

VIEW

I See Right Through You: Glasses to Read People's Skin

The technology could have applications in gambling, healthcare, and dating.

5 comments



DAVID ZAX
Tuesday, June 19, 2012

What if you could wear glasses that gave you a sort of superpower? Not quite anything as high tech as Google's "augmented reality glasses," per se. Rather, what if these glasses helped you tap into something a lot more primitive--the ability to "read" other people?

A company called 2AI Labs has developed a pair of glasses, the O2Amps, that claim to do just that. A blog post [announced](#) yesterday that 2AI Labs had received its first shipment from manufacturers.

At the root of the technology is evolutionary biology, actually. Researcher Mark Changizi studied the evolution of color vision in primates; his research showed that color vision evolved to reveal the fluctuations of oxygen levels in hemoglobin just beneath the skin. These provide all sorts of social signals. A simple and intuitive example is seeing someone turn bright red from embarrassment, but there are all sorts of more subtle signals that we may only be semi-conscious of, but that nonetheless were beneficial to the species that passed color vision on to us. (Changizi expounds this and other theses in a new book called [The Vision Revolution](#).)

So where exactly do the O2Amps come in? Well, as their name suggests, the glasses--which appear to be literally rose-colored, from photographs--amplify these oxygen signals, making them more readily visible to onlookers.

One of the most serious potential applications of the technology is in medicine; the O2Amps are reportedly in "[phase testing at two regional hospitals](#)." The lenses make veins "appear to glow," easily revealing hidden vasculature. Changizi writes that he has developed three different



IBM System x3650 M3 Express server
From \$2,799 or \$80/mo²

[Learn more](#)




New on Technology Review

Wiping Away Your Siri "Fingerprint"

Zynga Looks to Build a Gaming Social Network of its Own

Google Would Like to Sell You a Tablet

3 comments

Microspheres Could Save Patients Whose Lungs Have Stopped Working

4 comments

[More »](#)

Technology Review Lists

Technologies Innovators Companies

5

CURRENTLY READING: [I See Right Through You: Glasses to Read People's Skin](#)

Changizi also says there could be applications in security, gambling, and dating. That poker face becomes a bit tougher to maintain when the oxygen levels coursing through your veins give away that pair of deuces you're bluffing about. And while that guy taking you out for a drink might be blowing hot and cold, his skin may tell a different story.

"One sees people better by keeping them on," writes Changizi. Will optometrists soon prescribe O2Amps to the socially inept? ("Your vision is 20/20, Mr. Zax, but that faux pas with my receptionist reveals your *social* vision to be 20/500. Have you heard of O2Amps?")

It's clear that Changizi is hunting big game, here. He's been quoted to the effect that despite the targeted applications he has in mind, he'd really like to go for the mass market, so that your next sunglasses purchase might be one of his rose-tinted pairs instead. An admirable goal, but there's one problem, as I see it, preventing the O2Amps from becoming much more than a novelty item. They're bright pink. For a superpower to be most effective, it behooves the superhero to be able to employ it discreetly. Another complaint I anticipate is that people probably don't *want* to see their friends' veins glowing all day. With great power comes great responsibility, and who wants to have the responsibility of constantly having to warn friends of what their epidermis is showing?

Still, I wish more people like Changizi contemplated a revolving door between academia and entrepreneurialism. The O2Amps are a fun idea, backed by real science. Now let's see if they catch on.




Facebook's Timeline

The social-networking company is collecting and analyzing consumer data on an unprecedented scale.

[Read more »](#)

Explore our TR10 List:



David Zax

Contributor

I am a freelance journalist. My main gigs these days are for *Fast Company*, where I'm a contributing writer (and run an [See full bio »](#))

Any article, any time, anywhere.

Click the link in each article and listen on demand.

Email Audio Print

SPONSORED BY

NATIONAL INSTRUMENTS technology review




IBM System x3650 M3 Express server
From \$2,799 or \$80/mo²

[Learn more ▶](#)



- Privacy
- Terms of Use
- Sitemap

- About Technology Review
- Advertise with Us
- Work for Us
- Events
- Contact Us

- Get the Magazine
- Manage Subscriptions
- Reprints and Permissions
- Customer Service
- Feedback

Stay Connected

- New sletters
- Mobile Apps
- RSS Feeds



Take a 2 or 5 Day Executive Development Program or earn a professional certificate

[VISIT EXECUTIVE.MIT.EDU](http://VISIT.EXECUTIVE.MIT.EDU)