

Date	Recipient	Description	Appendix
12/1/23	All staff at research site	Blog posted on intranet and newsletter link sent via email.	D
12/1/23-12/11/23	People leaders at research site	People leaders express interest to participate through Microsoft Forms.	E
12/11/23-12/22/23	All participants	People leaders emailed details on the study, to schedule on Calendly, and a template to email their team.	F
1/8/24	All participants	Email to all participants with links and schedule.	G, H

Instrumentation

This study used a mixed methods intervention with an embedded convergent core design. There were three phases this study consisted of, and two instruments were used. The first was for the quantitative data, and the second was for the qualitative data. The first phase collected quantitative data using the workplace well-being survey instrument to measure employee subjective well-being. The second phase consisted of collecting qualitative data during the intervention when leaders engaged in discussion with their teams on the topic of AI. The third phase collected quantitative data, which consisted of the workplace well-being survey instrument used in phase one to test employees' subjective well-being after the intervention. Each tool's description, purpose, and validity were detailed in the corresponding section, along with a further

explanation of the three phases of data collection used in the Instrumentation section of this chapter.

Workplace Subjective Well-Being Survey

Workplace well-being was measured using the workplace well-being survey proposed by De Neve and Ward (2023; see Appendix I). De Neve and Ward (2023) proposed a definition of workplace well-being grounded in subjective well-being. Subjective well-being refers to how we feel and think about our lives (Clark, 2018; Diener et al., 2017). It is a self-reported measure with three main components: evaluative well-being, affective well-being, and eudaimonia (Clark, 2018; Diener et al., 2017). De Neve and Ward (2023) argued that subjective well-being can be applied to the workplace, forming the concept of workplace subjective well-being. In addition, the authors defined workplace well-being as how individuals felt at work and about their work. They identified three key dimensions of workplace subjective well-being: job satisfaction (evaluative), the emotional experience of work (affective), and finding work purposeful, worthwhile, or meaningful (eudaimonia). Moreover, De Neve and Ward argued that these three dimensions offered conceptual clarity to workplace well-being, building on existing literature on job satisfaction effects in the workplace and workplace purpose and meaning.

The survey instrument measuring workplace well-being consisted of four core questions, each addressing the critical dimensions of well-being at work. Respondents were asked:

1. “Overall, how satisfied are you with your job?” to measure job satisfaction.
2. “Overall, how purposeful and meaningful do you find your work?” to assess the sense of purpose and meaning derived from work.
3. “How happy did you feel during the past week?” to gauge positive workplace affect.

4. “How stressed did you feel during the past week?” to capture adverse workplace effects.

Each question utilized an 11-point scale ranging from 0 (*not at all*) to 10 (*completely*) to provide a nuanced range of responses, with anchors only at the scale extremes to prevent vague interval labeling. Demographic questions and questions about participants' familiarity and training on AI were asked at the beginning of the first survey participants received to add to the analysis. A copy of the worker well-being survey was sent after the virtual team conversation. It is important to note that this survey instrument was still in development and peer-reviewed. However, it has been used in large-scale studies, as previously discussed in the literature review. Additionally, as detailed in the reliability and validity sections, the workplace well-being survey was based on extensive research regarding subjective well-being.

Reliability. The reliability of workplace well-being data is a critical aspect of its utility in research. *Reliability* refers to the consistency of a measure, and surveys gauging the underlying concept of subjective well-being have demonstrated good test-retest reliability, especially in the case of evaluative measures such as life satisfaction (Krueger & Schkade, 2008). This remains true even for the more affective and inherently fluctuating components of subjective well-being like moods and emotions (Watson et al., 1988). Research shows that the reliability of different subjective well-being measures is demonstrated when using various measures of the same underlying concept (Bjørnskov, 2010; Diener et al., 2018).

Validity. The validity is assessed if the measure accurately captures its intended concept. Evaluating the validity of the underlying concept of subjective well-being is inherently challenging, particularly for subjective measures (Clark, 1998; Kaiser & Oswald, 2022; Schneider & Schimmack, 2009). However, various approaches, including face validity,

convergent validity, and construct validity, have pointed in a positive direction. It is worth noting that there is evidence demonstrating that subjective well-being measures align well with objectively measured metrics, suggesting their validity (Blanchflower & Oswald, 2008; Oswald & Wu, 2010; Steptoe et al., 2009; Urry et al., 2004). Moreover, subjective well-being measures behave in ways that align with theory, providing further support for their validity (Clark, 2018).

De Neve et al. (2023) used a large sample size measuring employee well-being from Indeed to show the association of well-being with firm profitability, finding that companies with the highest levels of well-being outperform standard benchmarks in the stock market. The large sample size in their study, which consists of millions of surveys, significantly adds robustness to the data since the dataset is refined to include only responses from current employees at companies with at least ten reviews. These well-being questions also align with metrics used by reputable institutions like the UK's Office of National Statistics and OECD's 2013 well-being framework, thereby further enhancing the validity of these subjective well-being measures (OECD, 2013; Rees et al., 2023). Overall, the reliability and validity of subjective well-being measures are sufficiently high, supporting their continued use in well-being research (De Neve & Ward, 2023).

Limiting Potential Biases. In research, specifically in surveys on subjective well-being, potential biases can be limited through careful attention to design principles, including question-wording, polarity, reference periods, scale length, scale labeling, and question ordering (De Neve & Ward, 2023). Question wording should be clear and easy to understand to minimize the cognitive burden on respondents and reduce reliance on heuristics or idiosyncratic response styles (Diener et al., 2018; OECD, 2013). Constant question wording across time and respondents helps maintain consistency and minimize bias, although changes may be necessary

when updating survey modules based on updated subjective well-being science (De Neve & Ward, 2023). Unipolar question scales, with a moderate point in the middle, are recommended over bipolar scales to avoid confusing respondents. For instance, questions about happiness and sadness should be posed separately on scales from *not at all happy* to *completely happy* (Diener et al., 2018).

The choice of reference period can shape what is being measured. A broader period like *these days* or *nowadays* is appropriate for evaluative measures, but affective measures may require specific, preferably recent, timeframes to minimize recall biases (Diener et al., 2010). Longer scales are generally preferred to detect subtle differences among respondents. Evaluative questions commonly use an 11-point scale from 0 to 10, balancing a wide range of responses while remaining easily understandable (Diener et al., 2018). Scale labels should be concise and clear, preferably offering absolutes such as *not at all* and *completely* at the extremes of the scale. Lastly, question ordering is crucial to minimize biases from priming effects or social desirability (De Neve & Ward, 2023). Best practice suggests placing subjective well-being questions near the start of the survey, avoiding potentially emotionally triggering questions immediately prior (Deaton & Stone, 2016). Within subjective well-being modules, starting with general evaluative well-being questions and proceeding to more specific affective experiences was advisable (De Neve & Ward, 2023).

Conversation Starter

During the intervention, leaders used a Conversation Starter titled Talk About Promoting a Culture That Embraces AI, a feature in one of the organization's digital corporate learning products (see Appendix J). The organization designed Conversation Starters to build connections among employees. For example, a leader could assign a Conversation Starter to their team to

engage in in-person or virtual discussion with one another around a particular topic. These were released in May 2023 by the company for all their corporate learning clients who have this specific digital product serving multiple purposes, the primary ones being to help organizations make deep connections among their employees, improve employee well-being, and build a deeper understanding of the topic, all of which were relevant to this study. There were currently 16 Conversation Starters available. The Conversation Starter, titled Talk About Promoting a Culture That Embraces AI, was used for this research.

Conversation Starters comprised five components and took approximately 20 minutes of pre-work to complete before the virtual synchronous discussion. The first section, "Get Started," oriented learners to Conversation Starters by providing background information on why they were created and their benefits. It also outlines how to use Conversation Starters. The second component, "Learn, " provided content anchoring the conversation. Research participants consumed the anchor content before engaging in discussion with their colleagues. This study came from an article by Jared Spataro, published on June 28, 2023, called *Three Steps to Prepare Your Culture for AI* (see Appendix K). The third component is "Review," where participants reviewed the key takeaways from the article, which are listed as bullet points (see Appendix L). The fourth component was "Reflect," where participants answered questions independently before meeting with their team about the shared article. The questions that participants are asked to reflect on before meeting are "How do I feel about using AI at work?", "What is one thing I can do to get more familiar with AI?" and "What is one thing I can do to encourage a work culture that embraces curiosity, failure, and learning?" (see Appendix M). The last section was "Connect," which is made for the leader of the team and includes resources such

as articles to help lead a conversation, a short video that explains how to create a bold, safe space for discussion, and a few guidelines on how to lead the conversation. (see Appendix N).

Reliability in qualitative research, sometimes called dependability or consistency, is concerned with the replicability of the research results and data stability over time and conditions (Creswell & Poth, 2018). This concept emphasizes that the research findings should be consistent, given the same data collection methods and analytic procedures. The Conversation Starter tool demonstrates strong potential for qualitative reliability. The five components, Get Started, Learn, Review, Reflect, and Connect, provide a structured, consistent framework that standardizes generating and capturing qualitative data across different research contexts. The tool's design also facilitates reliability by allowing the replication of the same steps in different settings or with diverse groups.

Using pre-determined reflection questions as part of the "Reflect" component ensures consistency in the data collection, a critical element for establishing reliability in qualitative research (Creswell & Poth, 2018). Furthermore, the "Learn" component, which includes a foundational content piece for the participants to engage with, offers a consistent stimulus for participant reflection and discussion, aiding in the reliability of the research. Overall, the structured, replicable nature of the Conversation Starter instrument lends itself to ensuring qualitative reliability, enhancing confidence in the consistency and dependability of the research findings.

Validity in a qualitative study refers to the credibility and trustworthiness of qualitative research findings, assessing how accurately the researcher's observations and interpretations represent the studied phenomena (Creswell & Poth, 2018). The Conversation Starter instrument exhibits notable potential for qualitative validity. This tool incorporates several components to

foster learning, reflection, and discussion on AI adoption in work culture. Such an interactive method aligns with the principles of qualitative validity as it encourages participants' engagement in a meaningful and in-depth manner. Additionally, the “Learn,” “Review,” “Reflect,” and “Connect” components in the Conversation Starter tool can contribute to the validity by ensuring that the data collected are grounded in the participants' experiences and reflections. This authenticity and depth of data are critical components of qualitative validity.

In terms of process, the “Reflect” section, where participants answered questions individually before meeting with their team, provided an opportunity to gather rich and nuanced data, enhancing the study's construct validity (Creswell & Poth, 2018). Furthermore, using a discussion leader to guide the “Connect” phase aligned with Kvale's (2007) assertion that effective facilitation in qualitative research can enhance the validity of the findings. Overall, the design and implementation of the Conversation Starter tool showed a solid commitment to qualitative validity, thereby improving the reliability of the study outcomes.

Bias in research refers to any systematic error that significantly skews the results and conclusions, compromising the research's fairness, objectivity, and balance (Creswell & Poth, 2018). Efforts to limit potential bias aimed to minimize these influences to ensure the validity and reliability of research findings. The Conversation Starter tool was designed with measures to limit potential bias. For instance, the “Reflect” component asked participants to answer questions individually before group discussion, which minimized the risk of groupthink or dominant personalities influencing individual opinions, thus reducing response bias. Including standardized guiding questions further lessens researcher bias by providing a consistent framework for data collection across various contexts.

The “Learn” and “Review” components that anchor conversations with a consistent, neutral content source may help counteract confirmation bias, which is the tendency to favor information that confirms existing beliefs or hypotheses (Nickerson, 1998). Finally, the “Connect” phase, facilitated by a discussion leader, can mitigate bias by managing the conversation dynamics and encouraging diverse perspectives (Nemeth, 1986). However, complete elimination of bias may be unattainable in qualitative research, and the goal should be to recognize and minimize it as much as possible (Creswell & Poth, 2018).

Data Collection Phases

Data collection for this study took place in three sequential phases. In alignment with the study's design, the qualitative data collection was embedded in the pre-and post-implementation quantitative data collection. Phase 1 was the quantitative pre-implementation worker well-being survey measuring workers’ well-being. Phase 2 was the intervention, which consisted of participants engaging in a Conversation Starter with their team members about AI that was recorded for analysis. Phase 3 consisted of a quantitative post-implementation working well-being survey to measure workers' well-being after the intervention.

Phase 1

During the study's first phase, participants were emailed by their team leader about participation in the Conversation Starter. The email contained the Conversation Starter to complete before attending the group discussion and a pre-implementation workplace well-being survey link to measure their subjective well-being. The link for the worker well-being survey took participants to Qualtrics to complete and capture their well-being before any conversation with their leader. Moreover, this email contained a link and date for the live meeting of the Conversation Starter, which was held two weeks after the first phase.

Phase 2

The study's second phase occurred two weeks after the initial email to participants. Participants attended a synchronous, virtual meeting with their team members and leader to discuss the Conversation Starter they were sent in the first phase. This was held over Webex, a web conferencing application developed and sold by Cisco. Webex was used as the company's primary videoconferencing tool and is familiar to most employees. The session was audio and video recorded for analysis. The synchronous virtual conversation was held for one hour.

Phase 3

The final phase of the study happened after the Conversation Starter. A week after the live Conversation Starter, participants were sent an email thanking them for their time. It also included a link to the post-implementation worker well-being survey on Qualtrics, which used the same questions to measure their subjective well-being (see Appendix O).

Proposed Data Analysis

Creswell and Creswell (2018) posited that data analysis in a convergent design consists of three phases. This study's first phase involved analyzing quantitative data, which was done with a paired samples *t*-test. The second phase involved analyzing the qualitative data using quantitative ethnography. The final phase was an integrated analysis, which brought together results from the two data sources.

Quantitative Analysis: Paired Samples t-*Test*

A *t*-test, in the field of statistics, is a hypothesis testing procedure utilized to determine whether there is a significant difference between the means of two groups. Essentially, it compares two averages and tells whether they are different from each other (Angrist & Pischke, 2015). A *t*-test has three main versions: an independent samples *t*-test, a paired samples *t*-test,

and a one-sample *t*-test. The independent samples *t*-test compares the means of two independent groups, the paired samples *t*-test compares means from the same group at different times, and the one-sample *t*-test tests the mean of a single group against a known mean (Wadhwa & Marappa-Ganeshan, 2023).

This study used a paired samples *t*-test to compare the pre- and post-worker well-being surveys measuring workers' subjective well-being (Angrist & Pischke, 2015). This type of *t*-test is used when the samples consist of the same participants at different times or under various conditions. In this case, two data sets from the same workers were collected, their subjective well-being before and after the intervention. A paired samples *t*-test was used to determine if the Conversation Starter intervention statistically impacted workers' subjective well-being (Wadhwa & Marappa-Ganeshan, 2023). The paired samples *t*-test was conducted for each team that participated in the survey to understand the nuance of the team better and then conducted across all participants collectively.

Qualitative Analysis: Quantitative Ethnography

Quantitative ethnography (QE) is an integrated analysis approach that applies a statistical technique to qualitative data and is designed to determine how individuals create connections between ideas (Shaffer, 2017). This method is especially beneficial when studying intricate thinking processes, as it focuses on the associations between ideas rather than the existence of specific concepts. In QE, adjacency matrices are constructed and later transformed into network graphs to quantify these connections, producing comprehensive visual representations of the relationships among different ideas within a conversation.

The recorded discussions about AI among leaders and team members were first transcribed for qualitative coding, as shown in Table 2. Grounded analysis was used to develop a

codebook that allows for the systematic discovery of theory through collecting, coding, and analyzing the qualitative data that emerged from the ground up (Glaser & Strauss, 2010). Themes and codes that arise from the data in this way are indicated as an in-vivo approach in the codebook (Miles et al., 2020). Ten codes were shown as in-vivo and separated into two themes: AI and social dynamics. The eight codes under AI were particularly salient discourse patterns across the conversations. Two of the other in-vivo codes that arose from the data were the noticeable social dynamics that were taking place among the team members, which were identified as agreement and disagreement.

Additionally, four subjective well-being codes were used with an a priori approach, or pre-defined codes, based on De Neve and Ward's (2023) definition of subjective well-being, which guided the research to understand the individual subjective well-being experience of participants during the conversation (Creswell & Poth, 2018). Job satisfaction was changed to life satisfaction due to the broad context of the discussion beyond the workplace. As life satisfaction is the original code from subjective well-being research, it draws from the same overall evaluative measure of well-being.

Table 2

Codebook for Epistemic Network Analysis

Theme	Code	Definition	Example
Subjective Well-Being	**Positive Emotion**	Expressions of happiness, contentment, enthusiasm, pride, or optimism.	"That would be awesome. Can you imagine? Just hit a button and then it just populates? Oh my God, that would be so cool. See now I'm excited."
	Negative Emotion	Specific expressions or indicators of negative emotions, such as words or phrases	"Ha. No, I put in chat 3.5 only because the amount of work that's going to be

Theme	Code	Definition	Example
		signifying stress, anger, frustration, anxiety, or sadness.	involved, it makes me trepidatious. “
	Purpose	Meaningfulness, sense of achievement, alignment with personal or organizational goals, or discussions about the significance of the work.	“They use it and to be less, to be more like it can be used by people for inclusion, which I love. I love that idea.”
	Life Satisfaction	References to overall contentment with life, balance between work and personal life, or general well-being.	“So if we have, like an AI tool running on the background, whatever we are saying that's getting captured a little bit, and then we just have to edit it and send it out to make our life easier.”
Artificial Intelligence	**AI Opportunities**	Instances where participants discuss potential benefits or positive impacts of AI in their roles or within the company.	“So I was thinking about, like, when we build out calendars for our programs, like, it would be so nice to have someone else just like cross track dates on holidays and like the timing.”
			“And we were talking about, you know, not having PS's on client calls. That would be great if we could have a AI assistant that actually takes notes for you.”
	AI Challenges	Instances where challenges or concerns about AI are discussed.	“I mean. Sorry guys, but for the point of view of language, right? Accuracy. It's still not where it should be. I don't know, Lola, if you've never said when it's, for German, but for example, for Spanish,

Theme	Code	Definition	Example
			when there is a translation tool, or.”
	Skill Development	Mentions of the need for new skills or training to work effectively with AI.	“I would say, critical thinking because to be able to, to take the information and actually figure out what is actually providing it to you.”
	Adaptation and Change	Instances of how roles or processes need to change to integrate AI.	“So it's out there. It's out there. And, companies are using it in a very effective and a fast manner. So we need to definitely adapt to the change.”
	Ethical Considerations:	Ethical issues surrounding AI, such as bias, accountability, transparency, or the moral implications of AI decisions.	“It's being fed from things that are already on the internet, and those things sometimes are so biased and so politically wrong.”
	Future Outlook	Instances about the long-term implications of AI on the company, industry, or individual careers. This might include speculations, hopes, or concerns about the future.	“Certainly, I think one could view anyone in a content business. The generative AI could be viewed, as an existential threat.”
	Organizational Strategy	References to how the company plans to implement or prioritize AI. This includes strategic planning, investment in AI technologies, or aligning AI with business goals.	“I think, I was listening to some organization call. Where we found out that we started using chat bots for our digital services, and I think that's a first step we have already started taking towards AI.”
	AI Questions/Curiosity	Instances where participants express curiosity or ask questions about AI, regardless of whether the questions are	“Yeah, that was going to be one of my questions. Like, have you have you been able to get that to work or have you used anything.”

Theme	Code	Definition	Example
		rhetorical or seeking specific answers.	"And I also, you know, talking about the notes. I don't know if this would be an issue, but I was curious if there would be any clients, just like clients are some time sensitive to recording a meeting if they would be sensitive towards saying like, no, I don't want AI taking notes on, you know, what we discussed in our meetings."
Social Dynamics	**Disagreement**	When someone clearly says or shows they have a different opinion or view from someone else in the conversation.	"But I got us out of the meeting notes. You forgot that was the only like, I cut us out of it not have it, but. Okay."
	Agreement	When someone clearly says or shows they think the same as someone else in the conversation.	"I agree with you Larry. I feel the same way."

After the initial codes were identified, interrater reliability was used to measure the consistency of how two coders, the researcher and another doctoral student with CITI training, evaluate the same data. Interrater reliability is linked to the validity of the coding process. "If two independent individuals apply the same code to the data, it indicates a shared understanding of the code's meaning, thereby confirming its validity" (Shaffer, 2017, p. 274). Two individuals employed the social moderation approach in each team discussion to establish interrater reliability. This method involves two or more raters independently coding the data, followed by a collaborative discussion to resolve disagreements and reach a consensus (Frederiksen et al., 1998; Herrenkohl & Cornelius, 2013).

Epistemic network analysis (ENA) was used to analyze each team conversation to understand the unique trends across each team and then all the teams together to understand the patterns collectively. ENA quantifies and models the co-occurrence of codes as dynamic, weighted node-link networks, which can be visually and statistically compared between different groups or samples (Shaffer, 2017). The ENA explores the relationships between the codes, using them to formulate adjacency matrices converted into network graphs. These visual aids then illustrate the intricate associations and connections formed among different concepts regarding AI during these discussions (Shaffer et al., 2009).

Convergent Mixed-Methods Analysis

The convergent mixed method design was employed for this study, which involves integrating the findings from the quantitative and qualitative data sets (Creswell & Plano Clark, 2018). This method aligns with the triangulation principle, which seeks to validate findings and enrich understanding using different data sources or methodologies to study a phenomenon (Creswell & Poth, 2018). During this integration, the strengths of both qualitative and quantitative approaches were exploited, thus providing a deeper, richer understanding of employee subjective well-being in the context of team conversations on AI at an organization that has increased investments in AI (Fetters et al., 2013). Participants' qualitative discourse patterns further explained the quantitative well-being results. For example, the qualitative data provided additional context regarding whether the well-being stayed the same, did not change, or went down per team conversation. The convergent mixed-method analysis aided in comprehensively assessing how the team discussion about AI impacts workers' subjective well-being.

The utilization of the convergent mixed-method analysis in this study also aligned with the growing trend in social and behavioral sciences that combines multiple forms of data to understand complex phenomena (Johnson & Onwuegbuzie, 2004). Researchers suggest that mixed-method research, specifically the convergent design, can yield more valid and diverse findings due to the triangulation and complementarity of data (Fetters et al., 2013). Hence, in the context of this study, the mixed-method analysis not only provided a multifaceted understanding of workers' well-being related to team discussions on AI but also improved the validity and reliability of the study's findings. This was conducted so that each team could understand any unique trends, and then all the teams could understand the phenomenon collectively.

Plan for Reporting Findings

Chapters 4 and 5 reported and explained the findings. In Chapter 4, the results of the analysis were presented. First, the quantitative *t*-test analysis was shared by each team and across all teams. Second, the qualitative results were shown by each team and across all teams through ENA. Finally, the two data sources were converged in the mixed-method analysis by team and across all teams. This was the qualitative discourse of participants helping to explain whether there was an impact, positive or negative, on employee well-being. Chapter 5 concluded the results of the study. The discussion consisted of taking the theoretical framework in Chapter 1 and the literature presented in Chapter 2, forming conclusions aligned with the findings and recommendations for future research.

Chapter Summary

This mixed-method study sought to understand the impact of virtual team conversations on workplace well-being at a global media and education organization, which was increasing its financial investments and strategic priorities on AI. A mixed methods intervention with an

embedded convergent core design was used. This is a type of design in which qualitative data collection is embedded in the pre-and post-implementation data collection to understand participants' intervention experience. The pre-and post-implementation used the workplace well-being survey to measure workers' well-being. Conversation Starters were used during recorded, virtual team conversations to collect qualitative data during the intervention.

Data was collected in three phases. Phase 1 collected quantitative data through the pre-implementation worker well-being survey. Phase 2 collected qualitative data through participants in a recorded virtual team conversation about AI with their leader and team members. Phase 3 collected quantitative data through the post-implementation working well-being survey to measure workers' well-being after the intervention. Data analysis occurred over three phases (Creswell & Creswell, 2018). The first phase analyzed quantitative data with a paired samples *t*-test. The second phase analyzed the qualitative data using quantitative ethnography. The final phase analyzed the data through a mixed-method approach, which integrated results from the two data sources.

Chapter 4: Findings

In an era when AI is reshaping the landscapes of work environments, understanding its impact on employee well-being has become increasingly important (Pansini et al., 2023). This chapter presented the findings of the mixed-methods research study outlined in Chapter 3, which explored how virtual team conversations about AI influence employees' subjective well-being at an organization undergoing expansion in AI technologies. Specifically, this research sought to understand the workplace dynamics in a VUCA-defined digital age, focusing on the intersection of AI, team discourse, and employee well-being.

This chapter was structured first to provide an overview of the participants, offering context about the individuals whose experiences formed the backbone of this study. This set the stage for presenting the quantitative findings derived from the workplace well-being surveys to answer RQ1. Following this, ENA models of the qualitative data obtained from the discourse transcripts of team conversations were detailed to answer RQ2. The following presented an integrated analysis, combining the quantitative and qualitative findings to add additional data analysis. This synthesis offered a comprehensive view of AI-related team conversations related to employee well-being. Each section in this chapter addressed the research questions posed at the outset of this study. The research questions guiding this study were the following:

- RQ1: How do virtual team conversations on AI influence the subjective well-being of individual employees at an organization expanding its use of AI technologies?
- RQ2: What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies?

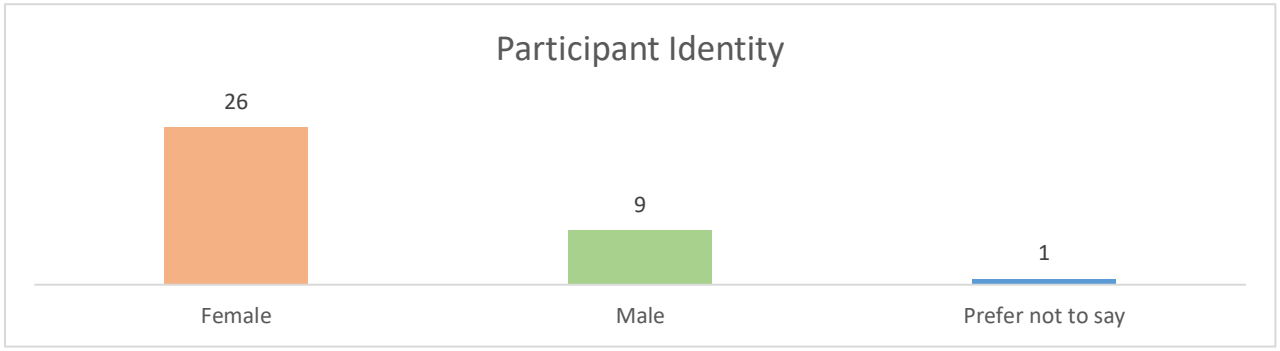
Overview of Participants

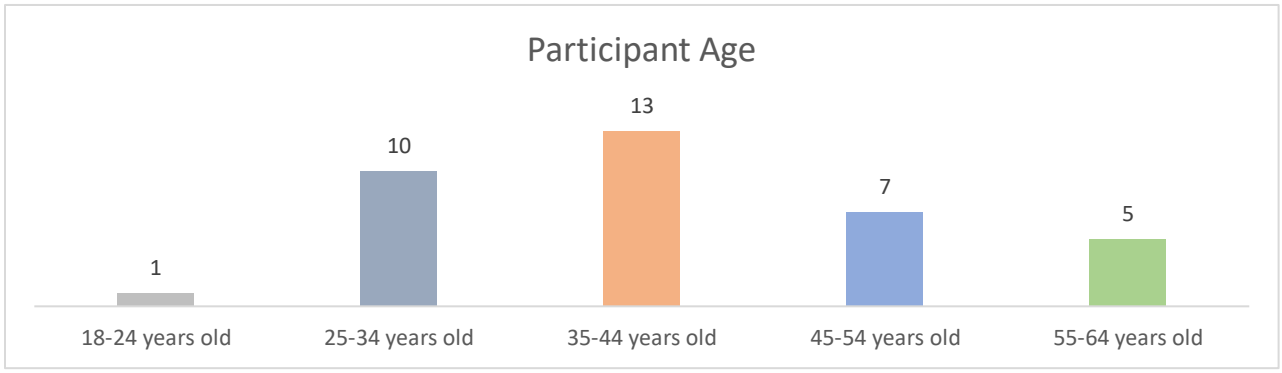
As detailed in Chapter 3, this study aimed to recruit 100 of the 600 employees at the organization where the research was conducted. The researcher completed the CITI certificate and received IRB approval on November 29, 2023. After the initial blog post was posted to the company intranet and shared in the monthly organization-wide newsletter, six leaders at the organization completed the form. They indicated interest in participating with a total of 104 team members. After the researcher followed up with the leaders who indicated interest, three of the six chose a date to hold the virtual conversation with their team, thus indicating continued interest in participating. After this, the researcher emailed all team members of the leaders who showed interest. A total of 36 team members and leaders completed the pre-survey, thus indicating their interest in participating in the study.

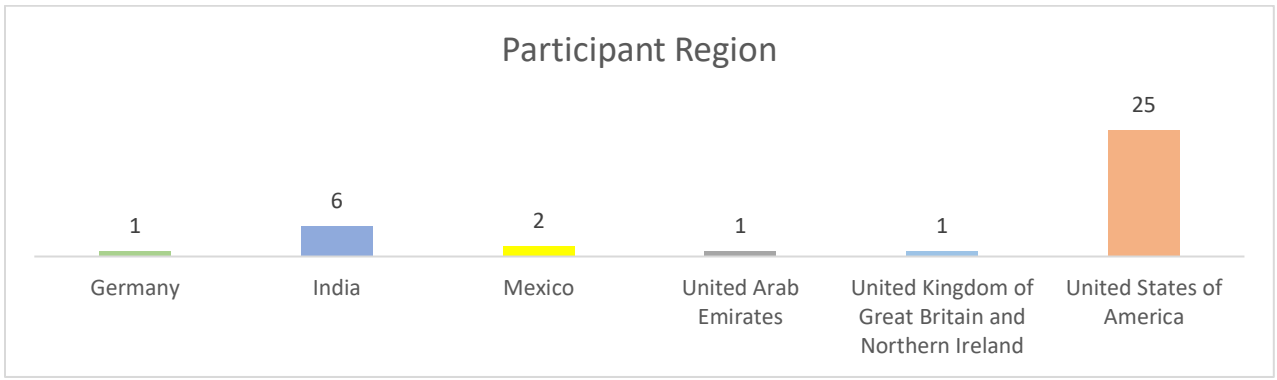
In summary, three teams at the organization participated in the study, which involved 36 initial participants. Out of these, 20 completed all three components of the study: the pre-survey, the synchronous virtual conversation, and the post-survey. Figure 4 shows the demographics of the participants who completed the pre-survey to demonstrate the characteristics of the population.

