A rosy blush or the sickly green color of a person’s skin can tell very different stories about mood and health to human eyes — a deceptively powerful insight about eyesight. Now a startup has begun creating “social glasses” capable of enhancing the lives of lonely-heart singles or gamblers who play high-stakes games for love and money.

The idea, pioneered by 2AI Labs, harnesses the power of human eyes to notice skin color changes caused by a mixture of more or less blood and blood oxygen levels. Such filtered glasses could help surgeons better see a patient’s network of “glowing” veins, or allow airport security to spot the slight paling of a suspicious individual’s face.

But even special sunglasses — or clear non-prescription glasses for the hip crowd — may enable ordinary people still see common social signals through their dark shades.

“You can have shades that don’t shade your social connections,” said Mark Changizi, director of human cognition at 2AI Labs. “They’re really social glasses that bring human vision back to baseline.”

That means people wearing shades don’t need to miss seeing the blush of embarrassment or excitement on the face of a guy or girl on a first date. Similarly, a poker player hiding behind a pair of sunglasses could still spot a red flush creeping up the neck of an opponent — a telltale sign that could clinch victory as surely as a five-card flush in the game.

2AI is already talking with bigger companies about making the more specialized glasses for everything from law enforcement to medicine. But Changizi referred to the “social glasses” as...
the "one-ring-to-rule-them-all" approach.

"The biggest application is for everyday wear, just like every pair of glasses you buy has UV protection," Changizi told InnovationNewsDaily.

Skin reveals so much about human emotions and health because it can appear as practically any color based on combinations of blue, green, yellow, and red, as described by Changizi in his book "The Vision Revolution" (BenBella Books, 2009). For instance, higher amounts of oxygenated blood can lead to a reddish-blue (purple) color, whereas lower amounts of oxygenated blood create a yellow-red (orange) effect.

By contrast, high amounts of blood with low oxygen levels lead to a blue-green hue, and low amounts of blood with low oxygen levels lead to a yellow-green appearance.

Tim Barber, an Internet entrepreneur and co-director at 2AI, first suggested turning Changizi's insights into usable technology. But Changizi hopes to do much more than just turn a profit — he wants to experiment with a new way to fund his academic research through rapid spinoff technologies.

"When you go through Ph.D. training, you're taught that to leave academia is to fail," Changizi said. "But it's a big world that's exciting, and often much more exciting than what happens in 99 percent of academia."

You can follow InnovationNewsDaily senior writer Jeremy Hsu on Twitter @ScienceHsu. Follow InnovationNewsDaily on Twitter @News_Innovation, or on Facebook.

- 10 Sci-Fi Predictions That Came True
- Virtual Reality Contact Lenses Could Be Available by 2014
- 9 Cyborg Enhancements Available Right Now