

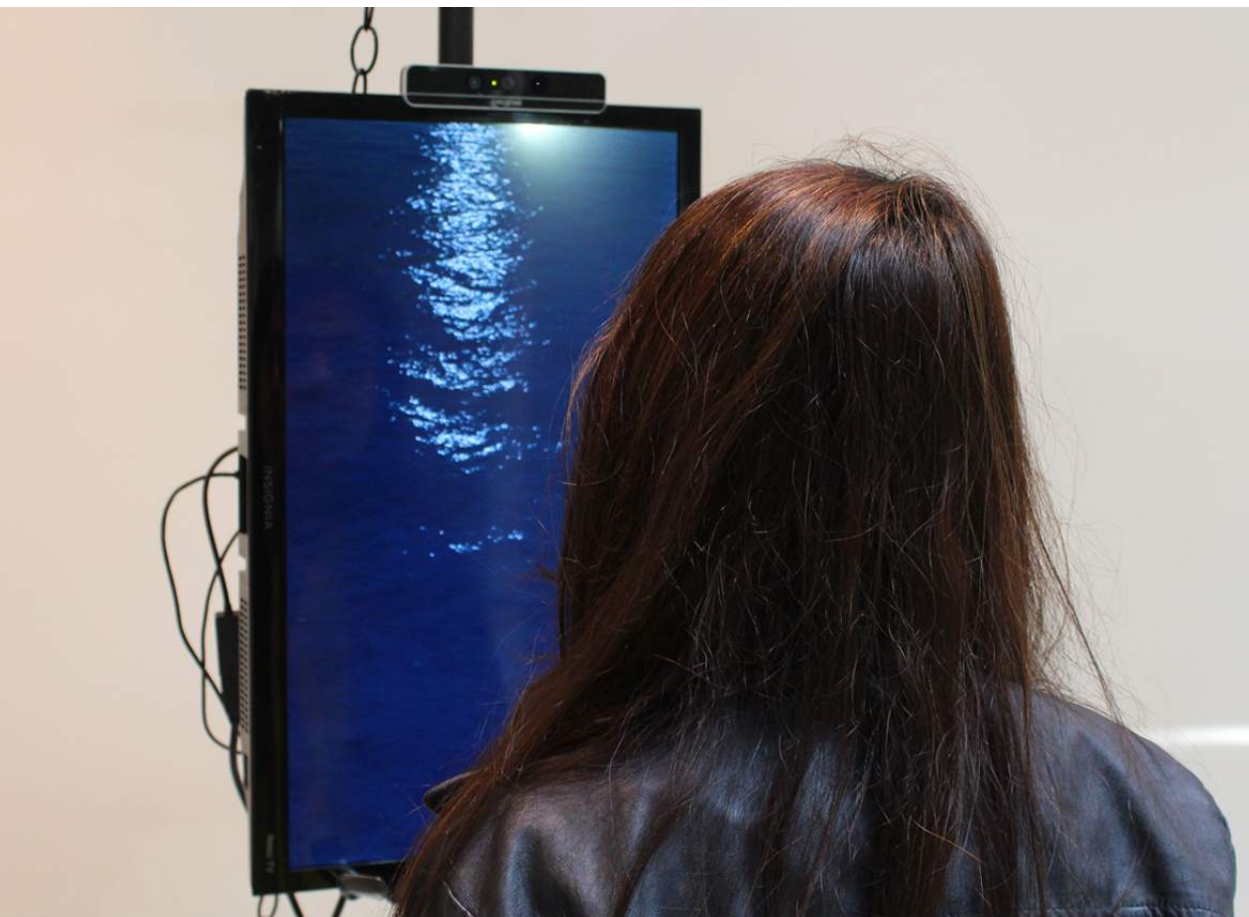
Presented by

LEE JONES

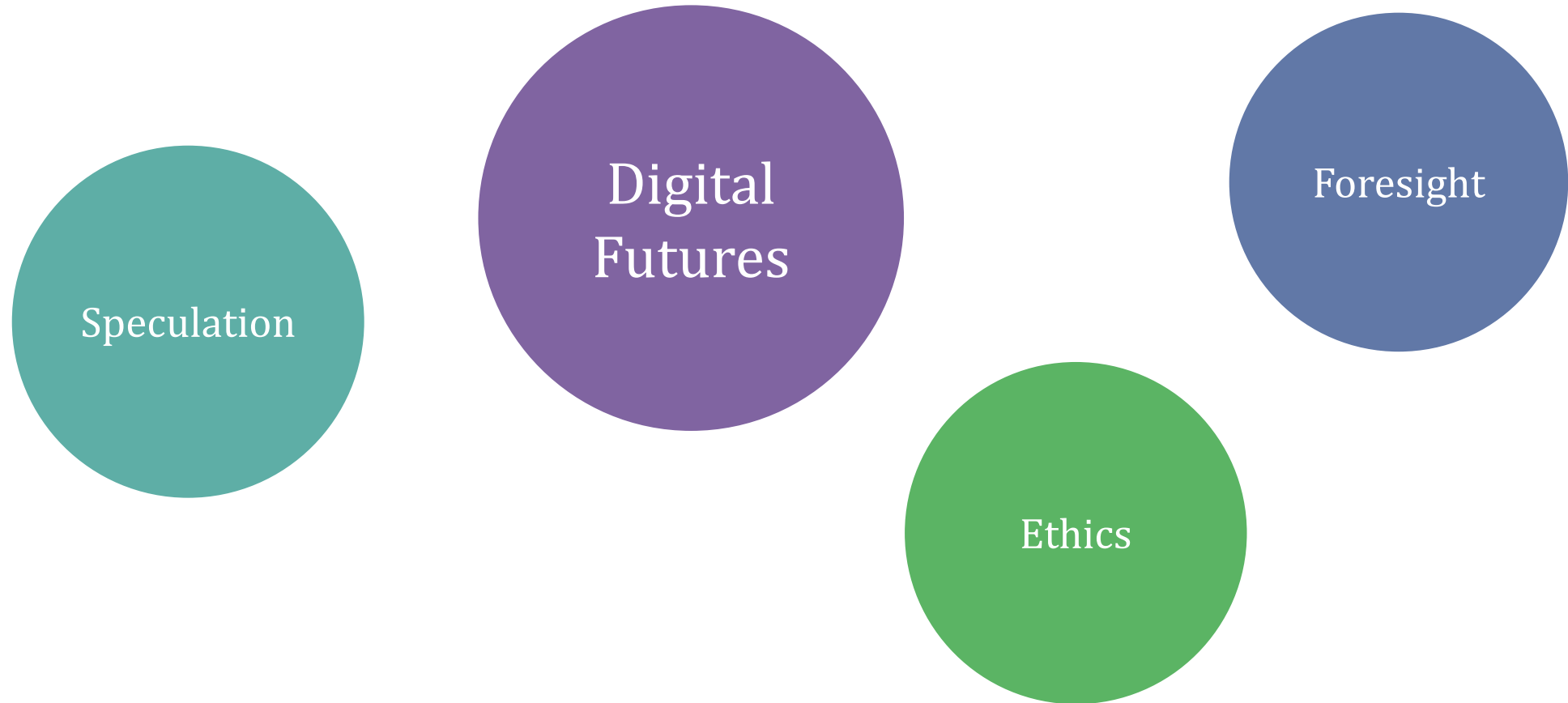
Your Body of Water:
A Somaesthetic Display
for Embodied Reflection.

Thesis document available at leejones.ca

Your Body of Water



Digital Futures at OCAD University



Quantified Self

- The movement connects with the field of big data science, and is used to describe individuals involved in self-tracking and specifically with the proliferation of consumer tracking devices
- The goal with the Quantified Self is not just to know about one's own data, but to use that data in order to act on it through behavioural changes (Swan 2013).

“...By placing some sensors on our body and then having our data fed back to us, we are supposed to be able to change our bad habits, become healthy and beautiful, and live a long life” (Hook et al 2015)

The Problem:

Devices telling us about our bodies doesn't actually get us more in touch with ourselves. We just end up relying on external devices instead of our own felt experience.

