

RESEARCH BRIEFING

AI and Human Agency

Cognition, Identity and Working Relationships

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*Findings from an
exploratory
survey of 299 UK
employees*

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1. Introduction

AI is becoming increasingly embedded in everyday work, with much of the conversation focusing on productivity and efficiency. Less attention has been paid to the employee experience of AI adoption and the potential effects of working alongside it.

As knowledge workers use AI to complete tasks and deliver organisational objectives, questions arise about how this may affect their ability to think and work independently. Moreover, AI adoption may affect how employees see their professional value and expertise and how they learn from and collaborate with peers and more senior colleagues. Understanding these experiences is important for determining how effectively people are able to work alongside the technology.

Drawing on a sample of 299 UK employees, this research briefing explores these dynamics by focusing on three specific dimensions of the employee experience: cognitive reliance, professional identity and working relationships. The study aims to identify early patterns that may help inform further research into how AI can be adopted in ways that preserve human capability and agency.

2. Current evidence

2.1 Cognition and reliance

Many of the studies exploring the cognitive impacts of AI focus on educational environments, with students as the primary demographic (e.g. Gerlich, 2025; Kosmyrna et al., 2025). The current evidence on knowledge workers specifically is more limited.

An interdisciplinary report by the Human Technology Foundation (HTF, 2025), drawing on expert interviews, identified cognitive delegation and dependency on AI tools as emerging workplace risks. These findings were supported by a handful of empirical studies.

For instance, Microsoft surveyed 319 knowledge workers and found that higher AI confidence was associated with reduced critical thinking and vice-versa (Lee et al., 2025). It also noted that the nature of critical thinking when using GenAI shifted towards checking the accuracy of information, integrating responses and monitoring tasks.

A retrospective study by Budzyń et al. (2025) assessed experienced endoscopists' performance in the detection of adenomas (benign tumours) when not using AI. It found evidence of reduced detection rates, indicating a de-skilling risk after exposure to AI for clinical decision making.

2.2 Professional Identity

Professional identity has been defined as an individual's self-concept of who they are professionally, drawing on a relatively stable combination of values, beliefs, motives and experiences (Ibarra, 1999).

Although AI's impact on professional identity is receiving increased attention, the current evidence remains fragmented across occupations and disciplines, with the largest concentration found in healthcare. For instance, Perez et al. (2024) found three approaches professionals in radiology adopt in response to AI: engaging with it, distancing oneself or "identity crafting", actively redefining one's professional identity in response.

Beyond healthcare, Mayer et al. (2025) showed that entry-level consultants had to prove their value in new ways, while their contribution was becoming harder to see. Interestingly, the authors introduced the concept of 'signal crafting', described as employees deliberately changing how their work and value were made visible to others.

Overall, AI appears to have a dual impact on professional identity, driven by the interplay between the technology itself, the individual characteristics of professionals and the organisational context (Sartirana and Salvatore, 2025). On the one hand, it can act as an augmentation tool that removes repetitive work and improves speed and efficiency. On the other hand, it can threaten professional identity through unclear accountability and potential deskilling.

2.3 Working relationships

Gillespie et al. (2025) surveyed just over 48,000 people across 47 countries, including employees. They found that about half of workers reported using AI over collaborating with colleagues or supervisors to complete work. Moreover, one in five agreed that AI had reduced workplace communication and interaction.

These findings are supported by emerging qualitative evidence. While acknowledging its small sample size limitation, Xia et al. (2026) noted that opportunities for knowledge sharing and collective learning in the workplace were partly affected by employees trying to conceal signs that they had used AI in their work.

Another qualitative study, focusing specifically on Microsoft Copilot within a multinational corporation, identified mixed findings (Callari and Puppione, 2025). Some employees thought that Copilot removed routine requests and minor interruptions, allowing experienced colleagues to spend more time on meaningful discussions and mentoring. Others worried that it reduced in person collaboration and informal learning opportunities.

