

# Researchers build "Blade Runner" Voight-Kampff machine

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A 3D printed image of the Voight-Kampff machine with camera and ear-piece

An emotion detector which, potentially, can tell whether a person really finds you attractive on a first date has been created by researchers at Lancaster University.

The inspiration for the device came from a gadget featured in the 1982 sci-fi fantasy film *Blade Runner*, starring Harrison Ford and directed by Ridley Scott.

Replicating the Voight-Kampff machine, a fictional interrogation tool, the Lancaster team have created a device that mimics this emotion-detector.

But the plausibly real device is, at this stage, still pure fiction and, while creating it has sparked imaginative design skills and a little fun, it has been built to convey a serious message.

The design team, which includes the Centre for Spatial Analysis (CASA) at UCL, are keen to get people to think about the ethical implications of a world in which we use computers to monitor or even manipulate our emotions.

The polygraph-like Voight-Kampff machine was used by the Blade Runners police force to determine if an individual was a biorobotic android, detected by means of a test in which emotional responses were provoked.

It measured body functions such as blush response, respiration, heart rate and eye movement in response to questions dealing with empathy.

Designers at Lancaster are now researching technologies for their own Voight-Kampff machine including an ear-piece which measures skin and heart rate responses and a pupil-dilation measure.

The team's fictional speculative device is set against an online dating backdrop and is designed, in theory, to determine if it's love and sincerity at first sight or sound.

The machine takes on a whole new 21st century appearance - neat, bright and compact - and simply clips onto the bottom of a smartphone or tablet.

The research team, headed by Lancaster University's design fiction expert Professor Paul Coulton, are set to present a paper on 11 May in San Jose at CHI, the world's premier conference on Human Factors in Computing Systems, the place to see, discuss and learn about the future of how people interact with technology.

"This machine looks and feels very real and has even prompted a film-making company in the States to request filming us manufacturing the device," said Professor Coulton. "But this is actually a tool for creating some pretty serious discussions."

Design fiction is, in broad terms, speculative design which heralds what might come about in the future world of human computer interaction, explains Professor Coulton.

"The factor that differentiates and distinguishes design fiction from other approaches is its novel use of 'world building' and, in this paper, we consider whether there is value in creating fictional research worlds through which we might consider future interactions."

"As an example, we built this world in which rules for detecting empathy will become a major component of future communications. We take inspiration from the sci-fi film 'Blade Runner' to consider what a plausible world, in which it is useful to build a Voight-Kampff machine, might be like.

"People are working towards this kind of thing," he added. "What we are doing is questioning whether it has a place in our society - what kind of uses they have and what the world would actually be like with them. We

want people to think about the ethical implications of what we do.  
Technically a lot of this is possible but is it actually what we want?"

Provided by Lancaster University

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