

6 Ways to Use Artificial Intelligence to Improve Housekeeping & Safety Inspections



AI still has a long way to go to fulfill its boasts of rendering conventional OHS programs obsolete. But even in its infancy stage, AI technology can still make a dramatic difference right now, at least for certain activities. Among the most promising of these is [housekeeping](#) and workplace safety inspection. Here are 6 ways that currently available commercial AI products can help you improve these vital OHS functions.

1. Use of Mobile Apps to Improve Safety Inspections

[Regular workplace safety inspections](#) are the linchpin of housekeeping. You can use mobile applications to make inspections simpler, faster, and more effective, such as mobile apps that enable inspectors to:

- Use GPS and location services to accurately track and document inspection sites.
- Access and complete [inspection checklists](#) and forms.
- Take and attach photos, videos or recordings to

inspection reports.

- Create and distribute inspection reports in real-time.
- Send and receive automated reminders of upcoming inspections, deadlines, or other important dates.

2. Use of Virtual Reality to Improve Safety Inspector Training

AI can be a valuable tool for training safety inspectors, especially augmented reality (AR) and virtual reality (VR) technologies that enable inspectors to learn the inspection process via simulation exercises like virtual walkthroughs of the inspection site. AR and VR simulations are especially useful for high-risk inspection and housekeeping activities such as handling hazardous chemicals, machinery, or equipment.

3. Use of Drones to Perform Safety Inspections

You can also use AI technology to carry out actual inspections, including aerial drones embedded with video cameras, GPS, sensors, communication equipment, and algorithms that fly over a work site and relay real-time information. In addition to detecting hazards that humans might miss, drones can inspect sites, locations, spaces or surfaces that would be dangerous for human inspection, such as areas containing hazardous levels of toxic chemicals or noise.

4. Use of AI Monitoring to Detect Hazards Between Inspections

Conventional housekeeping systems that rely on human

inspection don't detect spills, obstructions, clutter, and other hazards that arise **between** inspections. AI-driven computer vision systems do. They monitor the workplace on a continuous 24/7 basis and provide real-time alerts enabling you to detect hazards the moment they appear without having to wait for the next inspection. You can also use sensors and Internet of Things (IoT) AI systems to monitor for particular physical and environmental hazards such as [noise](#), [vibration](#), [thermal conditions](#), and [airborne contaminants](#).

5. Use of Data Analytics to Analyze Inspection Results

In addition to inspection quality, AI can improve analysis of inspection results, including data analytics systems that analyze [inspection reports](#) to detect trends and patterns. You can then use this data to identify problem areas and take corrective actions. Automating large volumes of inspection report analysis over time enables you to not only predict future risks more accurately but also make data-driven decisions for allocating safety resources and improving your OHS program.

6. Use of Robots to Perform Housekeeping Operations

AI can also help improve housekeeping operations. One common application is the use of AI-automated [robots](#), such as cleaning "bots" to scrub floors, polish machinery, or perform other cleaning tasks to reduce worker fatigue, stress, and workload, which has become especially prevalent in the hotel industry.