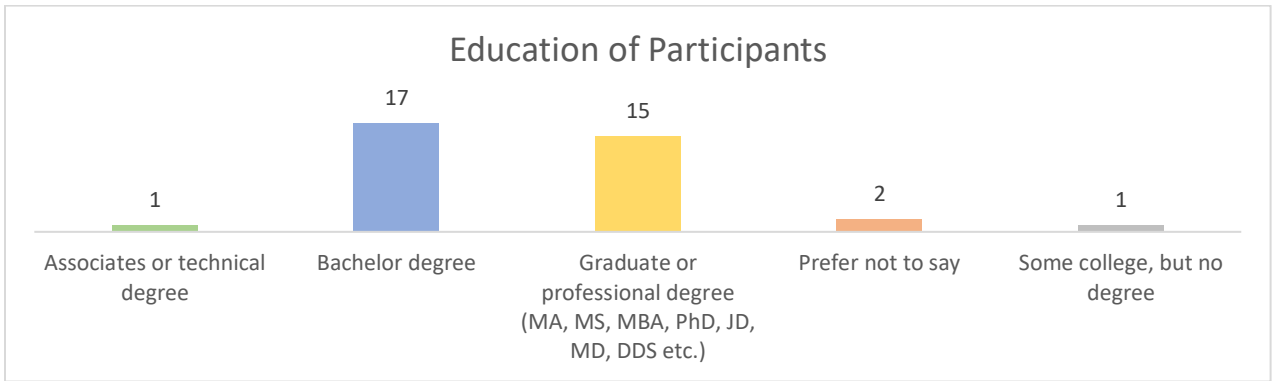
Figure 4

Demographics of Participants Who Completed the Pre-Survey





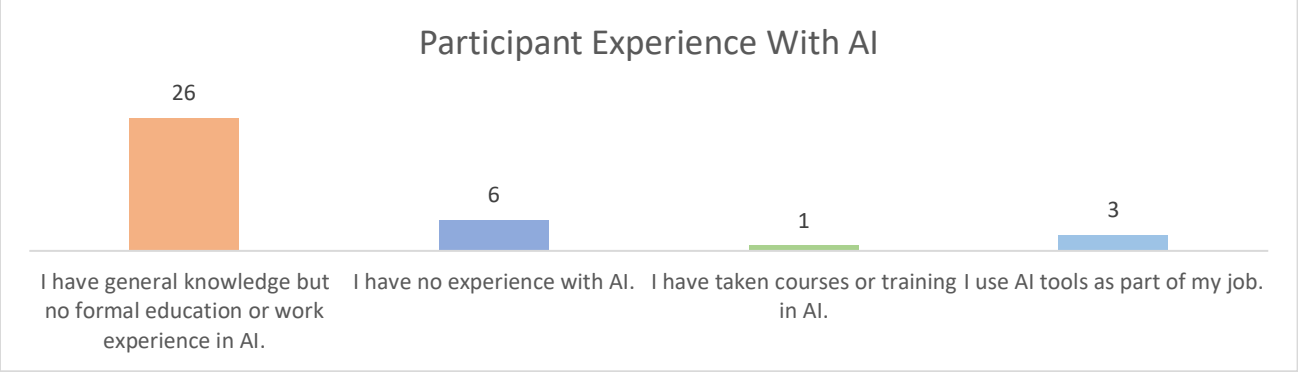


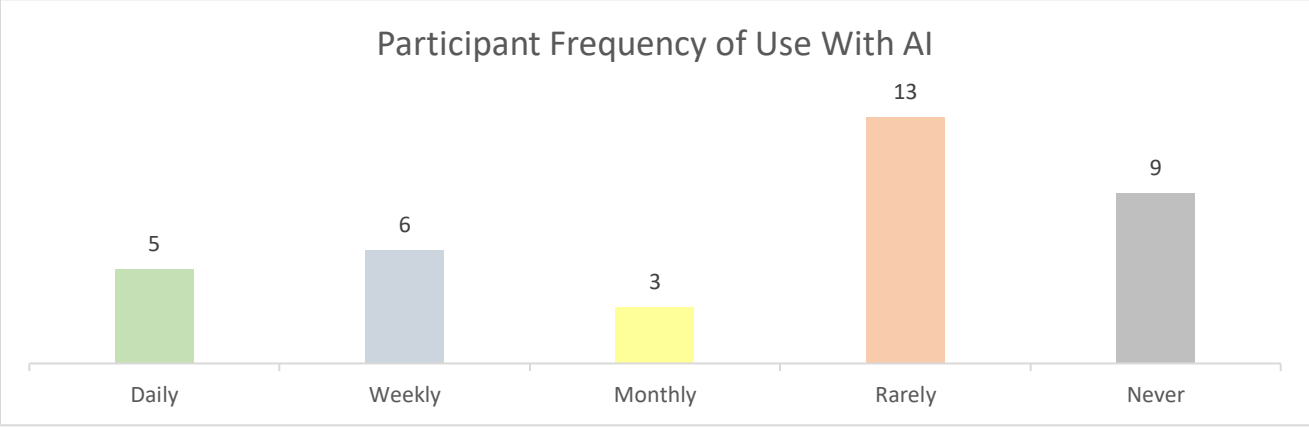


In addition to the demographic questions in the pre-survey, each participant was asked two questions about their familiarity with AI and frequency of AI use. The first question was, "How would you describe your experience with AI?" Multiple choice responses to choose from were: (a) I use AI tools as part of my job, (b) I have taken courses or training in AI, (c) I have general knowledge but no formal education or work experience in AI, and (d) I have no experience with AI. The second question was, "How frequently are you using AI?" Multiple choice responses to choose from were: (a) daily, (b)weekly, (c) monthly, (e) rarely, and (f) never. The results of the participants' answers to both questions from participants who completed the pre-survey can be seen in Figure 5.

Figure 5

AI Experience and Frequency of Participants Who Completed the Pre-Survey





Quantitative Data Findings for RQ1

RQ1 asked, "How do virtual team conversations on AI influence the subjective well-being of individual employees at an organization expanding its use of AI technologies?" This question was measured using the workplace well-being survey administered before and after the virtual synchronous team conversation on AI. To answer this question, a paired sample *t*-test was conducted to analyze the changes in well-being scores. The following section presented how the data was prepared and the descriptive statistics of the data to provide a foundational understanding of the dataset. Inferential statistics, specifically a paired sample *t*-test by teams and then across teams, was presented to address the research question directly.

Data Preparation

A total of 36 participants completed the pre-survey. Of those 36 participants who completed the pre-survey, 28 participated in the Conversation Starter. Next, of those 28 who participated in the Conversation Starter, 20 completed the post-survey and compiled the data presented in the analysis below. To prepare the data for analysis, the pre-survey, the Conversation Starter, and post-survey scores for every individual who completed all three parts of the research were put onto one Excel sheet. To calculate the workplace well-being score, the scoring for the negative item, which was the question on stress, was reversed. For example, since the scale was 0-10, this score was reversed by subtracting the score from the maximum value (10). For instance, if someone scored an eight on stress, their reversed score would be two (10–8 = 2). This was done for each response to the negative well-being aspect. After reversing the negative item score, all four scores were added, three direct and one reversed score, for everyone. The scores were then averaged to give each item equal weight by adding the scores together and then dividing by the number of items, which was four in this case. This was done

for all the scores in the pre-survey for each person and then done again for each person for the post-survey. The final overall workplace well-being score is an average of these four items. A higher overall score indicates a higher level of well-being. Afterward, each team's average well-being scores were calculated at pre- and post-intervention time points.

Descriptive Statistics

Employees' subjective well-being across three teams within an organization expanding the use of AI technologies was evaluated through a pre-survey and post-survey, administered before and after a series of virtual team conversations about AI. The surveys measured overall job satisfaction, perceived purposefulness at work, happiness at work, and stress levels to assess the influence of these discussions on employees' well-being. The data presented in Table 3 offers a granular view of subjective well-being metrics across three distinct teams within the organization, both before and after implementing AI-related team conversations.

Table 3

Descriptive Statistics

Team	Survey Type	Count	Mean	Median	Minimum	Maximum	Range	Standard Deviation
Team 1	Pre-Survey	5	23.4	26	17	30	13	5.639148872
	Post-Survey	5	23.2	26	16	29	13	5.805170109
Team 2	Pre-Survey	10	29.8	29	25	37	12	3.91010088
	Post-Survey	10	30.2	29.5	27	35	8	2.740640639
Team 3	Pre-Survey	5	25.8	26	19	34	15	6.418722614
	Post-Survey	5	26	25	20	32	12	5.338539126
Overall	Pre-Survey	20	27.2	27	17	37	20	5.521250812
	Post-Survey	20	27.4	28	16	35	19	5.092822607

Team 1, consisting of five members, showed a slight decrease in subjective well-being from the pre-survey (M = 23.4, SD = 5.639) to the post-survey (M = 23.2, SD = 5.806). The median remained stable at 26 and the range at 13, with minimum and maximum scores compressing from 17-30 to 16-29. Team 2, the largest group with 10 participants, improved well-being, with the mean score increasing from 29.8 (SD = 3.910) in the pre-survey to 30.2 (SD = 2.740) post-discussion. The median rose slightly from 29 to 29.5, and the range decreased from 12 to 8, indicating a convergence of responses post-intervention. Team 3 had five individuals and experienced a slight increase in well-being, with the mean score rising from 25.8 (SD = 6.418) pre-survey to 26 (SD = 5.338) post-survey. The median shifted down from 26 to 25, and the range of scores decreased from 15 to 12, suggesting a reduction in variability among team members' responses. When considering the overall well-being across all three teams (N = 20), there was a slight increase in the mean score from 27.2 (SD = 5.521) in the pre-survey to 27.4 (SD = 5.092) in the post-survey. The median increased from 27 to 28, while the range of responses narrowed from 20 to 19, and the minimum and maximum scores showed a slight closing in from 17-37 to 16-35.

Inferential Statistics. Building upon the initial presentation of participant characteristics and descriptive statistics, the shift was toward inferential statistics to address RQ1. Applying a two-tailed paired samples *t*-test, the researcher uncovered the statistical significance of employee well-being changes, as captured in pre- and post-conversation starter surveys. Examining the differences within and across teams aims to understand employees' well-being in relationship to team conversations about AI at an organization, enhancing its investment in AI. This inferential analysis validates the patterns observed and unravels the more profound implications of AI discourse on the individual and collective well-being within the organization.

Team 1 Two-Tailed Paired Samples t-*Test*

A two-tailed paired samples *t*-test was conducted to examine whether the mean difference between pre-conversation workplace subjective well-being (WSWB_Pre) and post-conversation workplace subjective well-being (Post_WSWB) for Team 1 significantly differed from zero. A Shapiro-Wilk test was conducted to determine whether the differences in WSWB_Pre and WSWB_Post could have been produced by a normal distribution (Razali & Wah, 2011). The Shapiro-Wilk test results were insignificant based on an alpha value of .05, $W = 0.90$, $p = .421$. This result suggested the possibility that the differences in WSWB_Pre and WSWB_Post produced by a normal distribution could not be ruled out, indicating that the normality assumption was met. The two-tailed paired samples *t*-test result was insignificant based on an alpha value of .05, $t(4) = 0.34$, $p = .749$, indicating that the null hypothesis cannot be rejected. This finding suggests that the difference in the mean of WSWB_Pre and the mean of WSWB_Post was not significantly different from zero. The results are presented in Table 4. A box plot of the means is presented in Figure 6.

Table 4

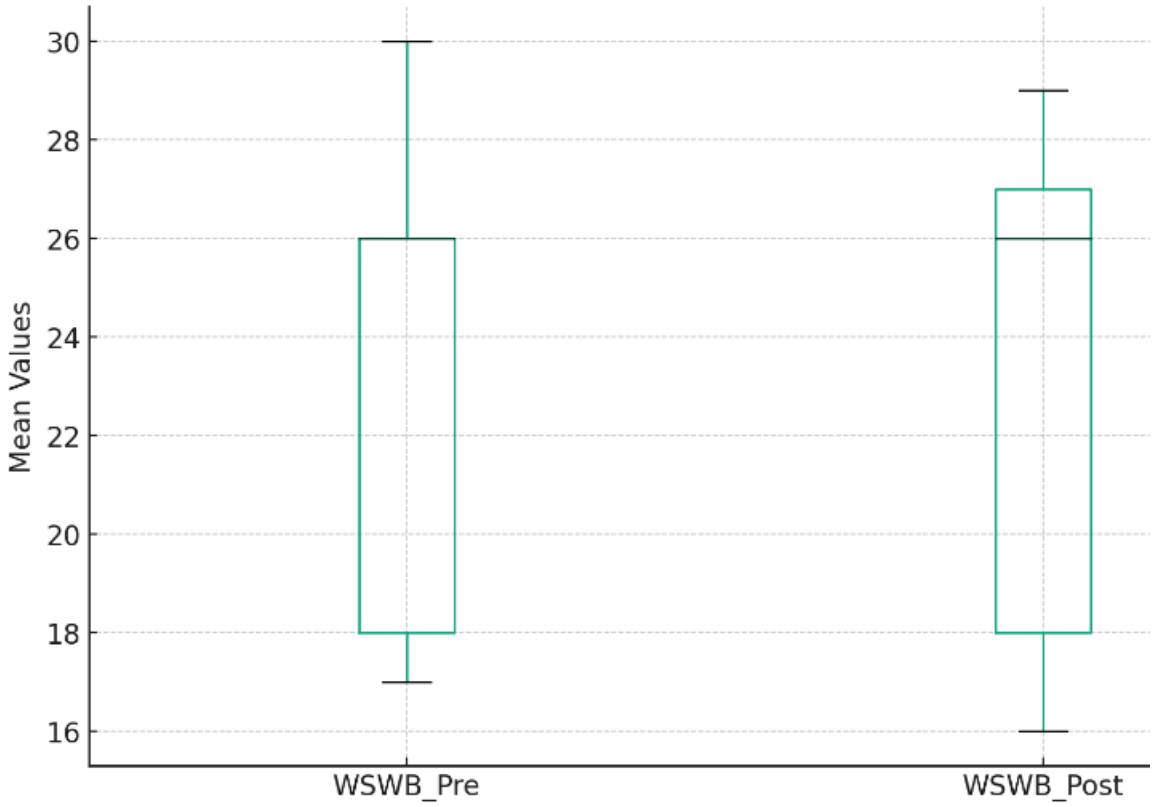
Team 1 Two-Tailed Paired Samples t-*Test for the Difference Between WSWB_Pre and WSWB_Post*

WSWB_Pre		WSWB_Post				
M	*SD*	*M*	*SD*	*t*	*p*	*d*
23.40	5.64	23.20	5.81	0.34	.749	0.15

Note. $N = 5$. Degrees of Freedom for the *t*-statistic = 4. *d* represents Cohen's *d*.

Figure 6

Box Plot for Team 1 WSWB_Pre and WSWB_Post Mean Values



Team 2 Two-Tailed Paired Samples t-Test

A two-tailed paired samples *t*-test was conducted to examine whether the mean difference between the pre-conversation workplace subjective well-being (WSWB_Pre) and the post-conversation workplace subjective well-being (WSWB_Post) for Team 2 was significantly different from zero. A Shapiro-Wilk test was conducted to determine whether the differences in WSWB_Pre and WSWB_Post could have been produced by a normal distribution (Razali & Wah, 2011). The Shapiro-Wilk test results were insignificant based on an alpha value of .05, W = 0.92, p = .327. This result suggested the possibility that the differences in WSWB_Pre and WSWB_Post were produced by a normal distribution cannot be ruled out, indicating the normality assumption was met. The two-tailed paired samples *t*-test results were insignificant

based on an alpha value of .05, $t(9) = -0.33$, $p = .749$, indicating that the null hypothesis cannot be rejected. This finding suggested that the difference in the mean of WSWB_Pre and the mean of WSWB_Post was not significantly different from zero. The results are presented in Table 5. A box plot of the means is presented in Figure 7.

Table 5

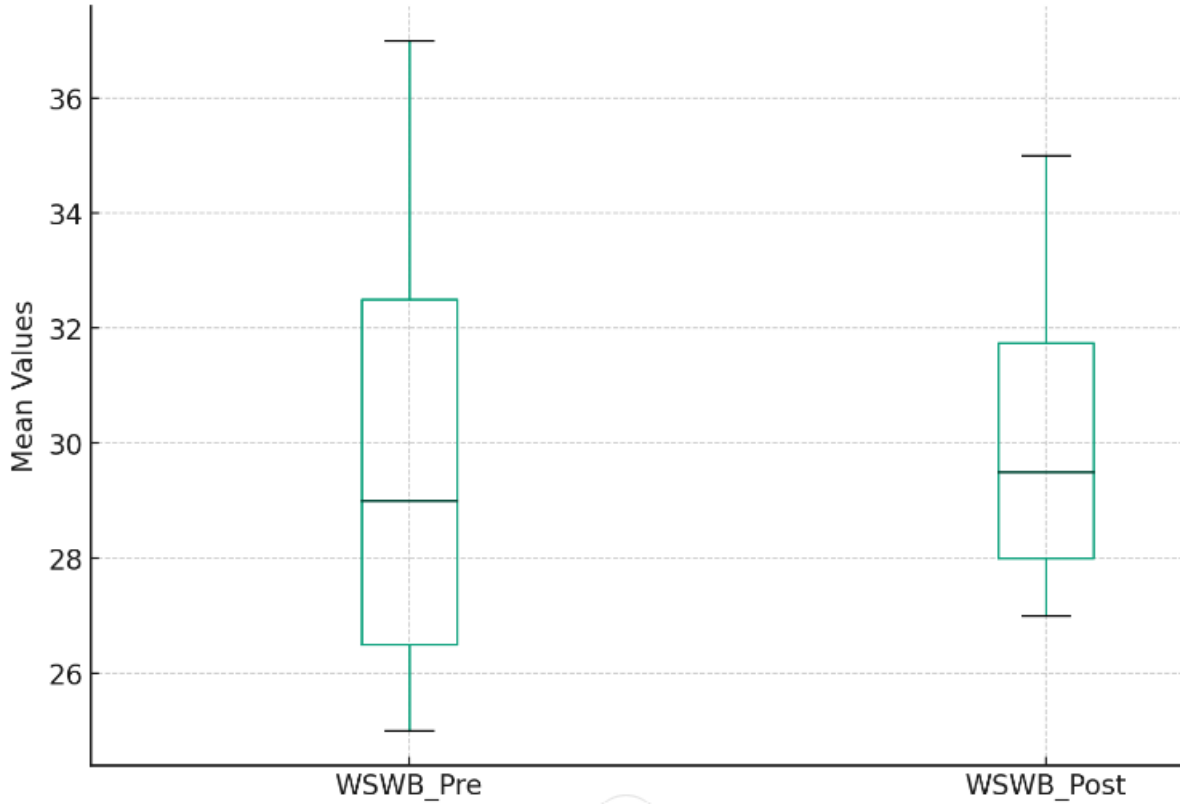
Team 2 Two-Tailed Paired Samples t*-Test for the Difference Between WSWB_Pre and WSWB_Post*

WSWB_Pre		WSWB_Post				
M	*SD*	*M*	*SD*	*t*	*p*	*d*
29.80	3.91	30.20	2.74	-0.33	.749	0.10

Note. $N = 10$. Degrees of Freedom for the *t*-statistic = 9. *d* represents Cohen's *d*.

Figure 7

Box Plot for Team 2 WSWB_Pre and WSWB_Post Mean Values



Team 3 Two-Tailed Paired Samples t-*Test*

A two-tailed paired samples *t*-test was conducted to examine whether the mean difference between pre-conversation workplace subjective well-being (WSWB_Pre) and post-conversation workplace subjective well-being (WSWB_Post) for Team 3 was significantly different from zero. A Shapiro-Wilk test was conducted to determine whether the differences in WSWB_Pre and WSWB_Post could have been produced by a normal distribution (Razali & Wah, 2011). The results of the Shapiro-Wilk test were not significant based on an alpha value of .05, $W = 0.98$, $p = .928$. This result suggested the possibility that the differences in WSWB_Pre and WSWB_Post produced by a normal distribution cannot be ruled out, indicating that the normality assumption was met. The two-tailed paired samples *t*-test result was insignificant based on an alpha value of .05, $t(4) = -0.23$, $p = .828$, indicating that the null hypothesis cannot be rejected. This finding suggested that the difference in the mean of WSWB_Pre and the mean of WSWB_Post was not significantly different from zero. The results are presented in Table 6. A box plot of the means is presented in Figure 8.

Table 6

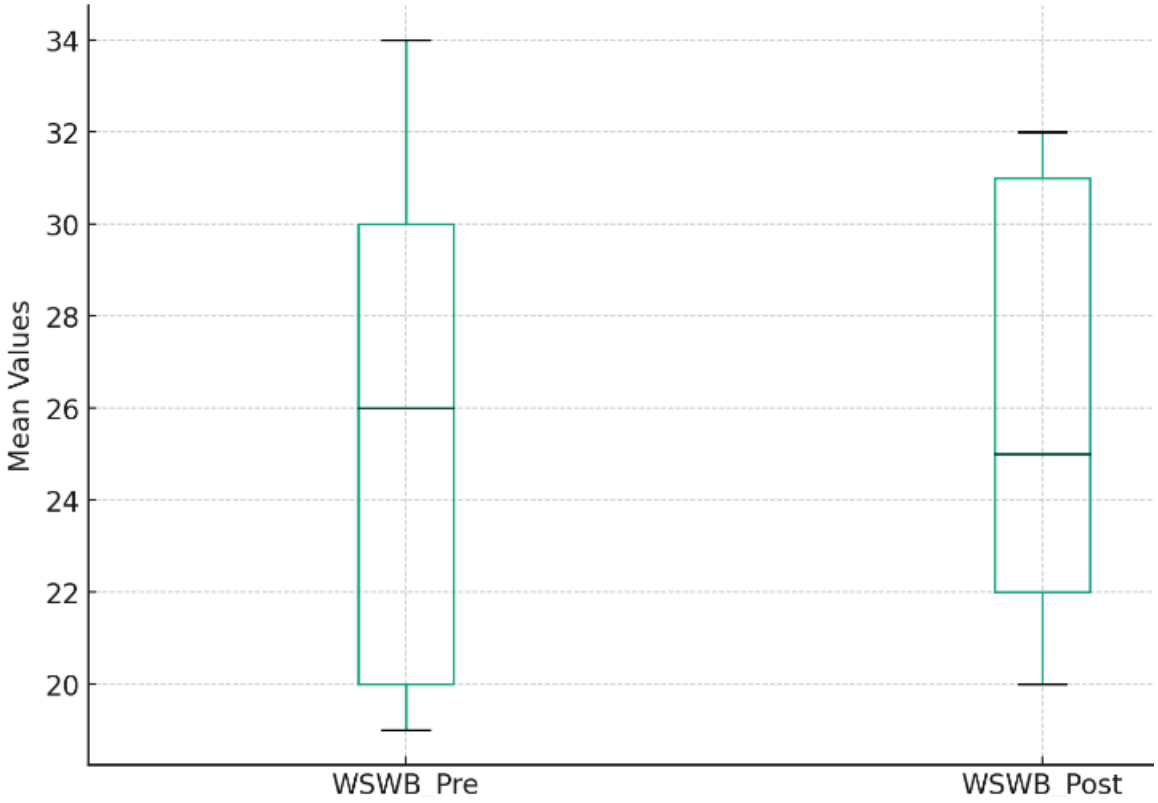
Team 3 Two-Tailed Paired Samples t-*Test for the Difference Between WSWB_Pre and WSWB_Post*

WSWB_Pre		WSWB_Post				
M	*SD*	*M*	*SD*	*t*	*p*	*d*
25.80	6.42	26.00	5.34	-0.23	.828	0.10

Note. $N = 5$. Degrees of Freedom for the *t*-statistic = 4. *d* represents Cohen's *d*.

Figure 8

Box Plot for Team 3 WSWB_Pre and WSWB_Post Mean Values



All Teams Two-Tailed Paired Samples t-Test

A two-tailed paired samples *t*-test was conducted to examine whether the mean difference between pre-conversation workplace subjective well-being (WSWB_Pre) and post-conversation workplace subjective well-being (WSWB_Post) across all teams combined differed significantly from zero. A Shapiro-Wilk test was conducted to determine whether the differences in WSWB_Pre and WSWB_Post could have been produced by a normal distribution (Razali & Wah, 2011). The Shapiro-Wilk test results were insignificant based on an alpha value of .05, W = 0.95, p = .312. This result suggested the possibility that the differences in WSWB_Pre and WSWB_Post produced by a normal distribution cannot be ruled out, indicating that the normality assumption was met. The two-tailed paired samples t-test result was insignificant based on an

alpha value of .05, $t(19) = -0.31$, $p = .758$, indicating that the null hypothesis cannot be rejected. This finding suggested that the difference in the mean of WSWB_Pre and the mean of WSWB_Post was not significantly different from zero. The results are presented in Table 7. A box plot of the means is presented in Figure 9.

Table 7

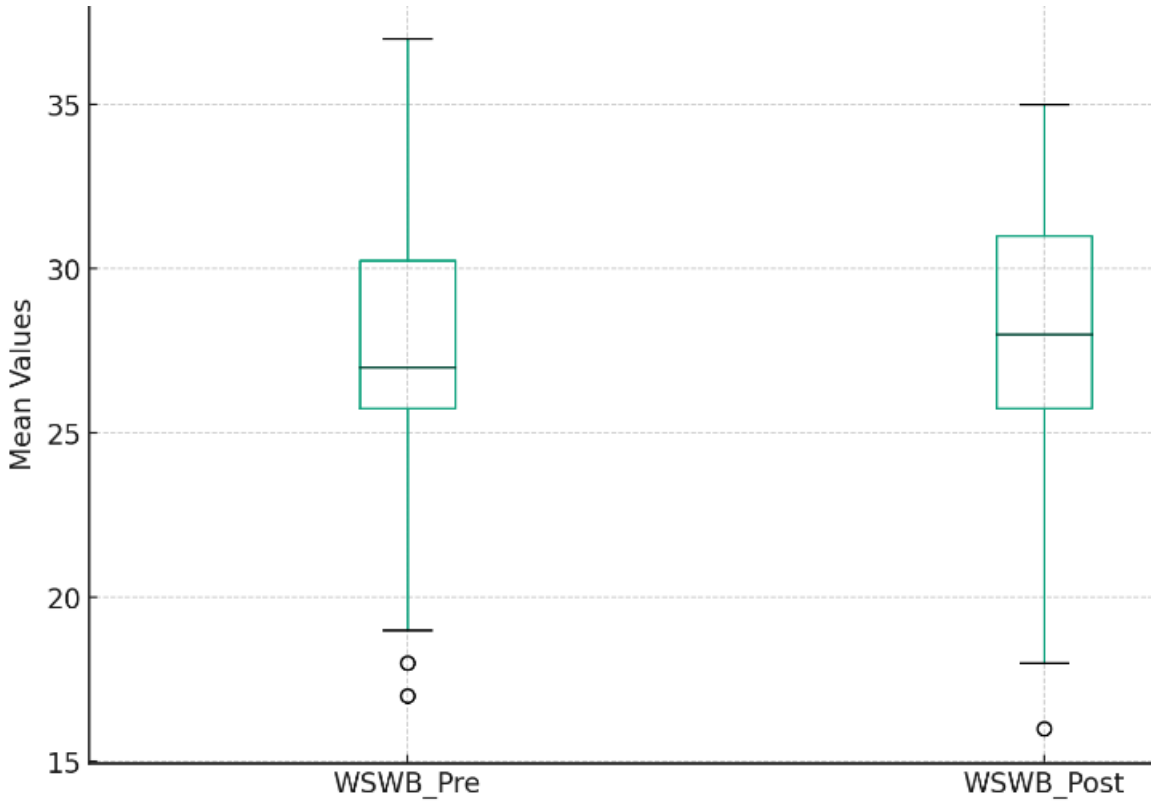
All Teams Two-Tailed Paired Samples t-Test for the Difference Between WSWB_Pre and WSWB_Post

WSWB_Pre		WSWB_Post				
M	*SD*	*M*	*SD*	*t*	*p*	*d*
27.20	5.52	27.40	5.09	-0.31	.758	0.07

Note. $N = 20$. Degrees of Freedom for the *t*-statistic = 19. *d* represents Cohen's *d*.

Figure 9

Box Plot for all Teams WSWB_Pre and WSWB_Post Mean Values



Summary

The statistical evidence did not indicate a significant shift in well-being scores post-conversation, as measured by each team and overall by combining the three teams. This finding suggested that while introducing AI-related dialogue within teams might be an important step towards acclimatization to technological shifts, its immediate impact on individual well-being may be subtle and require a more longitudinal approach to detect significant changes. As the organization continues to weave AI into its fabric, ongoing assessment and support will be paramount in fostering an environment where well-being thrives alongside technological advancement.

