

The Rise of Autonomous Workers

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ABSTRACT

To be 'autonomous' is to possess the ability to govern oneself based on informed decisions. Paradoxically, as we better understand the size and duration of investment required to employ autonomous machines, we better appreciate the immediate potential of autonomous workers. Today we recognise that when properly enabled, workers can substantially reduce the economic appeal of machines. Given, global pandemic-driven shifts toward job creation, that recognition and the resulting rise of autonomous workers, will crystallise even faster.

The size and duration of investment required to employ autonomous machines depends on the combined stability of the work tasks to be performed and the work environment. As stability reduces, the number of scenarios a machine must navigate increases exponentially. Each scenario depends on different intelligence and each intelligence depends on different data. For this reason, the McKinsey Global Institute concluded that static, office-based tasks will be autonomised first, whereas the demand for in-field workers will continue to grow beyond 2030. For the same reason, the proportion of workers performing dynamic tasks in dynamic work environments will continue to grow.

The rise of autonomous workers no longer depends on strategic priorities. The need is immediate. It now depends on the juncture of safety and operations professionals doing two key things:

1. Deploying safety technologies that resolve the mental challenges workers encounter when performing dynamic tasks in dynamic work environments. These workers must navigate an infinite number of scenarios, each of which comprises a different combination of hazards and controls. Just 20 hazards and 20 controls create more than 1 trillion possible combinations. An inability to select the safest combination is not just a human problem, it's a massive mathematical problem
2. Standardising industry best practice templates and technologies. Navigating infinite scenarios is challenging enough. Workers should not have to simultaneously navigate infinite, bespoke systems.