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Making Design More Responsible

The complexities of our modern world have made design increasingly difficult, and it is getting harder and harder to create responsible design. We often create products that have negative consequences, and whether those were intentional or not, design is often still to blame. This needs to change; design needs to become more responsible. I present three recommendations for creating better designers; 1) slow down the process, 2) practice craftmanship, and 3) incorporate theory into the practice. Additionally, required continuing education training could be incredibly beneficial to the field of design. It would train professional designers on an annual basis so that everyone would be up to date and have more experience analyzing the ethics of design. This system would also hopefully increase the diversity of design, which could have a further benefit to the field.

I've recently been toying around with the idea of responsibility; who is responsible for the results of the technology that we create? Is it the developer, the designers, the company executives? I believe that all of these individuals have significant impact and should take on some responsibility, but for this paper I am going to discuss design. I aim to identify areas that will improve the responsibility of design as a field and propose some solutions that I believe will provide long-term good.

Design is Hard

There is no denying that our modern world has made the discipline of design increasingly difficult. Wicked problems - problems that seem to have no single solution and, due to incomplete and contradictory requirements, often lead to further problems - are becoming more prevalent in the complex world that we live in (Rittel & Webber, 1973). When attempting to design a solution for a wicked and/or complicated problem, designers must dive deep to fully understand the complex relationships and sub-issues or else their solution will have unintended consequences, which could be bad for society. From my experience it seems like many practitioners are not doing design "well." I worked as a designer in the tech industry for a few years before returning to school and I constantly saw people making decisions based on insufficient information. I will admit that I have been guilty of this. Being in this program has made me reflect on my previous work and I am beginning to see where I went wrong and what I might do in the future to improve my process. I am seeing how much impact designers and the products that we create can have on society, so my goal is to explore what we

can do to ensure that design becomes a more responsible field.

First, let's start with an overview on why design is so difficult. According to Alexander, functional problems are constantly becoming more difficult, but our ability to solve them is not keeping up. Sometimes "when a designer does not understand a problem clearly enough to find the order it really calls for, he falls back on some arbitrarily chosen formal order. The problem, because of its complexity, remains unsolved." (Alexander, 1964, p 1). Design "problems" used to be much simpler and addressing the complexity of our modern world requires critical thinking. Designers must be able to predict the effects of their designs, but

"the fundamental problem is that designers are obliged to use current information to predict a future state that will not come about unless their predictions are correct. The final outcome of a design has to be assumed before the means of achieving it can be explored: the designers have to work backwards" (Jones, 2014, p 9-10).

We will never know if our designs are successful until after the fact, so we must rely on an educated decision-making process.

What happens when we create bad design? It can actually have pretty disastrous effects. Rarely are problems caused by human error, usually they are the result of bad design. Don Norman has been writing about the relationship

between human error and design for over 30 years and he has said that "to me, the most frustrating aspect of these errors is that they result from poor design. Incompetent design. Worse, for decades we have known how proper, human-centered design can prevent them." (Norman, 2018). While many errors only have limited impact on our lives, some can be life and death. Recently the Journal of American Medical Association found that automated medication dissemination machines err up to 80% of the time and researchers have identified 22 specific errors that can cause patients to get the wrong medicine (Ross, 2015). Irresponsible design can be life and death, so we need to make sure that we do all we can to be better, more accountable designers.

What Makes a "Good" Designer

Knowing that the process is imprecise and that we must use current rather than future knowledge to design for the future, what are we to do? As I mentioned earlier, I believe that a huge aspect of success in design boils down to the decision-making process. Archer argues that designers must use tactics such as rank-ordering to prioritize design activity and that this skill is what sets them apart. Without the ability to prioritize items based on a strong theoretical or evidentiary backing, designers might pick at random or without fully considering the impact and

consequences of their decisions. It takes skills, education, and experience to have a deep and complex understanding of decision making and making the wrong choice can have adverse impacts.

I have started to think that there are 3 things that we could do to create better designers; 1) slow the process down, 2) practice craftsmanship, and 3) incorporate theory into our practice.

We Need to Slow Down

We are moving and creating too fast, often to the detriment of fully understanding our impact. Up until a couple of years ago, Facebook used the motto "move fast and break things." During the Cambridge Analytica fallout, Mark Zuckerberg finally admitted that Facebook did not do enough to predict and prevent this type of nefarious behavior (Pierson, 2018). The impact of social media spans much further than large-scale data scandals, research is starting to discover the psychological and developmental implications of social media use. Social media has been found to be addictive (Kuss & Griffiths, 2011; Reed, 2017) and its use can have negative impacts on our mental state. Young adults with increased social media usage feel more isolated than their peers (Primack, 2017) and Facebook predicts negative shifts in how people feel, both in the moment and how satisfied they are with their lives (Kross, 2013). These

examples show that fast moving companies can easily create unintended wicked problems and significant work will be required to fix these issues.