Qualitative Data Findings for RQ2

RQ2 asked, "What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies?" This exploration was essential for understanding the dynamics of AI-related discussions within professional settings. ENA was instrumental in analyzing and visualizing the relationships between ideas in conversational data. The steps taken in collecting, cleaning, and coding conversation transcripts from different teams were detailed, setting the stage for the analysis. Subsequently, the ENA models were presented by each team overall by combining the three teams and aiming to uncover the discourse patterns and themes. This analysis illuminated how virtual teams navigate and construct their understanding of AI's evolving role in their work environment.

Data Preparation

A total of 36 participants completed the pre-survey, thus indicating their interest in participating in the virtual synchronous conversation. Of those 36 participants who completed

the pre-survey, 28 participated in the Conversation Starter. There were eight participants in Team 1, 13 in Team 2, and eight in Team 3. One person in Team 3 did not complete the pre-survey but was sent the invitation to participate by another team member. The three conversations were recorded via Webex, a videoconferencing platform, and then transcribed using Trint, a transcription software. The researcher checked each conversation by watching and listening to the recording for transcription accuracy. Once the conversations were transcribed, they were transferred to an Excel spreadsheet with separate lines and codes displayed for coding. Interrater reliability was established through the process of social moderation where two coders, the researcher and another doctoral student with CITI training, independently coded the data, followed by a collaborative discussion to resolve any disagreements and reach a consensus (Frederiksen et al., 1998; Herrenkohl & Cornelius, 2013). Once the data was coded, it was uploaded to the ENA software tool for analysis. As discussed in Chapter 3, ENA is a quantitative method that identifies and quantifies connections among elements in coded data, representing these relationships in dynamic network models. The following model parameters were established in the ENA tool to analyze the data, as shown in Table 8.

Table 8

Model Parameters for ENA Models

Category	Definition	Selection for ENA Models
Units	Units are entities like people, concepts, or groups, defined by data columns, for which networks are constructed and can be selectively included in the initial model.	Team & Speaker
Conversation	Conversations are collections of lines where connections between concepts are modeled within specific contexts, like time segments or process steps, ensuring	Team

Category	Definition	Selection for ENA Models
	relevance within each conversation.	
Moving Stanza Window Size	The moving stanza window segments conversations into overlapping groups of lines, modeling connections based on their temporal proximity within each group.	4
Codes	Codes are the key concepts selected from the data, often represented as binary, fractional, or weighted values, whose patterns of association ENA models as networks for units and groups.	Positive Emotion, Negative Emotion, AI Opportunities, AI Challenges, Skill Development, Adaptation and Change, Ethical Considerations, Future Outlook, Organizational Strategy, AI Questions/Curiosity, Disagreement, Agreement

Epistemic Network Analysis

ENA was used to answer the second research question: What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies? This section aims to highlight the conversations and thematic structures within virtual teams as they navigate the realm of AI in their professional settings. By leveraging the ENA framework, models for each team have been constructed, which will be presented collectively and individually. This dual presentation approach allows the discourse dynamics to be compared across different teams, highlighting unique patterns and common themes. In doing so, the aim is to provide a comprehensive understanding of how AI-related discourse is shaped within team environments and how these interactions reflect broader organizational engagement with AI technologies.

When interpreting or reading the ENA models, each circle or dot represented a coded construct known as a node, with the accompanying label identifying that code, such as AI Challenges or Skill Development. The lines or edges that connected these nodes or codes represented their relationships or associations, indicating how these concepts were interrelated. The thickness of these lines was significant. Thicker lines denoted stronger, more significant connections between the ideas they joined, suggesting a higher degree of association or frequency of interaction. Thinner lines, conversely, represented weaker or less significant associations.

Each ENA model displayed all the nodes located in the same position. The difference between the models is the strength of the lines that connect the nodes. At the top of the model, Organizational Strategy is situated alone. Moving to the bottom, Ethical Considerations are positioned near Negative Emotion and Future Outlook. AI Challenges and Disagreement are located on the model's left side, while Adaption and Change are visible on the right. In the center of the model, Positive Emotion, AI Opportunity, Agreement, Skill Development, and AI Question Curiosity are located.

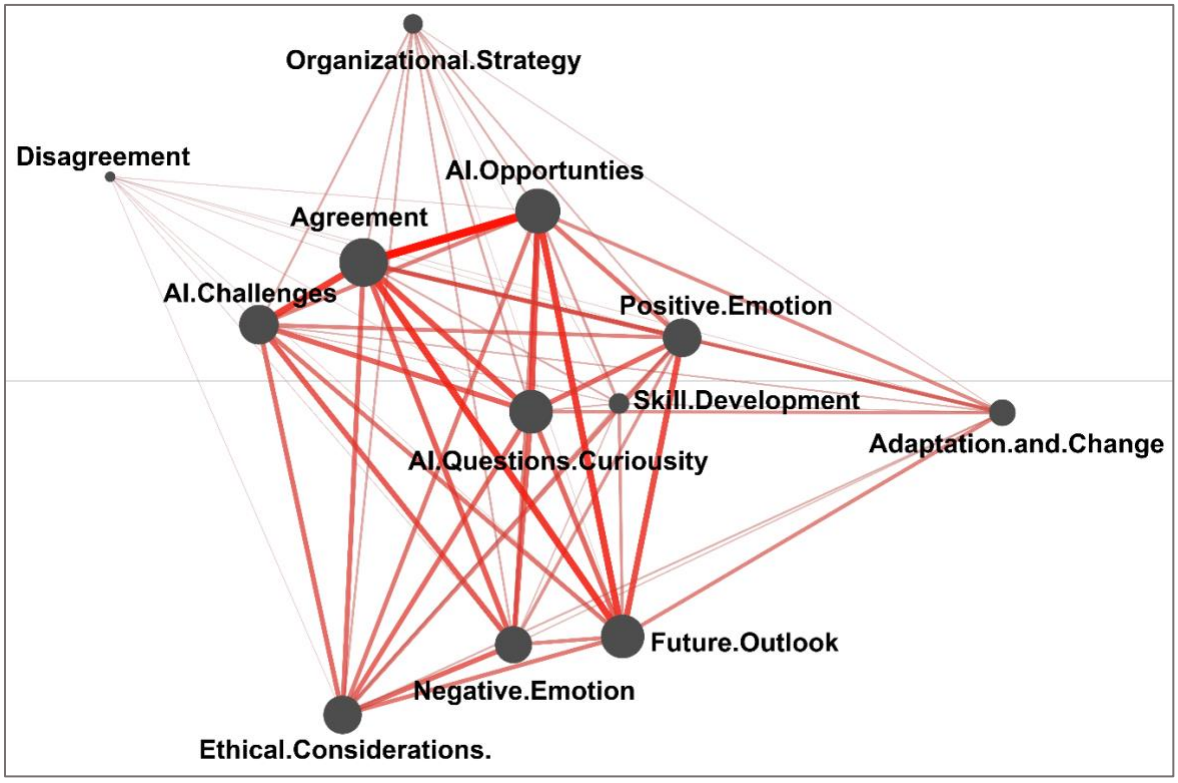
Team 1 Epistemic Network Analysis

A few observations were made based on the visual representation of Team 1's ENA mode in Figure 10. The diagram showed that AI Opportunities, Agreement, and AI Challenges were central to the conversation, with numerous thick connections suggesting these topics are highly interrelated and discussed frequently and in-depth. This central clustering indicated a significant focus on the potential of AI, the consensus on specific issues, and the recognition of associated challenges within the team's dialogue.

AI Opportunities also have strong ties to Future Outlook and Agreement, which may suggest that discussions about the potential of AI are often linked to positive projections for the future and a shared understanding or consensus within the team. The connection between Positive Emotion and Future Outlook is more pronounced than between Negative Emotion and Future Outlook, indicating a trend toward positive sentiment when the team contemplates the future impact of AI. Conversely, Organizational Strategy, Adaptation, and Change have fewer and thinner connections to other nodes. This suggests that these topics were less frequently addressed and central to the team's discussions than other themes.

Figure 10

Team 1 Epistemic Network Analysis Model



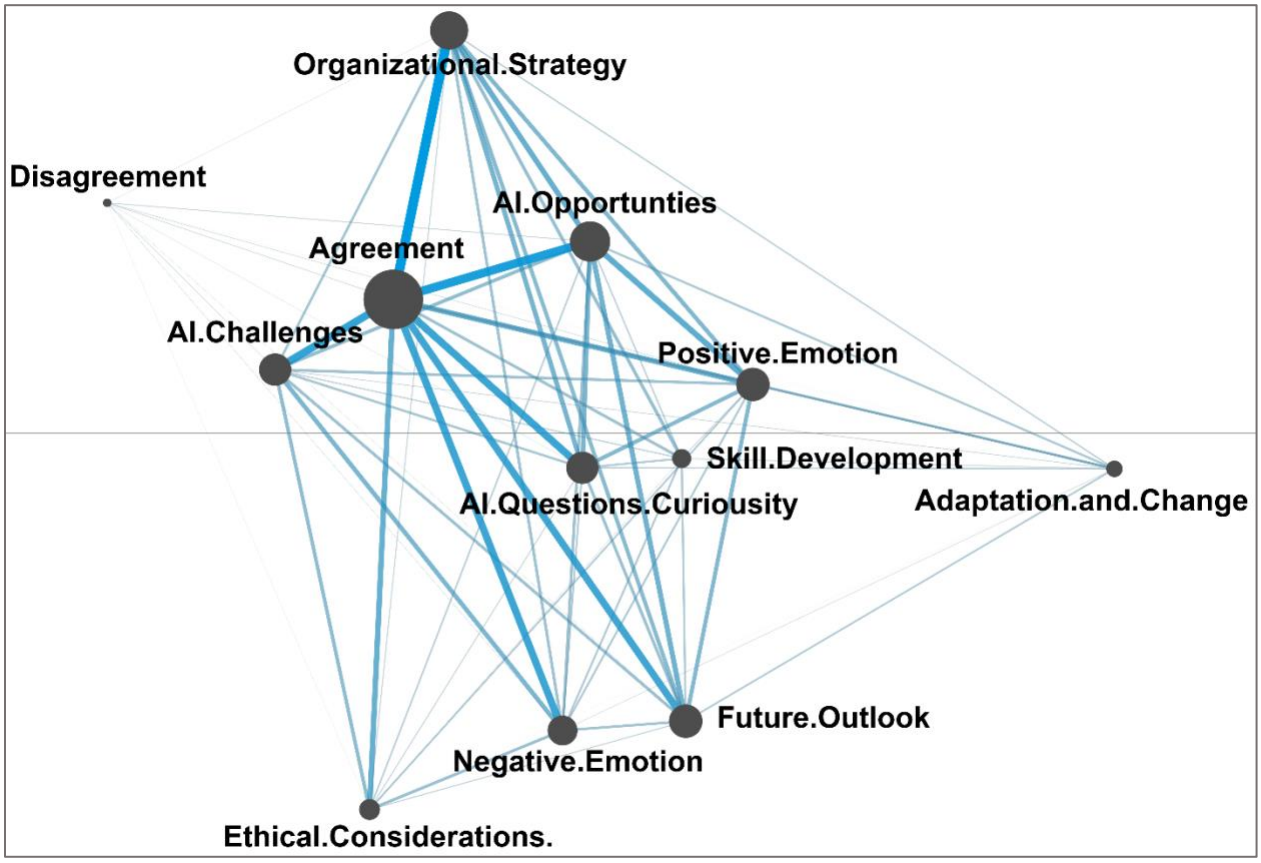
Team 2 Epistemic Network Analysis

The ENA model for Team 2, shown in Figure 11, depicted a distinctive pattern of connections among the various codes. There was a significant connection between Organizational Strategy, Agreement, and AI Opportunities, suggesting that these topics were frequently and strongly associated in Team 2's discussion. This may indicate a focus on aligning the organization's strategic direction with the opportunities AI presents and a consensus among team members on this alignment. Similarly, AI Opportunities, Agreement, and AI Challenges were closely connected, reflecting a recurring theme in the conversation: recognizing and agreeing on both the potential benefits and the difficulties inherent in AI implementation.

The conversation emphasizes Negative Emotions, Agreement, and Future Outlook. This trio of concepts connected by relatively thick lines suggests that concerns or apprehensions are acknowledged and shared among team members when discussing future implications of AI. While present, the connection to Ethical Considerations is less prominently featured, indicating these issues may have needed to be more central to the conversation. Skill Development, Adaptation, and Change are linked to other nodes with thinner lines, implying these areas were less dominantly discussed than others. Positive Emotion has an average thickness in its connection to Opportunities and Agreement, less so than Negative Emotion, possibly suggesting a more cautious or realistic tone in the team's outlook than an overtly optimistic one. Lastly, there was a notably strong connection between AI Questions/Curiosity and Agreement, which could denote a shared interest in exploring AI more profoundly and a collective inquisitiveness or readiness to learn more about the subject matter. This conversation aspect may represent an active engagement and a common ground of curiosity within the team.

Figure 11

Team 2 Epistemic Network Analysis



Team 3 Epistemic Network Analysis

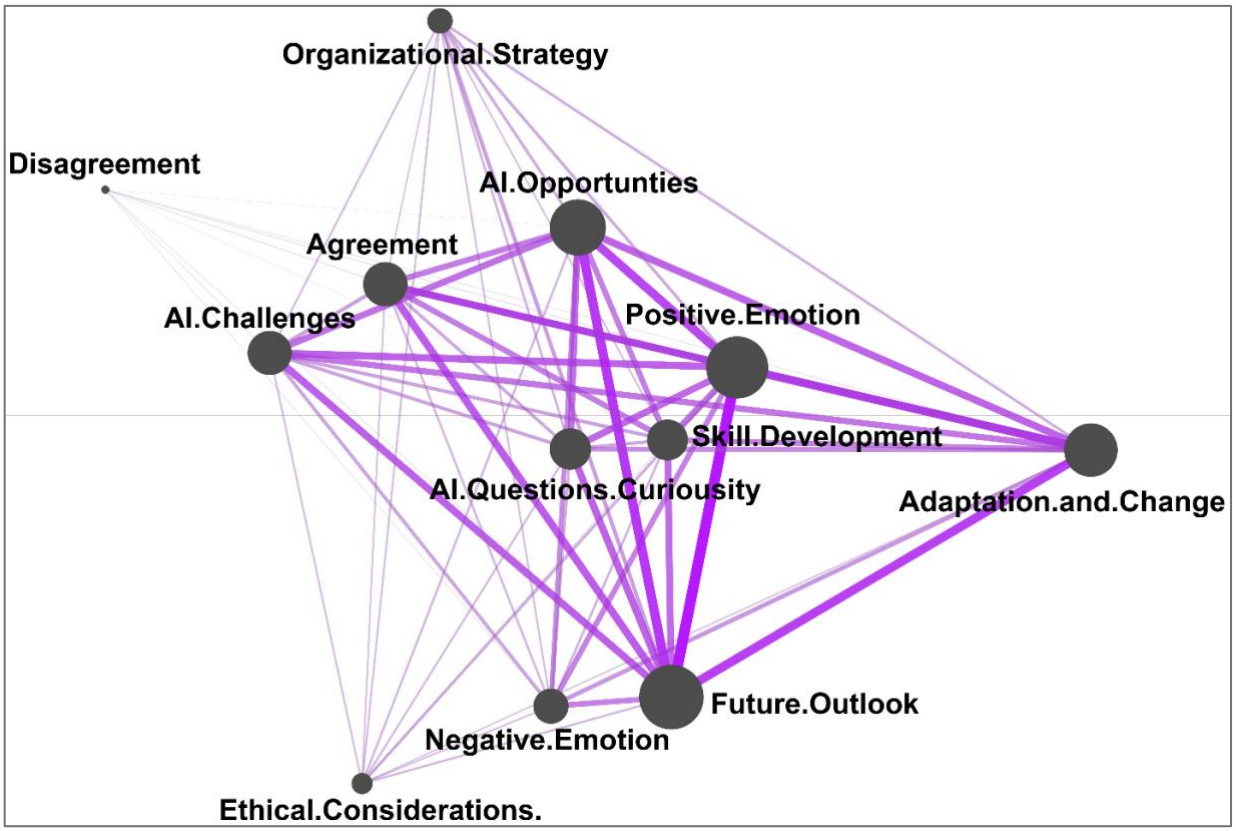
The ENA model for Team 3, seen in Figure 12, indicated a unique set of connections within their discussions about AI. Team 3's dialogue connected between Future Outlook, Skill Development, and Adaptation and Change. This suggested a strong relationship between the team's view of future possibilities, the importance of developing relevant skills, and the need to adapt to upcoming changes, implying a comprehensive approach to preparing for the future influenced by AI. The conversation also indicated strong connections between Future Outlook, Positive Emotion, and AI Opportunities, pointing to a correlation between optimistic sentiments

and the potential benefits of AI that the team anticipates. This may reflect an overall positive attitude within the team when considering the prospects AI brings.

AI Challenges appeared to have a moderate connection to Future Outlook, indicating that these topics were frequently discussed with less intensity than discussions on opportunities. The connections between Negative Emotion and other areas, such as Questions and Future Outlook, were weaker, especially compared to those of Positive Emotion, suggesting that negative sentiments were less dominant in the conversation about the future and AI. Ethical Considerations and Organizational Strategy were linked with thinner connections to other nodes, which implied these subjects were less central in the discussions or were discussed with less intensity or frequency. This might point to a need for greater focus on these areas in future talks to ensure a balanced and ethically grounded approach to AI within organizational planning.

Figure 12

Team 3 Epistemic Network Analysis Model



Comparison of Epistemic Network Analysis Between All Teams

The ENA models for Teams 1, 2, and 3, seen in Figure 13 below, offer a visual comparison of how each team discusses and conceptualizes the use of AI within the organization. These models map out the connections among various concepts that emerge from their conversations, providing insights into the collective cognition and emotional tone surrounding AI technologies. A central theme across all diagrams is AI Opportunities, yet the context in which this topic is embedded varies significantly between the teams. Team 1 and 2 recognized AI Opportunities concerning Agreement, suggesting a consensus on the importance of AI within both groups. However, Team 1 pairs this concept equally with AI Challenges,

indicating a conversation that balances optimism with a critical view of the hurdles ahead. In contrast, Team 2's conversation pivots more on aligning AI with Organizational Strategy, which is less prominent in Team 1's discussion, pointing to Team 2's strategic and practical approach towards AI integration within their organizational framework.

The analysis also highlighted a difference in the emotional tone of the discussions. Team 2's dialogue exhibited a notable connection between Negative Emotion and Future Outlook, which was less strongly present in Team 1's conversation. This suggested that Team 2 may have a more cautious or concerned view of the future of AI. On the other hand, Team 3 showcased a strong link between Positive Emotion and AI Opportunities, indicating a more optimistic stance on AI's potential benefits, which contrasted with Team 2's wary approach and was more aligned with Team 1's balanced view.

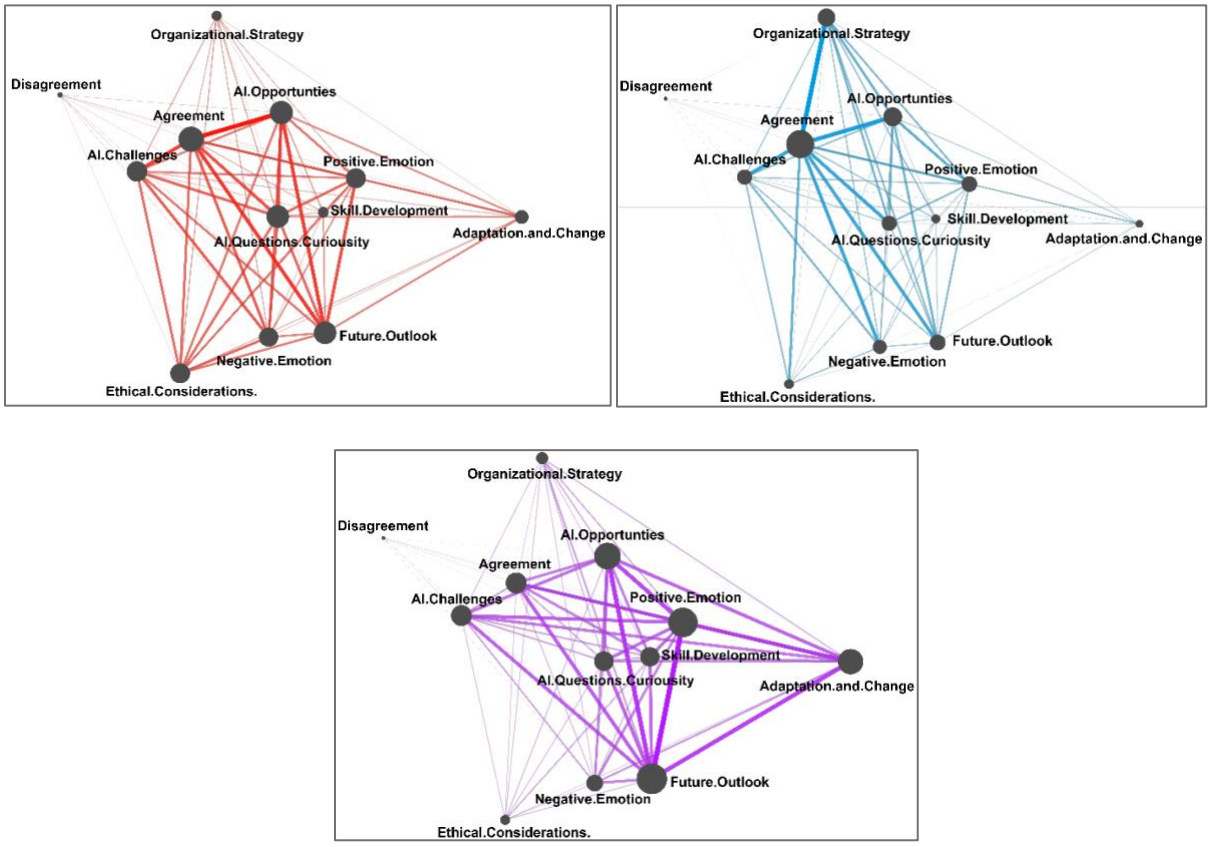
Regarding preparation for the future, Team 3 stood out with its emphasis on Skill Development, Adaptation, and Change, suggesting a proactive engagement with the transformative nature of AI and a focus on equipping for change. This forward-looking perspective was less pronounced in Team 1 and contrasted with Team 2, where the conversation seemed more grounded in current organizational strategies rather than future adaptability. Ethical Considerations presented another point of contrast. While not a dominant focus in any of the diagrams, these considerations were more connected in Teams 1 and 2 conversations than in Team 3, indicating a potential variance in how each team prioritized AI's ethical dimensions.

In summary, Team 1's discussion was characterized by a balanced view of AI's potential and limitations, Team 2's focus on strategic alignment, and Team 3's emphasis on future readiness and skill development. The comparison reveals differing priorities: strategic planning

in Team 2, a balanced exploration of AI in Team 1, and a proactive, positive approach to future challenges and opportunities in Team 3.

Figure 13

Teams 1, 2, and 3 Epistemic Network Analysis Models



Epistemic Network Analysis from All Teams Combined

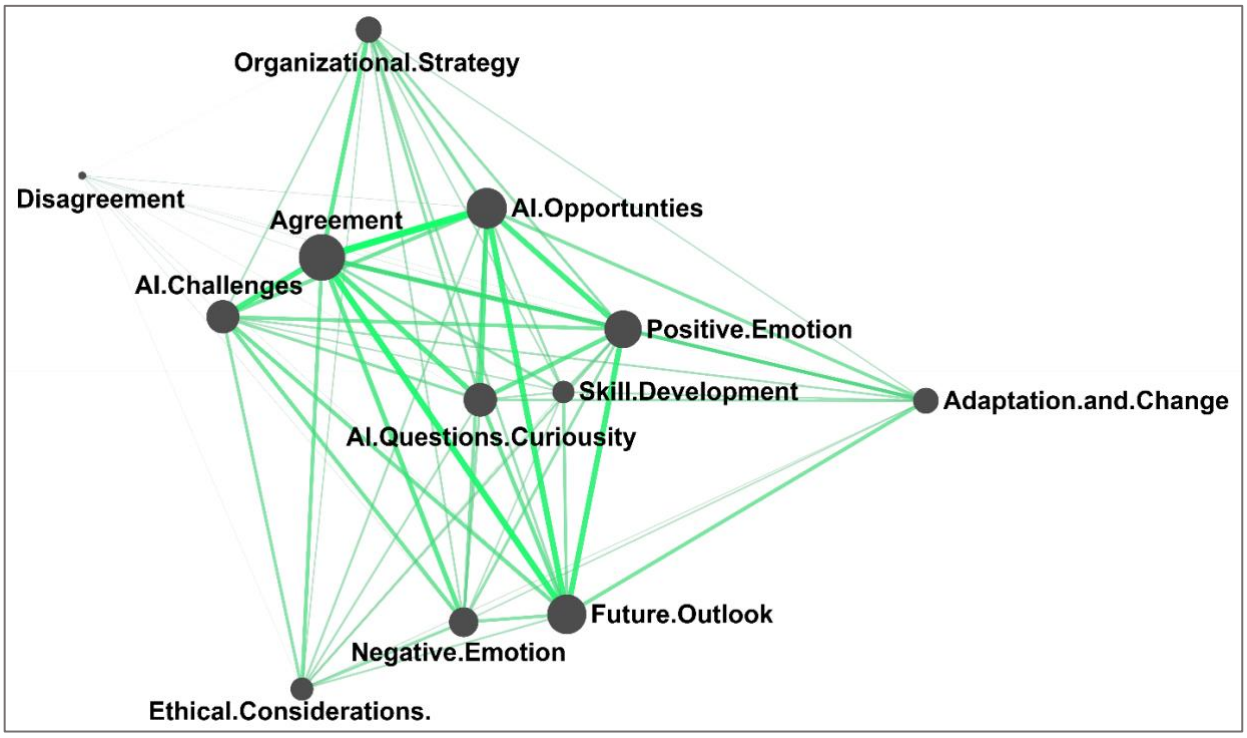
The ENA model presented in Figure 14 provided a detailed look into the collective mindset of team members regarding AI. From the model, it was evident that the strongest connection was between AI Opportunities and Agreement. This suggested a collective optimism or a consensus about the potential benefits that AI could bring. The teams recognized that AI is not just a futuristic concept but a tangible asset that can be leveraged in the present to create value and drive innovation. Further analysis revealed a substantial link between agreement and

AI challenges. This indicated that while there is optimism, there is also an acknowledgment of the hurdles of integrating AI technologies. The presence of this connection could be seen as a sign of a mature and balanced understanding of AI; the opportunities do not blind the teams but are also considering the practical challenges such as Ethical Considerations, the need for Skill Development, and the possibility of Negative Emotions or resistance that may arise with the changes AI brings.

Additionally, the ENA model highlighted another significant connection between Agreement and Future Outlook. This implied that there was a shared vision or anticipation for the future that AI will shape. It reflected a collective forward-thinking attitude and a readiness to adapt to the changes AI is expected to bring. The strong correlation between AI Opportunities and Future Outlook further reinforced this sentiment, indicating that the teams were hopeful and practically oriented towards harnessing AI for future success. Lastly, the link between Agreement and AI Questions and Curiosity was notable. It signified an environment where curiosity was encouraged, and questions became a pathway to collective learning and understanding. It indicated that these conversations were about agreeing on the surface and involved inquisitive dialogues aimed at truly understanding and effectively utilizing AI. Overall, the ENA model across all team dialogues suggested a consensus on the potential of AI, paired with a realistic approach toward the challenges it currently presents. There was a shared optimism about the future, underpinned by a culture of inquiry and openness to learning.

Figure 14

All Teams Combined Epistemic Network Analysis Model



Integration of Quantitative and Qualitative Findings

The mixed methods section of this study looked at the patterns that emerged when comparing quantitative indicators of employee well-being with qualitative descriptions of employee experiences in virtual team conversations about AI. This analysis bridged the qualitative and quantitative data that has thus been explored individually, seeking to understand the relationship between the subjective well-being of employees and the thematic content of their conversations on AI. Through the juxtaposition of ENA models, which mapped out the discourse within teams, with the well-being scores obtained from pre- and post-surveys, the aim was to uncover the underlying patterns that linked employees' lived experiences with their reported well-being.

By integrating these two distinct but complementary data sources, the subsequent analysis will illuminate how qualitative interactions within teams around AI are reflected in the quantitative measures of well-being. This dual-pronged approach enables a multifaceted exploration of the organizational climate, providing a deeper understanding of how discourse on AI correlates with the subjective well-being of team members. The analysis will reveal the direct patterns that may exist and explore the subtler, indirect relationships that quantitative data alone could not elucidate.

Team 1 Integrated Findings

Integrating the qualitative thematic insights from Team 1's ENA model with their quantitative well-being scores, as seen in Figure 15 below, reveals interesting patterns. The ENA model, which qualitatively maps the team's focus areas, shows a dense network around AI Opportunities, Agreement, and AI Challenges, indicating that these topics are central to the team's discourse. The strong ties to Future Outlook and the pronounced connection with Positive Emotion suggested an optimistic engagement with AI's role in the workplace. This qualitative finding of a forward-looking and consensus-driven discussion may have contributed to maintaining the team's subjective well-being, as indicated by the slight shift in the quantitative pre- and post-survey scores from 23.4 to 23.2. Despite acknowledging AI challenges, the stability in subjective well-being could be attributed to the team's positive discussions about the future and opportunities AI may bring.

Furthermore, integrating these methods allows for a nuanced interpretation of the data. For example, the lesser focus on Organizational Strategy and Adaptation and Change, as inferred from the ENA model's thinner connections, might suggest areas not as well integrated into the team's collective outlook. This could align with the slight dip in the well-being score, reflecting a

need for more strategic conversations to support well-being by providing clarity and preparedness in the face of AI-induced changes. In essence, integrating quantitative stability in well-being scores with the qualitative depth of conversation themes offers a comprehensive view, highlighting both the resilience and areas for growth in Team 1's dynamics as they navigate the complexities of AI in the workplace.

