

# Research: Using AI at Work Makes Us Lonelier and Less Healthy

by David De Cremer and Joel Koopman

June 24, 2024

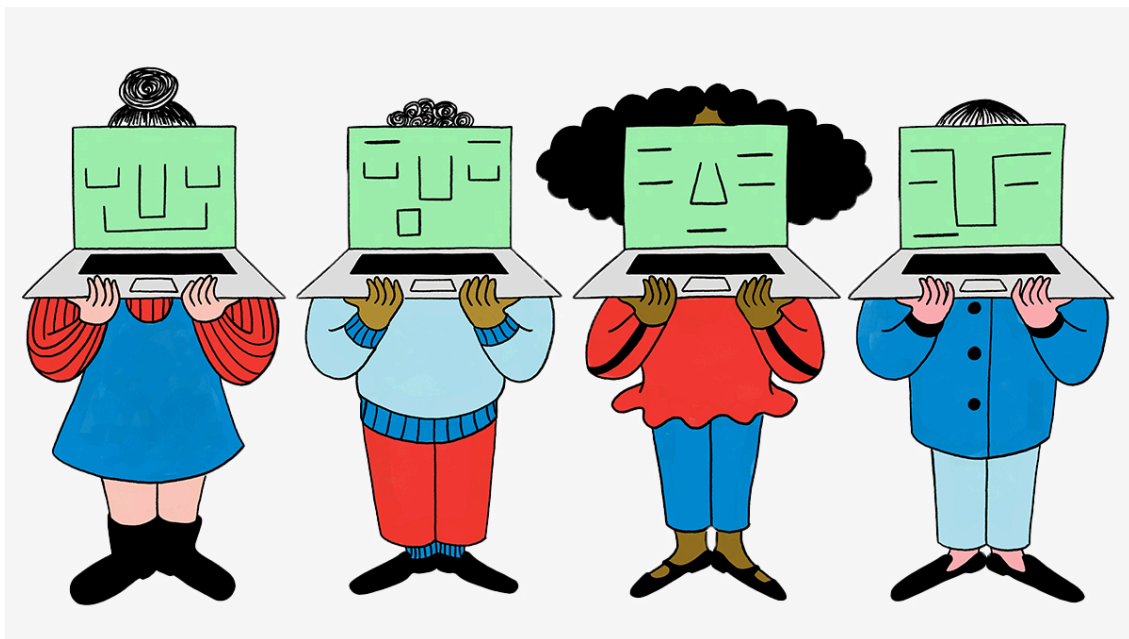


Illustration by Debora Szpilman

**Summary.** The promise of AI is alluring — optimized productivity, lightning-fast data analysis, and freedom from mundane tasks — and both companies and workers alike are fascinated (and more than a little dumbfounded) by how these tools allow them to do more and better... [more](#)

Imagine this: Jia, a marketing analyst, arrives at work, logs into her computer, and is greeted by an AI assistant that has already sorted through her emails, prioritized her tasks for the day, and

generated first drafts of reports that used to take hours to write. Jia (like everyone who has spent time working with these tools) marvels at how much time she can save by using AI. Inspired by the efficiency-enhancing effects of AI, Jia feels that she can be so much more productive than before. As a result, she gets focused on completing as many tasks as possible in conjunction with her AI assistant.

As the day goes on and Jia's productivity and efficiency continues to rise, she also feels increasingly isolated from her colleagues down the hall. She used to make small talk with her coworkers while troubleshooting work-related issues, but now her AI assistant handles the troubleshooting (with more accuracy and efficiency than her coworkers). She wonders if her coworkers feel the same, and if they've noticed how little they talk anymore. Sometimes this desire for connection leads her to find ways to socialize with her coworkers by helping them out. But she has also noticed that she's been having trouble sleeping recently and that she's started drinking more after work.

While this may sound like a warning from the near future, we found in a series of studies that Jia's story is becoming all too common.

The promise of AI is alluring — optimized productivity, lightning-fast data analysis, and freedom from mundane tasks — and both companies and workers alike are fascinated (and more than a little dumbfounded) by how these tools allow them to do more and better work faster than ever before. For example, AI has proven its ability to match or exceed human performance on a wide array of tasks, from analyzing legal documents to forecasting sales, to screening job candidates. Companies increasingly report that their biggest risk is in *not* adopting AI. Recent data show that 35% of global companies are using AI and that the global AI market is expected to reach \$1.85 trillion by 2030.