2.4 Study focus and contribution

Existing evidence captures findings across the three dimensions – cognitive, identity and relational – but these are often examined separately and within specific occupational contexts. This study brings them together through a cross-sector sample of employees within organisations that have introduced AI tools, while also considering the role of organisational conditions.

The analysis presented in this report places particular emphasis on the cognitive dimension and its potential implications for human judgement and agency.

3. Methodology

The study used a cross-sectional methodology employing a survey instrument, initially piloted twice with small sample sizes of ten and twenty participants respectively, to refine question clarity before wider rollout.

Participants were recruited via Prolific, which allowed filtering based on geography, employment status, verified participant status and submission time. Unrealistically fast submissions were automatically rejected. Three screening criteria were applied:

- Currently employed
- Based in the UK
- Working in an organisation that has formally introduced AI tools

The survey instrument explored the employee experience of AI adoption at work across four thematic areas: how they think with AI, how they feel about the changes, how AI is shaping working relationships and how it is affecting their sense of professional identity. These were used as exploratory, descriptive themes rather than psychometrically validated subscales, alongside item-level reporting. The affective items did not produce a sufficiently distinctive pattern and overlapped with the professional identity experiences, so they were not reported as a separate thematic section.

The survey consisted of eight contextual and screening items, sixteen attitudinal questions measured on a 5-point Likert scale and one open-text item. The final sample size after screening and data cleansing comprised 299 participants.

Data analysis was conducted using Jamovi statistical software. It ranged from item-level descriptive analysis to internal consistency tests, group comparisons, regression analysis and a light qualitative analysis of open-text responses.

Participation was voluntary and pseudonymous. Informed consent was secured before the start of the survey, with participants able to withdraw at any point.

Sample characteristics

Sector	n	%
Technology	49	16.4
Government or Public Sector	47	15.7
Education	44	14.7
Professional Services	39	13.0
Healthcare	32	10.7
Financial Services	32	10.7
Other	56	18.7

Table 1. Sample breakdown by sector

AI use frequency	n	%
Rarely	12	4.0
Occasionally	36	12.0
A few times a week	104	34.8
Daily	147	49.2

Table 2. Sample breakdown by AI use frequency

4. Results

4.1 Early signs of cognitive reliance

Four survey items captured self-reported experiences that may indicate cognitive reliance on AI (see Figure 1; acceptable internal consistency at Cronbach's $\alpha = 0.79$). 56% of participants agreed they felt confident in AI outputs they had reviewed only briefly and almost half reported spending less time questioning these than they would a colleague's work.

Similarly, 45% and 41% of respondents agreed that they go with AI output rather than their own approach and found tasks they used to do independently harder without AI respectively.

Examining the role of AI use frequency specifically, daily users reported the highest scores across all four items (Kruskal-Wallis $\chi^2 = 65.6$, $p < .001$, $\epsilon^2 = 0.22$). The 'tasks harder without AI' item stands out, with 56% of daily users in agreement compared to 8% of rare users, 17% of occasional users and 32% of those using AI a few times a week (noting the small rare user subgroup of $n=12$).

