



Biometric tool

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BIOMETRIC TOOL ALLOWS HEART DIMENSIONS TO ACT AS IDENTIFICATION

 WORK & LIFESTYLE

Researchers at the University of Buffalo hope the innovation could be the next big step in computer security.

The public once relied on passwords as their prime security tool, but are now accustomed to using their thumbprint to pay for their shopping or faces to be allowed through airport security as if it is the norm. Researchers at the USA's University of Buffalo have gone one step further in the quest for total biometric identification – the use of heart dimensions. The team has developed a computer security system using the dimensions of a heart as an identifier. The system uses low-level Doppler radar to measure the heart, and continually monitors it to ensure no one else has stepped in to run the user's computer.

Its creators claim the system is a potentially more effective alternative to passwords and other biometric identifiers, and may eventually be used for smartphones and at airport screening barricades one day. For airport identification, a device could monitor a person up to 30 meters away. The signal strength of the system's radar is much less than Wi-Fi, and therefore does not pose any health threat. The system needs around eight seconds to scan a heart the first time, and thereafter the monitor can continuously recognise that heart. The system, which was three years in the making, uses the geometry of the heart, its shape and size, and how it moves to make an identification.

The team of researchers say the heart-monitoring system has many advantages over existing biometric solutions, as it is a passive, non-contact device, so users are not bothered with authenticating themselves whenever they log-in. Also, by monitoring users constantly, the computer

will not operate if a different person is in front of it so people do not have to remember to log-off when away from their computers. There are now plans to miniaturise the system and have it installed onto the corners of computer keyboards. How could biometric tools such as this make an impact to efficiency, privacy and reliability of computer-based work?

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