Doing things backwards: the OWL project

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ABSTRACT

The OWL project is inspired by Arthur C. Clarke's Third Law of Technology Prediction: Any sufficiently advanced technology is indistinguishable from magic. It consists of a series of open and speculative body-devices designed without a pre-defined function and tested as design 'probes' in order to ascertain their functionality. While the initial forms emerge from an investigation of the body, their functionality are determined through use. The project fuses fine art and contemporary design processes to arrive at ambiguous outcomes whose functionality is being ascertained 'after the fact' through interviews, or 'probing'. While not necessarily anti-design, the methodology contrasts dramatically with traditional design processes, where the purpose and broad functionality of 'that which is being designed' is usually known in advance. It calls into question the validity of a traditional approach when trying to design 'sufficiently advanced technology'. In this paper we present our process and the theoretical scaffold that supports our underlying thinking. Our field of concerns includes enchantment and ambiguity as resources for design, encouraging 'magical thinking' and 'making strange'.

Author Keywords

Making strange, magical thinking, participatory design, body worn devices, enchantment, ambiguity, body objects, sculptural process, desires.

ACM Classification Keywords

H5.2 Information interfaces and presentation: User Interfaces: User-centred design and Prototyping

INTRODUCTION

The OWL project emerged out of a desire to discover what might happen if we let people use their embodied experience and imagination to assist us in the creation of unknown technologies. We hoped that doing so would allow us to leapfrog ordinarily incremental technology development and propose speculative devices that suggest large technology shifts. Thinking in terms of scenarios of use makes it difficult to make radical conceptual leaps. We ask if Clarke's rule holds an important key. Might magic and desire facilitate such leaps? (Clarke, 1984).

Instead of beginning with a design brief or a particular set of technologies, we created a small series of upholstered fabric dummies that could operate like 'placebos' (Dunne

& Raby, 2002). These objects were designed to be worn on the body in such a way that they would challenge the wearer and might provoke or support a strong emotional reaction. The objects are exposed and evaluated through a fitting and interviewing process that is designed to encourage and record elements of lateral thinking and subconscious associations, as well as to support a shift in focus from internal responses through to shared reflections and outward representation. This process takes it's origin in the "cultural probes" (Gaver et al., 1999). Our aim is not just to collect inspirational data, but rather in keeping with the methodologically subversive nature of the original probes (Boehner et al., 2007), to allow that data to guide the project. We will pay very careful attention to the process itself as we attempt the move across methodologies from probe to placebo, from embodied experience to technology brief.

By beginning (and staying) with the body rather than with a technological brief we are essentially 'designing backwards'. We imagine the process as if we are carefully turning the habitual relationship to the body and the clothed body, and in turn the design process in relation to the clothed and technologised body, inside out.

PLACEBOS

Like medical placebos, design placebos can be created to shift the way that people think about a situation. Rather than altering reality in any scientifically tangible way, they provide psychological comfort as people develop narratives that explain how their world is different as a direct result of what the placebo is imagined to be doing. Design placebos must be open ended enough to prompt stories but not so open as to bewilder (Dunne & Raby, 2002). They need to engage users in questioning what they do and how they might do it. Like Dunne and Raby, we are not interested in eliciting truths with our OWL placebos; rather we are interested in the narratives that people develop to explain and relate to them, and to the notion of augmenting our physicality through the addition of a technologically enhanced body-worn device. The aim is to encourage the willing suspension of disbelief and to engage people in the active re-imagination of the world. To do this we draw inspiration from the concepts of enchantment, 'magical thinking' and 'making strange'.

MAKING ENCHANTMENT

Bennett describes enchantment as being ''both caught up and carried away'' (Bennett, 2001). According to McCarthy "when it comes to experiences such as enchantment feelings are as important as thoughts, sensation is as important as cognition, and emotional consciousness is as important as will" (McCarthy et al., 2006). This suggests that engaging through the body

Figure 1 : The OWL body devices: (*l-r*) *wingpad, hand, armpit, heel, uterus* and *the owl*.

rather than the intellect, is a valid pathway for enchantment. He also says that the depth in a system or object allows it to contain within itself the possibility for complex, layered interpretation that may surprise the interpreter and allow traditionally separate categories of experience to live together in a creative response to new technologies. McCarthy argues that it is this depth that supports enchantment in human-computer interaction. We propose substituting conceptual openness for McCarthy's concept of depth. In doing so we hope to discover an emptiness that allows space for emotional responses. Enchantment engages directly with paradox and ambiguity, and ambiguity in turn leaves space for meaning-making (Gaver et al., 2003). By designing objects with an openly ambiguous core we are dependant on enchantment to allow people to fill that space.

