Critical Reflection 01

Our Symbiotic Life: An Exploration of Interspecies Relations

By: Maxime Gordon

In *Our Symbiotic Life: An Exploration of Interspecies Relations* Katja Budinger and Frank Heidmann provide a good roadmap for how to generate research on human and plant relationships mediated through technology in a world threatened by climate change. The paper showcases 4 plausible futures created for the purpose of better understanding human-nature relationships and explores how we might design tools for collaborating with nature in a world where climate change threatens the wellbeing of human and non-human life. While Budinger and Heidmann are successful in describing ways of generating research through creating plausible futures and using prototypes they don't discuss which plausible future they would ideally like to see happen as well as what type of relationship with plants they would ideally wish to design for. Furthermore, while the writers express some political views, they never outrightly declare their political stance as it relates to climate change. These omissions are important to point out because as Mitrović et al point out speculative design research should generate action in the real world:

> *the fundamental challenge of speculative design, particularly in the field of education, is how to achieve a successful process that entails a shift from traditional design practice, through adopting critical approaches (via methods and tools), to generating action in the real world (*Mitrović et al., 2021, 208)

Budinger and Heidmann are aware that their research "will not solve the problem of dealing with climate change" but "will introduce a way to approach this highly complex topic and to humanize it" (Budinger and Heidmann 2019, 1350) but this statement is oddly apolitical and in a time that requires researchers and designers to not only speculate but also act to combat climate change perhaps 'humanizing' climate change isn't enough.

When comparing Budinger and Heidmann's research to that of other contemporary environmentally concerned designers we see a stark contrast in both framework and output. In the paper *Design for Collaborative Survival: An Inquiry into Human-Fungi Relationships* by Liu et al. the researchers make clear that their design is focused on creating 'preferable futures' (Liui et al. 2018, 1), investigating "design strategies to support multispecies resilience" (Liu et al. 2018, 1) and that they believe "humans have ethical obligations in our relationships with other animals and nonhumans" (Liu et al. 2018, 2). This is a clear political and ideological framework

that guides the form and design of Liu et al.'s built prototypes and artifacts but this is lacking in Budinger's and Heidmann's research. Budinger's and Heidmann wish for their framework to encourage people to reflect on "recent values and developments" and posit that their framework "may even hint at ways to achieve or to avoid a certain scenario" (Budinger and Heidmann 2019, 1360). They keep their research more open to allow for peoples 'different perspectives' (Budinger and Heidmann 2019, 1360) but by being so open they miss out on creating critical and impactful work which undermines their initial proposal of wanting people to think "critically on current developments" (Budinger and Heidmann 2019, 1360) to do with climate change.

Our Symbiotic Life ultimately describes how one might use plausible futures combined with low fidelity prototyping to better understand complex topics such as climate change and expose ways that humans do and might one day interact with nature. While it is successful in describing this type of research framework it fails to address how this generated research might create a tangible action or impact to the climate change situation nor do the researchers give a strong case for what they would like to see happen in the future. The climate crisis is worsening at an alarming rate (United Nations, 2020) and thus it is important for designers to respond to this urgency and focus on promoting action through their design and research. Indeed, Mitrović et al argue that "We need urgent action to start dealing with everyday issues such as the climate crisis" (Mitrović et al 2021, 205) but Budinger's and Heidmann miss out on this urgency entirely by creating a design framework that values a vague desire for inclusion of multiple perspectives more than one of critical action. It is hard to agree that multiple perspectives on the climate issue are valuable at this point in time, but if Budinger and Heidmann insist on this they should also insist that these perspectives be harnessed for meaningful real-world action.

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Critical Reflection 02

Exploring the Design Space of InterActive Urban Environments

By: Maxime Gordon

The problem of declining public health caused by physical inactivity is a pressing global issue with researchers calling physical inactivity: “one of the most important public health problems of the 21st century” (Blair, 2009) and even “a global pandemic” (Chastin et al). In the research paper *Exploring the Design Space of InterActive Urban Environments* Renswouw et. al approach this problem through the lens of urban design and respond to this crisis through the exploration of technologically mediated urban environments they call ‘interActive’ environments. Renswouw et. al claim that these environments promote physical activity and can be better designed to help combat the issue of physical inactivity. Through researching already existing interActive environments, sketching and design explorations, and the creation of prototyped design cases Renswouw et. al expose ways in which interActive environments can be designed to better promote physical activity as well as key concepts to consider when designing these environments. While Renswouw et. al. make a strong case for the potential for innovative design spaces to encourage physical activity via the use of embedded technology in urban environments, the article omits any discussion of how these sketches would navigate or attend to pre-existing class structure, particularly as it manifests in urban design. It also excludes any discussion of how embedded technology which relies on personal property such as a cellphone precludes the participation of impoverished people in - who are disproportionately sick - in these sketches. While the paper succinctly offers methods and insights into designing better interActive environments, by not delving into the reasons why people are inactive in the first place, or looking at the needs of specific communities, it overlooks a key part of the problem space of their research.

In Canada and other countries there are guidelines for daily physical activity but these guidelines often don’t take into consideration people of low income status as Greg Basky for CMAJ (Canadian Medical Association Journal) News reports, “Policy experts and physicians who serve low-income communities say physical activity guidelines lack relevance for the 3.5 million Canadians living in poverty” (Basky, 2020) The report goes on to say that these guidelines lack relevance because ‘poverty is a major barrier to physical activity”(Basky, 2020). This is the case for a variety of reasons tied to income including walkability of a person’s neighborhood as well as how much free time a person has. Just as the Canadian government’s physical activity guidelines don’t address economic factors that contribute to physical activity,

Renswouw et a.l's design strategies and research don't either. When considering their research goals and output this is very problematic because Renswouw et al. claim that they want to help combat the broad issue of physical inactivity but in overlooking the group of people in the most need of becoming physically active can their research really be that impactful?

In the 'design cases' section of their paper Renswouw et al. explain that for the purposes of this pictorial they will not include much detail of user findings from use of their design prototypes. By purposefully excluding more information on users this paints them as unimportant and generic figures. Comparing this to the work of a community driven design organization this choice would seem quite detrimental to Renswouw et a.l's research. Kounkuey Design Initiative (KDI) is a non-profit organization that creates design and urban planning projects to help underserved populations. KDI stresses that they work 'with not for' residents in specific communities as they believe:

> *participation is key to equitable and sustainable development. Those experiencing the complexities of poverty and inequity not only deserve a say in decisions that affect them, but also have the most sophisticated understanding of what they need and why*
> (Kounkuey, no date)

Kounkuey's work has been widely recognized for the impact it's had on communities and seems to be following a trend of 'co-design' that values people that are non-designers and directly impacted by design as integral parts of the design process.

Renswouw et al.'s research does not mention the societal contexts in which their interActive environments were built nor do they highlight the experiences of different types of users in these environments. By not acknowledging economic impact on physical activity as well as community context Renswouw et al.'s research can't possibly impact the part of the population that needs it the most.

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