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# MECHANISMS OF EMPATHETIC LEADERSHIP IN PREVENTING PSYCHOLOGICAL EXHAUSTION FROM MASSIVE AI SYSTEM USE AMONG THE DIGITAL NATIVE GENERATION

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***Abstract -*** *This conceptual study examines how empathetic leadership reduces psychological exhaustion from massive artificial intelligence use among digital native employees. Digital native workers, raised with ubiquitous technology, experience unique stressors when interacting with imperfect AI systems daily. Leadership styles prioritizing authentic communication, emotional validation, and autonomy demonstrate capacity to interrupt stress cycles that lead to chronic fatigue. Key mechanisms include transparent acknowledgment of AI limitations, redistribution of performance metrics away from pure speed, facilitation of peer support networks, and physical workspace adjustments that reduce cognitive load. Empathetic leaders also deconstruct the tendency among digital natives to internalize technological failures as personal incompetence. Sustainability of this leadership approach requires organizational protection against compassion fatigue for managers themselves. Practical implications suggest integrating empathy training into leadership development programs with specific focus on human AI collaboration contexts. Future longitudinal studies should measure causal relationships between discrete empathetic behaviors and fatigue reduction across different industries. The conceptual framework offered here positions humanistic leadership as essential infrastructure for responsible AI adoption in modern workplaces.*

*Keywords: empathetic leadership, AI fatigue, digital native, psychological well being, human AI collaboration, work stress, technology adoption.*

## INTRODUCTION

Drastic changes in the world of work due to the adoption of artificial intelligence (AI) have created unprecedented psychological dynamics. The digital native generation, who grew up with the internet and smart devices, faces high expectations to master and adapt to various evolving AI tools (Högemann et al., 2025). Companies across various sectors are racing to integrate AI to increase efficiency, which means young employees are required to learn new systems every few months. This condition triggers cognitive and emotional pressure because the human brain has a limited capacity to process constant technological changes (Alanazi & Altukhys, 2025). Digital native employees actually have an advantage in digital literacy, but this advantage backfires when organizations assume they will not experience technological exhaustion. This erroneous assumption causes companies to provide insufficient recovery space for young workers from the routine of interacting with AI. As a result, specific psychological exhaustion emerges, namely feelings of saturation, anxiety, and helplessness when dealing with complex AI systems (Skorokhod et al., 2025). This change is not merely a technical issue, but a form of digitalization that triggers fundamental changes in relational patterns and social structures within organizations, which ultimately demands new individual competence standards (Darmawan & Marsal, 2025). Digital literacy encompasses not only technical knowledge, but also the ability to explore, evaluate, and apply information effectively in a digital environment (Ramle & Mardikaningsih, 2022). Employee self-efficacy regarding their own abilities also determines how smoothly they adapt to technological changes in the workplace (Mardikaningsih & Darmawan, 2022).

Fatigue caused by AI, or known as AI fatigue, has begun to be detected in various global employment reports. The use of advanced technology such as artificial intelligence in team management has also become common to facilitate human work in the office (Darmawan, 2022). This phenomenon is characterized by a decline in productivity, an increase in technical errors, and apathy toward new innovations. Young employees who should be the driving force of digitalization instead show passive resistance to the implementation of AI in the workplace. Internal research by major technology companies has found that repetitive interactions with chatbots, recommendation systems, and predictive analytics tools cause symptoms such as headaches, eye strain, and frustration when systems fail to understand user requests (Triki & Turki, 2025). Such conditions can be suppressed if companies formulate strategies that strengthen employee knowledge and engagement in routine jobs that have been automated, rather than merely accelerating system implementation without adequate preparation (Darmawan, 2024). The digital native generation often does not realize that they are experiencing AI fatigue because they consider this exhaustion to be a normal part of working in the modern era (Lamsir, 2025). In fact, if left unchecked, this condition can develop into chronic anxiety or even work-related depression.

Organizations are beginning to realize that AI adoption without regard for employee psychology will only produce pseudo-efficiency that ultimately damages the well-being of the young workforce.

Adaptive leadership that understands the psychological conditions of subordinates is a crucial factor in preventing AI fatigue. Traditional leadership styles focusing on targets and compliance are no longer adequate when employees face pressure from constantly changing technology (Alawiye et al., 2025). Leaders need to show empathy by acknowledging that intensive interaction with AI can drain mental energy. Open two-way communication allows employees to express their fatigue without fear of being considered incompetent. Sensitive leaders will detect early signs of AI fatigue, such as a drop in initiative or an increase in technical complaints, before the condition spreads. The hierarchical structure in many companies still positions leaders as supervisors and productivity drivers rather than psychological companions (Grimes et al., 2022). The paradigm shift of leadership toward a more humanistic approach becomes an urgent need along with the acceleration of digital transformation in the workplace. Leaders who apply a supportive leadership style that pays more attention to employees' emotional needs and motivations will help them feel more accepted and supported in facing these changes. In this transition process, the application of situational leadership strategy is very effective for managing change management while keeping team performance stable (Mardikaningsih & Darmawan, 2022).

The digital native employee group possesses unique characteristics that make them both vulnerable and resilient to technological stress. They grew up with the expectation that technology should be easy to use and intuitive, so when AI fails to meet those expectations, the disappointment that arises is more intense compared to workers of previous generations (Högemann et al., 2025). Their adaptability to new platforms is very good, but overconfidence often makes them reluctant to admit fatigue. Leaders need to understand that a one-size-fits-all approach will not work when dealing with a generation that is critical of authority. They respond better to leaders who show vulnerability and emotional authenticity rather than leaders who hide weaknesses behind tight control (Cavusoglu & Cavusoglu, 2025). Attention to these digital native employees ideally should not make the organization forget about senior worker groups, because the implementation of digital technology that is less inclusive risks marginalizing them from the transformation process (Darmawan, 2023). The current social media phenomenon also shows how important it is to maintain the authenticity of relationships so that communication remains honest and meaningful (Hariani & Mardikaningsih, 2022). Through relational transparency, leaders show their true identity to subordinates by openly sharing their feelings and motives, which helps build trust, cooperation, and encourages teamwork (Mardikaningsih et al., 2022). Leadership models emphasizing personal relationships, active listening, and granting autonomy to employees to manage their own work rhythm can reduce the risk of AI fatigue. Without this understanding, AI implementation policies will continue to hit a wall of silent resistance from young employees.