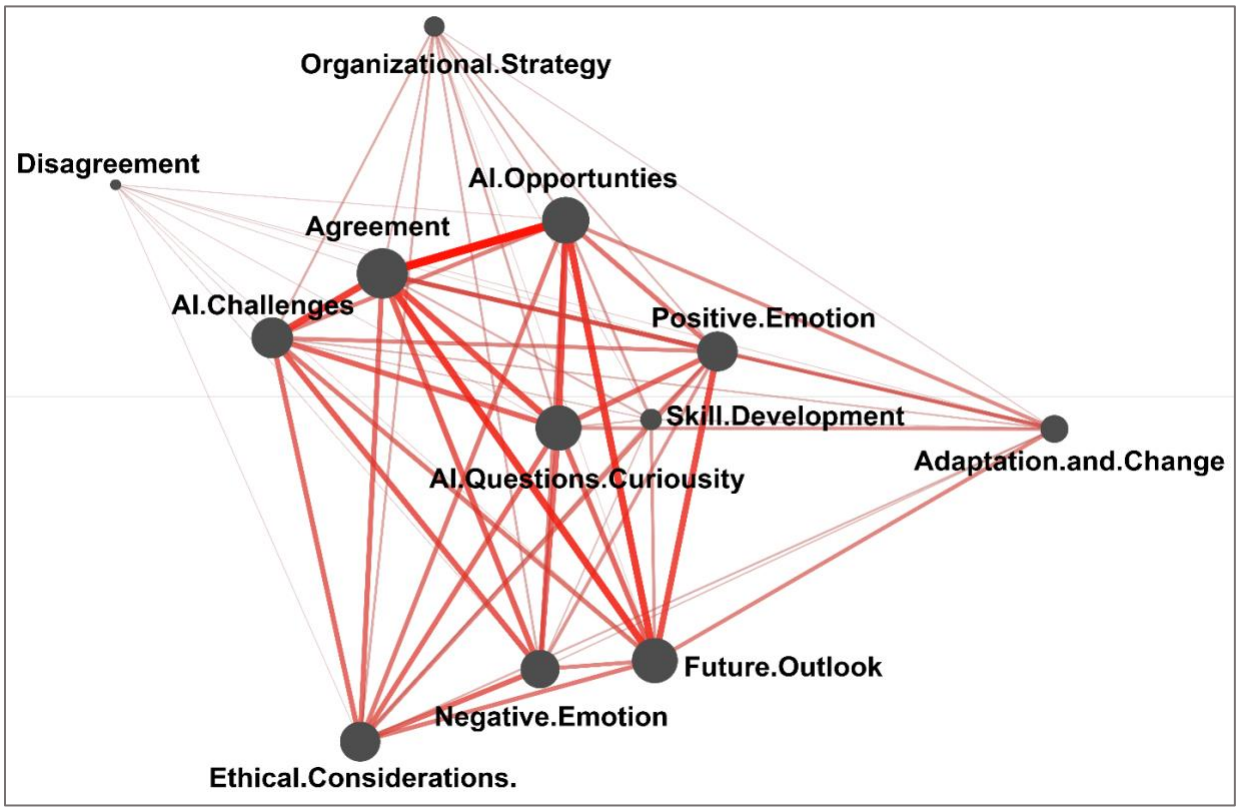
Table 9

Team 1 WSWB Score and ENA Model

Team	Survey Type	Count	Mean	Median	Minimum	Maximum	Range	Standard Deviation
Team 1	Pre-Survey	5	23.4	26	17	30	13	5.639148872
	Post-Survey	5	23.2	26	16	29	13	5.805170109

Figure 15

Team 1 WSWB Score and ENA Model



Team 2 Integrated Findings

In synthesizing the quantitative and qualitative data for Team 2, as seen in Figure 16, team dynamics and well-being perceptions were integrated. The ENA model reflected a robust dialogue around Organizational Strategy, AI Opportunities, and Agreement, suggesting a strategic and unified approach to AI within the team. Quantitatively, this alignment correlates with a slight increase in the team's subjective well-being scores, moving from an average of 29.8 to 30.2, with a notable decrease in standard deviation, indicating a more cohesive experience of well-being post-discussion. This suggested that the team's strategic focus and consensus on AI contributed to a stronger sense of shared purpose and a slight yet positive shift in well-being.

Conversely, the prominence of Negative Emotion in the qualitative data, linked to Future Outlook and Agreement, might imply a recognition of potential challenges ahead. However, this awareness did not appear to detract from well-being; the quantitative data suggested that well-being may have been buffered by the team's strategic discussions and collective curiosity about AI, as indicated by the strong qualitative links to AI Questions/Cur. The integration of these methods thus revealed a nuanced portrait of Team 2: a group that is realistically apprehensive about the future implications of AI yet experiences a positive well-being trajectory, potentially due to the collaborative and strategic nature of their discussions.

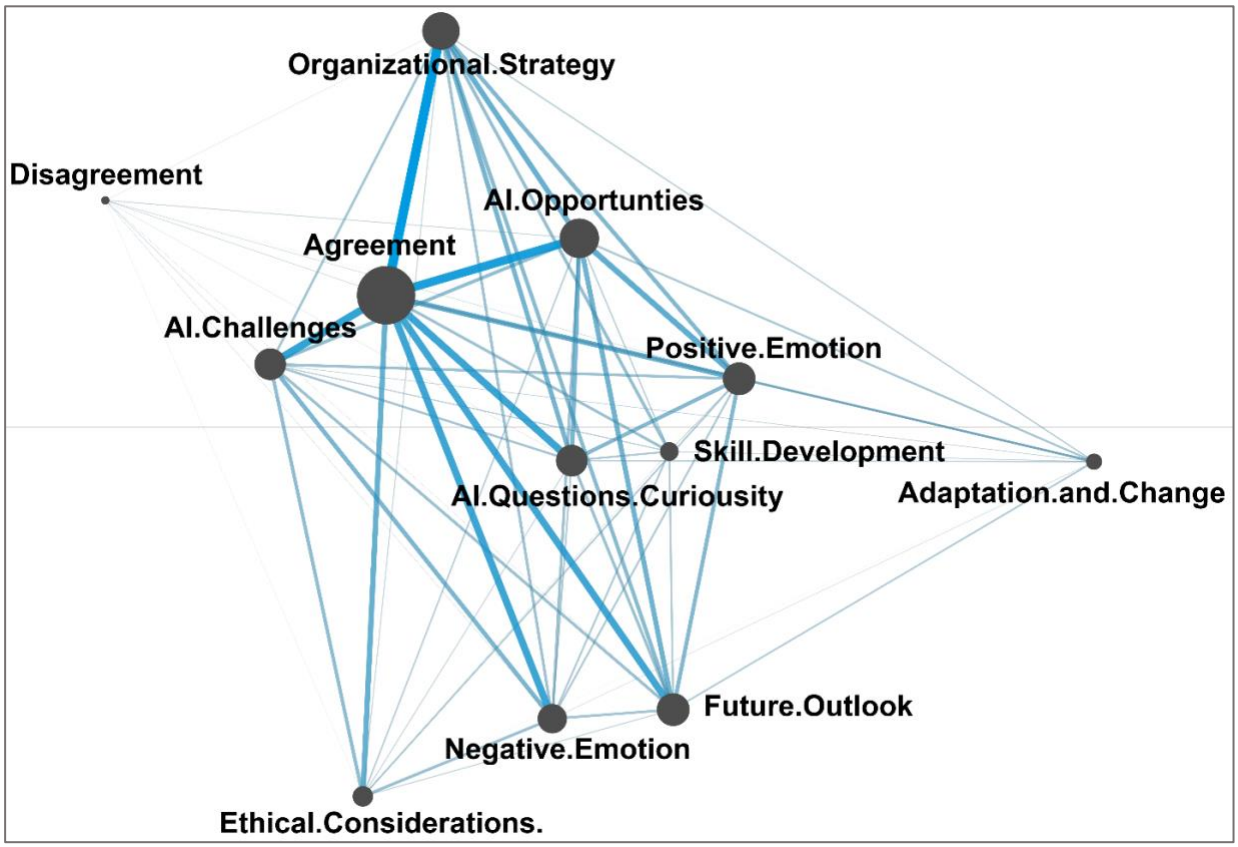
Table 10

Team 2 WSWB Score and ENA Model

Team	Survey Type	Count	Mean	Median	Minimum	Maximum	Range	Standard Deviation
Team 2	Pre-Survey	10	29.8	29	25	37	12	3.91010088
	Post-Survey	10	30.2	29.5	27	35	8	2.740640639

Figure 15

Team 2 WSWB Score and ENA Model



Team 3 Integrated Findings

In Team 3's mixed methods analysis, seen in Figure 17 below, the slight increase in Team 3's average subjective well-being from 25.8 to 26, as indicated by the quantitative data, appears to correspond with the qualitative themes captured in their ENA model. The model highlights a strong connection between Future Outlook, Skill Development, and Adaptation and Change, suggesting that the team's engagement with AI is active and anchored in a positive anticipation of the future. This forward-thinking engagement is further underscored by the qualitative emphasis on Positive Emotion relating to AI Opportunities. The integration of these findings suggests that the team's focus on developing skills and adapting to change, along with a

prevailing sense of optimism, contributed to the observed quantitative rise in well-being despite the potential challenges that AI may present.

The qualitative data also shows less pronounced connections with Negative Emotion, which suggests a balanced emotional perspective within the team when read in conjunction with the quantitative data. While they are mindful of the possible issues AI could bring, as seen in the moderate connections to AI Challenges, the team's conversations and outlook mitigate the impact of these concerns on their well-being. Therefore, the increase in well-being scores may reflect an effective integration of AI discussions that include both the pragmatic development of skills and a positive view of the future. This balanced approach could be vital to maintaining and even slightly improving well-being in the face of the transformative changes that AI is likely to bring to their work environment.

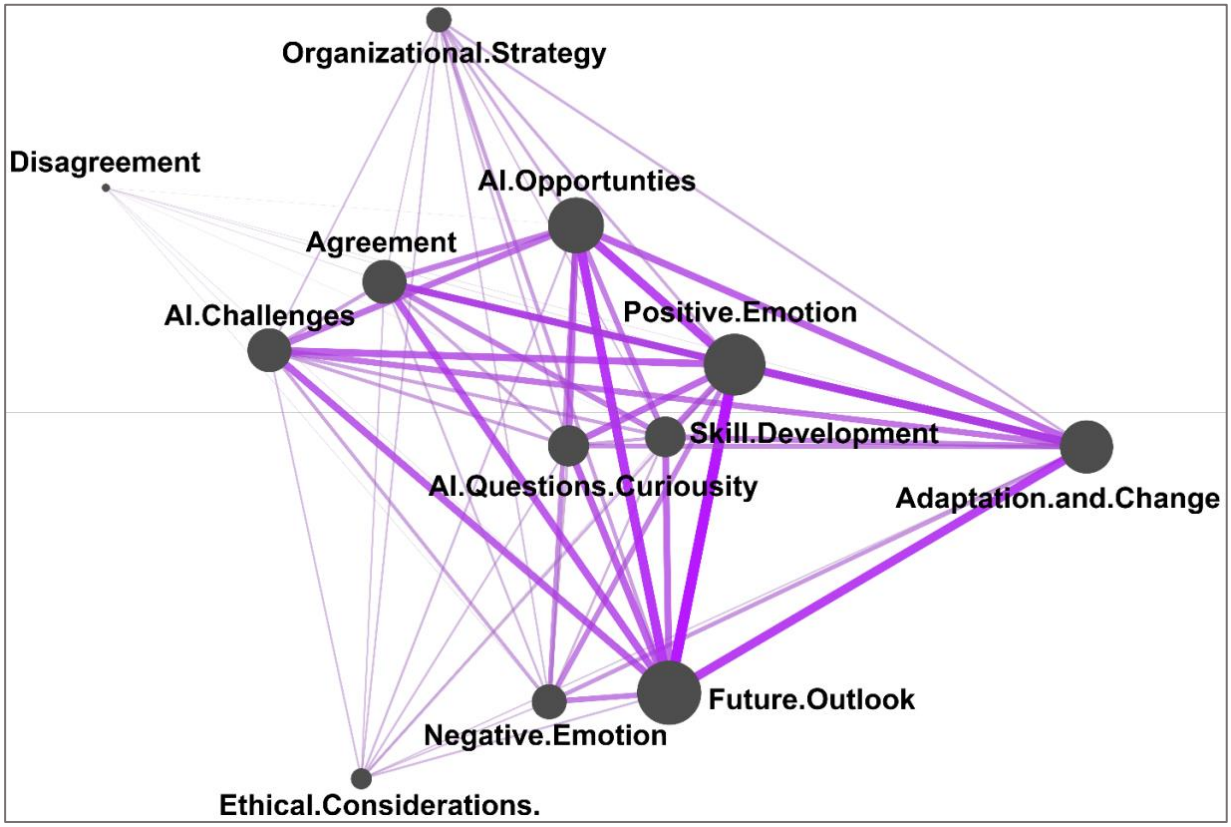
Table 11

Team 3 WSWB Score and ENA Model

Team	Survey Type	Count	Mean	Median	Minimum	Maximum	Range	Standard Deviation
Team 3	Pre-Survey	5	25.8	26	19	34	15	6.418722614
	Post-Survey	5	26	25	20	32	12	5.338539126

Figure 16

Team 3 WSWB Score and ENA Model



Integrated Findings Across All Teams Combined

Unique findings emerge when integrating the quantitative findings of the team's well-being with the qualitative patterns, as seen in Figure 18. The ENA model, which aggregated the discourse of all teams, demonstrated a web of interactions with AI Opportunities, Agreement, and Future Outlook, forming a strong connection, suggesting that across the board, conversations are generally optimistic about the opportunities of AI in the future. This is complemented by the quantitative data, which showed a slight overall increase in the mean well-being score from pre-survey to post-survey, from 27.2 to 27.4. Although this change is minor and not statistically

significant, it indicates a generally stable or slightly positive trend in well-being across participants.

Further, the strong connections between AI Challenges, Agreement, and AI Questions and Curiosity indicate that employees are optimistic about AI's potential and deeply invested in understanding and addressing its complexities. This pattern in the dialogue, emphasized especially by the strong connection to Agreement, suggests a collaborative approach to adaptation and change. Despite the challenges presented by AI, the stable well-being scores suggest that employees are effectively processing these changes, contributing to an organizational climate that supports well-being and underscores a collective resilience and positive outlook as the organization navigates the technological advancements of AI.

Synthesizing these findings, it becomes clear that while AI discussions are met with a positive and forward-looking attitude among teams, such discussions alone may not be sufficient to produce a measurable impact on employees' perceived well-being in the short term. This suggests that while cognitive and affective responses to AI are aligned and positive, these feelings still need to fully integrate into the deeper, more subjective layers of workplace experience that contribute to well-being.

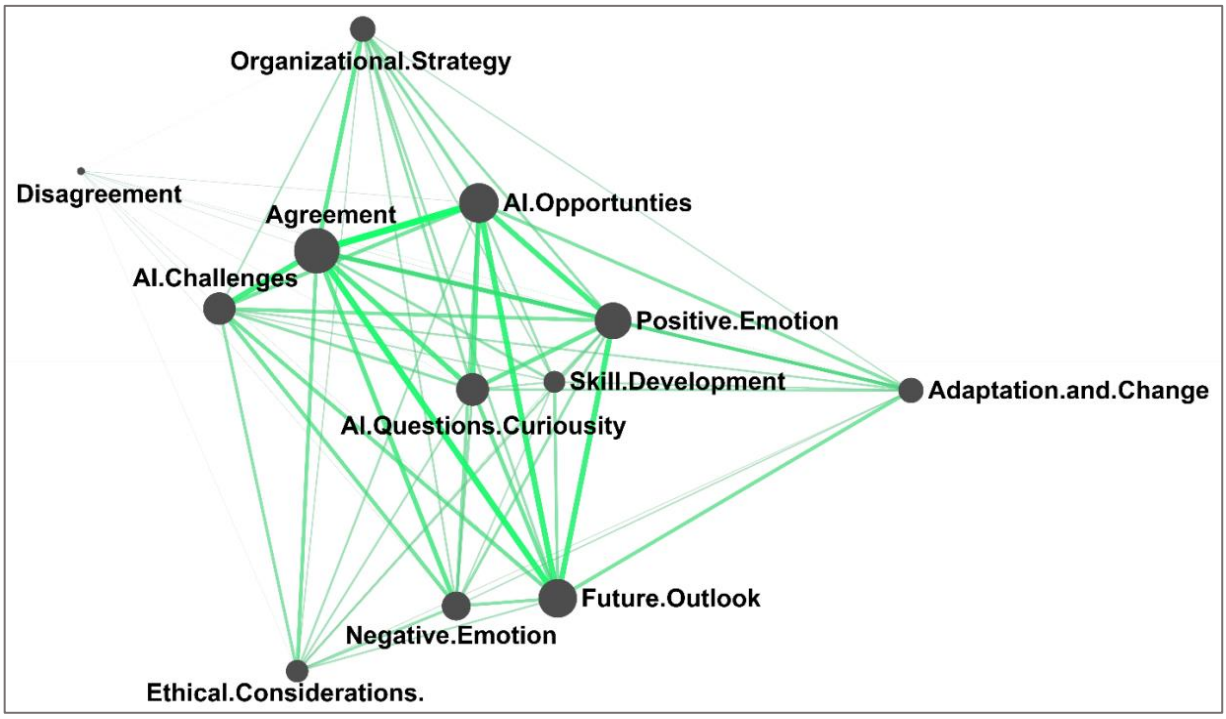
Table 12

Overall Teams Combined WSWB Score and ENA Model

Team	Survey Type	Count	Mean	Median	Minimum	Maximum	Range	Standard Deviation
Overall	Pre-Survey	20	27.2	27	17	37	20	5.521250812
	Post-Survey	20	27.4	28	16	35	19	5.092822607

Figure 17

Overall Teams Combined WSWB Score and ENA Model



Chapter Summary

Chapter 4 presented the research findings on AI's impact on employee well-being in virtual team conversations and answered two research questions. The quantitative data revealed no significant changes in well-being scores post-conversation, indicating a subtle effect of AI dialogue on immediate well-being. Qualitatively, discussions about AI revealed themes like opportunities, challenges, and considerations in organizational strategy and ethics. The integration of these findings suggests a complex relationship between AI discussions and well-being. Chapter 5 discussed the implications and conclusion and sought to explore the broader implications of these findings, focusing on how AI conversations affect employee well-being and strategic organizational integration of AI, offering insights on maintaining a positive work environment in the AI era.

Chapter 5: Discussion, Implications and Conclusion

Introduction

This chapter discussed the findings, implications, and conclusions of the mixed methods study. The purpose of this study was to research the influence of virtual team conversations on AI and the themes and patterns that emerge from these conversations on employee well-being within an organization that is increasing investments in AI technologies. The study aimed to shed light on employees' subjective well-being amidst organizational and technological transformations by integrating qualitative analysis of discourse patterns with quantitative pre and post-survey data. The research was supported by a pragmatic worldview, employing a mixed methods intervention with an embedded convergent core design to capture a holistic view of the impact of such conversations on workplace well-being. The following research questions guided this exploration:

- RQ1: How do virtual team conversations on the topic of AI influence the subjective well-being of individual employees at an organization expanding its use of AI technologies?
- RQ2: What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies?

Summary of Key Findings

The analysis of the impact of AI discussions on employee well-being within virtual teams, as explored through quantitative, qualitative, and an integrated approach, reveals a nuanced picture explored at length in Chapter 4. In summary, quantitatively, the study found no significant changes in the well-being scores of employees post-discussion about AI, suggesting

that immediate, direct impacts of AI conversations on employee subjective well-being are subtle. However, the qualitative analysis uncovered a unique connection among themes around AI, including opportunities and challenges, positive and negative emotions, organizational strategy, adaptation, skill development, and ethical considerations. These thematic patterns highlighted the complexity and breadth of AI's implications for employees and their work environment.

Integrating quantitative and qualitative findings through a mixed methods approach provided deeper insights, highlighting how specific discourse patterns around AI relate to well-being scores. For instance, teams engaging in discussions that balanced recognizing AI's challenges with its opportunities and fostered a forward-looking and strategic approach showed slight improvements or stability in well-being scores. This suggests that the nature and focus of AI conversations within teams, whether optimistic, strategic, or concerned with adaptation and skills development, can influence the team's collective sense of well-being. Through this analysis, the study illustrated the complex interplay between the discourse on AI and employee well-being, pointing to how AI is integrated and discussed within organizational contexts to foster a positive work environment in the AI era.

Discussion of Findings by Research Question

This next section examined each of the two research questions guiding the study. This discussion highlighted the key findings about the literature provided throughout this manuscript and the theories, frameworks, and ideas around workplace well-being, particularly in an increasingly VUCA environment where stress and burnout are rising (Kellerman & Seligman, 2023). Additionally, in RQ1 and RQ2, excerpts from the team conversations were shared to illustrate the thematic patterns and findings further.

Research Question 1

RQ1 asked, “How do virtual team conversations regarding the use of AI influence the subjective well-being of individual employees at an organization's expanding use of AI technologies?” As reviewed in the literature, engaging in a team conversation on a new topic of interest, such as AI, about which individuals have mixed feelings, was hypothesized to enhance well-being through the multifaceted construct of social connection, as described by Holt-Lunstad (2018a). Social connection, encompassing structural, functional, and qualitative aspects, has been shown to mitigate the effects of stress, burnout, and isolation brought about by rapid technological advancements and changing work environments.

Additionally, it was hypothesized that discussing a topic like AI, which sits at the intersection of technological innovation and societal change, would catalyze high-quality connections, as defined by Dutton (2003). These connections are characterized by emotional carrying capacity and connectivity, which are necessary for fostering a supportive and thriving work atmosphere. Lastly, the hypothesis of increased well-being was supported by the notion that sharing thoughts, concerns, and insights about AI can enhance the emotional quality of workplace relationships by providing mutual support, stimulating intellectual engagement, and building trust among team members. Such conversations could contribute to forming social capital within the workplace, as Putnam (2001) outlined, by bridging diverse perspectives and linking individuals through shared interests and collective learning. This, in turn, was hypothesized to lead to increased job satisfaction, positive emotion, and purpose, ultimately enhancing individual and collective well-being in the face of AI uncertainty and change.

The inferential statistical analysis conducted on the subjective well-being of employees participating in virtual team conversations about AI reveals findings that, while interesting, were

statistically insignificant. This was the case across each of the three teams whose well-being scores were calculated individually and when combining the well-being scores of the three teams. Despite observing slight fluctuations in the mean scores of subjective well-being across different teams before and after the discussions, such as in Team 2 and Team 3 as well as across all the teams, the two-tailed paired samples t-tests for each team and the collective data set yielded p-values far exceeding the .05 threshold, indicating that these changes were not statistically significant. This outcome suggests that the conversations about AI within these virtual teams did not have a measurable impact on the participants' subjective well-being in a way that could be distinguished from random chance.

This lack of statistical significance contrasts existing literature, which often posits that discussions and interventions related to workplace practices, such as those involving emerging technologies like AI, can have notable impacts on employee well-being. For instance, research has highlighted that employee engagement in decision-making processes and discussions about workplace changes can enhance their sense of control and well-being (Deci & Ryan, 2000; Ryan & Deci, 2001). However, the findings from this study did not mirror such an effect, possibly due to the short-term nature of the intervention, the specific context of AI discussions, or the resilience of subjective well-being to short-term fluctuations in workplace dynamics.

Further, across all teams, the stability of the median and the slight compression in the range of scores observed in the descriptive statistics suggested a convergence of responses post-discussion, which could indicate a homogenization of perceptions about AI within teams. This might have been expected to translate into a measurable impact on well-being, yet the inferential statistics did not support this. It raises questions about the sensitivity of well-being measures to

specific types of workplace discussions or the potential need for more prolonged or varied exposure to conversations about AI to produce a significant change in well-being.

These findings contribute to the broader discourse on integrating AI in workplaces and its impacts on employees' well-being. While the discussions on AI did not significantly alter employee well-being in the short term, this does not negate the potential for more substantial impacts over longer periods or through different forms of engagement. It underscores the complexity of understanding how technological transformations influence employee well-being and the importance of continued research in this area to uncover nuanced insights and guide organizational practices.

Research Question 2

RQ2 asked, “What discourse patterns and themes emerge among employees in virtual team conversations when discussing AI at an organization expanding its use of AI technologies?” As reviewed in the literature, it was expected that optimism mixed with caution might be a prevailing theme. Employees could express excitement about the efficiency and innovation AI promises, as highlighted by the transformative potential of generative AI in automating routine tasks and enhancing creative processes (Chui et al., 2023; Martineau, 2021). This enthusiasm, however, is tempered by concerns over job displacement and the need for new skill sets, pointing towards a nuanced understanding of AI's dual-edged impact on the workforce (Li, 2022).

Ethical and practical considerations around AI deployment were expected to be a pattern in the dialogue. For example, from the literature, conversations might have explored the ethical dilemmas posed by AI-generated content and the challenges of ensuring equitable access to technology (Bankins & Formosa, 2023; Chakravorti, 2021). These discussions could reflect a

broader engagement with the “wicked problems” described by Camillus (2016) as teams grapple with the complex, multifaceted challenges presented by AI, from data privacy to algorithmic bias. Another expected pattern was a focus on adaptability and continuous learning. The need for ongoing education and adaptation to keep pace with AI and other emerging technologies was expected to emerge as a common thread, reflecting employees' awareness of the shifting skill requirements and the importance of resilience in the face of technological change (Kraus et al., 2022).

Concerns about well-being and work-life balance were also expected to dominate team discussions. Integrating AI in the workplace, while offering to alleviate some job-related stressors, also brings challenges like increased stress and job insecurity, potentially exacerbating feelings of burnout and isolation (Liu et al., 2023; McRae et al., 2023). It was hypothesized that conversations would explore strategies to mitigate these impacts, emphasizing the importance of maintaining a healthy work environment in a digital transformation era. Finally, navigating the changing nature of work was thought to be central, as employees reflect on the historical progression from manual labor to knowledge and service-based economies (Kellerman & Seligman, 2023; Schwab, 2016). This broader perspective might inform discussions on how AI fits into the ongoing evolution of work and its implications for organizational structure, culture, and employee roles.

The findings from the ENA on team conversations about AI in an organization increasing its investment in the technology closely align with the existing literature that was explored. The ENA findings highlighted several key themes: AI opportunities and challenges, organizational strategy, the importance of agreement and consensus, the role of positive and negative emotions, and a strong emphasis on future outlook, skill development, and adaptation to change. Team 1,

who sits in the corporate learning division of the organization and whose role focuses on collaborating closely with global clients to support their leadership development efforts, demonstrates a nuanced understanding of AI. Their discussions, through the lens of their client-facing work and responsibilities, such as project management tasks, closely align with the expected themes of optimism mixed with caution regarding AI technologies. The central clustering of the codes in the epistemic network analysis models, such as AI Opportunities, Agreement, and AI Challenges, underscores a balanced discourse that acknowledges both the potential benefits and the hurdles of AI integration. This resonates with the literature that highlights the dual-edged impact of AI on the workforce, emphasizing the transformative potential of AI alongside concerns over job displacement and skill adaptation needs (Chui et al., 2023; Martineau, 2021). Excerpts from Team 1 below further illustrate this:

> And how are we going to make sure that there's already so much happening with art and, you know, being fraudulent and fakes and all that kind of stuff? So it's scary. I think it's exciting, but it's also very kind of scary because if you think of how fast it takes us to figure out something, once we mess something up and then we figure it out and then we get smarter again there, it's a lot faster for chat GPT to figure it out.

The participant navigated the complex emotions AI evokes, labeling it as both “exciting” and “very kind of scary.” This ambivalence directly ties back to the overarching narrative of Team 1's nuanced understanding of AI. The excitement likely stems from AI's transformative potential and capabilities to innovate and enhance various aspects of work and creativity. However, the fear reflects concerns over AI's rapid learning abilities and potential misuse, such as in producing fraudulent art or fakes. This duality demonstrates the balanced discourse on AI, recognizing its opportunities while acknowledging significant challenges.

> It just seems like there's always. There's always. There's always some fear and apprehension, which I know I hold for it. And then there's always the case scenario, whether it's going to be good or, you know, what it's going to take away. And, you know, Sally, you mentioned like the writers’ strike and everything. And that was a really big

> part of it. And then I read that you know, in that newest Top Gun movie, Val Kilmer can't talk anymore, but they use an AI-generated voice of him to make him have one line, his final line ever, you know? So I think that's something cool that came out of it that wouldn't have been able to happen without it. Right? But there's also a lot of fear. There was Bryan Cranston talking about it on the show, and he's like, somebody could create a movie where it sounds exactly like me. It looks exactly like me, but I'm not the one in it. And they don't need me for it. And that's what we're afraid of, you know?

The quote began with the participant expressing a mixture of "fear and apprehension" and curiosity about the "really good" that AI might bring. This mirrors the balanced view within Team 1, emphasizing optimism and caution towards AI technologies. The mention of the entertainment industry, specifically the use of AI to voice Val Kilmer in the Top Gun movie, showcases AI's potential to offer solutions to unique challenges, aligning with the AI Opportunities theme. However, the concern voiced by Bryan Cranston about AI potentially replacing actors illuminates the AI Challenges aspect, highlighting fears around job displacement and the erosion of individuality in creative professions. This example underscores the complex interplay between AI's benefits and its implications for job security and ethical considerations, resonating with the broader discourse on AI's dual-edged impact on the workforce.

