

How to control WHS risks from AI and its many uses

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Work acceleration and cognitive dissonance are some of the workplace health and safety challenges that need to be managed when using artificial intelligence in the workplace, a future of work academic says.

Associate Professor Dr Andreas Cebulla, from the Australian Industrial Transformation Institute at Flinders University, told *OHS Alert* the key challenge arises from the highly diverse applications AI has in the workplace and an employer needs to ensure it understands its AI system "in its entirety".

"Generalising about risks across [its] multiple modes of application is difficult, if not potentially misleading," he says.

AI tools are not fool-proof and continue to require human oversight.

Cebulla

According to Cebulla, AI's long list of uses in the workplace include optimising HR and workforce management processes, like automating rostering, reviewing staff performance and monitoring behaviours and movement.

It can function through internal company chatbots (see this *OHS Alert* [case study](#) on how a big employer used a COVID chatbot to field 60,000 questions from workers during the pandemic), while generative AI like ChatGPT is being used in law practices, journalism and other occupations requiring writing skills, he says.

AI can also augment production and maintenance processes through virtual reality tools and robotic process automation, and optimise service operations through monitoring employee movement to align with service output needs, like in Amazon fulfilment centres.

Cebulla says that to minimise the harm AI can have on the health and wellbeing of workers, employers need to completely understand their AI systems and produce "full and accessible documentation of what is being used and how".

The documentation must include how to "stop or overrule" the AI.

Employers need to consider how AI will affect all sections of the business and the human relations in the workplace, and how capable the system is of working with humans and vice versa, and develop mitigation or compensatory tools or structures.

Cebulla says workplace health and safety risks can arise from the replacement of human-to-human interactions with human-to-inanimate object interactions.

The risks can arise from system failure or error, as "AI tools are not fool-proof and continue to require human oversight and judgement", he says.

A clear case of this is ChatGPT, which encounters issues like producing "hallucinations", infringing on copyright and being logically challenged and error-prone, he explains.

"The solution currently advocated for [with] ChatGPT is to improve how we formulate our questions/instructions, which in turn suggest we actually need formal training in using such tools.

"There's clearly a role for business and government to provide guidance, finance [and] strategy."

Similarly, there needs to be training, management and risk assessment around dealing with cognitive dissonance, or the "wilful abandoning of one's own belief and knowledge system", from AI-generated results and recommendations that run "counter to the intuition or experience of those people who used to take those decisions independently or in consultation with colleagues".

Other WHS impacts result from AI accelerating rather than augmenting work processes, making work more stressful, improving efficiency in one part of the business while creating unforeseen impacts like bottlenecks elsewhere in the same workplace, or creating "insider-outsider" challenges where workers who are adept in AI will benefit over those who aren't, disrupting workplace relationships, Cebulla says.

"AI is easiest to implement in small steps, but it may still require a whole-of-business perspective," he says.

Employers need to consider not only its benefits to the business but how it can assist employees, and consider the costs in terms of privacy, interaction and mutual learning, relative to the benefits.

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- [Wearables control some WHS risks, create others](#)
- [Australia's new WHS strategy targets six emerging issues](#)
- [Chatbot creates "therapeutic alliance" with injured workers](#)

- ❑ [AI management and its workplace safety implications](#)
- ❑ [Q&A: World-renowned accident expert urges employers to ensure workers are literate in AI](#)
- ❑ [Case study: COVID chatbot answers 60,000 questions](#)

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