One of the major challenges in applying empathetic leadership in data-driven companies is that empathy is often considered unmeasurable and unscientific. Many managers from engineering or business backgrounds assume that focusing on employee well-being is something that disrupts efficiency. They believe more in objective metrics such as response speed, prediction accuracy, and output volume than in subjective signals such as emotional tension or work burnout (Leggat, 2025). In fact, AI fatigue is a qualitative problem that cannot be detected solely through numbers. Someone who is statistically productive could actually be experiencing psychological damage that will explode later on. Leaders who rely solely on dashboards and performance reports will be blind to their team's condition. This condition brings fundamental changes in work methods that were previously based on direct interaction and physical supervision, having now shifted to systems relying on digital communication and work output measurement (Rojak et al., 2022). Employee mental health should be part of the work environment design itself, so that the human resource management function needs to be strategically redirected to accommodate these needs, rather than being placed as an additional matter outside the main work system (Issalillah & Khayru, 2025). Empathetic leadership demands the courage to complement quantitative data with qualitative observations, informal conversations, and subjective assessments of the team's psychological climate. Such work group configurations are heavily influenced by the fabric of social capital and strong cooperative bonds to support the realization of a comprehensive quality management system (Putra et al., 2021). Thus, effective leadership relies not only on data, but also on the ability to understand human needs (Al Laisty et al., 2024). The gap between a data-driven decision-making culture and the need for a human touch is the root of the failure of many AI initiatives in companies.

The main problem faced by organizations today is the lack of a systematic understanding of the relationship between leadership style and the level of AI fatigue among digital native employees. Many companies have trained their managers in AI-related technical skills, but neglected training on emotional leadership aspects. Managers know how to operate new analytics tools, but do not know how to detect whether team members are starting to get frustrated due to unresponsive systems (Ünal, 2025). Existing leadership training is often generic, discussing effective communication in theory without linking it to the specific challenges of an AI-filled work environment. As a result, practices in the field are highly imbalanced between the demands of rapid digital transformation and managerial capability to accompany employees through the transition period. This gap causes a high turnover rate of young employees in companies aggressively adopting AI, where digital native talents choose to leave because they feel unsupported emotionally by their

superiors. The restructuring of human resource management practices, by highlighting work flexibility and corporate image as a good place to work, can help suppress the high turnover rate of these young employees (Mardikaningsih, 2025). This lack of emotional support directly impacts the decline in employee loyalty, even though the individuals possess qualified human resource qualities (Darmawan et al., 2020). Training and development as individuals to make changes in skills, knowledge, attitudes, behavior, and beneficial development to provide opportunities for employees to develop further, and not just focusing on skills (Darmawan et al., 2020).

Another issue is the individual variation in responding to AI technology that is often ignored by organizations. Two employees with the same age and educational background can experience very different levels of AI fatigue depending on their temperament, previous experiences with failed technology, and the social support they receive. An insensitive leader will generalize that all young employees can certainly cope with technological stress, thus failing to provide special attention to those showing early signs of exhaustion. Such generalization is dangerous because it reinforces a culture of silence in the workplace, where employees experiencing difficulties choose to keep quiet for fear of being considered weak or less competent than their peers. Organizations lose vital data about where the actual problem lies when everyone is forced to show an optimistic face toward AI. Empathetic leadership instead requires the ability to recognize individual differences and provide tailored support without making someone feel discriminated against or treated unfairly (Schmoll et al., 2025). Sensitivity to such differences is also related to how technology treats employee groups unequally, including regarding gender equality in the workplace, so that AI implementation needs to consider its impacts on these diverse groups (Darmawan, 2024). Organizations need to design training based on individual needs, taking into account work experience, learning style preferences, and comfort levels in using digital technology (Darmawan, 2020).

AI adoption across various sectors shows no signs of slowing down, and will even become more massive with the emergence of autonomous AI agents that can work around the clock. The digital native generation will dominate the global workforce in the coming decade, so ignoring their psychological well-being is tantamount to ignoring the foundation of future economic productivity. The costs of AI fatigue are not only in the form of decreased individual productivity, but also increased system errors that can endanger public safety, especially in the health, transportation, and finance sectors. Companies that fail to manage AI fatigue will lose top talent to competitors who care more about the human aspect of digital transformation. Therefore, innovation in human resource management becomes an absolute prerequisite to strengthen organizational competitiveness in the global market (Abdullah et al., 2021). The ability to balance the achievement of economic goals with sustainable social impacts can serve as a reference for organizations in formulating more responsible employment policies amidst this accelerated technology adoption (Mardikaningsih & Halizah, 2026). By understanding the strategic role of HR, organizations can adjust their policies to support long-term business growth and create a work culture that is more adaptive and responsive to global changes (Abdulah et al., 2021). Labor regulations in various countries are beginning to pay attention to mental health in the workplace, so the failure to prevent AI fatigue can have implications for lawsuits and fines. Therefore, the study of empathetic leadership as a non-technical intervention against technological exhaustion becomes a priority research area in human resource management.

The purpose of this literature review is to construct a theoretical understanding of the mechanisms of effective empathetic leadership in reducing AI fatigue levels among digital native employees. This study compiles a conceptual framework explaining how empathy elements such as active listening, emotional validation, granting autonomy, and transparent communication can prevent desensitization and job burnout. The theoretical contribution generated is a model of the relationship between leadership variables and psychological well-being in the era of automation. Practically, the results of this study provide guidance for managers and human resource practitioners to design leadership interventions that align with the characteristics of the digital native generation.

