Reflective Informational Displays: The Smoking Jacket and The Malignant Mole Bikini

Fiona Carswell

Fiona@fionacarswell.com
San Francisco, CA

Abstract: Behavioral choices which have a negative connotation in society, e.g. smoking and tanning, can be difficult to design around, due to the complex and contradictory emotions behind making those choices. For example, people who tan may struggle with the desire to appear ‘healthy’ with a tan, yet they also are aware of how unhealthy it is. This paper explores using humor and reflective design to create an atmosphere of self-estrangement in which people might be able to realize the contradictory nature of the behavior in which they are choosing to engage. Two explorative design prototypes are discussed and tested: The Malignant Mole Bikini, a bikini which ‘grows’ moles after exposure to UV light, and The Smoking Jacket, a jacket with exposed lungs that fill with smoke as a smoker exhales.

Key words: Visceral informational displays, emotional design, data visualization, behavioral choices, wearable technology.

1. Introduction

Recently, a line of bikinis with UV-detecting LCD screens sewn into them came onto the market. Presumably the scenario for use is this: a woman settles comfortably into her beach chair. When she remembers, she checks the numerical display on her bikini. Then she refers to an included chart to help her translate what those numbers mean in relation to her body.

There are some major questions that arise from this scenario. First of all, the dry, numerical display makes no direct reference to the specific health effects of the behavior of tanning. It also does not address the internal conflicts a user might feel while engaging in an activity that she knows is unhealthy. For example, what if the wearer of the bikini chose to go to a tanning bed? Would she be aware of what exactly the LCD numbers were telling her? Would she care?

The UV-detecting bikinis also make no acknowledgement of the internal dilemma resulting from the social pressure to be tan, yet healthy, at the same time. Instead the UV detecting bikinis emphasize a dry, straightforward usability.
2. Behavioral Choices

While interviewing people about their experiences with behavioral choices which are widely known to have bad health effects, I received many private, embarrassed admissions. With the present-day dissemination of health information, people cannot claim ignorance about the direct, unhealthy physical results of their choices.

If they are choosing to engage in this behavior, and they are already aware of the negative impacts of their choice, the question is: is there an effective method to create awareness of motivations on a deeper level, to cause people to realize the dichotomy between their immediate desires and their future goals.

3. Body in Flux

A few years ago, I created a series of wearable moles, birthmarks, and scars that users pin onto their clothing. My intention with the wearable body marks was to provide adornment that directly references the wearer’s own physical identity, thereby expressing the wearer’s uniqueness.

An interesting result of this project was that, out of all the cloth body marks, the scars provoked the strongest emotional response. Where birthmarks and moles are about a static identity, scars speak to a dynamic flux and the role we play in the shaping of our own physical identities. They speak about the body’s temporal state. The result is self-reflection and self-identification: the idea of “who I am” as defined by my passage-of-time markings.

In her paper, *Wearable Body Organs*, Kelly Dobson supports the idea of reflection resulting from awareness of change, and says that “self-estrangement comes with perceiving one’s self as a tenuous set of connecting parts in constant flux, as always multiply interpretable and never fully definable…”. [1] She describes self-estrangement here as leading to a place ‘of active engagement and exploration, of risk and liability.’ [1]

4. Initial Ideas

To test possible ways to create this self-estrangement arising from flux, I developed two ideas: The Malignant Mole Bikini, a bikini which ‘grows’ moles after exposure to UV light, and The Smoking Jacket, which displays a pair of lungs on the front that fill up with smoke and darken while the wearer smokes.

My first idea, The Malignant Mole Bikini, was presented to the public as a conceptual piece. Interestingly, people asked me why would anyone want to wear it, yet at the same time everyone admitted that they would want to wear it. Even in conceptual mode, it was starting to create an atmosphere where people could recognize a dichotomy between wanting to appear attractive, but also wanting to advertise one’s informed awareness of health matters.