“Electronic products and services should enrich and expand our experience of everyday life rather than closing it down; they should become a medium for experiencing complex aesthetic situations” (Dunne and Raby 2001)

HCI and the felt body

01

Affective Computing

Affective computing systems try to identify emotional states in users and typically view this input as information (Stahl 2014; Hook 2013)

02

Affective Interaction

The user interprets the interaction rather than the system telling them what it means (Boeher et al 2005).

03

Somaesthetics

Soma is the living body and aesthetics is our sensory perception. Somaesthetics overall is about combining those two things so becoming more aware of ones living body (Shusterman 2006)

Somaesthetics in Interaction Design

- The main goal of somaesthetics in interaction design is to create devices and systems that encourage participants to look inward and focus on their own bodily sensations rather than external stimuli
- So instead of a device telling you about how you're feeling, a somaesthetic device would use technology to enhance your bodily response and to help you focus and reflect on how you are feeling

Somaesthetic Appreciation Design Characteristics

(Hook et al 2016)

01

Subtle Guidance

The participant's attention needs to be subtly guided, but not grabbed. Instead of just turning an element on or off, it's better to slowly increase and decrease certain elements.

02

Making Space

An important part of somaesthetics is the idea that you need to actively create space within your day for reflection. This space is both physical and temporal.

03

Intimate Correspondence

Intimate correspondence is how closely the feedback and interaction follows how the participant is feeling and what they are experiencing.

04

Articulation

Articulating the somaesthetic experience means creating visuals or responses that support reflection (i.e. stormy water for high heart rate and calm water for low heart rate)

How to evaluate slow technology?

- The user-unfriendliness of slow technology is already present in other art forms such as poetry – it's a longer and more aesthetic experience.
- Typically done in-situ (i.e. in the home) over a longer period of time

Slow Technology

- User-unfriendliness
- “gentle-provocation” or reflection
- Longer periods of time