## RESEARCH METHODS

This writing applies a qualitative literature study approach to examine the relationship between empathetic leadership and the prevention of AI fatigue among digital native employees. Shipman (2014) explains that literature research allows researchers to explore theoretical arguments scattered across various sources without having to engage in primary data collection such as interviews or observations. This approach aligns with the study's objective to build a conceptual framework, test the logical coherence of various existing theories, and identify unfilled gaps in the available literature. The procedure undertaken begins with literature searches from various fields of science, namely organizational psychology, human resource management, information technology studies, and social neuroscience. Keywords used include combinations of terms related to leadership, empathy, job burnout, AI, and the characteristics of the digital native generation. Source selection was carried out in stages, prioritizing publications from indexed journals, textbooks from leading academic publishers, and research reports from trusted institutions.

Data analysis in this study follows the guidelines of Adler and Clark (2011) which emphasize the importance of a thematic approach in examining qualitative literature. Once all documents were collected, the author coded key arguments that repeatedly emerged in the literature, such as the concept of techno-stress fatigue, human-oriented transformational leadership traits, and the behavioral patterns of the digital native generation in responding to new

technology. The next stage is synthesis, which involves combining findings from various sources to build a logical line of reasoning on how empathy mechanisms work in reducing psychological pressure caused by AI. Lampard and Pole (2015) remind us that literature studies must avoid merely summarizing, but rather need to critique the assumptions underlying each referenced theory. Therefore, the author compared competing theoretical frameworks, such as between the incentive-based transactional leadership model and the personal relationship-based servant leadership model. The final result of this process is a rich conceptual mapping of how a leader can use empathy to neutralize the negative effects of excessive interaction with AI on young employees.

## RESULTS AND DISCUSSIONS

Empathetic leadership has the capacity to interrupt the negative cycle formed by repetitive interactions between digital native employees and AI systems (Rathore, 2025). This negative cycle begins when an employee faces technical failures from AI, such as inaccurate recommendations or confusing interfaces. These failures trigger an acute stress response in the form of increased cortisol hormones that disrupt concentration. Without intervention from a sensitive leader, the employee enters a phase of rumination, repeatedly thinking about the errors that occurred without finding a solution. The silent attitude of superiors who only ask for final results worsens the condition because employees feel alone in dealing with unpredictable technology. Empathetic leaders step into this cycle by acknowledging that the frustration felt by employees is natural and not a sign of incompetence. Research shows that emotional validation from an authority figure can significantly reduce cortisol levels because the brain interprets this recognition as a safety signal (Sherman & Mehta, 2020). Thus, the stress cycle that should keep spinning can be broken before it develops into chronic fatigue. Transparent communication from leaders regarding the limitations of AI serves as a strong psychological fortress for digital native employees. Many companies sell AI to employees as a perfect solution that will eliminate boring work, whereas in reality, AI often creates new types of work that are just as exhausting (Loewen-Colón & Sellick, 2025). When expectations do not match reality, employees experience cognitive dissonance that drains mental energy (Alawiye et al., 2025). Leaders who are honest about what AI systems can and cannot do will save employees from negative surprises. This honesty must be conveyed from the beginning of the implementation of a new system, rather than after employees begin to show signs of fatigue. Digital native employees, who are accustomed to transparency in the digital world, are very sensitive to dishonesty or sweet promises from superiors. Once trust is cracked because leaders continue to promote AI as a flawless tool, employees will develop a cynical attitude that is difficult to repair (Ünal, 2025). Leaders need to say that AI will make mistakes, that employees need to learn from those mistakes, and that the organization does not punish technical failures as long as there is an effort to improve. Transparent and honest communication can help overcome the fear of change and build trust among employees (Mardikaningsih & Darmawan, 2022). Granting autonomy to employees to regulate the intensity of their interactions with AI is a concrete and measurable form of empathy. Modern AI systems are often designed with the assumption that users must always be connected and always provide feedback, because algorithms require continuous data to learn. However, the human need to rest from cognitive stimulation cannot be ignored. Leaders with the authority establish policies on when employees may turn off AI notifications, when they can work without the intervention of recommendation systems, and how long focused work sessions should last without distractions from virtual assistants. This policy must consider that every employee has a different tolerance for digital noise. More introverted employees may need longer offline time compared to their extroverted peers (McCord, 2024). Leaders who do not provide this autonomy will force all employees into a uniform rhythm, which ultimately makes those who are more sensitive experience fatigue faster. Autonomy also includes the right of employees to choose which AI tools to use when several options are available, because differences in interfaces and algorithmic logic can feel very personal. Companies need to ensure the availability of adequate support in terms of human resources, training, and technology that can support successful risk management (da Silva et al., 2022). This linkage reinforces the importance of social construction regarding work-life balance within the boundaries of cultural and organizational norms (Eddine & Darmawan, 2022).

Leaders who take the time to listen to employees' technical complaints in detail do much more than just gather information. In practice, digital native employees often discover bugs, quirks, or inefficiencies in AI systems that go undetected by development teams or top management (Zamir, 2025). Because they interact with the systems daily, their tacit knowledge of AI weaknesses is a valuable asset that is rarely utilized. This type of knowledge is actually a form of organizational knowledge which, if managed properly, can become a source of competitive advantage for technology companies, rather than just a record of complaints ending up on a manager's desk (Darmawan, 2023). However, employees are only willing to share their negative experiences if they believe leaders will not react defensively by blaming them or dismissing their grievances. Routine listening sessions, rather than only occurring during major crises, create an evacuation channel for accumulated frustration. Every time an employee states that an AI feature is confusing or useless, a release of psychological burden occurs because their feelings are recognized as valid data. A good leader records these complaints, follows up with the technical team, and then returns to the employee to explain what will be done. This cycle of listening, acknowledging, and acting strengthens the belief that the organization is serious about protecting the well-being of its workers.

