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UX - HCI Waves Design Essay

Evaluating behavior, in many ways, is the most creative and underappreciated aspect of interaction design. The experiences that you get from design can help you get new ideas, make changes, decide wisely and fix bugs. One reason I think design is such an interesting field is its relationship to the meaning and search of truth and the objectivity that encompasses us. I find design interesting because we can say more in response to a problem or a question. For instance, how we can quantify achievement. Also, the answers are more abstract and require more insight than only calculating numbers like seven and two. It tends to be hard to tell how good an interface is until you've given it a try with real clients and users and that's because designers, and developers may know excessively about the domain and the user interface or have acquired blinders through designing and building it.

Interfaces can also give you the wrong information about a user's actual tasks. While evaluating an interface can help, it can still be hard to predict how real users will act with your interface. Where people's use can be particularly context dependent and also evolve significantly over time in light of how other individuals utilize programming through network effects, and so forth. The benefit of having a broad set of tools that cover different methods can be especially valuable in emerging areas like mobile and social software. One way to learn about design user experience is to bring people to one place or potentially an office and try out the interface. We often call this process Usability Studies. The process of watching someone use an interface is a common Practice in HCI. This basic strategy for traditional user-centered design is to bring people to one place until you are out of time and evaluate the outcome. If your team has the money, you can have the public being on one side of a mirrored glass and the development team on the other. You can also achieve the same kind of information result, but with a different method called focus groups. In a focus group, you will meet a small group of people to discuss a design or idea.

There are also approaches and methods that do not benefit the collection of HCI information. For instance, if you run controlled experiments online, you can't see that much about the person on the other side of the screen. If you're inviting people into your workspace or office, the behavior you're measuring might also not be very realistic. If a realistic longitudinal behavior is what you're after, participant observation may be the approach for you. This approach is what it sounds like, observing what people do in their real working environment. Long-term assessments may be essential to discover things you might not see in shorter periods. Brainstorming serves some other functions: brainstorming enables design team members to demonstrate their creativity to their peers. It allows them to pass on the knowledge that can then be reused in other projects and creates a fun and exciting environment in which people like to work, and love to enjoy.

There are studies on web surfing patterns that have enabled us to be more accurate about what a user might do before he does it. For example, these models have allowed researchers to estimate which links someone is most likely to click by looking at the relevant link text. These simulations are often comparable to Monte Carlo optimization. In addition to just how many ideas two people come up with in a ecosystem, these ideas are essential to consider. All experiments are eventually in search of a theory to question and answer. These are a few methods and approaches of HCI that can help us have more understanding of human behavior and its interaction with a machine. We have analyzed many theoretical HCI methods, concepts and how they relate to social interactions. There are however ways to organize these concepts. This is by addressing the three waves of HCI. Each wave has its purpose in the approach of how an interface relates to a client or the ergonomics of how we interact with machines.

The First: The first wave has an approach that is based precisely from the foundation of engineering. The obvious idea of critical problem solving, metric examinations, and making the bridge and practice of complex problems to simple solutions. Pragmatic and focused on applied results over hypothetical issues or bases. It could be perceived that the first wave fallows a strict guideline, as if technology could be removed from a society-based context and magnified to understand the tools in front of us while reducing possibilities of interactions in the world.

The Second: Where the second wave focuses on the human mind 's mental and cognitive aspect, information processing and general correspondence between man and machine. How the brain processes and communicates information displayed by a machine. The difference between a computer and a person is essential. However, to make society work harmoniously and to simplify our lives with devices, we strive to achieve immersion in the processing of computing and human data.

The Third: In contrast to the second wave, the third highlights the relationship in the impact of society, culture, values and is guided by the HCI to influence new liberations and social changes. It takes a broader perspective on how technology and machinery relate to us. Its primary goals in its interaction perspectives are to support the global actions.

The third wave asks questions like what existing situated activities in the world should we support? How can we support interactions without too much focusing on what computers can understand? What are the values we can support in world politics and how can we support them in a form of design? Since human-computer interactions are based on the three factors: computer science, cognitive science and human factor engineering, it is the objectivity of the third wave to find a relationship between all of these combined in relations of the potential AI can offer and its impact on society. This can be another form of ubiquitous computing where computing is made to appear anytime and anywhere.

The complexity of the third wave demands for a different approach to innovation. After the first and second wave being technical and theoretical, with its divine focus being the interaction between a specific user with a specific computer, today, we can now ask questions rather than answering them. This has only been possible after having gone through the first two waves. They are the foundations of HCI. With all of the tools and concepts we have created, we are now able to change the framework and reset the problems. Technology is becoming less about concrete results but rather about what technology can bring to society. We face value choices rather than technical ones because of the endless technological possibilities. This requires the organization of a framework and the choosing of our goals and what technology would best suit our digital ecosystem. Considering the social implications of these choices critically.

In conclusion, technology is not just about the tools you gather to answer a complex issue. The belief that we have gone around with the vast possibilities of what technology has to offer is an understatement. Which means that the boundaries have never been reached nor will ever be. This is because technology is not just the simplicity of practical tools as the first wave has taught us, nor is it a theoretical point of view to lean on as the second one expresses. Today's technology is the close relationship between human behavior and digital processing. As we evolve, so does the technology around us. Design is about people. It is about our hopes and dreams, our lives and joy. How we perceive beauty and how it makes us happy. How we can create symmetrical conclusions and reproduce them in different forms, help each other and advance our research to better humankind. Since the human body is like a calculated object, we can easily adopt any tool we find. Presently, we do not know if there is technology that is too varied for us. At least to the point it cannot be internalized. This is since cognitive psychology and HCI have a tight relationship. It is hard to predict any future changes in society, so it becomes clear that it will be just as difficult to predict what new technology advances we will innovate. As technology and social innovation proceed together, so will our worlds innovations.

References:

Kshitiz Anand, Dec 19, 2009 "Introduction To HCI" https://www.slideshare.net/kshitiz/introduction-to-hci

William Gribbons, January 29, 2013 "The Four Waves of User-Centered Design" https://uxmag.com/articles/the-four-waves-of-user-centered-design

Mayra Sousa Resende, Willian Perpétuo Busch, Roberto Pereira, 2017 "The Three Waves of HCI: A Perspective from Social Sciences" http://capaihc.dainf.ct.utfpr.edu.br/artigos/CAPA17_paper_5.pdf

Mikael Wiberg, April 2018 "A Key Challenge for Overcoming the Inverted Digital Divide" https://www.researchgate.net/publication/324123174_Digital_Integration_in_the_3rd_Wave_of_Mobile_HCI_A_Key_Challeng e_for_Overcoming_the_Inverted_Digital_Divide

Benjamin Cowan 2018, Lecture Slides