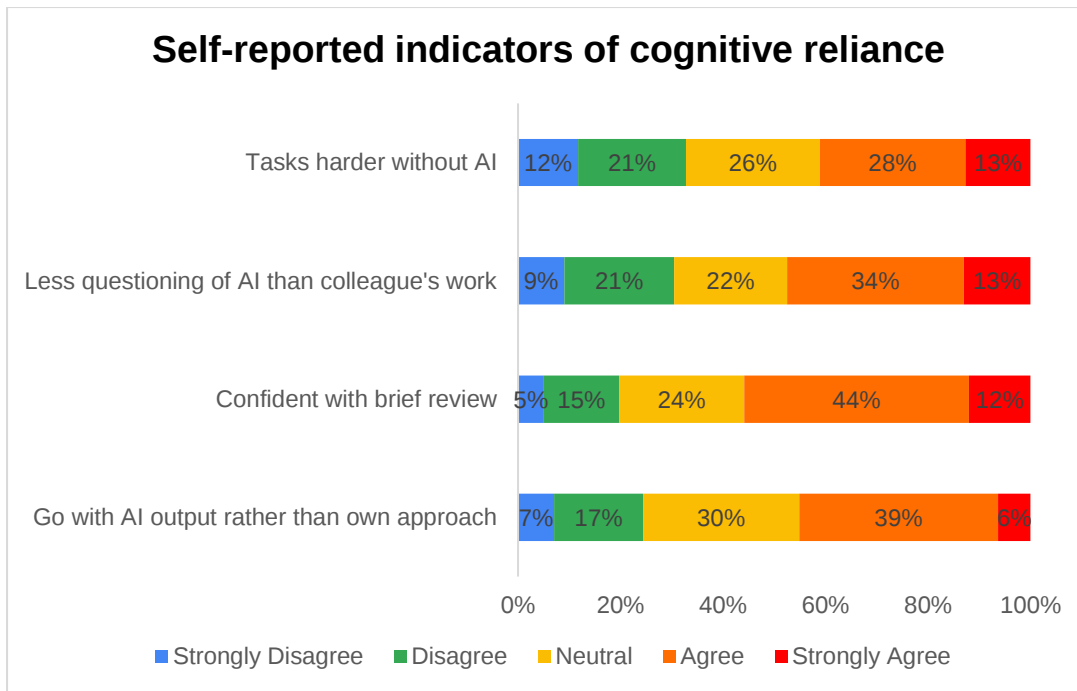


Figure 1. Breakdown of cognitive reliance indicators

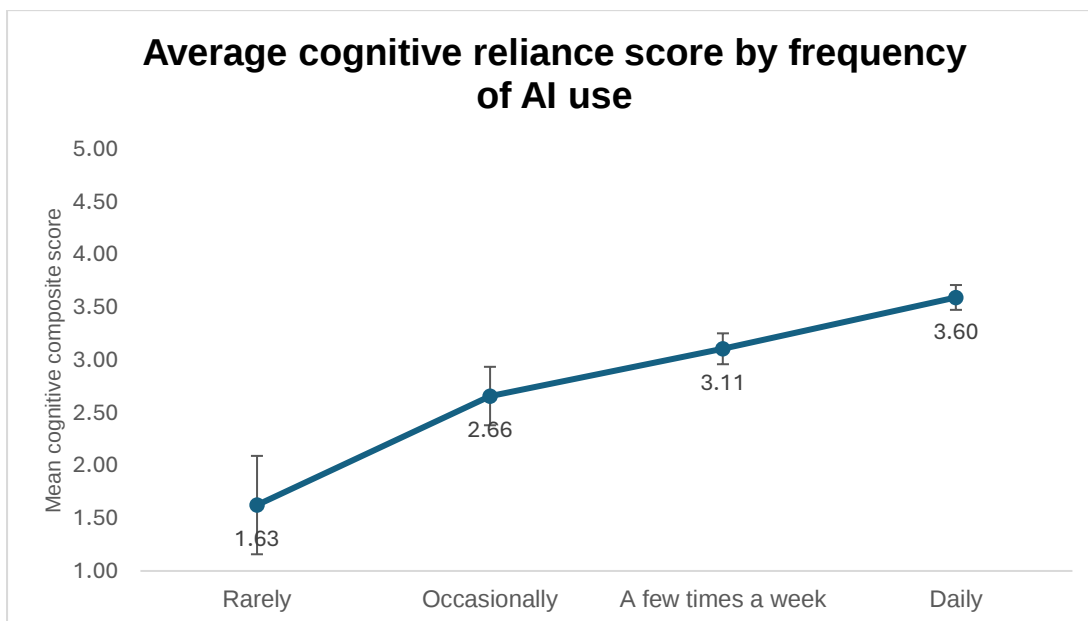


Figure 2. Average cognitive reliance by self-reported frequency of AI use. Points represent mean scores across Q1-Q4 and error bars show 95% confidence intervals. Rarely: n=12; Occasionally: n=36; A few times a week: n=104; Daily: n=147.

