



iDESIGN

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# Wearable Technology

*How could it shape education?*

Wearable technology is an advanced electronic device that is small enough to be worn naturally in the form of clothing, accessories, or portable lightweight containers. While this is not a new product genre (we can look back at things like the calculator watch and Sony Walkman), the items and their functionality are progressing rapidly. What is changing involves the rise of Internet-anywhere mobile device use, user interfaces with interactivity between reality and digital information, and a recent push to make devices available for the ordinary consumer.

A great deal of excitement has revolved around the launch of Google Glass this year, which opened up conversation about what the future of wearable technology should, or could, look like. If we think about Google Glass and other wearables in the context of education, the potential for innovative application is amazing.

## A FEW EXAMPLES

A student walks into class and is automatically presented with an outline of what will be covered in the lesson, homework instructions, and a stream of other student's questions and ideas.

A student arrives at anatomy lab and is presented with step-by-step dissection instructions that can be accessed hands-free along with pictorial cues and labels overlaid on the corpse in augmented space.

An instructor is able to associate information, such as names and grades, with student faces. Students can text their questions to his display during lecture, giving a voice to students who are reluctant to speak up.

Instructors record hands-on demonstrations for students from a first-person viewpoint.

An instructor visits a museum or attends an event and connects with students remotely via Google+ Hangout. Students can hear the instructor speak, see and hear what the instructor sees in real-time, and have a discussion while the instructor is fully immersed in the event.

brainwave device control  
sensors for chemical presence  
light responsive fabrics  
stealth enabled clothing  
environmentally triggered actions  
voice command

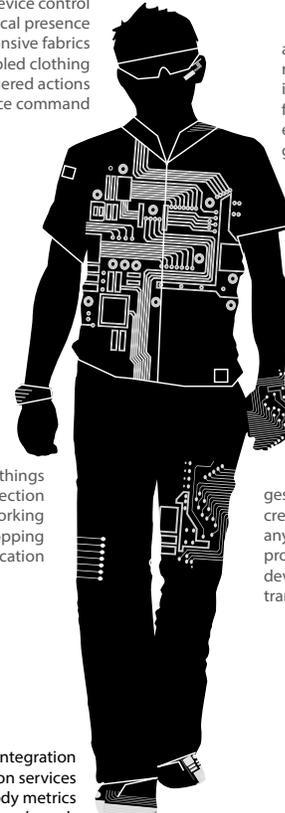
augmented reality  
recording device  
information display  
facial recognition  
emotional cueing  
gaming

sleep tracking  
eating habits  
fitness tracking  
notifications  
responsive fashion  
biorhythm adjustment  
mobility assist

Internet of things  
personal data collection  
social networking  
automated shopping  
security authentication

gesture controlled interfaces  
creative applications  
any surface interaction  
proprioception  
device charging  
translators

GPS integration  
location services  
body metrics  
personal coach



## UPCOMING EVENTS

Try Google Glass and talk about ideas for educational use:

### Teaching Tips Live

#### Wearable Technology: Google Glass

12pm September 20, 2013, 417 Akasofu Building

### OIT Techfest - October 10-11, 2013

#### Google Glass & Education

Wood Center (room & time, TBD)

## RESOURCES

### Mashable - Wearable Technology

<http://mashable.com/category/wearable-tech/>

### NMC Horizon Report 2013 Higher Education

<http://www.nmc.org/pdf/2013-horizon-report-HE.pdf>



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