In contrast, Team 2, situated in corporate learning and operating centrally across various business units, encompasses a diverse range of roles from client-facing positions like project management to coordinator roles and moderators who facilitate conversations with leaders, presenting a slightly different narrative. Their dialogue has a somewhat different narrative, with a significant focus on AI with the code Organizational Strategy and a notable presence of Negative Emotion linked to the Future Outlook. This pattern suggests a pragmatic approach that prioritizes strategic alignment of AI opportunities with corporate goals, coupled with a cautious or concerned view of the future implications of AI technologies. While this still aligns with the literature on the necessity for strategic and ethical considerations in AI deployment (Bankins &

Formosa, 2023; Chakravorti, 2021), the emphasis on Negative Emotion contrasts with the expected optimism, indicating a more apprehensive stance towards AI's impact on the future workplace. These themes are emphasized in excerpts from Team 2 below:

> I agree with you Darren. I feel the same way. I think there are. I think, especially where we're now challenging ourselves to question the status quo and do things differently, that when we think about these big ideas and introducing new innovative technologies like AI, etc., the idea excites us. But then when you have to stop and answer the question of, like, okay, who will help me with this? Or who do I go to? Where do I start? It's hard not to get discouraged because you have no answers. Your hands kind of go up in the air like, I don't know, do I go to IT or do I go to.

The expression of frustration by the team member regarding the ambiguity surrounding who to approach for assistance with AI initiatives illustrates the challenges, or Negative Emotion, that reoccurred for Team 2 in thinking about AI and the Organizational Strategy. This frustration stems from a lack of clear guidance and support structures within the organization, leading to discouragement when attempting to innovate or implement new technologies. The statement, “who's going to help me with this?” encapsulates the desire for a more structured and supportive approach to exploring AI's potential, highlighting the Negative Emotion and uncertainty that pervades their outlook towards AI integration.

> Certainly not. But, I think I even asked it in one all-staff meeting, and they said something like, well, we formed a task force. They will inform you that they will report out regularly. Still, like the last question here about how do we make sure that we are open to experiment and all that, everyone I talk to in our team is very open to experimenting, to failing, like I feel we are there to bring it on, but someone needs to bring it on. I don't know how to explain it. How do others feel? Do you think there's a lack of curiosity? Mellie, thank you for sharing your very honest doubts. But even when Mellie spoke earlier, I was sincerely interested in discovering more. He's not bought in yet, but could be bought in. Nobody is like, it's just a theoretical discussion for me. How do I feel like? If you feel similar, I may want to try to get this to the leadership team somehow. I don't know what they could do.

The participant’s quote highlights the team's eagerness to embrace AI and experiment, underscored by the phrase “bring it on.” However, this enthusiasm is tempered by a lack of

communication and clarity regarding the organization's strategy for AI deployment. The participant asked about AI initiatives during a staff meeting, only to receive vague responses about a task force. This illustrates a disconnect between their readiness to engage with AI and the organization's ability to provide a clear direction. This example emphasizes the Negative Emotion arising from the theoretical nature of discussions around AI within the organization, emphasizing the need for more tangible guidance and engagement from leadership to harness the team's willingness to innovate.

> Not feeling, not heard. Just an additional comment that we know that there are parts of the organization like, especially on the digital side, that are already leveraging AI. So it does scream that we have invested to an extent. However, we need to understand what specifically AI we have invested in a little more to see if it could even address our needs. And then, at least that way, we can confidently say it. It could, or it can't, and then request additional funding or whatever it may be for an AI tool that could actually meet our needs. I think there has been some investment, but we don't know.

This captured one of the team members' concerns about needing to be more informed about the organization's AI investments. This lack of transparency fuels uncertainty about how these investments align with the team's needs and whether they could be leveraged to address specific challenges. The participant's desire for more detailed information about the AI tools already used within the organization reflected an eager approach to understanding and potentially adopting AI technologies. This example highlighted a gap in communication and strategic planning within the organization, contributing to a sense of exclusion or Negative Emotion and a desire for more active involvement in decision-making processes related to AI investments.

Team 3, a group of enterprise-wide customer service leaders who oversaw teams of customer service representatives across each of the business units in the organization, stood out for their focus on Future Outlook, Skill Development, and Adaptation and Change. This highlights a proactive and optimistic engagement with AI technologies. The strong connections

between these themes and Positive Emotion underscored a forward-looking perspective willing to harness AI's potential benefits while actively preparing for the evolving skill requirements and workplace changes. This reflected the literature's emphasis on adaptability and continuous learning as crucial responses to the technological advancements in AI (Kraus et al., 2022), albeit with a more pronounced optimism than anticipated in the broader discussion of AI's implications for work-life balance and well-being (Liu et al., 2023; McRae et al., 2023). Excerpts from Team 3's conversation further emphasized this focus:

> We all knew we wanted to update our professional skills portfolio to adapt to how we were. We're interacting and engaging business each day to that to that end; I guess I would say it's becoming clear to me that certainly harnessing the power of AI within the business sense and specifically within our unit is a competitive advantage if done well. It seemed to me that the smart approach is for people to harness the power of AI, develop the skills necessary to guide it and yield the output that AI can generate. So again, it's about skills development, which I think is a big. It's a significant key to ensure that fear and uncertainty don't cloud or delay our opportunity to move forward and unlock the value of AI.

The participant's emphasis on updating their "professional portfolio of skills" to harness AI effectively within their business unit showcased an active approach to Skill Development. This focus on acquiring new abilities to guide AI and leverage its output speaks to a deliberate strategy for Adaptation and Change, preparing the team to navigate future challenges and opportunities. The mention of moving forward despite fear and uncertainty underscores the team's proactive stance on Future Outlook, demonstrating an understanding that embracing AI with the right skills will unlock significant value and competitive advantage.

> I was going to say that I also think that it will be humans using AI in the future. Like, we're in the driver's seat, and we're using AI, which actually has a better potential use for it because you need someone to drive it. It's not a state where you can just let it go. So you're going to eventually have experts who are bearing on what they're looking for and using that in the workplace rather than having AI control everything. It's not going to be that way for a few years. So you definitely need a human.

The quote embodied the Future Outlook and Adaptation and Change codes through its vision of humans working alongside AI. The idea that humans will “drive” AI, ensuring its ethical and purposeful application in the workplace, highlighted a forward-looking perspective on how AI can augment human capabilities rather than replace them. This scenario necessitated a shift in how tasks are approached and managed, indicating a commitment to Adaptation and Change by anticipating and preparing for a future where human expertise directs AI's potential uses.

> I think it was a continuation of the previous study. If we could use it to help us with simple tasks, for example, what do we all do, write emails? If AI could write us the emails and we could turn from writers to editors, that would be very helpful because it would require less time. And there are probably areas in everyday activities where we could move to another level and let AI handle the basics. Then we would review if it, provides, acceptable information.

The participant’s quote reflects on Skill Development by suggesting a shift from writers to editors in the context of using AI for writing emails. This practical application of AI to everyday tasks illustrates the individual's willingness to adapt their skills to new technologies, focusing on higher-level editorial capabilities rather than initial content creation. This adaptation signified a nuanced approach to Adaptation and Change, leveraging AI for efficiency and allowing team members to focus on more strategic tasks. It also indicated a positive Future Outlook, where AI's integration into daily operations was seen as an opportunity for growth and efficiency improvement.

> I think it [AI] will be competitive, as in, for example, if we had the same customer asking similar questions in the same way, I can gather all the information, put in a custom response where we can we can tell if this is something where we want to use, based on all the inquiries we have, because most of the tickets are similar in certain ways where they come. Then we can get a report based on the AI looking at all the issues, the top 10 issues we're seeing, and the responses that have been given, which we can use to move from there and grow. It would be helpful for us if we could do that.

The participant's quote touched on Future Outlook and Adaptation and Change by discussing the use of AI to analyze customer service inquiries and create customized responses, which would be "really helpful." This strategy anticipated a future where AI tools could identify patterns and streamline customer service processes, illustrating a vision for using AI to enhance operational efficiency and service quality. The proactive approach to incorporating AI into customer service operations showcased an optimistic Future Outlook, seeing AI as a tool for competitive advantage. This anticipation of leveraging AI for strategic insights and improved customer engagement is a clear commitment to Adaptation and Change, reflecting an agile approach to evolving workplace demands and technology capabilities.

Overall, the ENA findings offer a rich, nuanced view of how teams in an organization discuss and conceptualize AI, partially aligning with the literature but also revealing unique discourse patterns. These discussions reflect optimism and concern, underscore the critical role of trust and skills development, and incorporate ethical considerations into a broader conversation about the future of work with AI.

Side-by-Side Examination of Quantitative and Qualitative Results

An additional analysis was observing what patterns emerged when comparing quantitative indicators of employee well-being with qualitative descriptions of employee experiences in virtual team conversations about AI. Drawing from the theoretical framework, it was expected that quantitative measures of job satisfaction, emotional experiences at work, and the sense of purpose or meaningfulness in one's work might not fully capture the nuanced experiences and perceptions revealed through qualitative discussions (De Neve & Ward, 2023). It was hypothesized that these discussions would illuminate how AI integration impacts, through social connection, operationalized through structural, functional, and quality supports, as defined

by Holt-Lunstad (2018b), employees' sense of well-being. For instance, while quantitative data might show a general trend in employees' subjective well-being, qualitative insights from team conversations could reveal specific concerns or enthusiasms about AI, such as fears of job displacement or excitement about reduced menial tasks, which directly affected the emotional and meaningfulness dimensions of workplace well-being.

Integrating quantitative and qualitative findings in this mixed-methods study offers a nuanced understanding of how virtual team conversations about AI influence employee well-being. The juxtaposition of subjective well-being scores with thematic content from team discussions, as presented through the ENA models, reveals a complex interplay between the discourse on AI and its perceived impact on team members. For instance, Team 1 demonstrated a balanced dialogue that contributed to maintaining individual well-being. The conversation, covering both the opportunities and challenges AI presents, reflects their nuanced understanding of the complexities involved. Toward the end of the conversation, one of the team members said,

> Well, thank you for that, I enjoyed this and I enjoyed prepping for it. Also, I enjoyed our conversation today. It is nice to pick a topic that's not necessarily specific to our project or something we're doing now but just kind of out there that maybe we're all thinking about or hearing about and touch base and get other people's perspectives. I appreciate everybody joining today. Thank you. And for your participation.

This remark highlighted the importance of engaging in discussions addressing timely topics that can raise work concerns, such as AI, to foster a sense of community and shared exploration among team members. When focused on forward-looking and optimistic viewpoints, such discussions can act as a buffer against stressors associated with AI integration or other elements of the increasingly VUCA environment. The stable well-being scores observed within Team 1 suggested that the themes found in their dialogue, such as the balance of discussing AI’s challenges and opportunities with a future orientation, may play a role in maintaining employee

well-being by fostering a supportive organizational climate. This observation aligned with existing literature, underscoring the significance of positive workplace communication in sustaining employee well-being (Holt-Lunstad, 2018b). Although the data did not reveal quantitative significance, the positive feedback from participants suggested that continuing these conversations could potentially make an impact over time. However, it remains challenging to determine the precise effects of such discussions on well-being from the current data set. Regardless, the ENA models point towards maintaining open, balanced, and optimistic dialogues about emerging technologies like AI, highlighting their potential to contribute to a supportive workplace environment.

Team 2's dialogue highlighted an interesting dynamic between acknowledging potential challenges and fostering a sense of collective well-being. Despite strong negative emotions emerging from the discussion, a notable aspect was how these discussions did not decrease but slightly enhanced the team's well-being. This finding could be attributed to the focus on the organizational strategy and discussions around AI opportunities and challenges, which cultivated a collective sense of purpose among team members. Toward the end of the debate, one participant's feedback highlighted this sentiment: “Thank you, everyone! Loved being a part of this!” This expression of gratitude and engagement showed the team's cohesiveness in discussing AI topics.

Despite the acknowledged challenges and negative emotions, the slight increase in well-being scores suggested that the discussions were an outlet for expressing fears and concerns, which may have lingered unaddressed. By providing a platform for these discussions, the team could agree and bond over similar concerns, thus strengthening their collective resolve and sense of belonging. Furthermore, the research supports that shared goals and strategic alignment within

teams can significantly influence employee satisfaction and well-being (Kozlowski & Ilgen, 2006). The observed slight increase in well-being scores among Team 2 members, accompanied by a decrease in variability, highlights the positive outcomes that can arise from a collaborative and strategically oriented discourse on AI.

Although the statistical significance of these findings in terms of well-being scores was not established, the positive feedback and the shared experience of addressing AI challenges and opportunities suggest that continuing such conversations may offer further opportunities for team members to surface any concerns. This, in turn, could act as an outlet, leading to enhanced well-being over time. The discussions around AI within Team 2 illustrate how dialogue, even when intertwined with recognizing potential negatives, can foster a supportive environment that encourages personal expression and contributes to a strengthened sense of well-being.

Team 3's conversation, who are in the customer service sector, displayed a blend of personal adaptation, skill development, and an optimistic outlook toward the future, especially considering the potential impact of AI on their specific roles. Amid these conversations, a team member's comment highlighted the collective sentiment of readiness and confidence rather than fear and uncertainty:

> It's validating to me anyway that your underlying sense conveys one of quiet confidence and readiness to see what this thing is all about, as opposed to significant fear and uncertainty. Certainly, I guess I would want you to know that I expect our unit to begin moving with a greater purpose to try to unlock some of these aspects of the AI-driven customer experience that we're talking about.

This reflection captured the team's proactive stance and positively illustrates their approach toward embracing AI.

What stood out in Team 3 was their ability to maintain a positive discourse despite the technical nature of their roles and the looming notion of AI replacement. The team demonstrated

a weaker connection to negative emotions than other groups. This proactive engagement with AI, where challenges are acknowledged alongside a strong emphasis on opportunities and skill enhancement, shows their optimistic and future-oriented perspective despite the potential difficulties. Although the quantitative analysis did not reveal statistical significance regarding well-being scores, the qualitative insights from these discussions are valuable. The team's dialogue provided an opportunity to explore a topic closely related to their work, preparing them for the future constructively and positively. This aligned with literature advocating for the benefits of skill development and adaptability in the workplace, suggesting that empowering employees to navigate technological changes positively can significantly impact their well-being (Ferreira, 2019; Kellerman & Seligman, 2023).

The findings from RQ2 show the relationship between employee well-being and discourse on AI within virtual teams. While the quantitative data provides an overview of well-being, the qualitative insights uncover more about employees' concerns and enthusiasms about AI, ranging from fears of job displacement to excitement over reduced mundane tasks. Integrating the quantitative and qualitative data highlights the role of discussions about AI in fostering a sense of community acting as a buffer against stressors in the VUCA environment. Teams engaging in balanced dialogues about AI's challenges and opportunities demonstrated stable or slightly improved well-being scores, demonstrating the importance of a supportive organizational climate. In essence, the integrated data suggested that fostering open, balanced, and optimistic dialogues about emerging technologies like AI can contribute to maintaining and enhancing employee well-being by creating an environment where individuals feel empowered and ready to navigate future changes with confidence and positivity.

Limitations of the Study

The study presented valuable insights into the relationship between virtual team conversations about AI and employee well-being, yet several limitations are worth noting. First, the constraints of resources and timeframe significantly influenced the scope and depth of the research. The researcher's limited resources and constrained timeframe may have affected the robustness of data collection and analysis, potentially limiting the study's ability to capture a comprehensive picture of the complex dynamics at play. These constraints likely impacted the extent to which the research could explore variations across different organizational contexts and the depth of qualitative analysis, leading to a less nuanced understanding of how AI discussions influence employee well-being.

Furthermore, the limited number of participants and the nature of the study as a single, cross-sectional analysis restrict the ability to draw broader conclusions about the long-term effects of AI discussions on employee well-being. A larger participant pool would allow for a more robust statistical analysis and increase the findings' generalizability. Additionally, the absence of longitudinal data means that the study could not capture the evolving nature of employee well-being in the context of ongoing AI integration or how initial perceptions and impacts may change over time. This limitation underscored the need for longitudinal studies to understand better the long-term implications of AI discussions on employee well-being, including potential shifts in team dynamics, organizational culture, and individual adaptation to technological changes.

Another notable limitation was the study's confinement to participants within a single organization, which raised questions about the generalizability of the findings. Conducting research within a single organizational setting limits the ability to account for the diversity of

corporate cultures, structures, and AI integration strategies across different companies. This limitation could affect the interpretation of the findings, as the unique context of the organization under study could have influenced the patterns observed, making it difficult to ascertain whether similar dynamics would emerge in other settings. The study's focus on one organization also prevented examining industry-specific factors or organizational size impacts on the relationship between AI conversations and employee well-being, potentially overlooking significant contextual influences. These limitations highlighted areas for future research, which was further explored.

Recommendations for Practice

The findings from this study on the relationship between virtual team conversations about AI and employee well-being offer valuable insights for stakeholders and practitioners in organizational behavior, human resources, learning and development, and technology management. To leverage these insights, it is recommended that organizations foster a culture of open and strategic discussion around AI and its implications for work processes. Encouraging teams to engage in conversations that not only highlight AI opportunities but also address challenges and strategies for adaptation can enhance collective well-being. Practitioners should facilitate forums or workshops where employees can share their experiences, concerns, and visions related to AI, thereby promoting a proactive and inclusive approach to technological integration. These discussions should emphasize skill development, future outlook, and positive engagement with change, as these themes were associated with maintained or slightly improved well-being scores in the study.

Further, the study's findings underscored the importance of integrating qualitative insights with quantitative well-being measures to inform organizational policy and practice.

Organizations should consider adopting mixed methods approaches in their evaluation and planning processes, enabling a more holistic understanding of employee experiences and well-being. For instance, human resource departments could implement regular mixed methods assessments to monitor the impact of AI and other technological advancements on employee well-being, using these insights to tailor interventions, training programs, and support mechanisms. This could include developing AI literacy programs that equip employees with the necessary technical skills and address the emotional aspects of working with AI, thereby fostering a competent and resilient workforce in the face of technological change.

Lastly, the study's limitations highlight the need for broader and more longitudinal research into the effects of AI discussions on employee well-being. Policymakers and organizational leaders should support and engage in continued research efforts, potentially across different industries and organizational sizes, to develop a richer understanding of these dynamics. This commitment to research can inform more effective policies and practices that mitigate the challenges associated with AI integration and maximize the potential benefits for employee well-being and organizational success. By taking a proactive, informed, and comprehensive approach to managing the human-technology interface, organizations can navigate the complexities of the digital age more effectively, fostering an environment where employees and the organization can thrive.

Recommendations for Future Research

This study has laid the necessary groundwork for understanding the relationship between virtual team discussions on AI and employee well-being. However, it also uncovers several gaps that present opportunities for future research. One significant gap is the study's focus on a single organization, which may limit the generalizability of the findings. Future studies should aim to

replicate and extend this research across multiple organizations, including those from different industries and with varied organizational cultures. This broader approach would enhance the understanding of how organizational context influences the relationship between AI discourse and employee well-being, potentially uncovering sector-specific dynamics and strategies for effectively integrating AI into the workplace.

Additionally, the study's cross-sectional nature indicates the need for longitudinal research to track the evolution of employee well-being and AI discourse over time. Longitudinal studies could provide deeper insights into AI discussions' causal relationships and long-term impacts on employee well-being. This could include examining how initial perceptions of AI evolve with increased exposure and experience and how these changes affect individual and team well-being. Additionally, future research could explore the role of individual differences, such as personality traits, technological readiness, and resilience, in shaping employees' reactions to AI in the workplace. Understanding these personal factors could lead to more tailored and effective interventions to support employee well-being during technological transitions.

The mixed methods approach of this study also highlights the value of integrating qualitative and quantitative data in organizational research. Future studies could build on this by employing more diverse qualitative methods, such as diary studies, focus groups, or in-depth interviews, to gain richer, more nuanced insights into employee experiences with AI. Additionally, exploring the impact of specific types of AI applications, such as automation, data analytics, and AI-driven decision-making tools, could offer practical guidance for organizations looking to implement AI technologies. Addressing these gaps and suggestions in future research will contribute to academic knowledge and provide actionable insights for organizations navigating the complexities of AI integration and its impact on the workforce.

Researcher Reflections

Reflecting on the findings from this recent study, a few insights emerged. Initially, I was surprised that the overall workplace well-being scores had primarily stayed the same, contrary to what I had expected based on the literature. On the qualitative side, while the themes were as predicted, their strength within and across teams was unexpected. Team 2, for example, concentrated intensely on organizational strategy. It would be fascinating to conduct this research again now that the company has introduced an AI Policy to see if and how their discussion themes might shift and, in turn, affect their well-being.

Additionally, it was intriguing how all teams consistently recognized the opportunities and challenges presented by AI. Their reactions to AI were complex and varied rather than positive or negative, adding a layer of nuance to understanding how emerging technologies impact team dynamics. Lastly, it was interesting how team conversations correlated with their well-being scores. For instance, Team 3 focused on skill development and adapting to change. Following these discussions, their well-being scores improved, highlighting the positive impact of engaging in meaningful conversations at work.

Conclusion

The research from this study offered a comprehensive exploration into the nuanced dynamics between virtual team conversations about AI and employee well-being within an organization, increasing its investment in AI technologies. Despite the lack of significant quantitative changes in well-being scores post-AI discussions, the qualitative analysis revealed rich discourse patterns that underscore the complexity of AI's implications on employee experiences and perceptions. The mixed methods approach of integrating quantitative data with qualitative insights has highlighted the subtle yet essential ways conversations about AI can

influence employee well-being, highlighting the importance of strategic, balanced, and forward-looking discussions. These conversations not only navigate the challenges and opportunities AI presents but also foster an organizational culture that supports adaptation, skill development, and ethical considerations, ultimately contributing to a positive work environment in the AI era.

This study's findings, guided by a concurrent mixed methods design, revealed the complex interplay between the discourse on AI and employee well-being, suggesting that the nature of these conversations can indeed shape the collective sense of well-being within teams. As organizations continue integrating AI technologies, fostering open and strategic dialogues about AI's role and impact can be critical for enhancing employee well-being. By recognizing the multifaceted implications of AI discussions as uncovered in this research, organizations can better navigate the technological transformations, ensuring that the integration of AI technologies not only advances operational goals but also supports the well-being and development of their employees. This underscores the necessity for ongoing research and adaptive strategies in organizational management to maximize the benefits of AI while mitigating its challenges, ensuring a thriving workforce in the digital age.

REFERENCES

Aamodt, M. G. (2015). *Industrial/organizational psychology: An applied approach* (8th ed.). Cengage Learning.

Aguilar, F. (1967). *Scanning the business environment*. Macmillan.

Alcock, I., White, M. P., Wheeler, B. W., Fleming, L. E., & Depledge, M. H. (2014). Longitudinal effects on the mental health of moving to greener and less green urban areas. *Environmental Science & Technology*, *48*(2), 1247–1255. https://doi.org/10.1021/es403688w

Allin, P. V. (2021). Reflections on the introduction of official measures of subjective well-being in the United Kingdom: Moving from measurement to use. In M. T. Lee, L. D. Kubzansky, & T. J. VanderWeele (Eds.), *Measuring well-being* (pp. 50-C2.P94). Oxford University Press New York. https://doi.org/10.1093/oso/9780197512531.003.0003

Allport, G. W. (1961). *Pattern and growth in personality*. Holt-Lunstad, Rinehart & Winston.

Angrist, J. D., & Pischke, J.-S. (2015). *Mastering 'metrics: the path from cause to effect*. Princeton University Press.

Aristotle. (335 C.E./2011). *Aristotle's "Nicomachean ethics."* University of Chicago Press.

Ashkanasy, N. M., Härtel, C. E. J., & Daus, C. S. (2002). Diversity and emotion: The new frontiers in organizational behavior research. *Journal of Management*, *28*(3), 307–338. https://doi.org/10.1177/014920630202800304

Atkeson, A. (2020). *What will be the economic impact of COVID-19 in the US? Rough estimates of disease scenarios* (Working Paper No. 26867). National Bureau of Economic Research Paper Series. https://doi.org/10.3386/w26867

Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly*, *22*(2), 127–152. https://doi.org/10.1002/hrdq.20070

Babic, B., Gerke, S., Evgeniou, T., & Cohen, I. G. (2021). Beware explanations from AI in health care. *Science*, *373*(6552), 284–286. https://doi.org/10.1126/science.abg1834

Bailey, C., Yeoman, R., Madden, A., Thompson, M., & Kerridge, G. (2019). A review of the empirical literature on meaningful work: Progress and research agenda. *Human Resource Development Review*, *18*(1), 83–113. https://doi.org/10.1177/1534484318804653

Bankins, S., & Formosa, P. (2023). The ethical implications of artificial intelligence (AI) for meaningful work. *Journal of Business Ethics*, *185*(4), 725–740. https://doi.org/10.1007/s10551-023-05339-7

Barakovic Husic, J., Melero, F. J., Barakovic, S., Lameski, P., Zdravevski, E., Maresova, P., Krejcar, O., Chorbev, I., Garcia, N. M., & Trajkovik, V. (2020). Aging at work: A review of recent trends and future directions. *International Journal of Environmental Research & Public Health*, *17*(20). https://doi.org/10.3390/ijerph17207659

Barber, L. K., Grawitch, M. J., & Maloney, P. W. (2016). Work-life balance: Contemporary perspectives. In M. J. Grawitch & D. W. Ballard (Eds.), *The psychologically healthy workplace: Building a win-win environment for organizations and employees.* (pp. 111–133). American Psychological Association. https://doi.org/10.1037/14731-006

Bari, M. W., Saleem, S., Bashir, M., & Ahmad, B. (2022). Impact of ambient air pollution on outdoor employees' performance: Mediating role of anxiety. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.926534

Bell, B. S., & Kozlowski, S. W. J. (2002). A typology of virtual teams: Implications for effective leadership. *Group & Organization Management*, *27*(1), 14–49. https://doi.org/10.1177/1059601102027001003

Bennett, N., & Lemoine, J. (2014). What VUCA really means for you. *Harvard Business Review, 92*(1/2). https://papers.ssrn.com/abstract=2389563

Bentham, J. (1790/1996). *An introduction to the principles of morals and legislation*. Oxford University Press.

Bhattacherjee, A. (2012). *Social science research: Principles, methods, and practices* (2nd ed.). Creative Commons.

Bjørnskov, C. (2010). How comparable are the Gallup World Poll life satisfaction data? *Journal of Happiness Studies*, *11*(1), 41–60. https://doi.org/10.1007/s10902-008-9121-6

Blanchflower, D. G., & Oswald, A. J. (2008). Is well-being U-shaped over the life cycle? *Social Science & Medicine*, *66*(8), 1733–1749. https://doi.org/10.1016/j.socscimed.2008.01.030

Boarini, R., Kolev, A., & McGregor, A. (2014). *Measuring well-being and progress in countries at different stages of development: Towards a more universal conceptual framework* (Working Paper No. 325). OECD Development Center. https://doi.org/10.1787/5jxss4hv2d8n-en

Boehm, J. K., & Lyubomirsky, S. (2008). Does happiness promote career success? *Journal of Career Assessment*, *16*(1), 101–116. https://doi.org/10.1177/1069072707308140

Boone, L., & Pinaud, N. (2021). *Fostering economic resilience in a world of open and integrated markets: risks, vulnerabilities and areas for policy action*. OECD Development Center. https://tinyurl.com/2uj9mpmn

Boyd, D. (2023). Workplace stress. *The American Institute of Stress*. https://tinyurl.com/374c85cr

Boyd-Swan, C., Herbst, C. M., Ifcher, J., & Zarghamee, H. (2013). *The earned income tax credit, health, and happiness*. IZA Institute of Labor Economics. https://doi.org/10.2139/ssrn.2234323

Boyle, P. A., Barnes, L. L., Buchman, A. S., & Bennett, D. A. (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic Medicine*, *71*(5), 574–579. https://doi.org/10.1097/PSY.0b013e3181a5a7c0

Bringsjord, S., & Govindarajulu, N. S. (2022). Artificial Intelligence. In *The Stanford Encyclopedia of Philosophy*. Stanford University. https://plato.stanford.edu/entries/artificial-intelligence/

Bryman, A. (2012). *Social research methods* (4th ed). Oxford University Press.

Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford University Press.

Brynjolfsson, E., Li, D., & Raymond, L. (2023). *Generative AI at work* (NBER Working Paper No. 31161). National Bureau of Economic Research. https://doi.org/10.3386/w31161

Bühler, C. (1935). The curve of life as studied in biographies. *Journal of Applied Psychology*, *19*(4), 405–409. https://doi.org/10.1037/h0054778

Burke, R. J., & Richardsen, A. M. (2019). *Creating psychologically healthy workplaces*. Edward Edgar Publishing.

Cameron, K. S. (2021). *Positively energizing leadership: virtuous actions and relationships that create high performance*. Berrett-Koehler Publishers.

Cameron, K. S., Dutton, J. E., & Quinn, R. E. (Eds.). (2003). *Positive organizational scholarship: Foundations of a new discipline*. Berrett-Koehler.

Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* (3rd ed.). Jossey-Bass.

