How Wearable Tech Is Making a Difference in the Classroom

Wearable technology has now outgrown its initial novelty and has matured into a market that is not only viable but developing rapidly. Applications for these devices are not purely for savvy consumers and executives—there is a large market, in fact, for the use of wearables in educational settings. In fact, a recent report by Technavio projected that the US classroom wearable technology market is expected to grow at a compound annual growth rate (CAGR) of over 45 percent, reaching a price tag of 3.7 billion by 2020. What's leading the charge? Let's break it down.

Head-Worn Equipment

Head-worn equipment includes products like virtual reality (VR) and augmented reality (AR) devices and are designed to give students immersive experiences or access to other forms of interactive digital content. If a class is unable to physically visit an exotic or dangerous location, for example, students can don headgear that will allow them to “explore” and learn about the region or activity. These experiences are safe and multisensory, and they can enhance students' ability to grasp concepts that may be otherwise difficult to imagine.

Smart glasses are also considered head-worn equipment, and many are enabled with AR technology to reflect digital images in classroom environments. In addition, many of these products feature built-in technologies like Wi-Fi and Bluetooth, so they can run mobile apps and accept voice commands.

Wrist-Worn Equipment

Wrist-worn equipment—aka, smartwatches and similar fitness trackers—comprise a substantial portion of the growth Technavio predicted. The wrist-worn market alone is expected to exceed 1.6 billion by 2020—just under half of the total growth predicted.

What makes smartwatches so well suited for educational settings are perhaps their approachability coupled with superior functionality. Unlike some more involved and conspicuous wearable devices—like the headsets for VR—wrist-worn equipment is typically simple to use, cost-effective and discreet (without sacrificing robust functionality). Many are companion devices and pair to smartphones via Bluetooth connection.

From an educator's perspective, wrist-worn devices can be used to track students' behavior, follow academic progress and even complete daily tasks like taking attendance. Students can benefit as well, as these devices typically promote physical activity and come complete with features useful in STEM courses (like calculators and chemical symbol lookup capabilities).

Tips for Implementation

Schools choosing to adopt wearables in classroom environments are committing to a substantial (yet worthwhile) investment of both time and money. As such, it's necessary to take steps to prepare for the launch well in advance. Below are some steps to ensuring the success of the initiative:

- **Understand the needs of students and faculty.** Different wearable technologies meet different needs, so it's important to understand the big-picture goal of the wearable rollout. If immersive experiences for classrooms are the end game, choose VR or AR head-worn equipment. If smaller-scale, more personalized equipment would most benefit students and educators, consider smartwatches or other wrist-worn devices.
- **Ensure proper training.** Ensure hands-on demonstrations and other means of support are available to faculty.
- **Include parents in the discussion.** Incorporating wearables into the curriculum will be a significant change, so it will be necessary to demonstrate the benefits of doing so to parents or guardians. VR, in particular, may require additional explanation or even parental demonstrations, as some adults may feel wary of the technology if they're unfamiliar with its applications in educational environments.

**The Takeaway**

Wearable technology comes in many forms. Whether it’s an internet-connected smartwatch, VR headset, build-your-own robotics kit or clip-on camera, each boasts a level of built-in interactivity and functionality that can benefit classrooms. Factor in the ability to discreetly encourage healthy living while simultaneously monitoring student progress, and it becomes clear that wearable technology should be a consideration for educational environments nationwide.