How Wearable Technology Is Transforming Facilities

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Mobile devices are necessary tools to increase the efficiency and productivity of workers across many industries and markets, including the warehouse. But wearable, voice-directed and multimodal mobile technologies are helping to transform the warehouse environment at an even faster pace than standard mobile tools in other markets.

Wearable and voice-directed technology can build off of existing tools already in your warehouses and provide performance improvement above and beyond what was realized with the first waves of mobile investments more than a decade ago. This technology keeps workers' eyes on the task at hand and their hands free, automating tasks, streamlining processes, improving worker safety, and improving overall warehouse performance levels.

Wearable technology can range from the truly specialized and completely out-of-the-box, such as head-mounted computers, to more streamlined but equally compelling options, such as ring scanners.

Let's start with the more advanced. Head-mounted computers are like a traditional mobile computer, but have two primary advantages: the ability for users to view a larger virtual screen size and keep both hands free to perform detailed work quickly and accurately. Originally designed for field-based maintenance and repair operations (MRO) applications, virtual augmentation for visual-picking is on the horizon. Voice technology in this application controls the computer itself, and head movements control the display that the worker sees.

Other wearable computers are typically worn elsewhere on the body, either on the belt or unobtrusively on a worker's forearm. They are meant to provide the same hands-free benefits as head-mounted computers [1]. Instead of helping workers see rich and detailed information on a large virtual screen, they are designed for users to see task information at a glance when needed to perform their work. The workers' hands are free and their eyes can focus on shorter or faster movements. This enhances productivity while also decreasing errors.

When voice-directed capabilities combine with bar code scanners on wearable mobile computers, they become part of a multimodal operation. Scanning in this context provides an efficient tool to ensure accuracy, while also allowing for much faster specialized data entry than voice alone can provide.

Imagine forklift drivers on a very busy warehouse floor. They need access to the instructions they were given to find out exactly where inventory is located for a put-away, replenishment or pallet-pick order. With voice-directed technology, they can keep their eyes on the heavily congested floor and hands on the wheel while still identifying and validating where they need to go. They can send out a call and relay information to their supervisor over a radio or even their forklift computer.

Today's industrial mobile solutions are designed to meet the rigorous demands of the warehouse floor. The time has come to put mobile operator solutions to work and bring new levels of visibility, productivity and control where they are needed most.

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