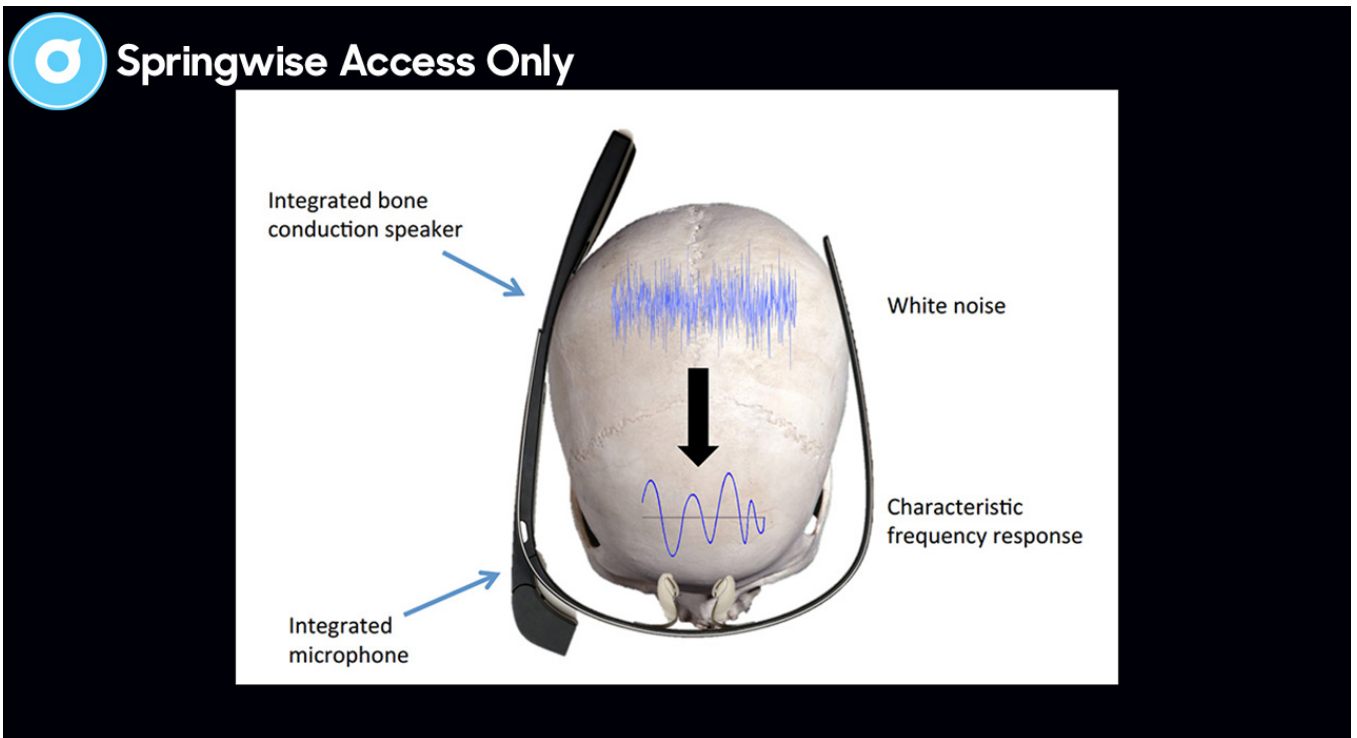


The sound of skulls are new biometric IDs



With personal security proliferating, from [glasses that thwart facial recognition](#) to methods for [sharing accounts without revealing security codes](#), typed passwords are quickly becoming a thing of the past, replaced instead by methods of biometric user identification. [SkullConduct](#) is one of the newest methods of physiological authentication.

Developed by researchers from the Max Planck Institute for Informatics in Germany, the University of Saarland, and the University of Stuttgart, SkullConduct uses sound waves to identify users via the unique pattern of vibrations produced by their skull. Most eyewear computers, including Google Glass, are unprotected, making the owner's personal data available to anyone who puts on the device. Now, using SkullConduct, wearable computers can be securely locked.

SkullConduct works by generating an imperceptible ultrasonic sound (white noise) as soon as the device is activated, usually by being worn. Bone conduction is the transmission of sound waves through bone, and when used in the skull, produces vibration patterns unique to each individual, much like fingerprints.

A microphone built into a modified Google Glass enabled SkullConduct to both record and analyze the vibration pattern that was produced, and the device was 97 percent accurate in identifying users. Obviously, 100 percent accuracy is desired for personal security, and researchers say they still need to work on the device's ability to differentiate between the identification vibrations and other noises in loud, busy environments. Accuracy could also be affected by a users' weight gain, something else the research team is working to improve upon.

What will be the next biometric identification tool?

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