4.2 AI changes more than task execution

Participants described experiences that taken together suggest an impact on professional identity (Cronbach's $\alpha = 0.87$).

Around one quarter agreed that they have to prove their value in new ways since AI tools were introduced. Almost three in ten respondents experienced pressure to develop AI skills outside their core role, with the same proportions agreeing their contribution was harder to see and work expectations had changed without explicit discussion.

Even though these figures do not indicate a widespread concern across the participating knowledge workers, these experiences were reported by a sizeable minority. Importantly, regression analysis found that two specific organisational factors, higher trust in the organisation's AI decisions and greater manager-level psychological safety, were each significantly associated with lower identity pressure ($B = -0.274$, $p < 0.001$; $B = -0.343$, $p < 0.001$).

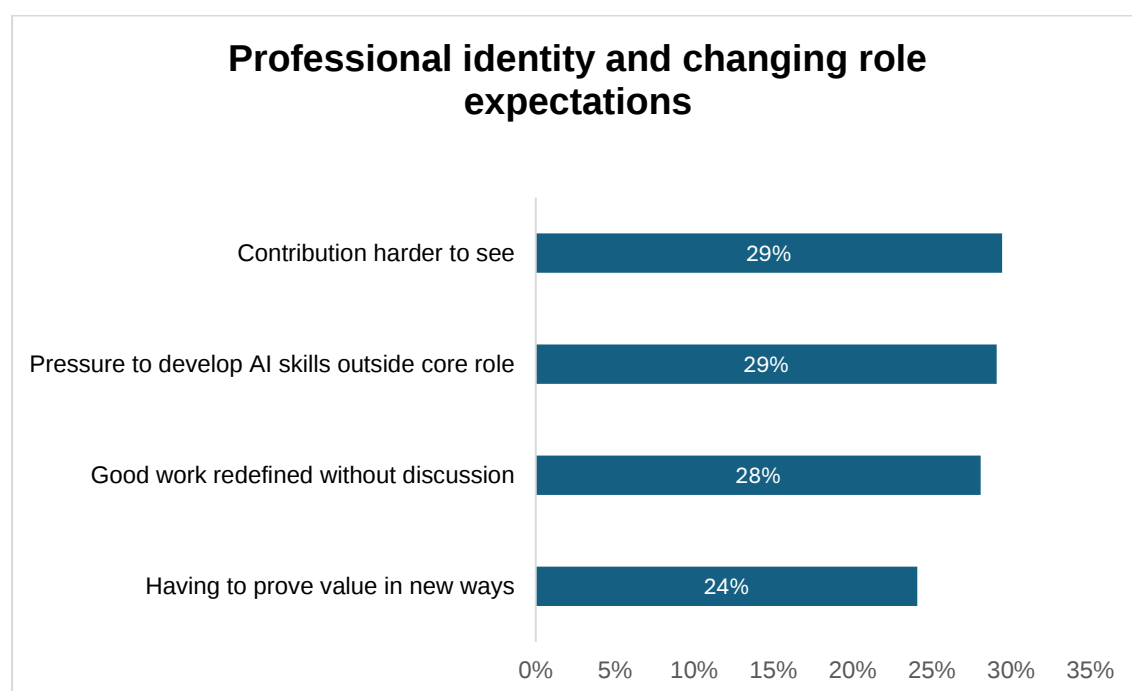


Figure 3. Professional identity and changing role expectations. Percentage of participants selecting 'Agree' or 'Strongly Agree' for each item (n=299)

4.3 Working relationships and emerging divides

22% of participants reported fewer opportunities to learn from more experienced colleagues since AI was introduced. Even though this indicates the issue is not

widespread, it had the strongest association with the identity pressure previously identified (Spearman's $\rho = 0.670$, $p < 0.001$). This suggests that opportunities for informal learning and mentorship may unknowingly be affected as AI becomes embedded within organisations, which in turn can have an impact on employees' sense of professional identity.