MAGICAL THINKING AND MAKING STRANGE

'Magical thinking' can be described as basic misinterpretation of the causal relationships between emotions and desires, words and actions, and finally objects and people. According to Frazer it depends on two laws: The law of similarity where the effect resembles its cause and the law of contagion, where things which were once in physical contact maintain a connection even after physical contact has been broken, as in voodoo (Frazer, 1911-1915). The basic premise is that "like affects like," or that one can impart characteristics of one similar object to another. Malinowski discusses a type of magical thinking in which words and sounds are thought to have the ability to directly affect the world (Malinowski, 1960). To declare something, under particular circumstances makes it true. Finally, in psychology children are often described as making direct connections between their inner states and the outside world. "It is raining because I am sad" (Glucklich, 1997). This type of thinking in adults is linked to delusion and paranoid tendencies.

Holmquist makes the case that certain design practices actively create "cargo cults" – elaborate instances of magical thinking (Holmquist, 2005). The OWL project is attempting to deliberately engage that type of process in order to ascertain new, out of the ordinary interpretations of body worn technological devices. The process of investigating the devices leans directly on the technique of 'making strange' or defamiliarisation, the artistic technique of forcing the audience to see common things in an unfamiliar or strange way, in order to enhance perception of the familiar (Shklovsky, 1965). A key concept of Russian Formalism, 'making strange' has been used as a basic strategy in artistic expression (Danto, 1981) and is a basic satirical tactic and a central concept of both Surrealism and Dada. It is centered on the idea that the act of experiencing something occurs in the moment of perception and that the further you confuse or otherwise prolong the moment of arriving at an understanding, the deeper or more detailed that understanding will be. It is epitomized in the surrealist slogan of "making the ordinary extra ordinary" (Lefebvre, 1991).

PROCESS AND MAKING

The first stage of the OWL project, the creation of body worn devices, was a sculptural process to create distinct, carefully executed and provoking objects. The objects were intended to be surreal in the sense that they both engage and confuse the expectations of the wearer. They were purposely designed to encourage a state of enchantment and wonder, to allow the subject to transcend the everyday and reach for new possible meanings. This was done by allowing an empty space where normally a ready-made experience narrative would reside. We achieved this by engaging in an intuitive process led by, and engaged in through the body (for more on this see Wilde & Andersen, 2009).

The Devices

The final outcomes were six body-devices that can be described, and paired as follows:

> *Wingpad* and *hand* both give and make pressure, pressing from and towards the body. They represent the breadth of the investigation, from the core to the periphery. It is a gentle beginning as both the back and the hand are normally exposed and touched by others in the normal course of affairs.

> *Armpit* and *heel* both destabilise the wearer, literally, as they shift the body's axis off centre. These two devices are slightly more invasive than *wingpad* and *hand* as they alter the posture of the wearer and bring attention to notions of comfort and discomfort as well as thresholds and intimacy.

> Finally, *uterus* and *the owl* are body mutations that extend and distort while hugging the body in unconventional ways. *Uterus* is a kind of extended padding for the upper back and neck that has mutated beyond what one would normally engage with. *The owl* places an unexpected pressure on the side of the neck and can appear, and be perceived from both without and within, as a kind of growth almost independent of the body, yet whose roots seem to be embedded through the shoulder into the torso.

The pairs of devices are incrementally stranger in the way they relate to and sit on the body. They are made of

soft, neutral-coloured linen with elastic and lingerie attachments that are at once banalised by their use and somehow intimate-making through reference and recontextualisation. Crawford's conflation of defamiliarisation and *différance* (the French term relating both to differing and deferring in English) is useful to explain this (Crawford, 1984). The idea is to at once alter the perception of a concept (to defer), and force one to think about the concept in different terms (to differ). The OWL devices were made to "turn" people's attention to the body in these ways, shifting the quality of their attention and offering new perspectives (Shklovsky, 1965). The devices are a clear attempt to bring awareness and articulation closer to 'magical thinking'.

Investigating through interview and probes
The interview process is formalized in order to highlight the ambiguous nature of what we are requesting, as well as of the devices themselves. At the same time it remains open, to shift in response to participants reactions and needs. The aim is to create an emergent, imaginative space where people will both discover and articulate what each body-device is. We ask simple questions like: How does it feel? What is it? What does it do? We attempt a shift from the banality of everyday to a more fantastical mindset where our subjects can give themselves extra ordinary powers in response to what they imagine the body-devices might allow them to do.

Desire
We introduce a second element to the interview process, a series of paper strips each with the name of a basic human desire and it's associated need. Reiss proposes that human behaviour is guided by a limited number of basic desires. (Reiss, 2000) These sets of motivations read as a surprising shorthand of a complex emotional field and as such provide the OWL project with a useful list of "words" to relate the OWL devices to. The desires are used to 'seed' the interpretations of the devices. They slow down the process of experience and speed up the lingual labeling during the probing process.