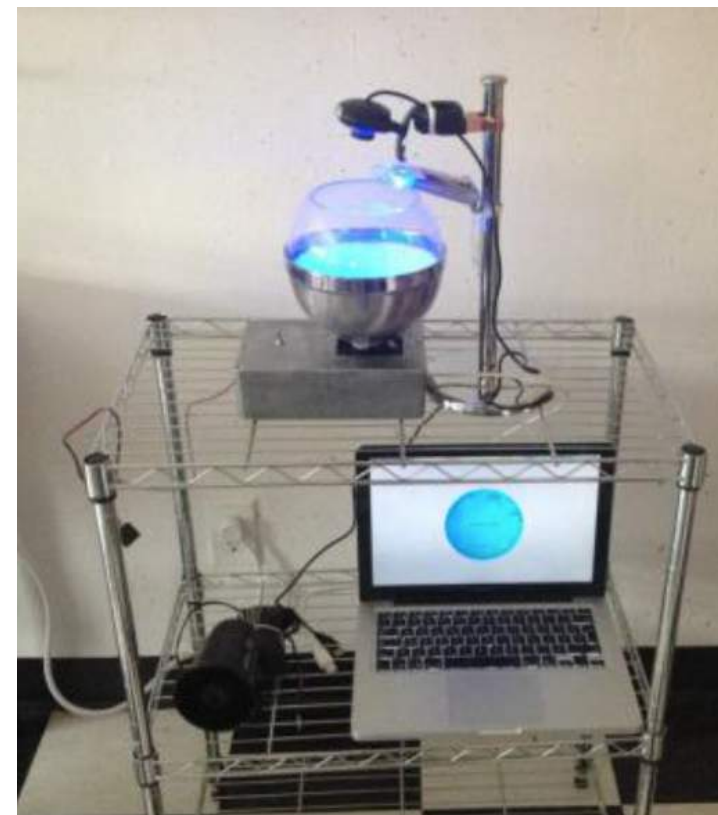
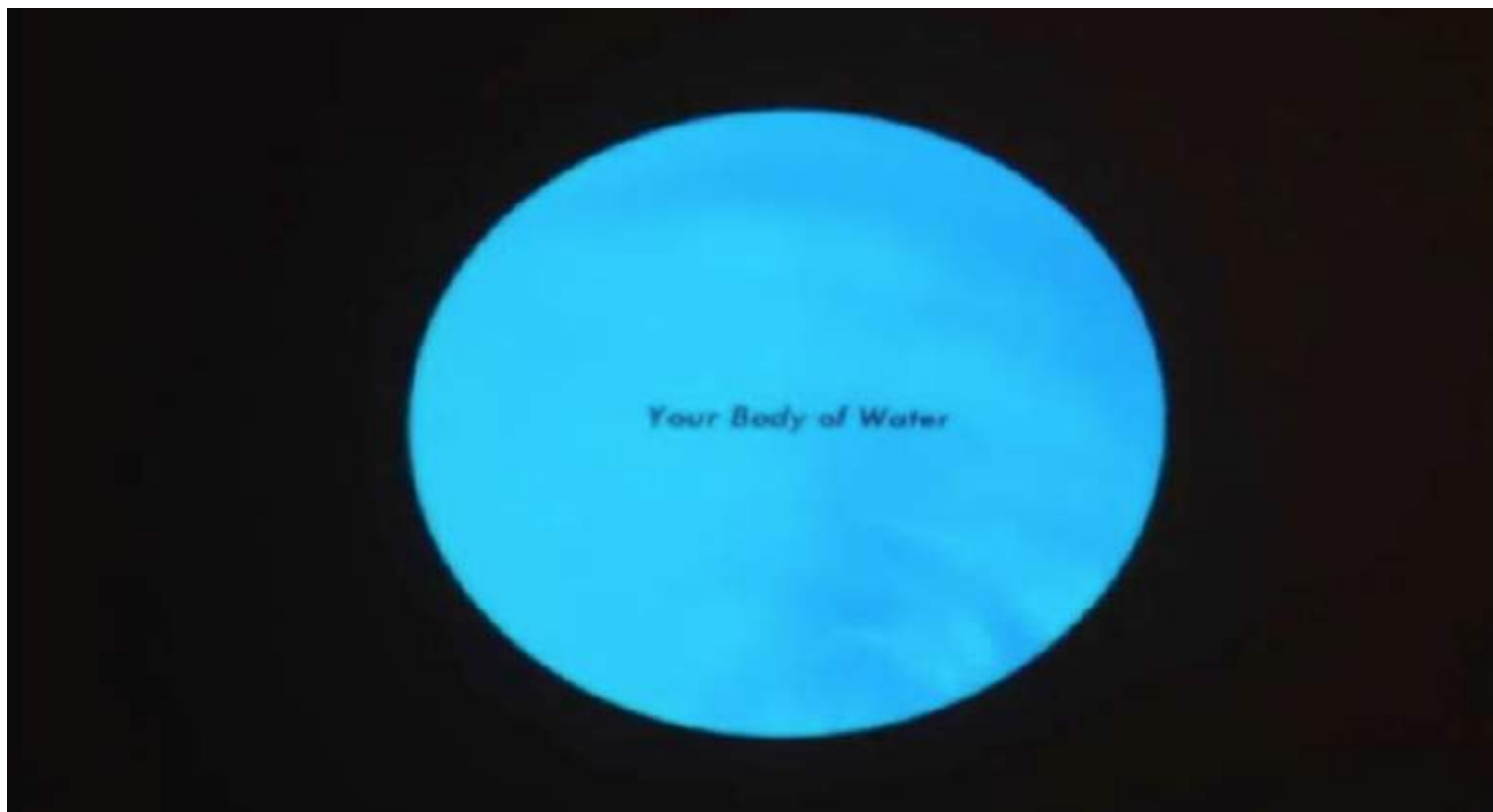
User Testing

- User-friendliness
- How fast you can learn
- How easily you can learn
- How fast you can complete a task

Evaluation Using System Critiques

- Similar to how art criticism has a culture of experts doing art critiques for colleagues, the system critique involves interaction designers who can evaluate a system using their background (Hook et al 2016)
- These types of system critiques have been useful for discovering and identifying problematic areas of the interaction while also discussing possibilities for improvements to the work (Mankoff 2003)