A growing divide between employees who had adapted to AI and those who had not was another pattern that the study found, with 43% of respondents agreeing or strongly agreeing with the statement. At the same time, 75% said they felt comfortable raising concerns about AI with their line manager. While the latter is a positive finding, organisations may require visible mechanisms to surface and address these concerns before they become embedded in team dynamics.

4.4 What employees asked for

The final survey question asked employees what they would change about AI adoption in their organisation (see Figure 4).

The resulting themes showed a mixed picture, with some respondents wanting more ambitious adoption, while others asked for slower rollout. Clearer strategy and policies, wider variety and choice of tools as well as transparency and communication were some other areas that were raised.

Training was by far the largest cluster and revealed an interesting pattern when looking into it more closely. Around half of the requests were generic, asking for 'more training' or 'better training'. The rest were more specific, with more structured and more role specific training each accounting for 17% of training requests and 18% requesting judgement and critical use training. The latter is particularly relevant in light of the cognitive reliance indicators identified previously, with respondents specifically asking for guidance on when to trust AI outputs and when to apply their own judgement.

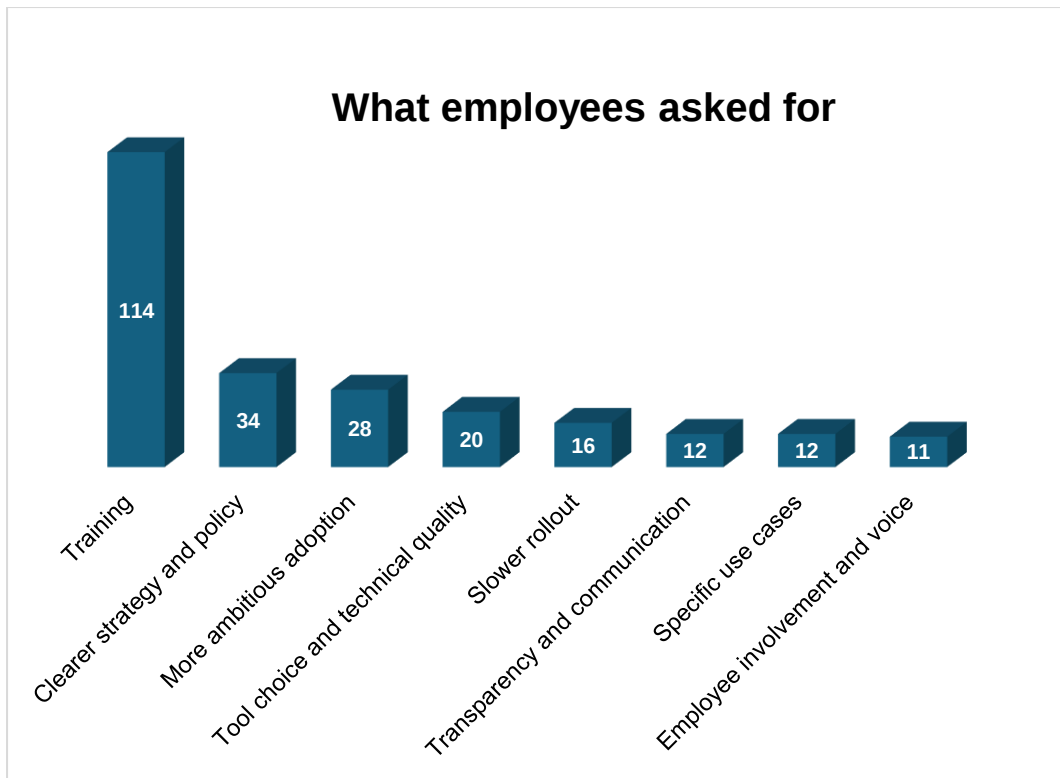


Figure 4. Changes employees said would make about how their organisation handled AI adoption. Figures show the number of coded mentions in each category.