How might slowing down help? Many complex systems we now view as successful often took decades to implement (Norman & Stappers, 2015). The systems were divided into smaller self-contained components which could be understood and dealt with sequentially. The designs of nature and craftsmen worked for hundreds and thousands of years. Changes were slowly implemented, directly addressing feedback and incorporating it into the design. Craftsmen used a slow trial-and-error process for centuries and each failure and success modified their tactics. "This slow and costly sequential searching for the 'invisible lines' of a good design can, in the end, produce an astonishingly well-balanced result and a close fit to the needs of the user." (Jones, 2014, p 19). Working slowly goes against so much of what modern society deems important but, as Jones says, it is more balanced and better serves the users. Slowing down and dividing items into sub parts will allow designers to be more thoughtful about their creations.

Focus on Craftmanship

If we give ourselves the freedom to slow down, we can take some time to focus on craftsmanship. In his 2008 keynote speech at the IxDA conference, Alan Cooper discussed

the importance of craft, saying "best to market, particularly in high tech, comes about only through craftsmanship. And craftsmanship is all about quality. The goal of craftsmanship is to get it right, not to get it fast. The ultimate measurement of craft is not speed. It's quality." (Cooper, 2008) This is another indicator that modern business is not necessarily doing it right. In our current world, the idea of design thinking has perpetuated many aspects of tech, and people are doing design thinking without the doing. While I think that this thorough process of thinking through issues has many benefits, I worry that the thinking and the designing are becoming separated. Alexander stated that

"I reject the whole idea of design methods as a subject of study, since I think it is absurd to separate the study of designing from the practice of design. In fact, people who study design methods without also practicing design are almost always frustrated designers who have no sap in them, who have lost, or never had, the urge to shape things. Such a person will never be able to say anything sensible about 'how' to shape things either." (Alexander, 1964, preface).

Designers who only participate in design thinking may be able to identify and begin to address complex issues in society, but they would likely fail when it comes to actually creating something. They are good at addressing the why, but not the how, both of which are necessary in effective design.

Theoretical Approach

Last in my list of recommendations is to better incorporate theory into professional design practice. Many people place design theory in the land of academia; something they might learn about in school but not use too much in the real world. Since I did not attend design school prior to attending this program, I fell into this category. I based my decisions on my personal experience and conversations I had with coworkers and peers, but I did not have the solid understanding of the history and theory underlying interactive systems. The readings and the discussions we have had in this class have completely changed my perspective. I now believe that designers need to have a strong understanding of theory. Jon Kolko is an advocate of educating on design theory and he says

"I'm convinced that theory is also a key ingredient to greatness, a key part of claiming to be a competent, professional designer, but it's less obvious than methods or skills and is often ignored during design education" (Kolko, 2014, p 22).

Business needs often overshadow the theoretical discourse that is happening in academic institutions, and there is often a desire for academics to focus on more relevant topics. Perhaps practitioners should take note from academia and discuss theory more often. Taking a step back from the land of product creation to discuss it from a theoretical viewpoint can

be incredibly helpful in evaluating if you are doing the right thing and doing it the right way.

A Way Forward

As I've grappled with who is responsible for the impacts of design and how we can make the industry more responsible, I kept coming back to the idea of certification or licensing. I began to research this idea and I found the writings of Mike Monteiro, the design director of Mule Design. He had written a lot about design ethics and codes of conduct and argues that the field of design is missing some type of official certification. He says

"My dentist is licensed. My doctor is licensed. My lawyer is licensed. My accountant is licensed. Almost every professional I interact with is licensed. There are really good reasons for that. Not only does this let me know they've passed some sort of test, some sort of proficiency, but it also gives me a way to measure a standard of expectation for their level of service, and a way to address any grievance with a lack of it." (Monteiro, 2012).

When he first introduced this idea to a group of designers, Monteiro says that he was met with questions and concerns. I like seeing someone so passionate about a radical, and unpopular idea, and I definitely agree with much of what he is saying, but I am not sure that licensing is the correct solution. Instead, I'd argue for required

continuing education on ethics and theory and for managers to encourage each employee to create their own personal code of ethics.

My main concern with licensing is that it tends to have an impact on the inclusivity of industries. Occupational licensing laws create unnecessary barriers to entry which tend to primarily impact low-income and minority communities. A recent study found that strict licensing requirements have reduced the number of low-income Americans who start their own business by 11% (Slivinski, 2015). Design benefits hugely from diversity and any idea that decreases inclusion does not seem like a viable option. I believe that a continuing education requirement could lead to some of the improvements that Monteiro was seeking to create. Doctors and other professionals are required to do yearly training to keep them fresh and up to date on industry standards, and I think that design could benefit from this type of education.

Design requires skill, experience, and a depth of understanding of theory and ethics. My proposed curriculum would use the three principles I defined above (slowness, craftmanship, and theory) as central points of importance when developing lessons. Additionally, ethics would play a significant role because I think that everyone needs to have a better understanding of the impact of their work. I think that this type of system might actually make design more inclusive, because if

We need to understand that our work can have significant impact and we are responsible for the fallout. Designers are responsible. Developers are responsible. Executives are responsible. We all need to work together and collaborate to be better. And hopefully my suggestions here will help designers contribute in a beneficial, and thoroughly responsible fashion.

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