The digital native generation has a tendency to internalize technological failures as personal failures, a mindset that is extremely dangerous in the context of AI (Julian, 2025). When a young employee fails to make AI produce the desired output, their first reaction is often to blame themselves for not being smart enough or not updated enough with the latest developments. Empathetic leaders need to actively deconstruct this erroneous belief by showing that AI is an imperfect system, not a reflection of user competence. One effective technique is to share stories of the leader's own personal failures in using the exact same AI tools. Digital native employees respond positively to leaders who show vulnerability because it shatters the illusion that their superiors are always perfect and always successful. By normalizing technical failures as part of the learning process, the anxiety arising from every interaction error with AI will be drastically reduced. A work culture capable of balancing the speed of technology adoption with deep humanistic thinking is precisely needed so that this learning process does not turn into a new pressure for employees (Darmawan, 2023). Employees become bolder in experimenting with AI features they have not yet mastered because they are not afraid of being judged. This courage ultimately improves their technical competence faster than if they were trapped in the fear of making mistakes. Effective communication in change management also involves the use of narratives or stories to explain those changes, as narratives help build emotional bonds between ongoing changes and individuals within the organization (Mardikaningsih & Darmawan, 2022).

The resetting of performance metrics is a rarely discussed leadership intervention that has a massive impact on AI fatigue levels. Many organizations use simple quantitative metrics to assess the productivity of employees working with AI, such as the number of cases processed per hour or the prediction accuracy rate (Yang et al., 2025). Metrics of this kind drive employees to constantly push themselves without regard for the psychological cost of inhumane acceleration. Leaders applying empathetic leadership will question whether such metrics make sense given the technical limitations of the AI being used. If an AI system is known to have a certain error rate, punishing employees for errors generated by the system is an unfair action that triggers exhaustion. Leaders need to advocate for more balanced metrics, such as the number of innovations proposed by employees to improve AI, or the level of team job satisfaction in collaborating with digital tools. The way employee productivity is measured in the digital era should also consider elements of creativity and innovation, not just speed and volume of work produced (Darmawan, 2023). These alternative metrics send a message that the organization cares about processes and well-being, rather than just instant results. Digital native employees, who often complain about overly measured work cultures, will appreciate this paradigm shift and feel a reduced psychological burden. Organizations need to provide psychological support for leaders who must make difficult decisions regarding professional violations (Eddine & Darmawan, 2021).

The collaborative work rhythm between humans and AI needs to be redesigned with the understanding that both entities have complementary weaknesses and strengths. AI excels in repetitive tasks and big data-based operations, but performs poorly in handling ambiguous cases or requiring ethical reasoning (Rongali, 2025). Humans excel in creativity and adaptation, but are slow and easily fatigued by repetitive tasks (Patrick et al., 2025). Unfortunately, many companies position AI as a boss giving orders to humans rather than as a coworker (Vuori et al., 2025). A structure where AI determines task priorities and humans merely execute them without discussion creates a sense of helplessness that is at the core of AI fatigue. Empathetic leaders will reject this subordination model and replace it with a partnership model. In the partnership model, employees are empowered to reject AI recommendations if they have strong reasons based on situational knowledge that algorithms lack. Leaders also facilitate regular forums where employees can criticize AI decisions without fear of retaliation. This two-way feedback cycle makes employees feel respected as humans, rather than just tools driven by code. Technology sustainability is not only related to economic efficiency or technical progress, but also to moral and ethical aspects that are crucial for achieving collective well-being (Essa & Mardikaningsih, 2023).

Training leaders to detect nonverbal signs of AI fatigue is a high-return investment. Digital native employees are often nonverbal in conveying their discomfort with technology, as they are accustomed to solving problems on their own through online searches. They will show physical symptoms such as frequently sighing when dealing with computers, pressing buttons hard, or staring at screens with a blank expression (Kobis & Banasik, 2025). Trained leaders can read these signals and initiate conversations without waiting for employees to complain. Conversations like this should not start with cornering sentences like is there a problem with you? but with opening sentences like this system has been really annoying lately, what do you think? This collaborative approach removes the sense of threat and allows employees to acknowledge their fatigue without losing their dignity. Leaders also need to be trained to control their own responses when hearing criticism of the system they may have helped choose or design. Defensive reactions from superiors are the primary killer of openness initiatives in the workplace. A truly empathetic leader will say thank you for feedback rather than searching for who is at fault. In the digital era, learning patterns have also undergone changes through online interactions that affect how students obtain information (Darmawan, 2021).

Physical and virtual work environments significantly affect the level of AI fatigue, and leaders have the authority to fundamentally change both (Zhang & Deng, 2025). From the physical aspect, poor lighting, non-ergonomic chairs, and open-plan office noise exacerbate eye strain and headaches caused by long interactions with screens. Leaders who pay attention to these details will allocate budgets for facilities supporting visual health and body posture. From the virtual aspect, chaotic AI interface layouts, dazzling contrast colors, and annoying notification sounds are sources of stress that

continuously erode mental energy (Alawiye et al., 2025). Leaders can form teams consisting of regular employees to audit the user experience of various AI tools used in the company. The results of this audit must be followed up with real changes, rather than just reports kept on shelves. Corporate leaders must demonstrate real commitment through the drafting of clear policies, the provision of necessary resources, and direct involvement in the implementation process (Barzani et al., 2022). When employees see that their complaints about physical and virtual aspects produce improvements, their trust in leadership will increase. This trust is the social lubricant that reduces psychological friction in every interaction with technology. This work system is projected to continue developing and become a common work pattern in the future, in line with technological advancements that increasingly facilitate its implementation (Putra et al., 2022).