5. Discussion and implications

The findings show early indicators of cognitive reliance on AI, capturing self-reported experiences that range from reduced scrutiny of AI outputs to finding tasks without the tools difficult. The more frequently participants used AI, the stronger this pattern was.

This may be explained through several related cognitive mechanisms. Interactions with external tools have long been known to form part of ‘distributed cognition’, the idea that thinking and memory extend beyond the individual brain to include tools, physical environments and other people (Hutchins, 1995; Hollan et al., 2000). Cognitive offloading is one of the mechanisms through which this occurs, which helps reduce the mental processing required by a task (Risko and Gilbert, 2016). While not inherently harmful and with short term benefits like improved performance, it can become problematic when external tools become a substitute for underlying cognitive processes or reduce opportunities to practise the relevant skills (Grinschgl et al., 2021; Macnamara et al., 2024). In the context of AI, cognitive offloading, alongside automation bias and reduced metacognitive monitoring, may offer potential explanations for the patterns observed in this study (Parasuraman and Manzey, 2010; Buçinca et al., 2021; Fernandes et al., 2026). However, these

mechanisms were not investigated directly and should be explored in future research.

Less of a widespread concern but still raised by a meaningful minority, was an impact on professional identity. A quarter agreed they had to prove their value in new ways since AI had been introduced, with almost a third feeling their contributions were harder to see and that good work had been redefined without discussion. Importantly, higher manager-level psychological safety and trust in organisational AI decisions were each associated with lower identity pressure, suggesting that organisational context may play an important role.

Within the relational dimension, two main findings were particularly relevant. There appears to be an emerging divide between those who had adapted to AI and those who had not, suggesting that employees are adapting at different rates, with potential negative implications for team dynamics. Furthermore, reduced opportunities to learn from more experienced colleagues were raised by just over one in five, a pattern that had the strongest association with identity pressure. This indicates a potentially important connection between informal learning and professional development and the employees' sense of value and expertise.

When asked what they would change about AI adoption in their organisation, training was the most frequent theme raised. Alongside requests for more structured and role-specific training, some respondents specifically asked for judgement and critical use training, further supporting the findings identified separately through the cognitive dimension.

Based on these findings, a conceptual hypothesis connecting the three dimensions to human agency can emerge. In this context, cognitive reliance could act as the most direct link, whereby reduced scrutiny of AI outputs and increasing difficulty completing tasks without AI may reduce the employees' ability for independent judgement and agency. Professional identity and relational dynamics may represent additional routes through which agency could be affected, since confidence in one's value and expertise may influence the willingness to question AI, while informal learning and mentorship can provide the medium to challenge outputs and test assumptions.

The overall organisational context could influence how these dynamics develop through factors such as training, culture, managerial psychological safety or employee voice. If reductions in human agency were to accumulate across institutions over time, they could potentially contribute to processes of gradual disempowerment (see Figure 5). This concept describes how, through incremental changes rather than any single event, humans can gradually lose meaningful influence and control over systems such as the economy, culture and government (Kulveit et al., 2025).

Organisational context shapes these factors and the conditions for exercising agency