The interview structure
To conduct the interview a table is laid out with the 16 desires, blank forms and a pen. Making sure the test subject is comfortable, the interviewer explains to them that the intention of the project is to 'design backwards', to discover what things do starting from within an embodied experience, and to encourage magical thinking. A short overview of the interview process is then given:

> There are 6 devices. They are tried on one at a time. The interviewer and test subject discuss what it feels like to wear each device before moving on to the next one. The aim is for this conversation to extend beyond a simple answer, allowing the test subject to discover deeper responses as they deepen their relationship to the object.

> The participant sits, and writes down their thoughts, answering the questions: *What is it called?* and *What does it do?*

They then associate one or more desires with the object. This does not have to be coherent with the other comments or responses, rather we are looking for associations between the objects and the desires.

A self-portrait is composed and taken with each of the objects. The participant chooses the pose and framing, verifying the shot on the camera to confirm that the image is appropriate.

A research consent form is signed indicating that we can use the material provided, noting that the interview can be stopped at any time and permission can be withdrawn up until the point of publication.

Self-portraits
The self-portraits are posed and framed by the test subjects to create an image for each body worn device. To date, most test subjects have thought deeply about what would be appropriate for each portrait, at the same time as being relaxed and enjoying the task. The role of the portraits is to allow another form of expression for subjects' responses to the body-devices. It also encourages ownership of the emergent relationships as, rather than the focus being inwards towards the device, the body and internal responses, the portraits bring the focus outwards to a physical and visually representational space and the gaze of the other. The test subjects' control of their representation gives them both ownership and responsibility for it.

RESULTS AND ANALYSIS
The interview process is still in progress. To date seven people have been interviewed and there have been striking inconsistencies in peoples' responses. For example, some devices were experienced in a positive way by some, and negatively by others. In the case of *the owl*, this is particularly evident. Test subjects 01, 02, 03 and 06 are quite positive about *the owl* but subject 07 stopped the interview after wearing it for only minutes saying "get it off me (…) It's over." then declined to do the portraits. In cases like this we are considering if the strength of the emotional response, both positive and negative in itself offers insights to the objects. There were also contradictory ways of thinking about the relationship between what a test subject wrote and the desire they matched with the object, suggesting a complex, shifting, at times binary, relationship to this task. Surprisingly, perhaps, only one of the test subjects complained about the reductionist nature of the desires.

In relation to 'magical thinking', some of the responses to "what is it called?" and "what does it do?" are pedestrian, others more fantastical. The tendency though seems to be for people to think beyond the banal, the everyday, suggesting that our devices and process support magical, imaginative thinking. The devices also clearly bring the attention to the body, though this is hardly surprising as each object is tightly coupled with the body and we are asking people to place their attention on the object and it's relationship to their physicality. Further investigation is needed to understand if it would be the case over time, without directed engagement.

An initial question was how people might imagine through the body in movement. The tendency seems to be to imagine the body in a dynamic situation, or one that occurs over time. It could be of interest to pursue a deeper investigation of the quality of this dynamic space but for the moment, we prefer to leave this question open. What is clear so far, is that wearing the objects, in the context of the interviews "brings calmness into being through the gentle feel of the object and the visual and aural quietness of the interaction" as the demeanor of each of the test subjects is thus changed. This clearly demonstrates McCarthy's assertion that "enchantment is not even imaginable without the acute sensory activity that notices the sensuousness of every thing" (McCarthy et al., 2006). The test subjects were enchanted, experientially, through their bodies in a dynamic process. This sensuousness appears to be achieved in the full combination of the interview format and the poetics and craftsmanship of the objects themselves.

CONCLUSIONS

Our intention with the OWL project was to begin with devices that complete and are completed by the body, to arrive at a space that invites contemplation about that body in turn. Working from this premise, with a contemplative and open relationship to the body, we have ended up with objects that invite the same, from the other direction, from the people who are experiencing the objects as they wear them. The entire process seems to mediate a reflective space as it frames it. The objects are evocative, and the interview format seems to slow down the moment of perception, 'making strange' that moment of considering an object as a worn presence within each personal space. As makers there is something inherently pleasurable about not telling people what something does but rather asking and discovering the answers through them. It affords a shared reflection that seems to create complex and interesting results.

It is too early for us to draw conclusions about whether or not we are creating a process for the emergence of 'sufficiently advanced technology', but there are clear indications that we have created a system for engaging users in strongly engaged moments of co-creation and collaborative imagining of that which does not yet exist. Our desire for our body-worn devices is to fill the void of their functionality, but to fill it with magic.

FUTURE DIRECTIONS

The OWL project is planned to continue through two more stages of development: re-creation as technologically enhanced placebos and testing as complete devices. We expect some devices to be relatively straight-forward and others harder to pin down and more esoteric. This ongoing investigation is informed by the following questions: Do the objects have personalities/personas? How can we support this? To what extent is this persona achievable through technological solutions? How can we successfully support the experience of a technology that does not exist, to the point where we can evaluate and develop it? Throughout we intend to maintain focus on the notion of encouraging and supporting magical thinking.

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