

Valuable Views: Smart Glass Technology in Healthcare



Since their invention in 1252, eyeglasses have evolved to meet the needs and desires of those who wear them. While many improvements over the centuries have centered on thinner, more effective correctional lenses and fashionable frames, the last decade has increasingly focused on the use of glasses as wearable technology. Medical applications of smart glass are beginning to revolutionise healthcare with the development of specialised glasses, which help people who are impaired by more than myopia: there are glasses for the colour blind, and glasses which help blind people to see.

Do You See What I See?

Now, smart glass technology is being applied to help physicians as well as the patients they serve. Tobii Technology has introduced smart glasses that allow researchers to see a live video stream of what is being watched by the wearer. The ability to track a person's changing view, wirelessly and without delay, has promising implications for a number of research fields.

Beyond the value of remote data acquisition for advertisers and retailers interested in consumer behaviour, the smart glasses developed by Tobii Technology will allow scientists involved in medical and psychological research to see things from the perspectives of their patients and project participants. It can be used to better understand cognitive and physical capabilities, important during stroke recovery and other clinical scenarios.

Medical School Applications

Smart glass technology is expected to play an ever more valuable role in medical school curricula. Beginning this month, Google Glass will be used in the University of California at Irvine (UCI) School of Medicine to supplement basic lectures with real-time interactions between patients and physicians. Training activities and patient encounters will be broadcast to students in compliance with federal laws about patient privacy, most notably the 1996 Health Insurance Portability & Accountability Act (HIPAA).

Google Glass, which has already been introduced in operating rooms and intensive care units at UCI Medical Centre, will initially be an educational tool for third and fourth year students in surgical and emergency settings, but will be introduced to first and second year students when the new school year begins in August. Both UCI and Rhode Island Hospital in Providence now employ Google Glass in their emergency departments to test its impact on physician engagement and patient care.

Toward Empathetic Engagement

Another benefit of smart glass technology applications in clinical settings comes from the new view provided to physicians and medical students when patients wear the device. Viewing the care experience from the patient's perspective should allow clinicians to more empathetically engage their patients. For students being trained for patient care responsibilities, smart glass technology will provide a very visible reminder of the way technology can facilitate or fluster patient interactions.

Of course, the promising new tool comes with a cost. Tobii Technology offers a package to customers interested in tracking the data recorded from its devices with a price tag of nearly \$30,000. At UCI's school of medicine, the four-year Google Glass initiative has the financial backing of philanthropists supportive of innovative technology for the enhancement of patient care and safety.

Sources: [MedCity News](#) and [Healthcare Informatics](#)

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