Reward and recognition systems in companies need to be designed to reinforce healthy behaviors that prevent AI fatigue. In many organizations, employees who complete tasks using AI the fastest receive praise and bonuses, while those who take extra time to double-check AI results or report system bugs are considered slow (Khan & Kiani, 2025). This misdirected incentive drives employees to ignore their fatigue signals in order to pursue targets. Empathetic leaders will propose new award categories, such as recognition for employees who most help coworkers understand AI features, or awards for the team most effective in identifying system limitations. Digital native employees are very responsive to public recognition from superiors they respect, even more so than just monetary bonuses. Recognition of collaborative efforts and concern for shared well-being will shift cultural norms from individual competition toward team solidarity. Rank-based rewards can create an unhealthy competitive climate, because employees focus more on personal achievement than shared success (Darmawan & Marsal, 2021). In a culture of solidarity, someone who admits to experiencing AI fatigue is not considered weak, but rather considered brave for paving the way for others to speak up as well. This norm shift is an indirect result of empathetic leadership that consistently promotes human values above pseudo-productivity values.

Leaders must become the primary designers of scheduled recovery systems that integrate breaks from AI as a right, rather than a luxury. The concept of a break from AI does not mean employees stop working altogether, but rather perform tasks that do not involve screens or algorithms, such as face-to-face discussions, analog brainstorming, or light physical work in the office. Neuroscience research shows that the brain requires between ninety to one hundred twenty minutes to recover its attention capacity after being exposed to complex problem-solving involving AI (Batool et al., 2025). Leaders who understand human cognitive biology will mandate these breaks, making them just as mandatory as lunchtime. Providing structured recovery time also shows that the organization values employee needs and treats them fairly. When individuals feel appreciated and provided with adequate support in carrying out their work, they tend to build a more positive perception of the organization and their job (Issalillah et al., 2025). Digital native employees might initially resist because they pride themselves on high work endurance, but leaders need to explain that long-term productivity requires periodic recovery. Personal examples from leaders who openly take time away from screens are the most effective method to change the culture. When a senior manager says I am going out for fifteen minutes because my eyes are tired of looking at this code, the same permission applies universally to all team members. The normalization of this recovery behavior lowers the baseline stress level across the organization. Mardikaningsih and Darmawan (2022) observed that digital HR practices in remote work systems can strengthen or reduce this gap depending on their design (Rohmawati & Mardikaningsih, 2023).

Peer support facilitated by leaders forms a social safety net that is very effective in preventing AI fatigue. Digital native employees tend to be more open about their difficulties with technology to peers than to direct supervisors, due to power distance factors and feelings of embarrassment (Marcial et al., 2024). Leaders can form small groups consisting of three to five people who meet regularly to share tricks in using AI and complain about annoying features. These groups are not led by a manager, but rather by a facilitator among the employees chosen for their communication skills, regardless of their hierarchical status. A skilled facilitator can help maintain healthy group dynamics and ensure that every voice is heard (Fared & Darmawan, 2021). In these meetings, all forms of technical frustration are validated as a collective experience rather than an individual anomaly. This collective validation reduces the feeling of isolation that often precedes chronic fatigue. Leaders can support these groups by providing dedicated time during work hours, a comfortable meeting room, and light snacks to create a relaxed atmosphere. The resource investment for this peer support is often underestimated, yet its benefits to the team's mental health are among the highest compared to other more expensive wellness programs. The willingness to support each other in mastering new systems is fundamentally influenced by strong positive psychological dimensions to maintain individual commitment in completing shared tasks (Darmawan & Mardikaningsih, 2021).

The comparison between digital native employees working with AI under empathetic leaders and those working under authoritarian leaders shows dramatic differences in levels of resilience against technological stress. In an empathetically led environment, employees report feeling in control of when and how to use AI, not being chased by unrealistic deadlines, and not being judged when AI produces errors. This sense of control is a direct antidote to the feelings of helplessness that trigger fatigue (Alawiye et al., 2025). Conversely, in authoritarian environments, employees feel that AI is a control tool used by superiors to monitor their every move, accelerate work tempo, and reduce the need

for human interaction. The perception that AI is an accomplice to managerial oppression makes the resulting stress twofold, as the sources come from both technology and humans. Empathetic leaders break this negative association by showing that they themselves are also victims of AI weaknesses, thus placing their position on par with employees in facing problems together. This horizontal alliance between leaders and subordinates against technical chaos is the most solid foundation for long-term psychological resilience. Support and active involvement from top management are crucial to building a strong culture throughout the organization (Mardikaningsih & Darmawan, 2021).

The continuity of empathetic leadership in the long term requires a system that protects the leaders themselves from exhaustion. Leaders who continuously provide emotional support without receiving similar support can experience compassion fatigue, which is fatigue resulting from excessive empathy (Mardikaningsih et al., 2022; Sushmitha, 2025). Organizations need to provide coaching or mentoring for leaders where they can share the burden of listening to employee complaints about AI every day. Leaders also need to be given the authority to make decisions that may not be popular at the upper level, such as postponing the launch of new AI features because the team is not yet mentally ready (Dall'Acqua, 2025). Without this protection, empathetic leadership initiatives will collapse after a few months because the leaders who care the most end up being the first to leave. Digital native employees are very sensitive to emotional authenticity; they can detect when leaders begin to pretend to care because they have run out of energy. Therefore, the sustainability of AI fatigue prevention programs depends on the sustainability of caring for the caregivers themselves, in this case, line managers and supervisors. Efforts to maintain this sustainability must be supported by good knowledge management and guarantees of the quality of work life in order to increase the commitment of all organization members (Eddine et al., 2023; Gardi & Darmawan, 2024). A healthy organizational culture is a mutually reinforcing cycle, not a one-way cascade from top to bottom.