Camillus, J. C. (2016). The wicked challenge of the business environment. *International Journal of Business Environment*, *8*(1), 19. https://doi.org/10.1504/IJBE.2016.074792

Carlson, M. C., Kuo, J. H., Chuang, Y.-F., Varma, V., Harris, G., Albert, M., Erickson, K. I., Kramer, A. F., Parisi, J. M., Xue, Q.-L., Tan, E., Tanner, E. K., Gross, A., Seeman, T. E., Gruenewald, T., McGill, S., Rebok, G. W., & Fried, L. P. (2015). Impact of the Baltimore Experience corps trial on cortical and hippocampal volumes. *Alzheimer's & Dementia : The Journal of the Alzheimer's Association*, *11*(11), 1340–1348. https://doi.org/10.1016/j.jalz.2014.12.005

Cassar, L., & Meier, S. (2018). Nonmonetary incentives and the implications of work as a source of meaning. *Journal of Economic Perspectives*, *32*(3), 215–238. https://doi.org/10.1257/jep.32.3.215

Cebulla, A., Szpak, Z., & Knight, G. (2023). Preparing to work with artificial intelligence: assessing WHS when using AI in the workplace. *International Journal of Workplace Health Management*, *16*(4), 294–312. https://doi.org/10.1108/IJWHM-09-2022-0141

Chakravorti, B. (2021, July 20). How to close the digital divide in the U.S. *Harvard Business Review*. https://hbr.org/2021/07/how-to-close-the-digital-divide-in-the-u-s

Chow, A. R. (2023, February 8). How ChatGPT managed to grow faster than TikTok or Instagram. *Time Magazine*. https://time.com/6253615/chatgpt-fastest-growing/

Chui, M., Yee, L., Hall, B., Singla, A., & Sukharevsky, A. (2023). *The state of AI in 2023: Generative AI's breakout year*. McKinsey.

Clark, A. E. (1998). *Measures of job satisfaction: What makes a good job? Evidence from OECD countries*. OECD. https://doi.org/10.1787/670570634774

Clark, A. E. (2018). Four decades of the economics of happiness: Where next? *Review of Income and Wealth*, *64*(2), 245–269. https://doi.org/10.1111/roiw.12369

Clausen, T., Meng, A., & Borg, V. (2019). Does social capital in the workplace predict job performance, work engagement, and psychological well-being? A prospective analysis. *Journal of Occupational and Environmental Medicine*, *61*(10), 800. https://doi.org/10.1097/JOM.0000000000001672

Cohen, S. M., Curd, P., & Reeve, C. D. C. (Eds.). (2016). *Readings in ancient Greek philosophy: from Thales to Aristotle* (5th ed.). Hackett Publishing Company, Inc.

Côté, S. (2005). A social interaction model of the effects of emotion regulation on work strain. *The Academy of Management Review*, *30*(3), 509–530. https://www.jstor.org/stable/20159142

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage Publications.

Csiernik, R. (2011). The glass is filling: An examination of employee assistance program evaluations in the first decade of the new millennium. *Journal of Workplace Behavioral Health*, *26*(4), 334–355. https://doi.org/10.1080/15555240.2011.618438

Csikszentmihalyi, M. (2009). *Flow: The psychology of optimal experience*. Harper & Row.

Curtice, J. (2005). Want to motivate your employees? Keep your company safe and you will. *Handbook of Business Strategy*, *6*(1), 205–208. https://doi.org/10.1108/08944310510557477

De Neve, J. E. (2018). Work and well-being: A global perspective. In *Global happiness policy report* (pp. 74–127). Sustainable Development Solutions Network.

De Neve, J. E. (2023, May 17). *Jan-Emmanuel De Neve | Saïd Business School*. https://www.sbs.ox.ac.uk/about-us/people/jan-emmanuel-de-neve

De Neve, J. E., Christakis, N. A., Fowler, J. H., & Frey, B. S. (2012). Genes, economics, and happiness. *Journal of Neuroscience, Psychology, and Economics*, *5*(4), 193–211. https://doi.org/10.1037/a0030292

De Neve, J. E., Kaats, M., & Ward, G. (2023). *Workplace wellbeing and firm performance*. https://ora.ox.ac.uk/objects/uuid:8652ce7e-7bde-449f-a5e7-6b0d0bcc3605

De Neve, J. E., & Ward, G. (2023). *Measuring workplace wellbeing*. https://ora.ox.ac.uk/objects/uuid:fedcfcaf-6b31-485a-891f-243acc0b3abd

Deaton, A., & Stone, A. A. (2016). Understanding context effects for a measure of life evaluation: how responses matter. *Oxford Economic Papers*, *68*(4), 861–870. https://doi.org/10.1093/oep/gpw022

Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, *19*(2), 109–134. https://doi.org/10.1016/0092-6566(85)90023-6

Derlin, R., & Schneider, G. T. (1994). Understanding job satisfaction: Principals and teachers, urban and suburban. *Urban Education*, *29*(1), 63–88. https://doi.org/10.1177/0042085994029001006

Dewey, J. (1938). *Experience and education*. Free Press.

Dickson, K. E., & Lorenz, A. (2009). Psychological empowerment and job satisfaction of temporary and part-time nonstandard workers: A preliminary investigation. *Journal of Behavioral and Applied Management*, *10*(2). https://doi.org/10.21818/001c.17252

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542–575. https://doi.org/10.1037/0033-2909.95.3.542

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34–43. https://doi.org/10.1037/0003-066X.55.1.34

Diener, E., & Chan, M. Y. (2011). Happy people live longer: subjective well-being contributes to health and longevity: Health benefits of happiness. *Applied Psychology: Health and Well-Being*, *3*(1), 1–43. https://doi.org/10.1111/j.1758-0854.2010.01045.x

Diener, E., Heintzelman, S. J., Kushlev, K., Tay, L., Wirtz, D., Lutes, L. D., & Oishi, S. (2017). Findings all psychologists should know from the new science on subjective well-being. *Canadian Psychology / Psychologie Canadienne*, *58*(2), 87–104. https://doi.org/10.1037/cap0000063

Diener, E., Inglehart, R., & Tay, L. (2013). Theory and validity of life satisfaction scales. *Social Indicators Research*, *112*(3), 497–527. https://doi.org/10.1007/s11205-012-0076-y

Diener, E., Lucas, R. E., & Oishi, S. (2018). Advances and open questions in the science of subjective well-being. *Collabra: Psychology*, *4*(1), 15. https://doi.org/10.1525/collabra.115

Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research*, *40*(1/2), 189–216. https://doi.org/10.1023/A:1006859511756

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276–302. https://doi.org/10.1037/0033-2909.125.2.276

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143–156. https://doi.org/10.1007/s11205-009-9493-y

Diogenes, A. (2020). *Lives of the eminent philosophers*. Oxford University Press.

Dodds, J. (2021). The psychology of climate anxiety. *BJPsych Bulletin*, *45*(4), 222–226. https://doi.org/10.1192/bjb.2021.18

Donovan, S. A., Bradley, D. H., & Shimabukuru, J. O. (2016). *What does the gig economy mean for workers?* https://hdl.handle.net/1813/79155

Dutton, J. E. (2003). *Energize your workplace: How to create and sustain high-quality connections at work*. Jossey-Bass.

Dutton, J. E., & Ragins, B. R. (2007). *Exploring positive relationships at work: building a theoretical and research foundation*. Lawrence Erlbaum Associates.

Dweck, C. S. (2008). *Mindset: the new psychology of success*. Ballantine Books.

Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In *Nations and Households in Economic Growth* (pp. 89–125). Elsevier. https://doi.org/10.1016/B978-0-12-205050-3.50008-7

Easterlin, R. A. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior & Organization*, *27*(1), 35–47. https://doi.org/10.1016/0167-2681(95)00003-B

Easterlin, R. A., & O'Connor, K. (2020). *The Easterlin paradox* (SSRN Scholarly Paper 3743147). Institute of Labor Statistics. https://papers.ssrn.com/abstract=3743147

Enholm, I. M., Papagiannidis, E., Mikalef, P., & Krogstie, J. (2022). Artificial intelligence and business value: A literature review. *Information Systems Frontiers*, *24*(5), 1709–1734. https://doi.org/10.1007/s10796-021-10186-w

Erikson, E. H. (1994). *Identity and the life cycle*. W. W. Norton & Company.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2015). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Farrelly, C. (2021). "Positive biology" and well-ordered science. In M. T. Lee, L. D. Kubzansky, & T. J. VanderWeele (Eds.), *Measuring well-being* (191–216). Oxford University Press New York.

Farri, E., Cervini, P., & Rosani, G. (2022, September 26). How sustainability efforts fall apart. *Harvard Business Review*. https://hbr.org/2022/09/how-sustainability-efforts-fall-apart

Ferreira, N. (2019). Enhancing career wellbeing: The role of workplace friendship, career adaptability and organisational commitment. In I. L. Potgieter, N. Ferreira, & M. Coetzee (Eds.), *Theory, research and dynamics of career wellbeing: Becoming fit for the future* (pp. 197–216). Springer International Publishing.

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs-principles and practices. *Health Services Research*, *48*(6/2), 2134–2156. https://doi.org/10.1111/1475-6773.12117

Fielding, N., Lee, R. M., & Blank, G. (Eds.). (2017). *The Sage handbook of online research methods* (2nd ed.). Sage Publications.

Firoz, M., Ghosh, K., & Sharma, D. (2023). Navigating virtual connections: Exploring the impact of workplace friendship on team performance during the COVID-19 pandemic. *Journal of Information & Knowledge Management*. Article No. 2350068. https://doi.org/10.1142/S0219649223500685

Floridi, L., & Cowls, J. (2022). A unified framework of five principles for AI in society. In S. Carta (Ed.), *Machine learning and the city* (pp. 535–545). Wiley. https://doi.org/10.1002/9781119815075.ch45

Fowler, J. H., & Christakis, N. A. (2008). Dynamic spread of happiness in a large social network: Longitudinal analysis over 20 years in the Framingham Heart Study. *BMJ*, *337*(dec04 2), a2338–a2338. https://doi.org/10.1136/bmj.a2338

Frankl, V. (1959). The spiritual dimension in existential analysis and logotherapy. *Journal of Individual Psychology*, *15*, 157–165.

Frasquilho, D., Matos, M. G., Salonna, F., Guerreiro, D., Storti, C. C., Gaspar, T., & Caldas-de-Almeida, J. M. (2015). Mental health outcomes in times of economic recession: a systematic literature review. *BMC Public Health*, *16*(1), 115. https://doi.org/10.1186/s12889-016-2720-y

Frederiksen, J. R., Sipusic, M., Sherin, M. G., & Wolfe, E. (1998). Video portfolio assessment: Creating a framework for viewing the functions of teaching. *Educational Assessment*, *5*, 225–297. https://doi.org/10.1207/s15326977ea0504_1

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, *2*(3), 300–319. https://doi.org/10.1037/1089-2680.2.3.300

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218–226. https://doi.org/10.1037/0003-066X.56.3.218

Fredrickson, B. L. (2004). The broaden–and–build theory of positive emotions. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, *359*(1449), 1367–1377. https://doi.org/10.1098/rstb.2004.1512

Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist*, *60*(7), 678–686. https://doi.org/10.1037/0003-066X.60.7.678

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, *30*(1), 159–165. https://doi.org/10.1111/j.1540-4560.1974.tb00706.x

Gallup. (2023). *State of the global workplace report*. https://www.gallup.com/workplace/349484/state-of-the-global-workplace.aspx

García, G. A., Gonzales-Miranda, D. R., Gallo, O., & Roman-Calderon, J. P. (2018). Employee involvement and job satisfaction: a tale of the millennial generation. *Employee Relations: The International Journal*, *41*(3), 374–388. https://doi.org/10.1108/ER-04-2018-0100

George, E., & K. A., Zakkariya. (2018). *Psychological empowerment and job satisfaction in the banking sector*. Springer International Publishing

George, J. M., & Brief, A. P. (1992). Feeling good-doing good: A conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological Bulletin*, *112*(2), 310–329. https://doi.org/10.1037/0033-2909.112.2.310

Gibson, C. B., & Gibbs, J. L. (2006). Unpacking the concept of virtuality: The effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation. *Administrative Science Quarterly*, *51*(3), 451–495. https://doi.org/10.2189/asqu.51.3.451

Gihleb, R., Giuntella, O., Stella, L., & Wang, T. (2023, September 12). Keeping workers safe in the automation revolution. *Brookings*. https://www.brookings.edu/articles/keeping-workers-safe-in-the-automation-revolution/

Glaser, B. G., & Strauss, A. L. (2010). *The discovery of grounded theory: strategies for qualitative research* (5. paperback print). Aldine Transaction.

Gallup. (2023). *Global emotions report*. https://tinyurl.com/2my9c8pr

Gosney, M. W., & Hughes, C. (2016). *The history of human resource development*. Palgrave Macmillan. https://doi.org/10.1057/9781137526984

Grandey, A. A., & Sayre, G. M. (2019). Emotional labor: Regulating emotions for a wage. *Current Directions in Psychological Science*, *28*(2), 131–137. https://doi.org/10.1177/0963721418812771

Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *The Academy of Management Review*, *9*(3), 438. https://doi.org/10.2307/258284

Greenwood, K., & Anas, J. (2021, October 4). It's a New Era for Mental Health at Work. *Harvard Business Review*. https://hbr.org/2021/10/its-a-new-era-for-mental-health-at-work

Griffin, M. L. (2001). Job satisfaction among detention officers. *Journal of Criminal Justice*, *29*(3), 219–232. https://doi.org/10.1016/S0047-2352(01)00086-1

Grodal, S., Krabbe, A. D., & Chang-Zunino, M. (2023). The Evolution of Technology. *Academy of Management Annals*, *17*(1), 141–180. https://doi.org/10.5465/annals.2021.0086

Grossman, G. (2016). *The purpose of trade agreements* (NBER Working Paper No. 22070). National Bureau Of Economic Research. https://www.nber.org/system/files/working_papers/w22070/w22070.pdf

Guidotti, R., Monreale, A., Ruggieri, S., Turini, F., Pedreschi, D., & Giannotti, F. (2018). *A survey of methods for explaining black box models*. https://doi.org/10.48550/ARXIV.1802.01933

Gunningham, N. A., Thornton, D., & Kagan, R. A. (2005). Motivating management: Corporate Compliance in Environmental Protection. *Law & Policy*, *27*(2), 289–316. https://doi.org/10.1111/j.1467-9930.2005.00201.x

Hackman, J. R. (2011). *Collaborative intelligence: Using teams to solve hard problems*. Berrett-Koehler Publishers.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance*, *16*(2), 250–279. https://doi.org/https://doi.org/10.1016/0030-5073(76)90016-7

Harter, J. (2023, August 24). *Are Remote Workers and Their Organizations Drifting Apart?* Gallup. https://www.gallup.com/workplace/509759/remote-workers-organizations-drifting-apart.aspx

Hartig, T., Mitchell, R., De Vries, S., & Frumkin, H. (2014). Nature and Health. *Annual Review of Public Health*, *35*(1), 207–228. https://doi.org/10.1146/annurev-publhealth-032013-182443

Hastwell, C. (2023, December). *Workplace ESG: How environmental, social, and governance factors impact employee experience*. Great Place To Work. https://tinyurl.com/7bvuucrw

Hawkley, L. C., & Cacioppo, J. T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine*, *40*(2). https://doi.org/10.1007/s12160-010-9210-8

Heinemann, L. V., & Heinemann, T. (2017). Burnout research: Emergence and scientific investigation of a contested diagnosis. *Sage Open*, *7*(1), Article No. 215824401769715. https://doi.org/10.1177/2158244017697154

Helliwell, J., & Huang, H. (2008). *Well-being and Trust in the Workplace* (NBER Working Paper No. 14589). National Bureau of Economic Research. https://doi.org/10.3386/w14589

Helliwell, J., Layard, R., Sachs, J., Neve, J.-E., Atkin, L., & Wang, S. (2023). *World happiness report 2023*. Sustainable Development Solutions Network. https://www.wellbeingintlstudiesrepository.org/hw_happiness/2

Herrenkohl, L. R., & Cornelius, L. (2013). Investigating elementary students' scientific and historical argumentation. *Journal of the Learning Sciences*, *22*(3), 413–461. https://doi.org/10.1080/10508406.2013.799475

Herron, A. (2023, January 24). *Trend watch: Rise of the chief wellness officer*. WebMD Health Services. https://www.webmdhealthservices.com/blog/trend-watch-rise-of-the-chief-wellness-officer/

Hofmeester, K., & Linden, M. V. D. (2017). *Handbook global history of work*. De Gruyter.

Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, *2*(1). https://doi.org/10.9707/2307-0919.1014

Holt-Lunstad, J. (2018a). Fostering social connection in the workplace. *American Journal of Health Promotion*, *32*(5), 1307–1312. https://doi.org/10.1177/0890117118776735a

Holt-Lunstad, J. (2018b). Why social relationships are important for physical health: A systems approach to understanding and modifying risk and protection. *Annual Review of Psychology*, *69*(1), 437–458. https://doi.org/10.1146/annurev-psych-122216-011902

Holt-Lunstad, J. (2021). Loneliness and social isolation as risk factors: The power of social connection in prevention. *American Journal of Lifestyle Medicine*, *15*(5), 567–573. https://doi.org/10.1177/15598276211009454

Holt-Lunstad, J., Robles, T. F., & Sbarra, D. A. (2017). Advancing social connection as a public health priority in the United States. *American Psychologist*, *72*(6), 517–530. https://doi.org/10.1037/amp0000103

Horn, I. S., Taros, T., Dirkes, S., Hüer, L., Rose, M., Tietmeyer, R., & Constantinides, E. (2015). Business reputation and social media: A primer on threats and responses. *Journal of Direct, Data & Digital Marketing Practice*, *16*(3), 193–208. https://doi.org/10.1057/dddmp.2015.1

Huang, K., Wang, X., Wei, W., & Madnick, S. (2023, May 4). The devastating business impacts of a cyber breach. *Harvard Business Review*. https://hbr.org/2023/05/the-devastating-business-impacts-of-a-cyber-breac

Hur, W.-M., Moon, T.-W., & Jung, Y. S. (2015). Customer response to employee emotional labor: The structural relationship between emotional labor, job satisfaction, and customer satisfaction. *Journal of Services Marketing*, *29*(1), 71–80. https://doi.org/10.1108/JSM-07-2013-0161

Hursthouse, R., & Pettigrove, G. (2022). Virtue ethics. In E. N. Zalta & U. Nodelman (Eds.), *The Stanford encyclopedia of philosophy*. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/win2022/entries/ethics-virtue/

Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, *11*(6), 735–762. https://doi.org/10.1007/s10902-009-9171-4

Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*, *15*(6), 1425–1456. https://doi.org/10.1007/s10902-013-9485-0

Jahoda, M. (1958). *Current concepts of positive mental health*. Basic Books.

Javaid, M., Haleem, A., Khan, I. H., & Suman, R. (2023). Understanding the potential applications of Artificial Intelligence in agriculture sector. *Advanced Agrochem*, *2*(1), 15–30. https://doi.org/10.1016/j.aac.2022.10.001

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, *33*(7), 14–26. https://doi.org/10.3102/0013189X033007014

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, *86*(1), 80–92. https://doi.org/10.1037/0021-9010.86.1.80

Judge, T. A., Weiss, H. M., Kammeyer-Mueller, J. D., & Hulin, C. L. (2017). Job attitudes, job satisfaction, and job affect: A century of continuity and of change. *Journal of Applied Psychology*, *102*(3), 356–374. https://doi.org/10.1037/apl0000181

Jung, C. G. (1933). *Psychological types: The collected works of C.G. Jung*. University Press.

Kahn, W. A., & Fellows, S. (2013). Employee engagement and meaningful work. In B. J. Dik, Z. S. Byrne, & M. F. Steger (Eds.), *Purpose and meaning in the workplace.* (pp. 105–126). American Psychological Association. https://doi.org/10.1037/14183-006

Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences*, *107*(38), 16489–16493. https://doi.org/10.1073/pnas.1011492107

Kahneman, D., Diener, E., & Schwarz, N. (2003). *Well-being: the foundations of hedonic psychology*. Russell Sage Foundation.

Kaiser, C., & Oswald, A. J. (2022). The scientific value of numerical measures of human feelings. *Proceedings of the National Academy of Sciences*, *119*(42), Article No. e2210412119. https://doi.org/10.1073/pnas.2210412119

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, *24*(2), 285. https://doi.org/10.2307/2392498

Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *The Journal of Positive Psychology*, *3*(4), 219–233. https://doi.org/10.1080/17439760802303044

Kellerman, G. R., & Seligman, M. (2023). *Tomorrow mind: Thriving at work with resilience, creativity, and connection--now and in an uncertain future*. Atria Books

Kesebir, P., & Diener, E. (2008). In pursuit of happiness: Empirical answers to philosophical questions. *Perspectives on Psychological Science*, *3*(2), 117–125. https://doi.org/10.1111/j.1745-6916.2008.00069.x

Keyes, C. L. M. (2005). Chronic physical conditions and aging: Is mental health a potential protective factor? *Ageing International*, *30*(1), 88–104. https://doi.org/10.1007/BF02681008

Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality & Social Psychology*, *82*(6), 1007–1022. https://doi.org/10.1037/0022-3514.82.6.1007

Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., Bamberger, P., Bapuji, H., Bhave, D. P., Choi, V. K., Creary, S. J., Demerouti, E., Flynn, F. J., Gelfand, M. J., Greer, L. L., Johns, G., Kesebir, S., Klein, P. G., Lee, S. Y., … Vugt, M. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, *76*(1), 63–77. https://doi.org/10.1037/amp0000716

Knight, A. P., Menges, J. I., & Bruch, H. (2018). Organizational affective tone: A meso perspective on the origins and effects of consistent affect in organizations. *Academy of Management Journal*, *61*(1), 191–219. https://doi.org/10.5465/amj.2016.0671

Kochhar, R. (2023, July 26). Which U.S. workers are more exposed to ai on their jobs? *Pew Research Center's Social & Demographic Trends Project*. https://www.pewresearch.org/social-trends/2023/07/26/which-u-s-workers-are-more-exposed-to-ai-on-their-jobs/

Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, *7*(3), 77–124. https://doi.org/10.1111/j.1529-1006.2006.00030.x

Kraus, S., Durst, S., Ferreira, J. J., Veiga, P., Kailer, N., & Weinmann, A. (2022). Digital transformation in business and management research: An overview of the current status quo. *International Journal of Information Management*, *63*, Article No. 102466. https://doi.org/10.1016/j.ijinfomgt.2021.102466

Kraut, R. (2022). Aristotle's ethics. In E. N. Zalta & U. Nodelman (Eds.), *The Stanford encyclopedia of philosophy* (Fall 2022). Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/fall2022/entries/aristotle-ethics/

Krueger, A. B., & Schkade, D. A. (2008). The reliability of subjective well-being measures. *Journal of Public Economics*, *92*(8–9), 1833–1845. https://doi.org/10.1016/j.jpubeco.2007.12.015

Krueger, A. B., & Stone, A. A. (2008). Assessment of pain: A community-based diary survey in the USA. *The Lancet*, *371*(9623), 1519–1525. https://doi.org/10.1016/S0140-6736(08)60656-X

Kumar, V. S. (2023, April 18). *Gen Z in the workplace: How should companies adapt?* Imagine | Johns Hopkins University. https://imagine.jhu.edu/blog/2023/04/18/gen-z-in-the-workplace-how-should-companies-adapt/

Kuo, F. E., & Sullivan, W. C. (2001). Environment and crime in the inner city: Does vegetation reduce crime? *Environment & Behavior*, *33*(3), 343–367. https://doi.org/10.1177/0013916501333002

Kvale, S. (2007). *Doing interviews*. Sage Publications.

Lacity, M. C., & Willcocks, L. P. (2016). A new approach to automating services. *MIT Sloan Management Review*. https://sloanreview.mit.edu/article/a-new-approach-to-automating-services/

Lal, B., Dwivedi, Y. K., & Haag, M. (2023). Working from home during Covid-19: Doing and managing technology-enabled social interaction with colleagues at a distance. *Information Systems Frontiers*, *25*(4), 1333–1350. https://doi.org/10.1007/s10796-021-10182-

Latif, B., Ong, T. S., Meero, A., Abdul Rahman, A. A., & Ali, M. (2022). Employee-perceived corporate social responsibility (CSR) and employee pro-environmental behavior (PEB): The moderating role of CSR skepticism and CSR authenticity. *Sustainability*, *14*(3), 1380. https://doi.org/10.3390/su14031380

Layard, P. R. G. (2006). *Happiness: Lessons from a new science*. Penguin Books.

Layard, R., & De Neve, J.-E. (2023). *Wellbeing: science and policy*. Cambridge University Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lee, M. T., Kubzansky, L. D., & VanderWeele, T. J. (2021). *Measuring well-being: interdisciplinary perspectives from the social sciences and the humanities*. Oxford University Press.

Leiter, M. P., & Maslach, C. (2017). Burnout and engagement: Contributions to a new vision. *Burnout Research*, *5*, 55–57. https://doi.org/10.1016/j.burn.2017.04.003

Li, L. (2022). Reskilling and upskilling the future-ready workforce for Industry 4.0 and beyond. *Information Systems Frontiers*. https://doi.org/10.1007/s10796-022-10308-y

Li, Z. S., Werner, C., Ernst, N., & Damian, D. (2020). *GDPR compliance in the context of continuous integration*. Arxiv Cornell University. https://doi.org/10.48550/arXiv.2002.06830

Lipnack, J., & Stamps, J. (2000). *Virtual teams: People working across boundaries with technology* (2nd ed). Wiley.

Litchfield, P., Cooper, C., Hancock, C., & Watt, P. (2016). Work and wellbeing in the 21st century. *International Journal of Environmental Research & Public Health*, *13*(11), 1065. https://doi.org/10.3390/ijerph13111065

Liu, Y., Meng, X., & Li, A. (2023). AI's Ethical Implications: Job Displacement. *Advances in Computer and Communication*, *4*(3), 138–142. https://doi.org/10.26855/acc.2023.06.006

Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of Industrial & Organizational Psychology*, *1*, 1297–1343.

Lu, L., & Gilmour, R. (2004). Culture and conceptions of happiness: individual oriented and social oriented swb. *Journal of Happiness Studies*, *5*(3), 269–291. https://doi.org/10.1007/s10902-004-8789-5

Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2004). Unemployment alters the set point for life satisfaction. *Psychological Science*, *15*(1), 8–13. https://doi.org/10.1111/j.0963-7214.2004.01501002.x

Lucassen, J. (2021). *The story of work: A new history of humankind*. Yale University Press.

Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, *23*(6), 695–706. https://doi.org/10.1002/job.165

Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology & Organizational Behavior*, *4*(1), 339–366. https://doi.org/10.1146/annurev-orgpsych-032516-113324

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803–855. https://doi.org/10.1037/0033-2909.131.6.803

MacKerron, G., & Mourato, S. (2013). Happiness is greater in natural environments. *Global Environmental Change*, *23*(5), 992–1000. https://doi.org/10.1016/j.gloenvcha.2013.03.010

Maisel, L., Zwerling, R. J., & Sorensen, J. H. (2022). *AI-enabled analytics for business: a roadmap for becoming an analytics powerhouse*. John Wiley & Sons.

Marmot, M. G., & Wilkinson, R. G. (2006). *Social determinants of health* (2nd ed). Oxford University Press.

Marshall, G. W., Michaels, C. E., & Mulki, J. P. (2007). Workplace isolation: Exploring the construct and its measurement. *Psychology & Marketing*, *24*(3), 195–223. https://doi.org/10.1002/mar.20158

Martin, R. L., & Reeves, M. (2022, November 1). Strategy in a Hyperpolitical World. *Harvard Business Review*. https://hbr.org/2022/11/strategy-in-a-hyperpolitical-world

Martineau, K. (2021, February 9). What is generative AI? *IBM Research Blog.* https://research.ibm.com/blog/what-is-generative-AI

Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here? *Journal of Management*, *30*(6), 805–835. https://doi.org/10.1016/j.jm.2004.05.002

Masane, A. (2023, August 22). Demystifying Einstein bots in Salesforce - AI chatbot. *Perficient Blogs*. https://blogs.perficient.com/2023/08/22/demystifying-einstein-bots-in-salesforce-the-future-of-customer-engagement/

Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). Maslach Burnout Inventory: Third edition. In *Evaluating stress: A book of resources* (pp. 191–218). Scarecrow Education.

Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, *15*(2), 103–111. https://doi.org/10.1002/wps.20311

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology*, *52*(1), 397–422. https://doi.org/10.1146/annurev.psych.52.1.397

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396. https://doi.org/10.1037/h0054346

Maxcy, S. J. (2003). Pragmatic threads in mixed method research in the social sciences: The search for multiple modes of inquiry and the end of the philosophy of formalism. In *Handbook of Mixed Methods in the Social and Behavioural Sciences* (pp. 51–89). Sage Publications.

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed). Sage Publications.

McCorduck, P. (2004). *Machines who think: A personal inquiry into the history and prospects of artificial intelligence*. A.K. Peters.

McDonough, P. (2000). Job insecurity and health. *International Journal of Health Services: Planning, Administration, Evaluation*, *30*(3), 453–476. https://doi.org/10.2190/BPFG-X3ME-LHTA-6RPV

McRae, E. R., Aykens, P., Lowmaster, K., & Shepp, J. (2023, January 18). 9 trends that will shape work in 2023 and beyond. *Harvard Business Review*. https://hbr.org/2023/01/9-trends-that-will-shape-work-in-2023-and-beyond

Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.

Mill, J. S. (1863). *Utilitarianism*. CreateSpace/Amazon.

Mintrom, M. (2019). New Zealand's wellbeing budget invests in population health. *The Milbank Quarterly*, *97*(4), 893–896. https://doi.org/10.1111/1468-0009.12409

Morgan, D. L. (2014). *Integrating qualitative and quantitative methods: A pragmatic approach*. Sage Publications.

Naber, A. (2007). *One third of your life is spent at work*. Gettysburg College. https://www.gettysburg.edu/news/stories?id=79db7b34-630c-4f49-ad32-4ab9ea48e72b

Nemeth, C. J. (1986). Differential contributions of majority and minority influence. *Psychological Review*, *93*(1), 23–32. https://doi.org/10.1037/0033-295X.93.1.23

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, *2*(2), 175–220. https://doi.org/10.1037/1089-2680.2.2.175

Nilsson, N. J. (2010). *The quest for artificial intelligence: a history of ideas and achievements*. Cambridge University Press.