My second concept, The Smoking Jacket, was in a similar vein as the Malignant Mole Bikini, but I took this to prototype form in order to test what people would experience while wearing one of these pieces.
5. First Prototype: Not Enough User Control

In Exploring Design Through Wearable Computing Artifacts, Garabet, Mann, and Fung, discovered through experimentation that the less control the wearer appeared to have over a device, the more acceptable the design was to others. [2] My goal with the prototypes was to discover where the line was for the design to be acceptable.

The first prototype included a cigarette trigger pocket. When the cigarette was removed, the pocket triggered a mini fan at the collar, which drew in smoke exhaled from the wearer’s mouth. Unfortunately the fan did not pull in enough smoke to make the lungs appear smoky. It also dictated the behavior of the smoker too much by requiring the wearer to keep cigarettes in a cigarette pocket. And finally, people expressed a complaint that the fan prototype was too authoritative. It lost its comic appeal because the user is not consciously causing the smoke to go into the lungs.

6. Next Prototype: Too Much User Control

My next prototype was a non-authoritative approach which required direct user-input to function. I created a series of inflatable, leak-proof plastic lungs, experimenting with different snap closures to encase the smoke. [Fig 2]

The smoke circled around this prototype successfully; however, it was very difficult to see. Secondly, while the user actively held it open and blew into it, onlookers became nervous and uncomfortable, including some nearby security guards. Presumably they interpreted the device as drug paraphernalia. In direct reference to Garabet, Mann and Fung’s findings, the prototype with the most amount of user control turned out to be the least accepted by onlookers.

For the latest prototype, I struck a balance between too authoritative and not authoritative enough by designing it around a social protocol: when smokers are around other people, they often make the polite gesture of turning their face to the side in order not to blow cigarette smoke towards other people.

The prototype contains a one-way air valve in the oversized collar, which channels the smoke through a series of tubes into the lungs at the front of the jacket. Inside the lungs are air-filters embroidered with a simplified image of bronchial tubes. The embroidery serves not only to make the lungs recognizable, but also to make the smoke more visible. When smoke enters the lungs it makes the embroidery less visible, thereby taking away from some of the “fashionableness” of the jacket. While the smoke circling around the lungs is the immediate result of smoking, the air-filters darkening over time show the long-term effects of the behavioral choice.

8. User Reactions

In the latest version of the Smoking Jacket, the immediate feedback of the smoke circling around the lungs was not as visible as I had hoped, due probably to the difficulty of making the lungs airtight and the condensation from warm breath. However, I did get some interesting feedback from users. People said that they would never wear it by themselves; however, they would definitely wear it in a group, to see other people’s reactions and to talk about it.

People also said that it felt rebellious and that it seemed to be making a statement. They said it was “saying something even if the user was not blowing smoke into it.” One user actually did not want to take the jacket off when she stopped smoking: she wore it inside, in the elevator, and around the floor, in order to see reactions from people. The users seemed to feel almost a sense of bravado, as if they were identifying with the message of the lungs to the point of feeling pride in the jacket.

However, when part of the lungs began to darken into an unpleasant yellow color, after repeated exposure to the small amount of cigarette smoke coming into them, I observed a slight change in attitude from the wearers. When the stain became noticeable, observers on the street began to comment negatively on the appearance of the
lung’s yellow stain, laughing and saying it was “gross”. [Fig 3] At this point, a user stated that he felt a change in his relationship with the jacket. Where he had previously been identifying with the lungs, now he was finding it difficult to reconcile identifying with something that people around him were labeling as ‘gross’.

Where the immediate feedback of the visualization of smoke circling around the lungs didn’t appear to have much effect in terms of self-estrangement, the temporal aspect of negative effects showing up over time appeared to cause a disconnect in the relationship between the user and the jacket. As Redström, Skog and Hallnäs point out in Informative Art: Using Amplified Artworks as Information Displays, “if an object of informative art should be of some interest as an object of reflection it can not be too fast and immediate. There must be something to reflect on, something to understand that has an interest in its own right.” [3]

9. Conclusion

In conclusion, it appears that self-estrangement can be achieved through creating an atmosphere where the users becomes slowly aware of the temporal aspect of their body. In other words, when the users viscerally see their bodies as being in a state of flux, directly affected by the choices they are making, they can find themselves in a position of self-reflection.

10. References and Citations