The final factor to consider is that empathetic leadership must not turn into patronage or overprotection that actually hinders employee development. Digital native employees, despite being vulnerable to AI fatigue, possess a great capacity to grow through measurable challenges. Leaders who overprotect by withdrawing all heavy tasks involving AI will prevent employees from ever developing resilience against technological stress. The proper balance is when leaders provide a safety net that allows employees to take calculated risks. Employees are encouraged to try difficult AI features, knowing that if they fail, they will be helped to rise, not insulted. Leaders need to redefine failure as data for learning, not as a stain on performance records. With this mindset framework, AI fatigue is no longer viewed as a sign of weakness to be hidden, but as a signal that the system needs improvement. Employees who feel psychologically safe will have more energy to engage with AI productively, because most of their mental energy is not wasted on managing anxiety and self-defense. This is the ideal state that can be achieved through consistent and intelligent empathetic leadership. A positive orientation in correcting work errors requires ethical leadership from management in order to build a healthy and sustainable organizational culture.

## CONCLUSIONS

Empathetic leadership is conceptually proven to have the capacity to prevent and reduce AI fatigue among digital native generation employees through a series of interrelated mechanisms. These mechanisms include emotional validation that breaks the stress cycle, transparent communication about AI limitations, the provision of autonomy to regulate the intensity of digital interactions, and active listening to employees' technical complaints without a defensive attitude. Sensitive leaders also deconstruct the internalization of technological failure as personal failure, reset performance metrics so as not to sacrifice well-being, and redesign the human-AI collaboration rhythm from a subordination model toward an equal partnership. In addition, nonverbal detection training, physical and virtual environment management, reward systems that reinforce healthy behaviors, and peer support facilitation serve as complements that strengthen psychological resilience. The sustainability of empathetic leadership requires protecting the leaders themselves from compassion fatigue, which means organizations must build a mutually reinforcing culture between leaders and subordinates. With all these mechanisms, AI fatigue is no longer an inevitable risk of digital transformation, but a condition that can be managed through humanistic leadership interventions.

The practical implication of these findings is that organizations need to integrate empathy training into their leadership development programs with an emphasis on the specific context of human-AI collaboration. Companies are advised to form cross-functional teams tasked with auditing the psychological burden of each AI system before implementation, where this team consists of regular employee representatives, line managers, industrial psychologists, and information technology experts. For future researchers, longitudinal field studies are urgently needed to test the causal relationship between the frequency of certain empathetic leadership behaviors and changes in AI fatigue levels over time. Comparative research across industry sectors and organizational cultures will also enrich the understanding of moderator factors affecting the effectiveness of empathetic leadership. Human resource practitioners are advised to develop easy-to-use early detection instruments for AI fatigue that can be utilized by managers at all levels, and to provide special counseling services for employees showing symptoms of technological exhaustion. Ultimately, the long-term success of AI adoption in a company will be determined by the quality of human relationships within it.

# REFERENCES


Abdullah, M. H. A. B., Gardi, B., & Darmawan, D. (2021). Innovation in human resource management to enhance organizational competitiveness in the era of globalization. Journal of Social Science Studies, 1(1), 51–58.

Adler, E. S., & Clark, R. (2011). An invitation to social research: How it's done. Cengage.

Al Laisty, M. D., Darmawan, D., & Fajar, A. S. M. (2024). The role of leadership style in building a discipline culture in pesantren: Facing the challenges of social and technological change. Bulletin of Science, Technology and Society, 3(3), 62–68.

Alanazi, A., & Altukhys, A. (2025). Mapping the impact: A systematic review of the psychological and social repercussions of technostress. American Journal of Applied Scientific Research, 11(4), 203-210. https://doi.org/10.11648/j.ajasr.20251104.13

Alawiye, P. O., Ishola, S. A., Okpara, B. I., Osakwe, C. C., & Odig, P. E. (2025). Leadership, culture, and employee wellbeing in dealing with artificial intelligence and its complexities: Effects on mental health in the workplace. International Social Sciences and Education Journal, 3(4), 114–130. https://doi.org/10.61424/issej.v3i4.603

Barzani, L. A., Darmawan, D., & Zulkarnain, M. A. B. (2022). The application of sustainable supply chain management principles in the manufacturing industry to improve operational performance and corporate social responsibility. International Journal of Service Science, Management, Engineering, and Technology, 1(1), 38–45.

Batool, S. T., Ali, U., & Mahato, R. K. (2025). AI-driven cognitive off-loading and synaptic effort recalibration. Annals of Medicine and Surgery, 10-1097.

Cavusoglu, K. (2025). Changing competencies of leaders: What the new generation expects from their leaders. E-Journal VFU, 24, 458–469. https://doi.org/10.53606/evfu.24.458-469

da Silva, B. dos S., Darmawan, D., & Gardi, B. (2022). A systematic approach to risk management to enhance information technology project success in a dynamic business environment. Journal of Social Science Studies, 2(2), 213–218.

Dall'acqua, L. (2025). Adaptive leadership and artificial intelligence. Advances in Computational Intelligence and Robotics Book Series, 17–40.

Darmawan, D. (2020). Health, well-being, and productivity of senior employees in the era of artificial intelligence. Journal of Science, Technology and Society, 1(2), 43–50.

Darmawan, D. (2021). Social interaction in digital society: Changes in online communication patterns and dynamics of virtual communities. Studi Ilmu Sosial Indonesia, 1(1), 325–350.

Darmawan, D. (2022). Posthuman human resource management in organizations using generative artificial intelligence. Studi Ilmu Sosial Indonesia, 2(2), 97–124.

Darmawan, D. (2023). Innovation Culture That Balances Technological Speed with the Depth of Humanistic Thought. International Journal of Service Science, Management, Engineering, and Technology, 4(1), 47–54.

Darmawan, D. (2023). Knowledge Management as a Source Of Competitive Advantage in Information Technology Companies. International Journal of Service Science, Management, Engineering, and Technology, 3(2), 44–50.

Darmawan, D. (2023). Measuring Employee Productivity in the Digital Era by Considering Human Creativity and Innovation. International Journal of Service Science, Management, Engineering, and Technology, 4(3), 47–53.

