

Is working with artificial intelligence hampering your best-performing employees?

*Conscientious employees—detail oriented, orderly, and hard-working—are considered better performers in the workplace. However, this belief may be based on 20th century evidence that ignores recent technological advances, especially artificial intelligence. **Pok Man Tang, Joel Koopman, and Shawn McClean** write that AI characteristics such as precision, detail orientation, and orderliness that overlap with the conscientious employee's traits, and research shows that people prefer working with colleagues that possess complementary, not redundant, qualities as compared to their own.*

There is an important and ongoing societal conversation about the fourth industrial revolution and the rapid incorporation of [artificial intelligence \(AI\)](#) into the 21st century workplace. The conversation often tends to emphasise this new technology's promise to improve employee performance by helping them to [understand trends](#), [improve communication](#), and [enhance data analytics](#). Yet all too often, the promise of new technology can obscure the very real costs that can arise from its implementation. In a [recent article](#), we write that for some employees, working with AI may not live up to its performance-enhancing promises.

There is a century-old consensus that more conscientious employees are higher performers at work because they are detail oriented, orderly, and hard-working. This consensus has developed based on clear and consistent evidence that these employees were more effective at working with the various performance-enhancing “traditional” technologies associated with the 20th century (e.g., computers, word-processing software, and the internet). As a result, organisational decision-makers worldwide tend to prioritise recruiting, selecting, developing, and promoting these employees. Yet these characteristics may be ill-suited to the future workplace in which employee jobs have been augmented with AI.

The central premise of our arguments is based on a long-standing stream of research about complementarity—that employees tend to prefer interaction partners (e.g., co-workers, supervisors) who possess complementary—rather than redundant—characteristics. For example, as [Adam Grant and his colleagues](#) note, extraverted leaders (i.e., those who tend to command the attention of others) are often best paired with less proactive employees, while more introverted leaders may be best paired with more proactive employees. We expected something similar for how employees prefer to interact with their new non-human “colleagues” (e.g., AI, algorithms, and robots). These intelligent machines are designed to be precise, detail-oriented, and orderly—all characteristics that overlap with those of conscientious employees. On this basis, we expected that the unique value of conscientious employees would be redundant and rendered moot when they have to work with these machines. As a result, when these employees work with AI, the elevated performance that they tend to deliver should be negated.

Across three different studies with participants from Malaysia, Taiwan, and the United States, we consistently showed that when paired with intelligent machines as part of their work, highly conscientious employees performed *worse* than their less conscientious counterparts. This was because the autonomous capabilities of AI that enable it to learn and make decisions conflicted with the desire of conscientious employees to remain autonomous and in control of their work. These employees then reported reduced confidence in their abilities to handle work responsibilities and increased levels of ambiguity as to what their responsibilities even were. The result in both cases was a decrease in performance.

This work has critical implications for managers and other organisational decision-makers who are at the vanguard of the fourth industrial revolution. The workplace is rapidly changing, as modern intelligent machines—equipped with the ability to learn, improve, and adapt based on experience—become ubiquitous at work. *Managers must quickly come to realise that some of the old rules may no longer apply* in the new digital era. In this case, whereas hiring conscientious employees has long been argued to have little downside, our findings should give managers reason for pause.

While one remedy might simply be to encourage managers to de-emphasise conscientiousness as a selection characteristic, or at least to not target such employees

for working with AI, this may not be feasible in all situations, given the decades of emphasis on hiring these employees and the fact that intelligence machines are increasingly being incorporated into the business operations of companies worldwide. Thus, another option would be to find ways to reaffirm the unique value that conscientious employees offer to organisations. For example, we recommend managers give these employees unique tasks that are not replicated by AI, as well as the autonomy and control to override the information and suggestions provided by AI. In this way, organisations can potentially continue to reap the benefits afforded by conscientious employees without incurring the costs that we identified.

In closing, we would note that 21st century managerial practices are, in many cases, based on the findings of research conducted in the 20th century. Yet the modern workplace bears little resemblance to the era in which many of these practices were developed. We showed that one such piece of received-wisdom—that of the supremacy of conscientious employees when it comes to performance—may no longer hold. In this way, our research joins an emerging conversation on this new era of work and should spark additional research on intelligent machines and the employees who use them. It would behoove managers to take heed of our findings, and also to be vigilant for other such pieces of wisdom that may no longer hold as well.



Notes:

- *This blog post is based on [When Conscientious Employees Meet Intelligent Machines: An Integrative Approach Inspired by Complementarity Theory and Role Theory](#), *Academy of Management Journal*.*
- *The post represents the views of its author(s), not the position of LSE Business Review or the London School of Economics.*
- *Featured [image](#) by [Surface](#) on [Unsplash](#)*
- *When you leave a comment, you're agreeing to our [Comment Policy](#).*