SMART SUNGLASSES READ PEOPLE'S EMOTIONS AND DETECT TRAUMA

O2Amps amplify visual indicators that signal embarrassment and illness to the general public, but could also be used to help doctors to better 'see' their patients and assess their health.

By Allie Walker on June 27, 2012. @NYC_Allie

Not quite x-ray glasses, but 2AI Labs have introduced glasses that claim to 'amplify' one's view of the emotions and health visible in the color and pallor of other people's skin. The glasses, O2Amps, build on the eye's natural ability to gauge emotions and health—red cheeks indicate embarrassment and yellow or green tint often signal an upset stomach.

The rose-tinted glasses go beyond these simple signals, able to notice minute changes not visible to the naked eye. The technology behind the glasses stems from lead researcher Mark Changizi's study of color vision in primates while at CalTech; he learned that over time, color vision has evolved to 'sense oxygenation modulations in the hemoglobin under the skin,' explaining why, with a blind eye, you can tell if someone is embarrassed—it's the oxygen levels under their skin changing.

The O2Amps, like their name suggests, amplifies what the wearer is able to read about those around him. While they could have many practical applications—like being able to see through someone's 'poker face' in gambling, Changizi sees the greatest potential in medicine, helping make patient diagnosis easier for doctors.

Changizi and his team have developed three different filters that can help doctors better 'see' their patients by looking at the various oxygenation levels in the blood. With one filter, doctors and nurses wearing the glasses could find veins easier—better 'see' their patients by looking at the various oxygenation levels in the blood.

With another filter, doctors could more easily determine trauma—hemoglobin drops after the body has experienced trauma, creating a color change in the blood. This change isn’t immediately visible on the surface level, but with the glasses, doctors would be able to quickly assess a trauma situation without the need for other, expensive medical imaging tools. The 3rd filter acts as a ‘general clinical enhancer,’ and could be used for an initial check at a routine or non-emergency appointment to help the doctor better assess general health levels of a patient.

For example, when oxygenation levels are low, blood will take on a more green hue when the O2Amps are on, signaling anemia or fear to the wearer.
The glasses are currently being trialed at two hospitals, with doctors at New York’s Mount Sinai Hospital reporting that they see ‘a striking visualization of what lies beneath the skin’ when wearing the O2Amps. Changizi and his team are also readying the glasses for everyday use, and sees huge social potential for the glasses:

You can have shades that don’t shade your social connections. They’re really social glasses that bring human vision back to baseline. For example, typical sunglasses shade the world but also end up shading one’s connections to other people; this is exemplified by the way people tip up their sunglasses to get a better look at someone. Our technology shades the world but not the social; for the O2Amps, one sees other people better by keeping them on, rather than tipping them up.

True, it soon may be harder to hide your true emotions from your friends, but this groundbreaking technology has serious potential to provide doctors with a helpful tool—in both traditional hospital settings and in the developing world. Unlike current technology that is often bulky and tied to electricity, these glasses could be worn in a disaster-relief area, providing doctors or field workers with a helpful tool for determining trauma priority.

2AI Labs

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@StevenLeckart: The health-related applications of Google Glasses could be huge: http://t.co/2ZzkDjdk
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RT @PSFK: Rose-colored glasses let wearers ‘see’ people’s emotions & help doctors to identify trauma, illness & diagnose the ill http://t.co/hug6yTm5
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RT @sandraleduc: I need a pair! - Smart Sunglasses Read People’s Emotions And Detect Trauma http://t.co/mkKZyrXX via @psfk
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In honor of #SunglassesDay here are some SMART sunglasses that detect emotions + trauma, #eyetech http://t.co/1hD0ig1l Via @PSFK
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SELLING MASSES

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