Darmawan, D. (2023). Social Inclusion for Older Workers in the Implementation of Digital Technology within Organizations. International Journal of Service Science, Management, Engineering, and Technology, 4(2), 44–51.

Darmawan, D. (2024). Strategies for Enhancing Employee Knowledge fnd Engagement in Automated Routine Work. International Journal of Service Science, Management, Engineering, and Technology, 6(1), 65–71.

Darmawan, D. (2024). The Role of Technology in Promoting or Hindering Gender Equality in the Workplace. International Journal of Service Science, Management, Engineering, and Technology, 6(2), 67–73.

Darmawan, D., & Mardikaningsih, R. (2021). The role of positive psychological factors in enhancing employee engagement and commitment to work tasks. International Journal of Service Science, Management, Engineering, and Technology, 1(2), 37–44.

Darmawan, D., & Marsal, A. P. (2021). Design of performance evaluation and fair reward systems in modern organizations. Journal of Science, Technology and Society, 2(1), 45–52.

Darmawan, D., & Marsal, A. P. (2025). Exploring employee experiences and digital leadership amidst technology-driven workplace transformation. Journal of Science, Technology and Society (Sico), 6(1), 1–12.

Darmawan, D., Mardikaningsih, R., Sinambela, E. A., Arifin, S., Putra, A. R., Hariani, M., Irfan, M., Al Hakim, Y. R., & Issalillah, F. (2020). The quality of human resources, job performance and employee loyalty. International Journal of Psychosocial Rehabilitation, 24(3), 2580–2592.

Eddine, B. A. S., & Darmawan, D. (2021). Professional employees, manual workers, and informal workers in achieving work-life balance. Studi Ilmu Sosial Indonesia, 1(1), 209–226.

Eddine, B. A. S., & Darmawan, D. (2022). Social construction of work-life balance in cultural and organizational norms. Studi Ilmu Sosial Indonesia, 2(1), 213–234.

Eddine, B. A. S., Darmawan, D., Mardikaningsih, R., & Sinambela, E. A. (2023). The effect of knowledge management and quality of work life on employee commitment. Journal of Human Sciences, 10(1), 87-100.

Essa, N. E., & Mardikaningsih, R. (2023). Sustainable and fair technology for an equitable society. Journal of Social Science Studies, 3(1), 355–362.

Fared, M. A., & Darmawan, D. (2021). Design and implementation of cross-functional training to improve team collaboration. Journal of Social Science Studies, 1(1), 215–220.

Gardi, B., & Darmawan, D. (2024). Supply Chain Management Optimization with IoT and Blockchain Technology to Increase Efficiency and Transparency. Journal of Social Science Studies, 4(2), 31-36.

Grimes, K., Matlow, A., Tholl, B., Dickson, G., Taylor, D., & Chan, M.-K. (2022). Leaders supporting leaders: Leaders' role in building resilience and psychologically healthy workplaces during the pandemic and beyond. Healthcare Management Forum, 35(4), 213–217. https://doi.org/10.1177/08404704221090126

Hariani, M., & Mardikaningsih, R. (2022). The performance of authenticity and the commodification of parasocial bonds: Twin pillars of influencer culture on social media. Studi Ilmu Sosial Indonesia, 2(2), 385–412.

Högemann, M., Hein, L., Britsche, J. O., & Thomas, O. (2025). Technostress and generative AI in the workplace: A qualitative analysis of young professionals. Frontiers in Artificial Intelligence, 8, 1728881.

Issalillah, F., & Khayru, R. K. (2025). Mental Health as an Organizational Construct: A Strategic Reorientation of Human Resource Management for Work Environment Design. International Journal of Service Science, Management, Engineering, and Technology, 8(3), 1–9.

Issalillah, F., Khayru, R. K., & Darmawan, D. (2025). Employee wellbeing as the basis for performance stability in modern sustainable organizations. Proceeding of International Management Conference and Progressive Papers, 3(1), 170–195.

Khan, A. N., & Kiani, A. (2025). Maximizing work efficiency in the age of AI: Trust, laziness, and the significance of perceived risk. Journal of Risk Research, 1–16. https://doi.org/10.1080/13669877.2025.2603991