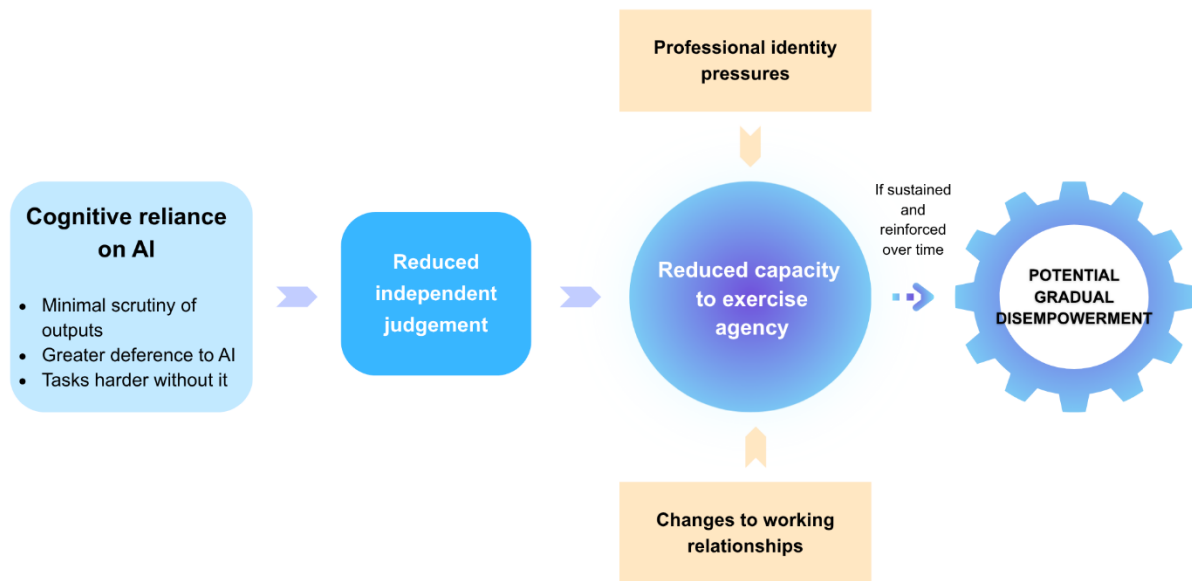


Figure 5. Conceptual hypothesis linking the three dimensions investigated in this study to human agency and potential gradual disempowerment over time.

6. Study limitations

This study is cross-sectional and based on self-reported data, providing a snapshot of employees' experiences of AI adoption at a single point in time. The findings show exploratory patterns across the three dimensions – cognitive, professional identity and working relationships – and are not evidence of any causal effects.

The participants' ability to complete tasks independently was not objectively assessed and finding a task harder without AI does not necessarily equate to skill loss. While the findings under the cognitive dimension may be consistent with cognitive offloading, automation bias or reduced metacognitive monitoring, none of these mechanisms were directly measured.

The finding that the majority of respondents felt confident after a brief review should not automatically be interpreted as insufficient verification, since "brief" was self-defined by respondents. A brief review may be entirely appropriate for some tasks.

Professional identity and working relationships were similarly assessed through self-reported data and should be similarly interpreted as perceived changes. Professional identity is a broad and context-dependent construct and this study focused on specific aspects such as changing expectations and the need to demonstrate value. Similarly, the study cannot rule out that reported changes in working relationships

were influenced by wider organisational changes beyond AI. Associations across the dimensions, such as informal learning and identity pressure, and with contextual factors like psychological safety or organisational trust, should therefore not be interpreted as evidence of causation or directionality.

The measures used to assess the three dimensions were developed for this study and despite good internal consistency as measured by Cronbach's alpha, they are not established validated scales. The findings should be interpreted in light of the sample characteristics and may not generalise across different organisational or geographical contexts.

7. Further research

The next step for further research is to go beyond self-reported measures by developing robust frameworks and measurement strategies. Experimental studies comparing performance with and without AI would be particularly helpful. Similarly, longitudinal studies are needed to assess whether the cognitive patterns identified in this study persist with continued AI use, with a focus on whether reporting difficulty with task completion without AI translates into changes in skill and capability over time.

Further research should examine the potential underlying cognitive mechanisms of cognitive reliance, such as cognitive offloading, automation bias and metacognitive monitoring. Understanding when cognitive offloading becomes harmful and the specific cognitive processes, skills and capabilities that should not be outsourced would help distinguish when AI use is beneficial and when it can undermine independent judgement.

The professional identity and working relationships dynamics also require further investigation, through qualitative and longitudinal research. The role of organisational context and potentially organisational design more broadly in amplifying or buffering these effects could provide further insights.

Finally, the provisional framework that this study introduces needs to be tested directly, by examining the influence of the three dimensions, both independently and interactively, on employees' capacity to exercise agency in AI-enabled work and how this might contribute to the broader processes of gradual disempowerment.

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