

# New modes of perception

*A philosophical workshop on sensory substitution and augmentation*



THE PHILOSOPHY CLUB



# BrainPort

A sensory substitution device



A camera is attached to the nose of the sunglasses



The tongue-piece has hundreds of electrodes that create a tactile sensation on your tongue.



This translates in your mind's eye as vision.





THE  
NEW YORKER



A photograph of two people in a dark, rocky cave. They are standing in a light-colored, arched opening, looking up at the ceiling. The cave walls are dark and textured. Light filters through several openings in the ceiling, creating bright spots and shadows. The people are silhouetted against the light.

Human  
echolocation



Video clip: Neil Harbisson

The world's first  
legally-recognised  
cyborg







**"It is important to remember that the tortoise does not live inside a shell, it *is* a shell... the sockets of [tortoises'] hip and shoulder bones are inside their shells, right at the top."**

*– Helen Sullivan, reporter*

# Your creative response

*Choose from.....*

- Written reflection
- Story
- Dialogue
- Comic
- Poem
- Drawing
- Mini-zine
- Persuasive argument
- Letter

... or whatever other format you like!

**"Doors aren't open to blind kids in this society, almost any society, the doors are shut, barred, locked. You have to kick down that door because we've spent millennia being kept in the dark."**

– Daniel Kish, expert in human echolocation

**A man using a sensory substitution device to identify a plaid shirt says, "It sounds a bit checkered."**

– Adapted from 'Seeing with your Tongue', New Yorker

**Imagine a person, blind from birth, who could tell apart a cube and a sphere by touch. If her vision were restored, and she was presented with the same cube and sphere, would she be able to tell which was which by sight alone?**

– An articulation of the Molyneux problem

**"Subjective experience isn't the whole story. Humans, unlike bees, don't normally see ultraviolet light; we can't sense Earth's magnetic field, unlike turtles, worms and wolves; are deaf to high and low pitch noises that other animals can hear; and have a relatively weak sense of smell."**

– Alison George, New Scientist

**"The doorbell tastes like burnt toast."  
"Chocolate smells pink and stripy."  
"Thursday feels fuzzy."  
"The letter 'A' is red."**

**These are the kinds of cross-sensory associations you might hear from people who have synaesthesia – a perceptual phenomenon in which stimulating one sense leads to involuntary experience in another sense.**

End of workshop

# Challenging traditional boundaries between the senses



Emilie Gossiaux's **BrainPort** merges touch and vision

Daniel Kish's **echolocation** mobilises hearing for spatial awareness

Neil Harbisson's **antenna** transposes colour to sound