Yet in fervor to keep pace with competitors and reap the efficiency gains associated with deploying AI, many organizations have lost sight of their most important asset — the humans whose jobs are being fragmented into tasks that are increasingly becoming automated. From a human-centered perspective, this may be a worrying trend, as a primary focus on technology may bring unwanted human costs such as reducing job satisfaction, motivation, and mental well-being. If you want to make AI adoption projects successful and viable, you need to focus on humans first and AI second.

In a way, this oversight of the human primacy in the AI adoption process is surprising. Modern organizations are increasingly sensitive to the physical and mental well-being of their employees, and they are going to great lengths to promote both inclusiveness and social connection. This is good business: Research shows that when people feel a strong connection with others at work, they will consider the interests of the organization as important to their own interests. Indeed, such studies consistently show that employees who feel socially connected and emotionally fulfilled at work are more engaged, productive, and committed to their organizations. They're more likely to collaborate, innovate, and go above and beyond in their roles. In contrast, employees who feel isolated and disconnected are more prone to burnout, absenteeism, and turnover. This is a problem, because no matter how advanced or sophisticated these AI tools become, they are common, substitutable, and imitable and thus not a strategic asset that will make the difference for a company and gain them a sustainable competitive advantage over their competitors. This can only be achieved if the human resources are taken care of when AI enters the work equation, so they are not disengaged and demoralized.

Right now, there are huge questions about how working with AI will affect employee social connectedness at work. To help answer these, we conducted four studies in a variety of field and

experimental settings. What we found should worry companies rushing to augment their workforce with AI.

### **How AI Can Make People More Isolated at Work**

The overall goals of our studies were (1) to test how working with AI affects the connection (or more accurately, the lack thereof) they feel with their human coworkers, and (2) to document the very real and damaging consequences of that lack of connection. We examined different types of AI in a globally diversified sample to show the broad generalizability and applicability of our findings. Each study was designed to reinforce the core message of our paper, and as a whole, they paint a concerning picture for the well-being of employees using AI in their work.

In a first study, we interviewed a sample of 166 engineers in a Taiwanese biomedical company. On average, these employees had worked with the company for nearly three years and had been working with AI systems for just over two years. We asked them about (a) their interaction frequency with AI (Week 1) and (b) their loneliness and desire to connect with others (Week 2). In Week 3, we spoke to people close to them, asking a coworker about how helpful the worker was and a family member about their consumption of alcohol after work and their insomnia. Our results showed that the engineers who worked more with AI displayed a stronger desire to connect with others, which did lead to some positive behaviors as employees helped their coworkers in an effort to reconnect. But they also reported greater feelings of loneliness, which led to greater alcohol consumption and insomnia.

To establish more firm and causally valid conclusions, we conducted several follow-up experimental studies. In two of these studies, we had access to a group of 120 real estate consultants in an Indonesian property management company (again, average tenure of about three years, and about two years working with AI)

and 294 employees in the operations, accounting, marketing, and finance units of a Malaysian technology company (average tenure of just over three years, more than one and a half of which were working with AI). Employees in each of these companies use AI as a tool to support their daily work activities, such as information-seeking and creating new content and ideas. Each company allowed us to randomly assign some of their employees to not work with AI for a period of three days, over which we measured each of our study variables. Results showed again that those employees who continued to work with AI (compared to those who did not) had greater desire for connection, and were more lonely, with the corresponding consequences: more helping for those who had greater needs for affiliation, and more alcohol consumption (in one of the studies) and insomnia for those who felt lonelier.

Overall, these results show that the more employees collaborated with AI — as it helped to complete more tasks than ever — the more they felt socially deprived as work took over their entire day. This situation of not being connected to humans during the workday awakened a strong human desire to connect with others at work. So, while their interactions with AI made employees less socially connected with their coworkers, this situation led them to take action to reconnect. However, despite these actions, these employees still reported feeling isolated and socially adrift. That is, their interactions with AI made them more efficient and capable of doing much more work, but at the same time left them feeling lonely, which resulted in employees being more likely to resort to alcohol and suffer from insomnia — telltale and worrying signs of social malaise and ill-being, which research shows have negative impacts on quality of life, mood, cognitive function, behavior, and health overall.