Organization for Economic Co-operation Development [OECD]. (2013). *OECD guidelines on measuring subjective well-being*. OECD. https://doi.org/10.1787/9789264191655-en

Office of the Surgeon General. (2023). *Our epidemic of loneliness and isolation: The U.S. Surgeon General's advisory on the healing effects of social connection and community*. U.S. Department of Health and Human Services. http://www.ncbi.nlm.nih.gov/books/NBK595227/

Oishi, S., & Gilbert, E. A. (2016). Current and future directions in culture and happiness research. *Current Opinion in Psychology*, *8*, 54–58. https://doi.org/10.1016/j.copsyc.2015.10.005

Okpara, J. O. (2004). Personal characteristics as predictors of job satisfaction: An exploratory study of IT managers in a developing economy. Information Technology & People, 17(3), 327–338. https://doi.org/10.1108/09593840410554247

O'Keefe, T. (2013). Review of the Cyrenaics. *Notre Dame Philosophical Reviews.* https://ndpr.nd.edu/reviews/the-cyrenaics/

Oswald, A. J., & Wu, S. (2010). Objective confirmation of subjective measures of human well-being: Evidence from the U.S.A. *Science*, *327*(5965), 576–579. https://doi.org/10.1126/science.1180606

Oxford Learner's Dictionary. (n.d.). *Hedonism*. Retrieved May 6, 2023, from https://www.oxfordlearnersdictionaries.com/us/definition/english/hedonism?q=hedonism

Pansini, M., Buonomo, I., De Vincenzi, C., Ferrara, B., & Benevene, P. (2023). Positioning technostress in the JD-R model perspective: A systematic literature review. *Healthcare*, *11*(3), 446. https://doi.org/10.3390/healthcare11030446

Paul, K. I., & Moser, K. (2009). Unemployment impairs mental health: Meta-analyses. *Journal of Vocational Behavior*, *74*(3), 264–282. https://doi.org/10.1016/j.jvb.2009.01.001

Paulhus, D. L., & Vazire, S. (2007). The self-report method. In *Handbook of research methods in personality psychology* (pp. 224–239). The Guilford Press.

Proctor, A. S., Barth, A., & Holt-Lunstad, J. (2023). A healthy lifestyle is a social lifestyle: The vital link between social connection and health outcomes. *Lifestyle Medicine*, *4*(4), e91. https://doi.org/10.1002/lim2.91

Putnam, R. D. (2001). *Bowling alone: the collapse and revival of American community*. Simon & Schuster.

Rath, T., & Harter, J. K. (2010). *Wellbeing: The five essential elements*. Gallup Press.

Rees, E., Craig, H., Sogia, V., Shufflebottom, W., & Sadlowska, I. (2023, July 5). *Review of the UK measures of national well-being, October 2022 to March 2023*. https://tinyurl.com/y9hwfabc

Rikken, O., Janssen, M., & Kwee, Z. (2019). Governance challenges of blockchain and decentralized autonomous organizations. *Information Polity*, *24*(4), 397–417. https://doi.org/10.3233/IP-190154

Robbins, S. P., & Judge, T. A. (2018). *Essentials of organizational behavior*. Pearson.

Roche, A., Kostadinov, V., Cameron, J., Pidd, K., McEntee, A., & Duraisingam, V. (2018). The development and characteristics of Employee Assistance Programs around the globe. *Journal of Workplace Behavioral Health*, *33*(3–4), 168–186. https://doi.org/10.1080/15555240.2018.1539642

Rogers, C. R. (1963). The concept of the fully functioning person. *Psychotherapy: Theory, Research & Practice*, *1*(1), 17–26. https://doi.org/10.1037/h0088567

Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, *30*, 91–127. https://doi.org/10.1016/j.riob.2010.09.001

Russell, S. J., & Norvig, P. (2021). *Artificial intelligence: a modern approach* (4th ed.). Pearson.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*(1), 141–166. https://doi.org/10.1146/annurev.psych.52.1.141

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081. https://doi.org/10.1037/0022-3514.57.6.1069

Ryff, C. D. (2013). psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychotherapy & Psychosomatics*, *83*(1), 10–28. https://doi.org/10.1159/000353263

Ryff, C. D., Boylan, J. M., & Kirsch, J. A. (2021a). Eudaimonic and hedonic well-being: An integrative perspective with linkages to sociodemographic factors and health. In M. T. Lee, L. D. Kubzansky, & T. J. VanderWeele (Eds.), *Measuring well-being* (pp. 92–135). Oxford University Press New York.

Ryff, C. D., Boylan, J. M., & Kirsch, J. A. (2021b). Response to response: Growing the field of well-being. In M. T. Lee, L. D. Kubzansky, & T. J. VanderWeele (Eds.), *Measuring well-being* (pp. 546–554). Oxford University Press New York.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, *69*(4), 719–727. https://doi.org/10.1037/0022-3514.69.4.719

Sandoval-Reyes, J., Acosta-Prado, J. C., & Sanchís-Pedregosa, C. (2019). Relationship amongst technology use, work overload, and psychological detachment from work. *International Journal of Environmental Research & Public Health*, *16*(23), 4602. https://doi.org/10.3390/ijerph16234602

Schmidhuber, J. (2015). Deep learning in neural networks: An overview. *Neural Networks*, *61*, 85–117. https://doi.org/10.1016/j.neunet.2014.09.003

Schneider, L., & Schimmack, U. (2009). Self-informant agreement in well-being ratings: A meta-analysis. *Social Indicators Research*, *94*(3), 363–376. https://doi.org/10.1007/s11205-009-9440-y

Schwab, K. (2016). *The fourth industrial revolution*. Crown Business.

Sedgwick, P. (2013). Convenience sampling. *British Medical Journal*, *347*(2), f6304. https://doi.org/10.1136/bmj.f6304

Seligman, M. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology*, *13*(4), 333–335. https://doi.org/10.1080/17439760.2018.1437466

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being* Free Press.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14. https://doi.org/10.1037/0003-066X.55.1.5

Semuels, A. (2023, May 19). Return-to-office full time is losing. *Time Magazine.* https://time.com/6281252/return-to-office-hybrid-work/

Sen, A. (2001). *Development as freedom*. Alfred A. Knopf.

Sen, W., Xiaomei, Z., & Lin, D. (2022). Impact of job demands on employee learning: The moderating role of human–machine cooperation relationship. *Computational Intelligence and Neuroscience*, *2022*, Article No. 7406716. https://doi.org/10.1155/2022/7406716

Sennett, R. (1999). *The corrosion of character: the personal consequences of work in the new capitalism*. Norton.

Shaffer, D. W. (2017). *Quantitative ethnography*. Cathcart Press.

Shaffer, D. W., Hatfield, D., Svarovsky, G. N., Nash, P., Nulty, A., Bagley, E., Frank, K., Rupp, A. A., & Mislevy, R. (2009). Epistemic network analysis: A prototype for 21st-century assessment of learning. *International Journal of Learning and Media*, *1*(2), 33–53. https://doi.org/10.1162/ijlm.2009.0013

Shifrin, N. V., & Michel, J. S. (2022). Flexible work arrangements and employee health: A meta-analytic review. *Work & Stress*, *36*(1), 60–85. https://doi.org/10.1080/02678373.2021.1936287

Shih, W. C. (2020, September 1). Global supply chains in a post-pandemic world. *Harvard Business Review*. https://hbr.org/2020/09/global-supply-chains-in-a-post-pandemic-world

Shoss, M. K. (2017). Job insecurity: An integrative review and agenda for future research. *Journal of Management*, *43*(6), 1911–1939. https://doi.org/10.1177/0149206317691574

Shoss, M., Su, S., Schlotzhauer, A., & Carusone, N. (2022, September 26). Job insecurity harms both employees and employers. *Harvard Business Review*. https://hbr.org/2022/09/job-insecurity-harms-both-employees-and-employers

Singh, P., Bala, H., Dey, B. L., & Filieri, R. (2022). Enforced remote working: The impact of digital platform-induced stress and remote working experience on technology exhaustion and subjective wellbeing. *Journal of Business Research, 151*, 269–286. https://doi.org/10.1016/j.jbusres.2022.07.002

Society of Human Resources Management [SHRM]. (2022, April 19). *Managing and leveraging workplace use of social media*. https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/managingsocialmedia.aspx

Steptoe, A., Dockray, S., & Wardle, J. (2009). Positive affect and psychobiological processes relevant to health. *Journal of Personality*, *77*(6), 1747–1776. https://doi.org/10.1111/j.1467-6494.2009.00599.x

Sterescu, A. (2022, October). *How to turn your employees into brand ambassadors*. LinkedIn Pulse. https://www.linkedin.com/pulse/how-turn-your-employees-brand-ambassadors-amalia-sterescu

Stevenson, B., & Wolfers, J. (2013). Subjective well-being and income: Is there any evidence of satiation? *American Economic Review*, *103*(3), 598–604. https://doi.org/10.1257/aer.103.3.598

Stevenson, M. (2021, August 6). What is organizational development, and why should your business care? *BetterUp*. https://www.betterup.com/blog/organizational-development

Stiglitz, J. E., Fitoussi, J. P., & Durand, M. (2018). *Beyond GDP: Measuring what counts for economic and social performance*. OECD.

Streeter, J. (2022, October). *How do tax policies affect individuals and businesses?* Stanford University. https://siepr.stanford.edu/publications/policy-brief/how-do-tax-policies-affect-individuals-and-businesses

Tai, M. C.-T. (2020). The impact of artificial intelligence on human society and bioethics. *Tzu-Chi Medical Journal*, *32*(4), 339–343. https://doi.org/10.4103/tcmj.tcmj_71_20

Tay, L., Li, M., Myers, D., & Diener, E. (2014). Religiosity and subjective well-being: An international perspective. In C. Kim-Prieto (Ed.), *Religion and spirituality across cultures* (pp. 163–175). Springer Netherlands.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: integrating quantitative and qualitative approaches in the social and behavioral sciences*. Sage Publications.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, *1*(1), 77–100. https://doi.org/10.1177/1558689806292430

Tikkinen-Piri, C., Rohunen, A., & Markkula, J. (2018). EU general data protection regulation: Changes and implications for personal data collecting companies. *Computer Law & Security Review*, *34*(1), 134–153. https://doi.org/10.1016/j.clsr.2017.05.015

Tov, W., & Diener, E. (2009). Culture and subjective well-being. In E. Diener (Ed.), *Culture and well-being: The collected works of ed diener* (pp. 9–41). Springer Netherlands.

Tsouna, V. (1998). Cyrenaics. In *Routledge encyclopedia of philosophy*. Routledge.

Turing, A. M. (1950). Computing machinery and intelligence. *Mind*, *59*(236), 433–460. https://doi.org/10.1093/mind/LIX.236.433

Turner, P. (2020). Employee engagement and the employee experience. In P. Turner (Ed.), *Employee engagement in contemporary organizations: maintaining high productivity and sustained competitiveness* (pp. 1–26). Springer International Publishing.

Uchida, Y., & Ogihara, Y. (2012). Personal or interpersonal construal of happiness: A cultural psychological perspective. *International Journal of Wellbeing*, *2*(4). https://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/139

Umberson, D., & Karas Montez, J. (2010). Social relationships and health: A flashpoint for health policy. *Journal of Health and Social Behavior*, *51*(1), 54–66. https://doi.org/10.1177/0022146510383501

Urry, H. L., Nitschke, J. B., Dolski, I., Jackson, D. C., Dalton, K. M., Mueller, C. J., Rosenkranz, M. A., Ryff, C. D., Singer, B. H., & Davidson, R. J. (2004). Making a life worth living: Neural correlates of well-being. *Psychological Science*, *15*(6), 367–372. https://doi.org/10.1111/j.0956-7976.2004.00686.x

U.S. Department of Health & Human Services. (n.d.). *Office for human research protections*. https://www.hhs.gov/ohrp/index.html

Vadivelu, N., Kai, A. M., Kodumudi, G., Babayan, K., Fontes, M., & Burg, M. M. (2017). Pain and psychology-A reciprocal relationship. *Ochsner Journal*, *17*(2), 173–180. https://pubmed.ncbi.nlm.nih.gov/28638291/

Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, *24*(1), 1–34. https://doi.org/10.1007/BF00292648

Vial, G. (2021). Understanding digital transformation: A review and a research agenda. In A. Hinterhuber, T. Vescovi, & F. Checchinato (Eds.), *Managing digital transformation* (pp. 20-64). Routledge.

Wadhwa, R. R., & Marappa-Ganeshan, R. (2023). *T Test.* StatPearls Publishing.

Ward, G. (2023). *George Ward*. https://www.georgeward.net/

Waterman, A. S., Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Williams, M. K., Bede Agocha, V., Yeong Kim, S., & Brent Donnellan, M. (2010). The questionnaire for Eudaimonic well-being: Psychometric properties, demographic comparisons, and evidence of validity. *The Journal of Positive Psychology*, *5*(1), 41–61. https://doi.org/10.1080/17439760903435208

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality & Social Psychology*, *54*(6), 1063–1070. https://doi.org/10.1037/0022-3514.54.6.1063

Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, *12*(2), 173–194. https://doi.org/10.1016/S1053-4822(02)00045-1

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews* (Vol. 18, pp. 1–74). Elsevier Science/JAI Press.

Winston, A. (2021, December 27). Sustainable Business Went Mainstream in 2021. *Harvard Business Review*. https://hbr.org/2021/12/sustainable-business-went-mainstream-in-2021

Wool, M. (2022, June 14). Connection crisis: Why companies need to build workforce connection. *BetterUp*. https://www.betterup.com/blog/connection-crisis-impact-on-work

Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The World Bank Research Observer*, *15*(2), 225–249. https://doi.org/10.1093/wbro/15.2.22

World Health Organization [WHO]. (2019). *Burn-out an "occupational phenomenon:" international classification of diseases*. https://tinyurl.com/bdfyex2b

World Health Organization [WHO]. (2022, June 17). *Mental health*. https://tinyurl.com/3n78c98u

World Health Organization [WHO]. (2023). *Air quality and health*. https://tinyurl.com/3s99tm9u

Wrzesniewski, A., Dutton, J. E., & Debebe, G. (2003). Interpersonal sensemaking and the meaning of work. *Research in Organizational Behavior*, *25*, 93–135. https://doi.org/10.1016/S0191-3085(03)25003-6

Yvonne Feilzer, M. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, *4*(1), 6–16. https://doi.org/10.1177/1558689809349691

Zirar, A., Ali, S. I., & Islam, N. (2023). Worker and workplace Artificial Intelligence (AI) coexistence: Emerging themes and research agenda. *Technovation, 124*, Article No. 102747. https://doi.org/10.1016/j.technovation.2023.102747

APPENDIX A

CITI Certificate

CITI PROGRAM

Completion Date 08-Jun-2022
Expiration Date 07-Jun-2027
Record ID 49452371

This is to certify that:

Haille Trimboli

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

GSEP Education Division
(Curriculum Group)
GSEP Education Division - Social-Behavioral-Educational (SBE)
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Pepperdine University

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Generated on 29-May-2024. Verify at www.citiprogram.org/verify/?w1372f1ed-54da-4e59-ad2d-a6847095d082-49452371

APPENDIX B

IRB Approval Letter

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: November 29, 2023
Protocol Investigator Name: Haille Trimboli
Protocol #: 23-09-2264
Project Title: THE EXAMINATION OF WORKPLACE WELL-BEING IN THE CONTEXT OF CONVERSATIONS ON ARTIFICIAL INTELLIGENCE
School: Graduate School of Education and Psychology

Dear Haille Trimboli:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

APPENDIX C

Site Approval Form

[redacted]

November 20, 2023

Pepperdine University
Graduate and Professional Schools Institutional Review Board (GPS IRB)
6100 Center Drive – 5th Floor
Los Angeles, CA 90045

RE: Haille Trimboli; The Examination of Workplace Well-Being in the Context of Conversations on Artificial Intelligence

To GPS IRB:

This letter is to convey that I have reviewed the proposed research study being conducted by Haille Trimboli intended to explore workplace well-being through the workplace well-being survey before and after a team conversation on the topic of artificial intelligence at Harvard Business Publishing and find The Examination of Workplace Well-Being in the Context of Conversations on Artificial Intelligence study acceptable. I give permission for the above investigator to conduct research at this site.

[redacted]mission, please contact:

Sincerely,

[redacted]

APPENDIX D

Company Blog Post

Title: [Organization Name] People Leaders – Help Me Explore How Conversations about AI Impact Employee Well-Being

Hello colleagues! Haille Trimboli here---dedicated Customer Success Manager. Based in the vibrant city of Los Angeles, I've had the privilege of working with America's West Coast clients like X, X, and X, helping them achieve success with our digital offerings. I've been part of [organization name] for a year and a half, and our collective commitment to excellence continually inspires me.

I am currently pursuing a doctoral degree at Pepperdine University, studying Global Leadership and Change. I've recently commenced work on my dissertation exploring how team conversations about artificial intelligence influence employee well-being, particularly in organizations increasing investments in artificial intelligence. Read on to learn how you and your team can be involved.

Why This Research Matters

We are in what many refer to as the Fourth Industrial Revolution, representing a fusion of the physical, digital, and biological worlds, leading to transformative changes in how we live, work, and relate to one another. AI is one of these recent transformative changes and, thanks to the release of Chat GPT, is becoming more pervasive in numerous domains of our daily existence, particularly in professional settings, attributed to its promise of enhancing output and efficiency. Automation technologies like AI have many benefits, including enhanced productivity, efficiency, and potential cost reductions.

However, they also introduce potential employee stressors, including the fear of job replacement and decreased job satisfaction. In a world where employee well-being is increasingly viewed as a key performance indicator, understanding its relationship with AI adoption is critically important. Recent research underscores that organizations prioritizing employee well-being not only foster a positive work environment but also outperform market benchmarks in profitability and stock performance. As HBR authors have highlighted, during these times of change and uncertainty, leaders have a significant role to play in positively impacting their team's well-being.

Through my dissertation research, I aim to investigate the role of team conversations about AI in enhancing employee well-being, especially as we continue to increase investments in AI into our organizational fabric.

About The Study

This is a mixed-method study that will utilize both surveys and team discussions to capture quantitative and qualitative data. Specifically, the study will measure employee well-being before and after leaders facilitate conversations about AI using our products feature

"Conversation Starters." The hypothesis driving this research is straightforward: team discussions about AI will positively impact employee well-being.

Why Participate?
As a leader within our organization, participating in this study offers multiple advantages:

- **Expertise:** Gain hands-on experience with one of our new and popular product features, Conversation Starters.
- **Team Building**: Foster greater team cohesion and enhance well-being by leading your team in a discussion around artificial intelligence.
- **Strategic Alignment:** Our FY24 Strategic Vision and Corporate Goals include evaluating generative AI for product, content, and operations. Align with one of our strategic priorities for FY24 while contributing to this important research.
- **Efficiency**: The time commitment is minimal, with a single, 30-minute discussion you can include in a regular team meeting.

Participant Commitment & Ethical Considerations
The research will require at most 1.5 hours from leaders and team members. This includes:

- Pre-Survey: 5-10 minutes
- Conversation Starter Preparation: 20-30 minutes
- Discussion: 30-40 minutes
- Post-Survey: 5 minutes

All logistics, from emails to Zoom meetings, will be coordinated by the research team, allowing participants to focus on the content. Additionally**,** confidentiality and ethical integrity are paramount in this research. Rest assured; the privacy of all participants will be stringently protected.

Next Steps
Please support this opportunity to engage with your team in this important discussion and help me with my research – click here to indicate your interest. Follow-up communications will be sent out in December, with the research slated for January 2024.

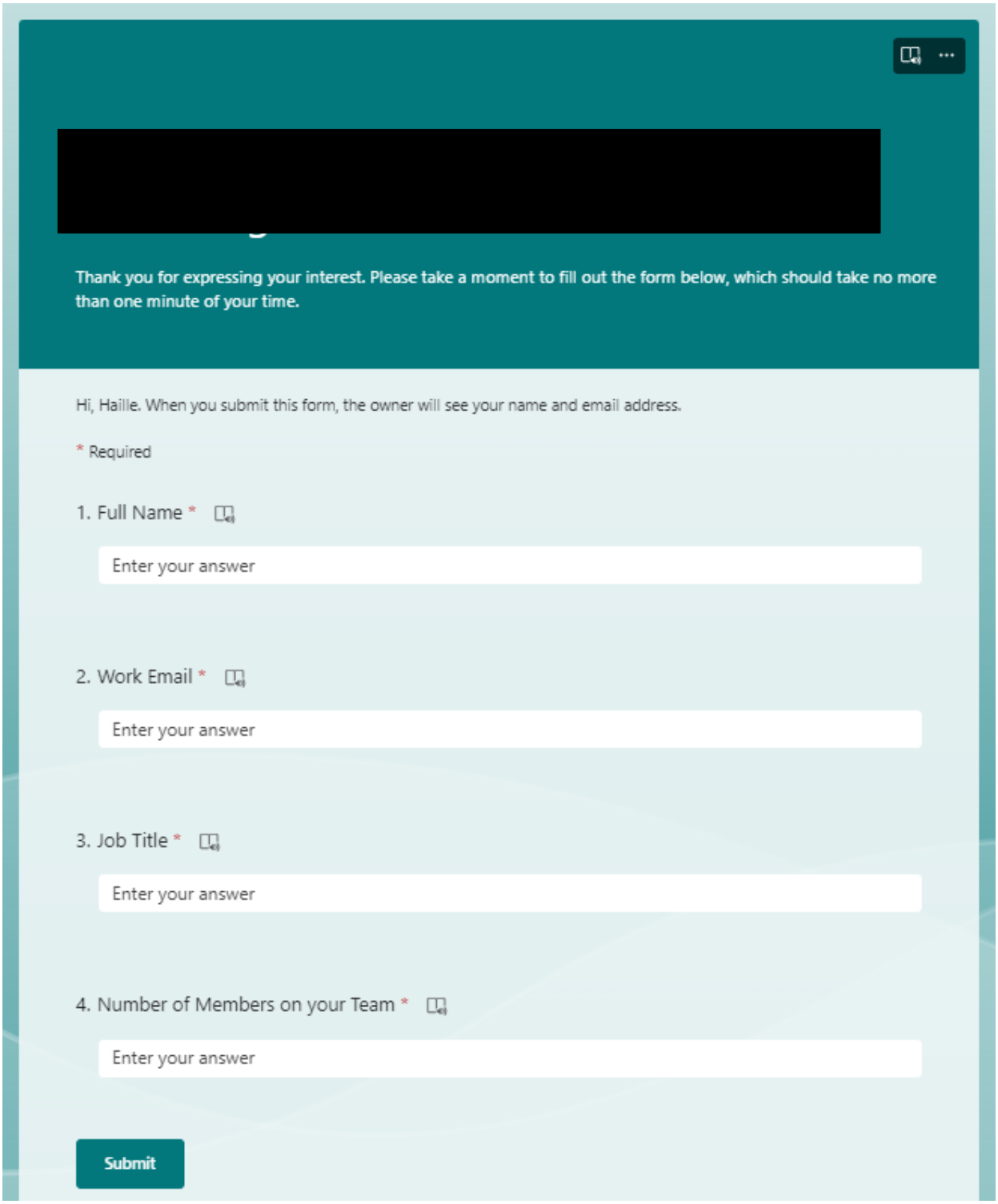
Thank you for your time and consideration. I am excited about the potential insights this study could offer, not only for [company name] but also for the broader community of leaders and organizations we work with around the globe.

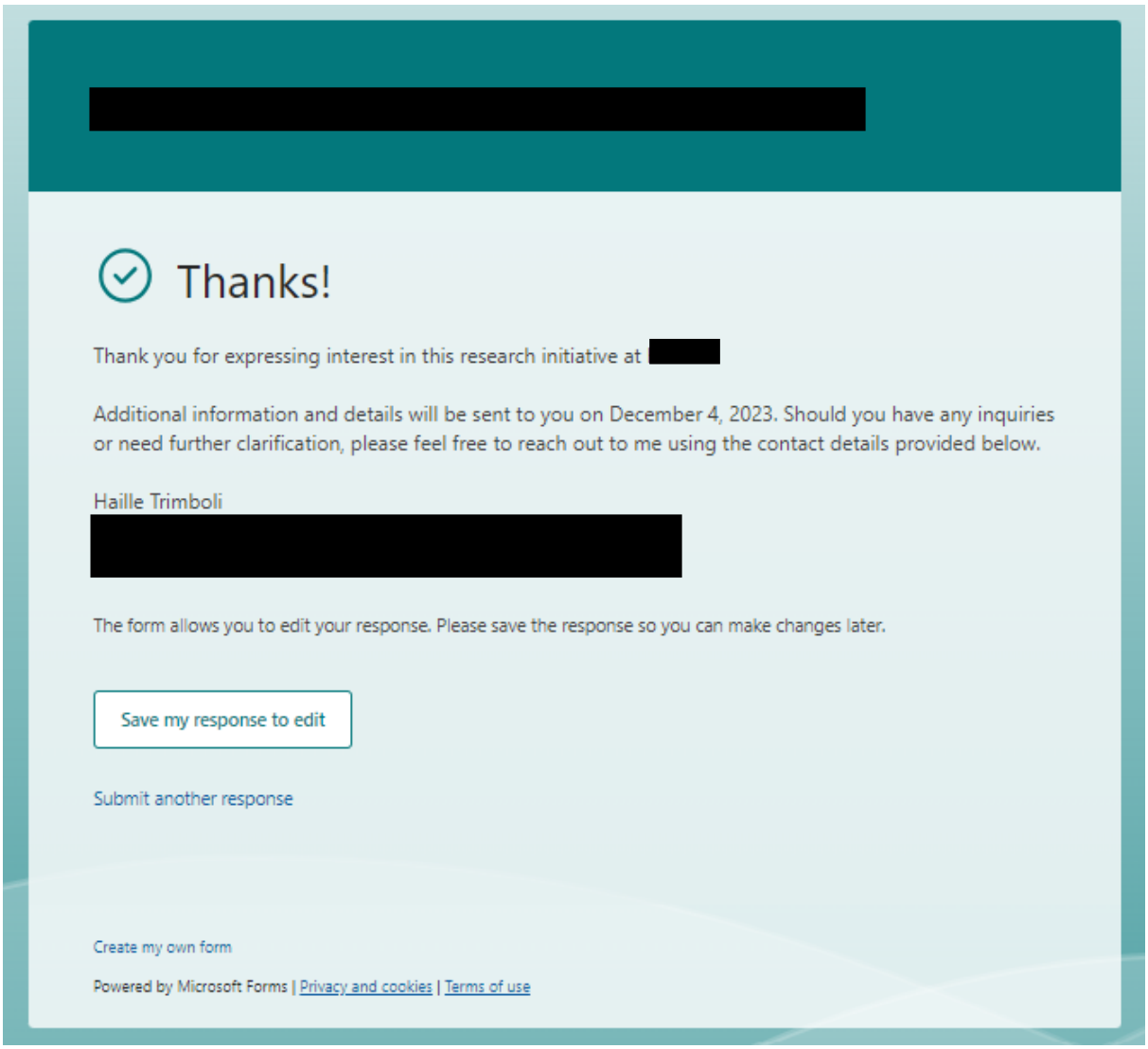
Should you have any questions or require further details, please don't hesitate to contact me using the information below.

Haille Trimboli

APPENDIX E

Company Blog Post Interest Form




[redacted]

Thanks!

Thank you for expressing interest in this research initiative at [redacted]

Additional information and details will be sent to you on December 4, 2023. Should you have any inquiries or need further clarification, please feel free to reach out to me using the contact details provided below.

Haille Trimboli
[redacted]

The form allows you to edit your response. Please save the response so you can make changes later.

Save my response to edit

Submit another response

Create my own form

Powered by Microsoft Forms | Privacy and cookies | Terms of use

APPENDIX F

People Leader Email Templates

Subject: Follow-Up: Employee Well-Being Study

Dear [Leader's Name],

I hope you're doing well. Thank you for participating in my dissertation research. Your involvement is crucial, and I'm eager to collaborate with you.

Our project focuses on enhancing team well-being through discussions on artificial intelligence, using Conversation Starters from HMM Spark. This isn't just a discussion—it's a chance to strengthen team bonds and delve into an important subject. Here's the project outline:

1. **Scheduling:** Kindly schedule the date and time to facilitate the live virtual Conversation Starter using this link: [Calendly link]
2. **Pre-Session Communication:** Before the holiday break, please inform your team about this research (a ready-made email template is provided).
3. **Initial Setup (January 8, 2024):** You'll receive a link to the Conversation Starter and a pre-survey. Your team will also get these, along with the conversation's scheduled date.
4. **Meeting Invitation (January 15, 2024)**: A Webex invitation will be sent to all.
5. **Team Conversation:** Lead the discussion using the Conversation Starter, which includes helpful facilitation tips.
6. **Follow-Up:** Participants will receive a thank-you email with a post-survey link after the session.

Time Commitment:

- Pre-Survey: 5 minutes
- Asynchronous Preparation: 15-20 minutes
- Live Virtual Team Discussion: 30-45 minutes
- Post-Survey: 5 minutes

For research, I'll record the session with your privacy-protected (more details in the pre-survey intro). I'll be present with my video off, interacting only via chat to remind everyone about the recording.

Please contact me if you have questions or need a discussion. I'm committed to making this a smooth and valuable experience. Thank you for your support; I'm excited about the impact on your team dynamics.

Warm regards,

Haille Trimboli

Email Template for People Leaders to Send to Their Team

Subject: Exciting Opportunity: Join Me for a Conversation on AI!

Dear Team,

I'm excited to announce a unique opportunity for our team. We've been selected to participate in a project focusing on AI's impact on work and life. This initiative, part of Haille Trimboli's dissertation research, offers us a chance to strengthen our team bond and explore AI through a Harvard ManageMentor Spark Conversation Starter.