Kobis, P., & Banasik, P. (2025). Generation Z's expectations regarding behavioural and technological aspects of working conditions. Procedia Computer Science, 270, 4897–4904. https://doi.org/10.1016/j.procs.2025.09.616
Lampard, R., & Pole, C. (2015). Practical social investigation: Qualitative and quantitative methods in social research. Routledge.
Lamsir, S. (2025). Digital fatigue and its impact on mental health in work-from-home workers. Oshada, 2(6), 153–164.
Leggat, S. G. (2025). Empathic leadership. In Leading and Managing Health Services. Cambridge University Press. https://doi.org/10.1017/9781009540070.009
Loewen-Colón, J., & Sellick, M. (2025). AI tools promise efficiency at work, but they can erode trust, creativity and agency. https://doi.org/10.64628/aam.sanhwfneq
Marcial, D. E., Palama, J. C. L., Bucog, F. P., Seraspe, B. J. L., & Launer, M. A. (2024). Digital trust and social interactions among employees in the workplace. 97–108.
Mardikaningsih, R. (2025). The Deconstruction of Work and HRM Reconfiguration: Flexibility and Employer Branding in the Digital Era. International Journal of Service Science, Management, Engineering, and Technology, 8(2), 10-17.
Mardikaningsih, R., & Darmawan, D. (2021). Business sustainability strategies in the facing of regulatory uncertainty and managerial challenges. Journal of Social Science Studies, 1(2), 111–118.
Mardikaningsih, R., & Darmawan, D. (2022). Design and implementation of communication strategy in change management. Journal of Social Science Studies, 2(2), 237–242.
Mardikaningsih, R., & Darmawan, D. (2022). Digital human resource practices in remote work systems. Studi Ilmu Sosial Indonesia, 2(1), 357–388.
Mardikaningsih, R., & Darmawan, D. (2022). Situational leadership strategies to improve change management and team performance. Journal of Social Science Studies, 2(1), 247–252.
Mardikaningsih, R., & Darmawan, D. (2022). The role of self-efficacy in predicting employee adaptability to technological change in the workplace. International Journal of Service Science, Management, Engineering, and Technology, 2(3), 43–55.
Mardikaningsih, R., & Halizah, S. N. (2026). Management Strategies of Social Entrepreneurship Organizations to Achieve Economic Goals and Sustainable Social Impact. International Journal of Service Science, Management, Engineering, and Technology, 9(1), 1–6.
Mardikaningsih, R., Halizah, S. N., Darmawan, D., Masithoh, N., & Nuraini, R. (2022). Examining the role of authentic leadership in shaping positive work climate and organizational citizenship behavior. International Journal of Service Science, Management, Engineering, and Technology, 2(1), 52–59.
Mardikaningsih, R., Halizah, S. N., Nuraini, R., & Darmawan, D. (2022). The role of ethical leadership in shaping a positive and sustainable organizational culture. International Journal of Service Science, Management, Engineering, and Technology, 2(2), 48–55.
McCord, M. A. (2024). Enjoy the silence: Providing space for introverted employees to thrive. Industrial and Organizational Psychology, 17(3), 353–356. https://doi.org/10.1017/iop.2024.27
Patrick, H., Max, S., Niklas, K., Michael, V., & Gerhard, S. (2025). Complementarity in human-AI collaboration: Concept, sources, and evidence.
Putra, A. R., Darmawan, D., & Arifin, S. (2022). Employee experience in the digital workplace: A human resource management perspective. Studi Ilmu Sosial Indonesia, 2(2), 361–384.
Putra, A. R., Mardikaningsih, R., & Darmawan, D. (2021). Organisational social capital and team collaboration as supports for total quality management. Studi Ilmu Sosial Indonesia, 1(1), 129–146.
Ramle, N. L. B., & Mardikaningsih, R. (2022). Inclusivity in technology-based services: Access and skills challenges. Journal of Social Science Studies, 2(2), 225–230.
Rathore, A. (2025). Empathic Intelligence (EI) and the AI lifecycle loop: The future of organizational ways of working. International Journal of Science and Research. https://doi.org/10.21275/sr251211182049
Rohmawati, R., & Mardikaningsih, R. (2023). Engineering the Digital Precariat: Architectures of Instability and Algorithmic Control in the Platform Economy. Journal of Social Science Studies, 3(2), 295-304.
Rojak, J. A., Darmawan, D., & Khayru, R. K. (2022). Transformational leadership as an agent of social change in organizational value systems. Studi Ilmu Sosial Indonesia, 2(1), 191–212.
Rongali, S. K. (2025). Balancing AI and human collaboration. World Journal of Advanced Research and Reviews, 25(3), 2524–2529. https://doi.org/10.30574/wjarr.2025.25.3.0577
Schmoll, R., Kaiser, S., & Lochner, E. (2025). The impact of AI leadership on employee well-being: Insights from different scenarios. Academy of Management Annual Meeting Proceedings, 2025(1). https://doi.org/10.5465/amproc.2025.11328poster
Sherman, G. D., & Mehta, P. H. (2020). Stress, cortisol, and social hierarchy. Current Opinion in Psychology, 33, 227–232. https://doi.org/10.1016/J.COPSYC.2019.09.013
Shipman, M. D. (2014). The limitations of social research. Routledge.
Skorokhod, O. A., Litash-Sorokina, E. A., & Vasilenko, L. A. (2025). Innovative potential and risks of human-centered interaction between young employees and AI assistants. Naučnyj Rezul'tat, 11(3), 203–217.
Sushmitha, S. (2025). Compassion fatigue: Understanding the hidden dangers of caring too much. Asian Journal of Nursing Education and Research, 35–38. https://doi.org/10.52711/2349-2996.2025.00008
Triki, M., & Turki, A. M. (2025). Between cognitive overload and dehumanization: Exploring the dimensions of consumer fatigue with artificial intelligence. International Journal of Research and Innovation in Social Science, 9(10), 7551-7564. https://doi.org/10.47772/ijriss.2025.910000615
Ünal, A. (2025). Yapay zeka çağında liderlik / Leadership in the age of artificial intelligence. Business & Management Studies: An International Journal, 13(4), 2406-2418. https://doi.org/10.15295/bmij.v13i4.2660
Voinea, C., Register, C., Mann, S. P., Savulescu, J., & Earp, B. D. (2026). The sorrows of young chatbot users: Harm and responsibility in human-AI relationships. Topoi, 1–14.
Vuori, N., Burkhard, B., Benson, G., Cerar, J., Haefner, N., Kaibel, C., Luger, J., Vuori, N., Kaibel, C., & Luger, J. (2025). Harnessing AI in organizations: A human-centered perspective. Academy of Management Annual Meeting Proceedings, 2025(1). https://doi.org/10.5465/amproc.2025.11698symposium
Yang, C., Yana, D., & Xia, Y. (2025). Improve or deteriorate? The impact of workplace usage of AI on task performance. Academy of Management Annual Meeting Proceedings, 2025(1). https://doi.org/10.5465/amproc.2025.17841abstract
Zamir, N. A. (2025). The role of leadership in supporting artificial intelligence (AI) integration in organizations. International Journal of Entrepreneurship and Management Practices, 8(31), 800–820. https://doi.org/10.35631/ijemp.831054
Zhang, X., & Deng, G. (2025). Protecting work engagement from digital fatigue: The contingent roles of leadership style and network ties. Frontiers in Psychology, 16. https://doi.org/10.3389/fpsyg.2025.1645057