Prototype One



Prototype Two



Heart Rate with Intel RealSense Camera

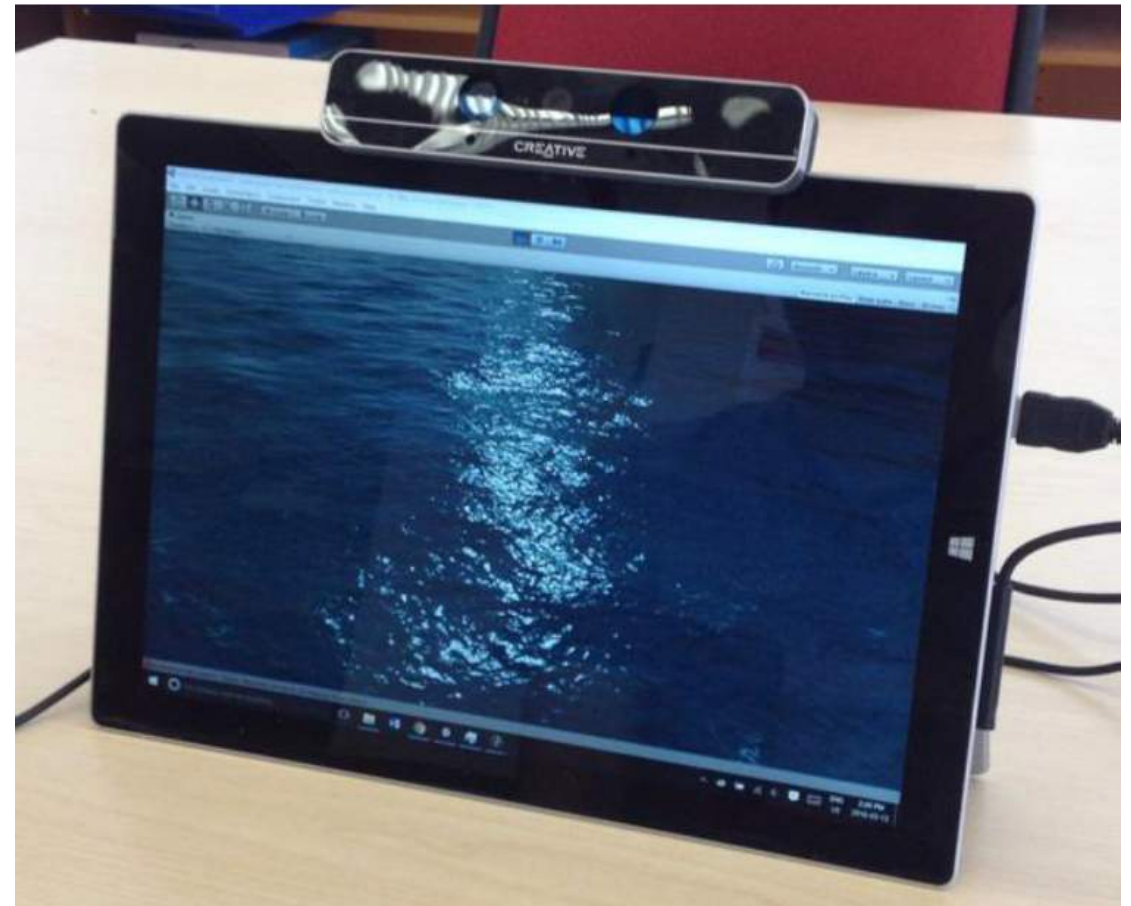


The water changes with heart rate



Prototype Three

- Seven systems critics (out of 10) mentioned locations either within the home, or in offices, where it would be useful to place an object like this to encourage reflection.
- Users kept comparing the device to a mirror (i.e. you look at yourself as you go out the door – mood check when you come home).
- The third prototype was able to meet the four somaesthetic design characteristics



Conclusion

- 3 system critiques allowed for 4 prototype iterations over a period of few months
- Whereas in home and *in situ* methods are very time consuming and resource intensive, the system critic evaluation was useful for quickly identifying many of the problematic areas within an interaction, as well as how to correct for them.



Further Reading:

Shusterman, Richard (2013): Somaesthetics. *In: Soegaard, Mads and Dam, Rikke Friis (eds.). "The Encyclopedia of Human-Computer Interaction, 2nd Ed."*. Aarhus, Denmark: The Interaction Design Foundation. Retrieved from <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/somaesthetics>

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