Here's a quick overview:

- **Purpose:** To enhance team well-being and engage in meaningful AI discussions.
- **Format:** An informal, insightful conversation using materials from the Conversation Starter.
- **Date & Time:** The schedule is being finalized and will be communicated to you on January 8. Please expect it to take place the week of January 29.
- **Participation:** Optional but encouraged for everyone's diverse insights.
- **Process & Commitment**: Includes a pre-survey (5 mins), synchronous preparation (10-15 mins), a live virtual discussion (30-45 mins), and a post-survey (5 mins).

This isn't just another team meeting. It's a chance to connect deeply and discuss a topic reshaping our world. Look out for an email from Haille Trimboli on January 8 with all the necessary details and links. If you do not complete the pre-survey, we will assume you have opted out.

We're looking forward to an enriching and engaging discussion. Please feel free to contact me or Haille with any questions or suggestions.

Best regards,

[Leader's Name]
[Leader's Position]

APPENDIX G

All Participant Recruitment Email With Links

Subject: Join Us for an AI-Themed Conversation Starter Session!

Dear [Insert Name],

Happy New Year! I hope you're feeling refreshed as you ease back into your daily routine.

Following up on the opportunity highlighted by [+Leader's Name] before the break, I'm reaching out to invite you to join a unique session: a Conversation Starter focused on artificial intelligence, as part of my doctoral research on AI and well-being.

Your insights are invaluable to understanding how discussions about AI influence workplace well-being. Participation is voluntary but highly appreciated – it's a great chance to engage with your team on a vital topic and experience one of HBP's innovative features!

Here's what to expect:

- **Pre-Survey**: A quick 5-minute survey to complete by Jan 19 [Insert Survey Link]
- **Preparation:** Spend about 15 minutes reviewing the Conversation Starter material before the live discussion. [Insert Conversation Starter Link]
- **Live Discussion**: Join a 30-45 minute virtual conversation on Jan 29, 2024, at 2 pm EST via WebEx.
- **Post-Survey**: Share your feedback in a brief survey that will be sent post-discussion on Feb 5, 2024.

This session offers a unique platform to explore AI, aligning with HBP's strategic goals and letting you explore one of our own digital features.

Your involvement is entirely optional, and you can opt out at any point. If you choose not to participate or to withdraw, that's absolutely fine. **To indicate your participation, please complete the pre-survey linked above. This will act as your RSVP**. Upon completion, I will send you a calendar invite with the WebEx meeting details for our session on Jan 22. If you are unable to participate or prefer not to, no action is needed – I'll consider non-completion of the survey as an opt-out.

If you have any questions or wish to discuss further, I'm just an email away.

Eagerly anticipating a vibrant and insightful discussion!

Warm regards,
[Insert Your Name]

APPENDIX H

Informed Consent Form

PEPPERDINE UNIVERSITY
GSEP

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Study Title: The Examination of Workplace Well-Being in the Context of Conversations on Artificial Intelligence

You are invited to participate in a research study conducted by Haille Trimboli at Pepperdine University. Your participation is voluntary. Please read the information below and ask questions about anything you do not understand before deciding whether to participate. Please take as much time as you need to read the consent form.

AUTHORIZED STUDY PERSONNEL

Principal Investigator: Haille Trimboli

KEY INFORMATION

If you agree to participate in this study, the project will involve:

- Males/Females between the ages of 18-75
- Procedures will include a pre-survey, pre-work, a live virtual conversation with your team, and a post-survey
- There are minimal risks associated with this study
- You will be provided a copy of this consent form

WHY ARE YOU BEING ASKED TO BE IN THIS RESEARCH STUDY?

You are being asked to be in this study because you are an employee of HBP and a part of a team of two or more people.

WHAT IS THE REASON FOR DOING THIS RESEARCH STUDY?

The purpose of this study is to examine how team conversations about artificial intelligence influence employee well-being. This research project focuses on workplace well-being in the context of conversations on artificial intelligence.

WHAT WILL BE DONE DURING THIS RESEARCH STUDY?

If you volunteer to participate in this study, it will require approximately 1.5 hours of your time. You will be asked to complete a pre-survey that will take approximately 5-10 minutes, complete

a conversation starter with your team that will take approximately 20 minutes of pre-work and 40 minutes of conversation, and complete a post-survey that will take approximately 5-10 minutes. Participation in the conversation starter discussion will occur on Webex and be recorded for analysis.

WHAT ARE THE POSSIBLE RISKS OF BEING IN THIS RESEARCH STUDY?

The potential and foreseeable risks associated with participation in this study include no more than minimum risks involved in day-to-day activities. Should any discomfort arise, you may choose to discontinue or skip any part of the survey or conversation you find distressing. If you feel fatigued during the study, you may discontinue or skip any part of the survey or conversation.

WHAT ARE THE POSSIBLE BENEFITS TO YOU?

While participants may not directly benefit tangibly from taking part in the study, they may experience increased awareness of AI's implications in the workplace and empowerment. Facilitated team conversations aim to boost team communication and foster connections that enhance well-being.

WHAT ARE THE POSSIBLE BENEFITS TO OTHER PEOPLE?

While valuable for the societal understanding of AI and workplace well-being, this study seeks to inform best practices across various sectors, emphasizing best practices around human-centric technology integration.

WHAT ARE THE ALTERNATIVES TO BEING IN THIS RESEARCH STUDY?

The alternative to participating in the study is not participating or completing only the items you feel comfortable with. Should you choose this alternative, your relationship with your employer will not be affected whether you participate or not in this study.

WHAT WILL BEING IN THIS RESEARCH STUDY COST YOU?

There is no cost to you for participating in this research study.

WILL YOU BE COMPENSATED FOR BEING IN THIS RESEARCH STUDY?

You will not be compensated for being a participant in this research study.

WHAT SHOULD YOU DO IF YOU HAVE A PROBLEM DURING THIS RESEARCH STUDY?

Your welfare is the primary concern of the researcher. If you have a problem as a direct result of being in this study, you should immediately contact the person listed at the beginning of this consent form.

HOW WILL INFORMATION ABOUT YOU BE PROTECTED?

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data. The data will be stored electronically through a secure server and will only be seen by the research team during the study and for 3 years after the study is complete. The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB) of Pepperdine University, and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

WHAT ARE YOUR RIGHTS AS A RESEARCH SUBJECT?

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. For study-related questions, please contact the investigator(s) listed at the beginning of this form.

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB):

Phone: 1(310)568-2305
Email: gpsirb@pepperdine.edu

WHAT WILL HAPPEN IF YOU DECIDE NOT TO BE IN THIS RESEARCH STUDY OR DECIDE TO STOP PARTICIPATING ONCE YOU START?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw') at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with Pepperdine University or your organization or your team.

You will not lose any benefits to which you are entitled.

DOCUMENTATION OF INFORMED CONSENT

You are voluntarily deciding whether or not to participate in this research study. By agreeing to participate, you acknowledge and consent to being recorded during the course of the study. This recording is essential for the research process and will be treated with the utmost confidentiality, as detailed earlier in this document. By completing and submitting your survey responses and participating in the recorded sessions, you have consented to participate in this research. You should print a copy of this page for your records.

Participant Name:

_____

Name of Participant: Please Print

Participant Signature:

_____ _____

Signature of Research Participant Date

APPENDIX I

Workplace Well-Being Pre-Survey

Start of Block: Welcome

Q1 Hello, and thank you for your willingness to participate in this survey. It will require 5-10 minutes of your time.

Before proceeding to the questions, the following section includes a consent form as a reminder that your responses are confidential - no individual data will be shared, and all results will only be reported in summary. Should you have any questions or require further clarification, please email haille.trimboli@harvardbusiness.org.

Your contribution to this study is greatly appreciated.

End of Block: Welcome

Start of Block: Consent Form

Q2 Please review the consent form here. Once reviewed, print and sign your name below.

Q3 Name of Participant:

_____

Q4 Signature of Participant:

End of Block: Consent Form

Start of Block: Demographics

Q5 How do you describe yourself?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ Prefer to self-describe (4) _____
- ○ Prefer not to say (5)

Q6 How old are you?

- ○ Under 18 (1)
- ○ 18-24 years old (2)
- ○ 25-34 years old (3)
- ○ 35-44 years old (4)
- ○ 45-54 years old (5)
- ○ 55-64 years old (6)
- ○ 65+ years old (7)

Q7 In which country do you currently reside?

▼ Afghanistan (1) ... Zimbabwe (1357)

Q8 What is the highest level of education you have completed?

- ○ Some high school or less (1)
- ○ High school diploma or GED (2)
- ○ Some college, but no degree (3)
- ○ Associates or technical degree (4)
- ○ Bachelor's degree (5)
- ○ Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.) (6)
- ○ Prefer not to say (7)

End of Block: Demographics

Start of Block: Artificial Intelligence

Q9 How would you describe your experience with artificial intelligence (AI)?

- ○ I use AI tools as part of my job. (1)
- ○ I have taken courses or training in AI. (2)
- ○ I have general knowledge but no formal education or work experience in AI. (3)
- ○ I have no experience with AI. (4)

Q10 How frequently are you using artificial intelligence?

- ○ Daily (1)
- ○ Weekly (2)
- ○ Monthly (3)
- ○ Rarely (4)
- ○ Never (5)

End of Block: Artificial Intelligence

Start of Block: Workplace Well-Being

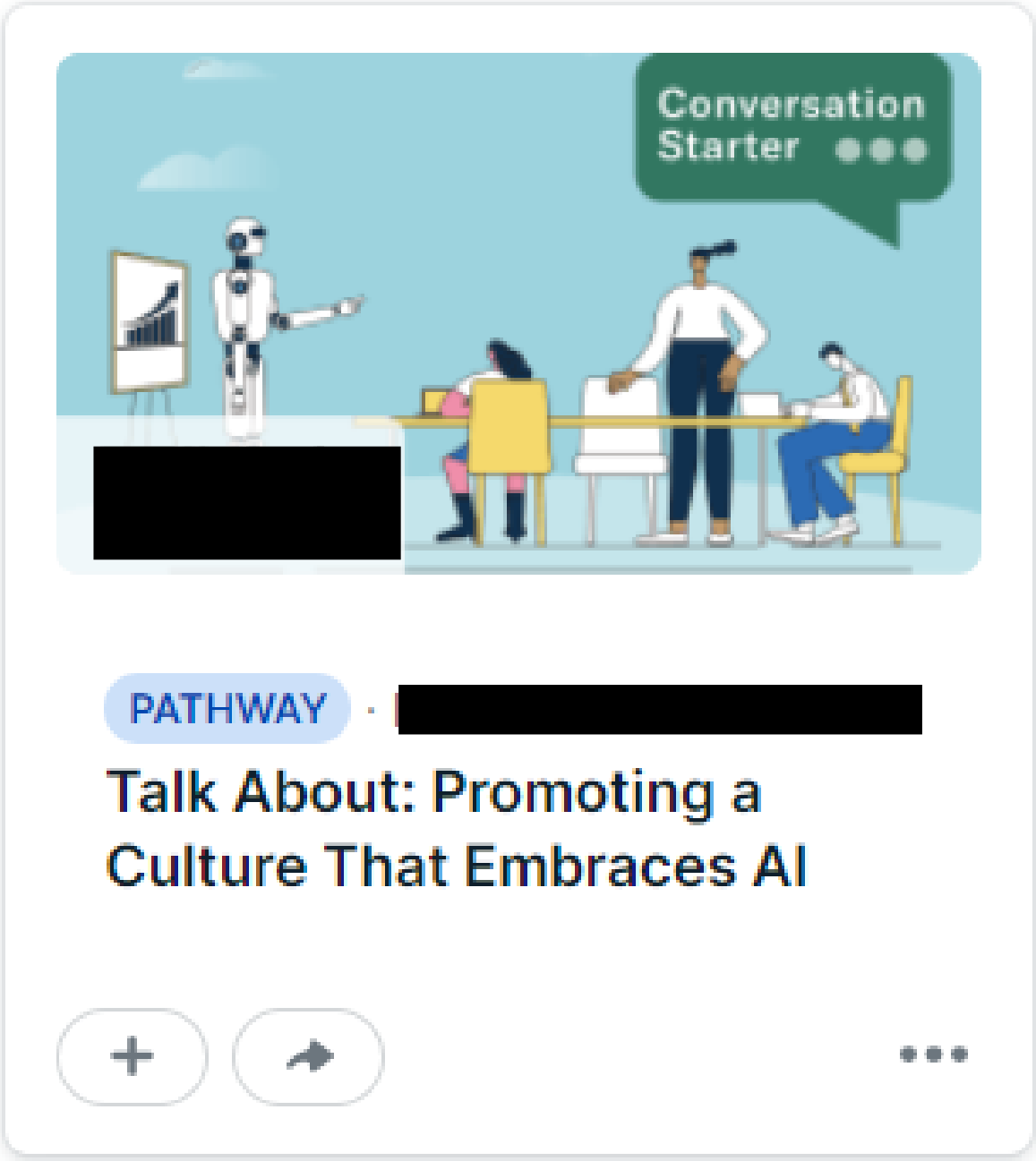
Q11 For each of these questions, please give an answer on a scale from 0 to 10, where 0 is “not at all” and 10 is “completely”.

	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	6 (7)	7 (8)	8 (9)	9 (10)	10 (11)
Overall, how satisfied are you with your job? (1)	○	○	○	○	○	○	○	○	○	○	○
Overall, how purposeful and meaningful do you find your work? (2)	○	○	○	○	○	○	○	○	○	○	○
How happy did you feel while at work during the past week? (3)	○	○	○	○	○	○	○	○	○	○	○
How stressed did you feel while at work during the past week? (4)	○	○	○	○	○	○	○	○	○	○	○

End of Block: Workplace Well-Being

APPENDIX J

Conversation Starter: Promoting a Culture That Embraces AI



APPENDIX K

Learn: 3 Steps to Prepare Your Culture For AI By Jared Spataro

3 Steps to Prepare Your Culture for AI

How to help employees embrace curiosity, failure, and learning.

by Jared Spataro

Published on HBR.org / June 28, 2023 / Reprint H07PFA

gremlin/Getty Images

As business leaders, today we find ourselves in a place that's all too familiar: the unfamiliar. Just as we steered our teams through the shift to remote and flexible work, we're now on the verge of another seismic shift: AI. And like the shift to flexible work, priming an organization to embrace AI will hinge first and foremost on culture.

The pace and volume of work has increased exponentially, and we're all struggling under the weight of it. Leaders and employees are eager for AI to lift the burden. That's the key takeaway from our 2023 Work Trend

Index, which surveyed 31,000 people across 31 countries and analyzed trillions of aggregated productivity signals in Microsoft 365, along with labor market trends on LinkedIn.

Nearly two-thirds of employees surveyed told us they don't have enough time or energy to do their job. The cause of this drain is something we identified in the report as digital debt: the influx of data, emails, and chats has outpaced our ability to keep up. Employees today spend nearly 60% of their time communicating, leaving only 40% of their time for creating and innovating. In a world where creativity is the new productivity, digital debt isn't just an inconvenience — it's a liability.

AI promises to address that liability by allowing employees to focus on the most meaningful work. Increasing productivity, streamlining repetitive tasks, and increasing employee well-being are the top three things leaders want from AI, according to our research. Notably, amid fears that AI will replace jobs, reducing headcount was last on the list.

Becoming an AI-powered organization will require us to work in entirely new ways. As leaders, there are three steps we can take today to get our cultures ready for an AI-powered future:

Choose curiosity over fear

AI marks a new interaction model between humans and computers. Until now, the way we've interacted with computers has been similar to how we interact with a calculator: We ask a question or give directions, and the computer provides an answer. But with AI, the computer will be more like a copilot. We'll need to develop a new kind of chemistry together, learning when and how to ask questions and about the importance of fact-checking responses.

Fear is a natural reaction to change, so it's understandable for employees to feel some uncertainty about what AI will mean for their work. Our research found that while 49% of employees are concerned AI will replace their jobs, the promise of AI outweighs the threat: 70% of employees are more than willing to delegate to AI to lighten their workloads.

We're rarely served by operating from a place of fear. By fostering a culture of curiosity, we can empower our people to understand how AI works, including its capabilities and its shortcomings. This understanding starts with firsthand experience. Encourage employees to put curiosity into action by experimenting (safely and securely) with new AI tools, such as AI-powered search, intelligent writing assistance, or smart calendaring, to name just a few. Since every role and function will have different ways to use and benefit from AI, challenge them to rethink how AI could improve or transform processes as they get familiar with the tools. From there, employees can begin to unlock new ways of working.

Embrace failure

AI will change nearly every job, and nearly every work pattern can benefit from some degree of AI augmentation or automation. As leaders, now is the time to encourage our teams to bring creativity to reimagining work, adopting a test-and-learn strategy to find ways AI can best help meet the needs of the business.

AI won't get it right every time, but even when it's wrong, it's *usefully* wrong. It moves you at least one step forward from a blank slate, so you can jump right into the critical thinking work of reviewing, editing, or augmenting. It will take time to learn these new patterns of work and identify which processes need to change and how. But if

we create a culture where experimentation and learning are viewed as a prerequisite to progress, we'll get there much faster.

As leaders, we have a responsibility to create the right environment for failure so that our people are empowered to experiment to uncover how AI can fit into their workflows. In my experience, that includes celebrating wins as well as sharing lessons learned in order to help keep each other from wasting time learning the same lesson twice. Both formally and informally, carve out space for people to share knowledge — for example, by crowdsourcing a prompt guidebook within your department or making AI tips a standing agenda item in your monthly all-staff meetings. Operating with agility will be a foundational tenet of AI-powered organizations.

Become a learn-it-all

I often hear concerns that AI will be a crutch, offering shortcuts and workarounds that ultimately diminish innovation and engagement. In my mind, the potential for AI is so much bigger than that, and it will become a competitive advantage for those who use it thoughtfully. Those will become your most engaged and innovative employees.

The value you get from AI is only as good as what you put in. Simple questions will result in simple answers. But sophisticated, thought-provoking questions will result in more complex analysis and bigger ideas. The value will shift from employees who have all the right answers to employees who know how to ask the right questions. Organizations of the future will place a premium on analytical thinkers and problem-solvers who can effectively reason over AI-generated content.

At Microsoft, we believe a learn-it-all mentality will get us much farther than a know-it-all one. And while the learning curve of using AI can

be daunting, it's a muscle that has to be built over time — and that we should start strengthening today. When I talk to leaders about how to achieve this across their companies and teams, I tell them three things:

- Establish guardrails to help people experiment safely and responsibly. Which tools do you encourage employees to use, and what data is — and isn't — appropriate to input. What guidelines do they need to follow around fact-checking, reviewing, and editing?
- Learning to work with AI will need to be a continuous process, not a one-time training. Infuse learning opportunities into your rhythm of business and keep employees up to date with the latest resources. For example, one team might block off Friday afternoons for learning, while another has monthly "office hours" for AI Q&A and troubleshooting. And think beyond traditional courses or resources. How can peer-to-peer knowledge sharing, such as lunch and learns or a digital hotline, play a role so people can learn from each other?
- Embrace the need for change management. Being intentional and programmatic will be crucial for successfully adopting AI. Identify goals and metrics for success, and select AI champions or pilot program leads to help bring the vision to life. Different functions and disciplines will have different needs and challenges when it comes to AI, but one shared need will be for structure and support as we all transition to a new way of working.

The platform shift to AI is well underway. And while it holds the promise of transforming work and giving organizations a competitive advantage, realizing those benefits isn't possible without a culture that embraces curiosity, failure, and learning. As leaders, we're uniquely positioned to foster this culture within our organizations today in order to set our teams up for success in the future. When paired with the capabilities of AI, this kind of culture will unlock a better future of work for everyone.

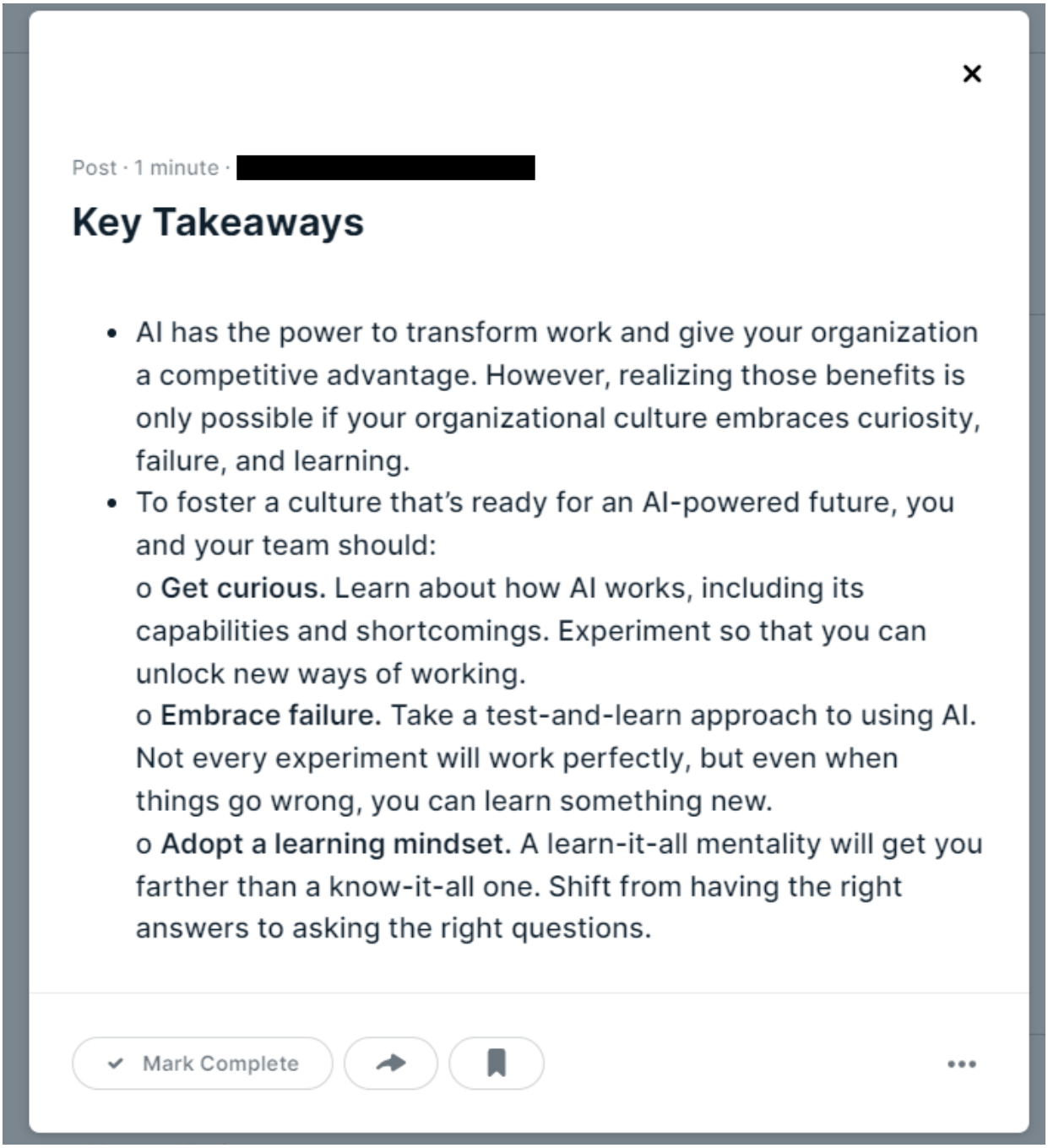
This article was originally published online on June 28, 2023.

JS

Jared Spataro leads Microsoft's Modern Work and Business Applications team, which is dedicated to helping every person and organization adapt to the new world of work. His team drives research to help predict and shape what the future of work and business will look like across industries, while also delivering new products and features within Microsoft 365, Teams, Viva, Dynamics 365, and Power Platform that enable everyone to thrive.

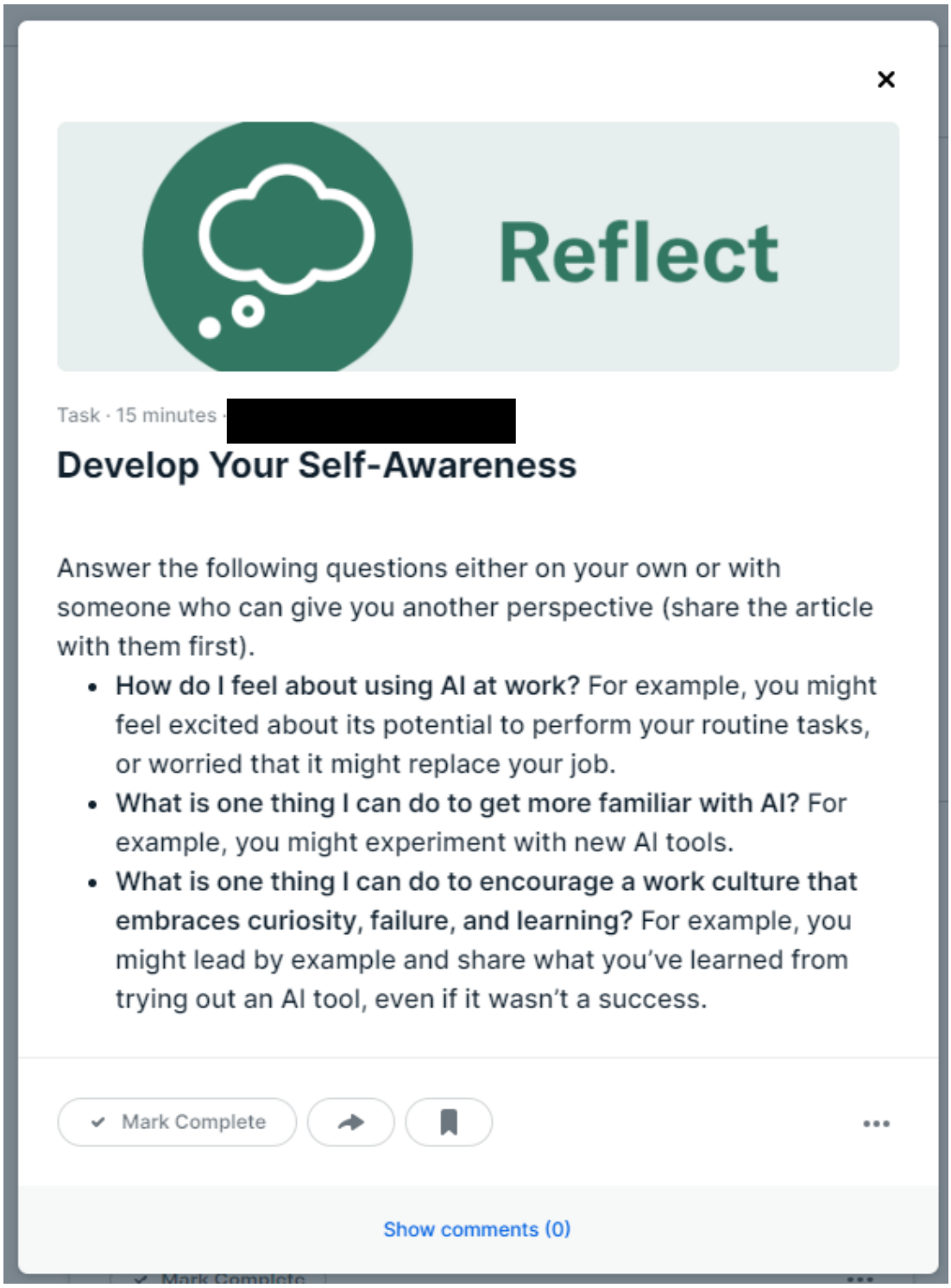
APPENDIX L

Review: Key Take-Aways



APPENDIX M

Reflect: Article Questions



APPENDIX N

Connect: Facilitator Resources

5. Connect

3 Items · 27 minutes

Completed 0 of 3

Post 10 minutes [redacted]

Prepare to Lead a Conversation

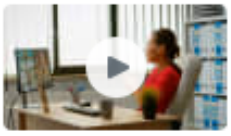
Before your conversation, review our Guide for Leading a Conversation Starter. You can find the guide by searching for its name in the search bar.

Mark Complete

Video 2 minutes [redacted]

Create a Bold, Safe Space for Discussion

Set ground rules for an open and productive conversation with your group.



Mark Complete Viewed

Task 15 minutes [redacted]

Learn with Others

Before your meeting, share the article and key takeaways with everyone. Start the meeting by showing the "Create a Bold, Safe Space for Discussion" video to set the ...

Connect

Mark Complete

APPENDIX O

Workplace Well-Being Post Survey

Workplace Well-Being

For each of these questions please give an answer on a scale from 0 to 10, where 0 is “not at all” and 10 is “completely.”

	Not at all										Completely
	0	1	2	3	4	5	6	7	8	9	10
Overall, how satisfied are you with your job?	○	○	○	○	○	○	○	○	○	○	○
Overall, how purposeful and meaningful do you find your work?	○	○	○	○	○	○	○	○	○	○	○
How happy did you feel while at work during the past week?	○	○	○	○	○	○	○	○	○	○	○
How stressed did you feel while at work during the past week?	○	○	○	○	○	○	○	○	○	○	○

APPENDIX P

Post Survey Follow-Up Email

Subject: Thank You for Participating in AI & Well-Being Research Discussion - Next Steps

Dear [Insert Name],

I hope this message finds you well.

First and foremost, I would like to express my heartfelt gratitude for your active participation in yesterday's team meeting, during which we explored [organization name] Conversation Starter on Artificial Intelligence. Your insights and contributions significantly enriched the discussion.

Next Steps:

- **Follow-Up Survey:** Please complete this follow-up survey. It should take at most 10 minutes to complete. [Insert Follow-Up Survey Link] Please complete the follow-up survey by [Insert Deadline].

Your active involvement helps our team's growth and contributes to research that could shape the future of artificial intelligence in the context of well-being. Thank you for dedicating time to this critical endeavor.

If you have any questions or concerns or would like to discuss the topic further, please don't hesitate to contact me or the research team.

Best regards,

[Name]