These findings paint a complex picture of the social costs of AI in the workplace. On one level, AI-induced isolation may spur employees to invest more in their human relationships, to seek

out the social nourishment they're missing. But on a deeper level, it may erode the very foundation of those relationships — the sense of authentic, shared humanity that underpins true connection and collaboration and as a result undermine their mental and physical health.

## **What Companies Can Do**

To navigate the challenges and opportunities of AI in the workplace for employees, business leaders must balance the drive for efficiency with a deep commitment to employee well-being and social cohesion. Here are some key steps they can take:

### **Monitor well-being**

Our findings clearly illustrate the irony that in seeking to enhance productivity, over-reliance on AI may actually erode it over time. Lonely, disengaged employees aren't likely to bring their best selves to work. They're less likely to collaborate, innovate, or go the extra mile for their organizations. Therefore, monitor employee well-being and social embeddedness in the organization, not just performance. Regular surveys, check-ins, and feedback sessions can help surface issues before they fester. Metrics like employee engagement, job satisfaction, and perceived social support should be tracked as closely as output and productivity. It is this kind of practice that will help your organization act in preventive ways to avoid employees ending up in a negative cycle where their mental and physical health suffer from the dominating presence of AI in their work life.

### **Redesign workflows**

Another way organizations can prevent the integration of AI from instigating negative spiraling effects on employees' health is adopting a deliberate, human-centric approach to AI implementation. Instead of simply layering AI on top of existing processes, organizations must redesign workflows around the unique strengths of both humans and machines. They must

create opportunities for employees to collaborate with AI in ways that enhance their autonomy, their sense of control and mastery, and their feeling that their job provides them with a sense of purpose. Research shows that employees who feel in control and experience a sense of autonomy in pursuing something that is perceived as meaningful has mental health benefits.

### **Think of AI as a tool**

To avoid the pitfalls of AI-driven isolation and disengagement, organizations need a fundamental shift in mindset. Instead of viewing AI merely as a means to automate and optimize, they must see it as a *tool* for enhancing the human experience at work. What does this mean for organizations? Namely that the goal of deploying AI systems should be to enrich employees' jobs. The efficiency these systems create is an opportunity to support employees' social and emotional needs. For example, AI can take over more tasks, and at the same time leaders must create dedicated spaces and times for employees to connect face-to-face. This might mean carving out time for team-building activities, social events, or even just casual coffee chats. The goal should be to foster a culture where social interaction is valued and encouraged, not seen as a distraction from "real work."

...

In conclusion, as AI becomes more woven into the fabric of work, it will shape not just how we do our jobs, but also how we relate to each other as colleagues and as human beings. For this reason, it is essential that organizations understand that with the use of AI to create more efficient and productive workplaces, responsibility needs to be taken that the quality of employee's interactions and the depth of their relationships with others is maintained.

Accounting for the social costs when looking at the efficiency gains of AI implies that instead of treating AI as a way to replace human workers, it needs to be looked at as a tool capable of augmenting human potential and skills. And this augmenting

perspective on AI can only succeed if the organization can create fulfilling and socially connected jobs that impact positively the mental and physical health of its employees.

**David De Cremer** is a professor of management and technology at Northeastern University and the Dunton Family Dean of its D'Amore-McKim School of Business. His website is [daviddecremer.com](http://daviddecremer.com).

JK

**Joel Koopman** is the TJ Barlow Professor of Business Administration at the Mays Business School of Texas A&M University. His research interests include prosocial behavior, organizational justice, motivational processes, and research methodology. He has won multiple awards from Academy of Management's HR Division (Early Career Achievement Award and David P. Lepak Service Award) along with the 2022 SIOP Distinguished Early Career Contributions award, and currently serves on the Leadership Committee for the HR Division of the Academy of Management.



## Recommended For You

---

### The Art of Asking Smarter Questions



### PODCAST

### How to Manage: Executing Strategy



### How "Carewashing" Alienates Employees



### The Most Strategic Leaders Excel in 4 Disciplines

