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CART 360 – CRITICAL REFLECTIONS

Our symbiotic Life: an exploration of interspecies relations.

By Katja Budinger and Frank Heidmann.

Katja Budinger and Frank Heidmann write an interesting report on their project investigating projections of the evolution of the relationship between human and plant life, what they call "wicked problems" or problems that are "highly complex, contradictory and hard to solve". They propose four scnenarios which interesting interpretations of how humans, plants and technology might interact together as a system in the future. Their goal is to extend the possibility space for the future, rather than relying on commonly proposed narratives. They intend to achieve that by proposing different scenarios that make particular assumptions in order to investigate the reach of certain social trends. Their final production include various low-fidelity prototypes of speculative aspects of life, a leap-of-faith approach towards experiencing possible futures which challenges what they essentially describe as socially accepted one-track projections of the future. That is the nature of the field of design fiction, which is based on an assumption that fictions can be understood as "possible worlds" (1).

The scenarios proposed sometimes feel far removed from current reality, such as the evolutionary duel between plant life and robotics. The assumptions which Budinger and Heidmann explore are nonetheless based on extensive research surrounding plant life and intelligence, such as the article by Gagliano, Renton, Depczynski and Mancuso (2) which explores plants' ability to memorize, learn and adapt in situations of need. This is complex and specialized information however, which is the very source of the stigma which makes deriving possible futures from them something inconsiderable for most people. It is in these situations that the field of design fiction shines the most in its ability to introduce topics in a believable and relatable fashion, and Budinger and Heidmann's approach is most successful is this. The authors showcase sculptures, acted scenes, phone applications, fictional news articles to place the observer in context.

While one can find ties between Budinger and Heidmann's storytelling and elements of existing research, it could be argued that these are investigations that pertain to specific areas of life and can't necessarily be extended with certitude into the future. That is in part why the two authors propose a number of different scenarios. However, it often remains unclear to the reader which elements are pure fiction and which are based on widely accepted research, or if any of them are. While it is certainly part of the intended effect of the reading and the prototypes focus on the experiential and move away from the details that complicate the perception of issues such as climate change, it could be said that the text itself would garner more strength by including a more thorough run-down of what their speculations are based on. In thinking specifically about the scenario proposing moving gardens, it is easy to accept the notion that humans could use technology to regain their relationship with

nature within urban centers but aside from that, the practical purpose of combining gardens with transport technology is unclear, and questions regarding energy efficiency and plausibility arise rather quickly. Clearly Budinger and Heidmann want to put these questions aside by entering the context of fiction, but in this case it is debatable whether or not this truely empowers the narrative. As mentionned in an article by E. Huang and C. Remy, concepts dealing with a future in which the present that we know collapses "seem to be hard to realize in the immediate future, especially because they do not align well with industry's interest."

In each scenario, the authors are trying to communicate a clear sentiment about the shared socioeconomic pathways which they explore. Criticisms of current attitudes and trends stand out as being the most effective aspect of this paper, such as the depiction of media-fueled craze for autodidactic learning to frivolous ends, the displaying of one's care for nature as a status symbol, the treatment of nature as an immuable system, etc. These criticism are what gives this project most of its strength, by attempting to show what the future might hold if particular problems aren't solved and are allowed to develop to extremes over time.

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Sensing is Believing: What People Think Biosensors Can Reveal About Thoughts and Feelings

by Nick Merrill, John Chuang and Coye Cheshire

Nick Merril, John Chuang and Coye Cheshire write an interesting article about their research surrounding public perception of biosensors and how this perception affects both the design and reception of new technologies employing these sensors. By surveying various populations, they aim to uncover differences between the perception of what sensors can tell about human behaviour and emotion, and the actual observational results these technologies can provide today. They further their investigation by looking into how people might formulate judgements about technology, given what they might or might not know about it. Their ultimate goal is to bridge the divide between designers and users by investigating misconceptions embedded in public perception of biosensors and revealing the most problematic aspects of this difference in point of view. While their conclusions are thought-provoking, the actual scope of the research is thin for what the authors are trying to bring to light.

While one of the stated goals of the study is get a broad view of public perception of biosensing, some aspects of the research's design produce a tighter scope than what is initially described. Only three out of the twelve sensors subject to a more depth of investigation by asking participants to share their thoughts. The rest of the sensors were given a quantitative rating between 0 and 9, preventing any kind of nuanced response or explanation, which is contrived way of analyzing belief.

The sample populations chosen are Mechanical Turk workers and participants from another study who provide data from their self-tracking devices to help with health-related science. Both population samples consciously engage with data collection and analysis on a regular basis, so it is hard to tell if they represent the opinion of people at large, or even of different backgrounds. Furthermore, the chosen sample populations are rather small, which indicates that the data obtained could still be refined further by a more extensive survey – and it could possibly change. Many of the different biosensors displayed on in figure 1 received responses that were similar to others, and the difference between the perception of each of them could be made more clear through further investigation.

There are interesting points made about the importance of the collective imaginary in influencing how people might perceive technologies. The authors single out the body as being the archetypal reference for a user who doesn't know the behaviour or outcome of a particular biosensor he is using. Sensors pertaining heart rate, to facial expression and body language, brainwaves and eye motion seem to suggest a greater potential to "read"

what a human is thinking despite how little interpretable data they actually provide. Technologies that don't appear to deal to relate directly to bodily functions such as heart beat or emotions are thought to provide less of a pathway towards understanding a user's thoughts, while in reality mobile technologies have for example the potential to help detect symptoms of bipolar disorder, anxiety and autism. (1)

The article concludes by going over the "broader impact" of the findings, noting that designers must beware of what is seemingly creepy, and that users must beware of what is seemingly innocent. It would be interesting to observe what the results of this survey would be like if it was to be taken again just a few years from now. Some of the technologies mentionned, including VR which was among those subject to a more in depth investigation, could become increasingly more widespread and in turn more accurately understood by the general public. With the general public becoming increasingly aware of the omnipresence of data collection, technologies such as the Oculus might have to adapt the manner in which they inform the public about their activities below the surface of their product (2). It might be interesting to see how people's perception adapts to some of the sensor technologies in this study which are either new or not yet ubiquitous. It could be worth reviewing how certain questions are asked as well, as this is barely described in the article and other authors tend to describe current attitudes towards use of sensors quite differently, such as D. Nafus' account of people who "have begun to track movements, activities, emotions and attitudes in a quest to gain more intimate knowledge about themselves." (3) This article by Merril, Chuang and Cheshire is an read that leads to many interesting thoughts and conclusions, but which could have been better supported by widening the sample population or the scope of research.

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