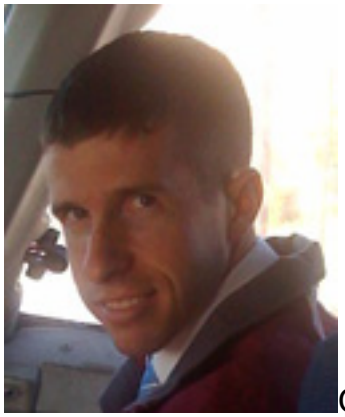
Tech uses thermal imaging to scan for drunks

Jason Lomberg, Technical Editor

 One of an editor's favorite pastimes — apart from regaling our readers with the latest products and technology — is imbibing a good adult beverage. But that could become more difficult: A new technology from the University of Patras in Greece uses thermal imaging to detect drunkenness and could prevent inebriated individuals from causing a public disturbance (not that editors would ever do that...).

We've all probably felt a little flush after knocking back a couple (if not, you haven't lived life to the fullest). This is because of the build up of the chemical acetaldehyde [1] which, in addition to your everyday hangover symptoms (nausea, headaches, etc.), causes capillary dilation. In other words, blood rushes to your face.

Some people are more susceptible to this "alcohol flush reaction" than others.

This causes "hot spots" on the surface of the skin and especially the nose. The nose tends be warmer while the forehead is cooler. These telltale signs of inebriation are easily detectable by a thermal imaging scanner.

The team from Greece tested this theory on test subjects (lucky schlubs) who were provided with beer. Seriously, where's that rank among dream jobs??

According to a report [2] in NewScientist:

"Software picked out 20 points on each volunteer's face and the temperature was logged. The more the volunteers drank, the warmer these regions in their face became."

They came up with two algorithms which, applied in concert, could reliably detect the signs of drunkenness (or various degrees of inebriation, one would surmise). One approach compares the pixels values of a person's face, measuring the "hot spots" in a drunk vs. sober individual, against a massive database. The second approach quantified those temperature differences.

Presumably, this technology can distinguish between inebriation and illnesses like fever (both of which exhibit similar symptoms) — at least one would hope. The tech already has a big-brother vibe to it. We wouldn't want to confuse the flu with someone who imbibed a few too many.

Source URL (retrieved on *07/22/2014 - 8:04am*):
http://www.ecnmag.com/blogs/2012/09/tech-uses-thermal-imaging-scan-drunks

Links:
[1] http://www.ehow.com/how-does_4618709_do-people-flush-drinking-alcohol.html
[2] http://www.newscientist.com/blogs/onepercent/2012/09/hot-face-gives-away-when-youve.html