

Aesthetics of Interaction Reflection

A reflection on my walkthrough of the Aesthetics of Interaction course and the gain of new insights

Paul Ian Merijn Roelen (1255576)
Eindhoven University of Technology
Eindhoven, The Netherlands
p.i.m.roelen@student.tue.nl

DESIGN PROCESS

Before following the Aesthetics of Interaction course, I hoped to be introduced to what an effortless interaction is, how to design such an interaction and what methods to use.

My expectations were met, several papers on interaction design were addressed, starting with the Interaction Frogger [1]. This paper impressed me a lot, especially since it is so close to my vision on design. The paper learned me what an intuitive aesthetic interaction is and how it can be established.

To get inspired and explore several possible ways to create such an intuitive interaction, a few papers about Experience Prototyping [2], Interaction Relabeling [3] and Movement-Based Design [4] were addressed. The diversity of these papers got me to discover and explore that there are more creative techniques of ideating than just sketching or brainstorming. Moreover, they showed me that other external factors can also influence design choices. An interaction with a design could turn out completely different than expected when context and experience are involved [2]. The interaction relabeling method [3] taught me about values and characteristics a design can get when different interactions and functions are combined. Furthermore, interaction gives meaning [4]. By experimenting and exploring, by just doing and making without limits, different tangible prototypes and creative ideas can be generated. This is what we did in iteration 1. We took a stapler and tried to give different interactions a different purpose. After trying out and discussing, we made a few models that represented interactions with the stapler, for instance an aggressive slam on the snooze button, as can be seen on the left of figure 1.

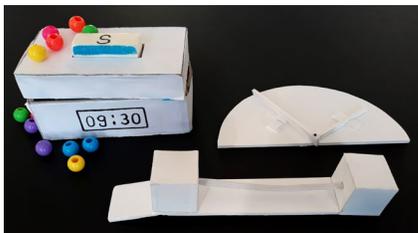


Figure 1: Experience prototyping interaction relabeling.

Next to the different creative ideating techniques we got several other papers about different aspects of interaction design. This made me overthink how such a design might or might not look. I tried to combine these papers with the ideating techniques and implement them in the design.

Next to the interaction relabeling we tried the Movement-Based Design technique [4]. We specified the context around our design,

since appreciation is developed by personal experience and without context, systems cannot be designed [6]. This can restrict design choices, but it can also give a lot of new opportunities. By even specifying goals and characteristics of the user, we tried to push the target group and context of use to an extreme. This gave various potential solutions and new insights about the design. A significant design choice we made as a result was applying limited snoozes, since our depressed person is able to train that way.

Proceeding with iteration 2, we used different materials to body-storm [4], as seen in figure 2, since interaction is too rich & complex to explore with any non-interactive medium [7]. This gave new unexpected insights. We tried out several interactions with the alarm and documented the interesting and potential ones. From this we learned that our user should be awakened subtly, but after several snoozes he or she must turn off the alarm aggressively and energetically, in order to freshly start the new day. This agrees with the findings of the interaction relabeling.



Figure 2: Body-storming experience prototyping. Waking up energetically.

With the values and requirements obtained from the body-storming we made some new experience prototypes, which can be seen in figure 3. The upper 2 prototypes can be linked to the energetic value, since they have parts that have to be pulled apart. The lower prototypes possess the subtle wake up value.

Figure 3: Experience prototyping based on body-storming and interaction relabeling.



In iteration 3 we started to refine the design and prototype. We looked at the material for example.

Material can be incredible valuable [8], since the use of specific materials can awake different experiences, which can result in new ideas and functions on its

turn. As a result, we added a fluffy soft fabric on the outside of the design. To give the user an image of what is happening outside we implemented nature sounds, to provide a continuity and coherence in time and space [5]. We also chose the design to be in bed on the pillow. This suggest, together with the fabric, that it is a precious design. This adds up to the thought that an artifact is different for different people and everyone would give different meaning to it [8]. Our depressed user would give a more positive meaning to his alarm clock and would get out of bed less gloomy. To give an accurate image about the usage of the product in context we also made a video [10].



Figure 4: The final prototype

All in all I think, whilst I learned a lot from Aesthetics of interaction, there are still a lot of things that our design could improve. To critique and reflect this, starting with giving context. Even though we could sympathize a bit with a depressed person, every user is different [8] and we probably cannot completely understand the way such a person thinks. Without talking to users or experts, we were limited in designing. Furthermore, we did not pay attention to the roles of shape and the user in operating the design [5]. Why should the bottom of the design not contain a fluffy soft fabric? Why is there even a bottom if the device is meant to be kept in bed.

CONCLUSION

Bearing the Interaction Frogger [1] in mind, our design does not have a natural coupled action and reaction in all aspects.

From a personal perspective, that is something I really want to keep in mind. When I read the Interaction Frogger [1] for the first time, I was amazed how accurately the paper supports my vision on design.

For design to be a tool to simplify life, the designer should aim for a clean, simple and smooth look, an seamless integration in one's life. The product can be in the center, but improves life without bothering the user. Here, look, feel and function have a reason and contribute to the seamless integration of the product.

In order to design such a product, an intuitive interaction is absolutely necessary. When I pay much more attention to the 6 different practical characteristics of coupling action and information, I can design much more smoother integrated systems and aesthetically intuitive interactions. For example, our prototype's buttons can be felt, to know if they are on or off, but other kinds of feedback and feedforward are not thought of and thus not present in the design.

A thing that would really add up to this, is looking more carefully at the value of haptics in an interaction, since they can indicate a specific interaction for the user [9].

REFERENCES

- [1] Stephan Wensveen, Tom Djajadiningrat, and Kees Overbeeke. 2004. Interaction frogger: a design framework to couple action and function through feedback and feedforward. In Proceedings of the 5th conference on Designing interactive systems: processes, practices, methods, and techniques (DIS '04). ACM, New York, NY, USA, 177-184. DOI: <http://dx.doi.org/10.1145/1013115.1013140>
- [2] Marion Buchenau and Jane Fulton Suri. 2000. Experience prototyping. In Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and techniques (DIS '00), Daniel Boyarski and Wendy A. Kellogg (Eds.). ACM, New York, NY, USA, 424-433. DOI: <http://dx.doi.org/10.1145/347642.347802>
- [3] Tom Djajadiningrat, Bill Gaver, and Joep Frens. 2000. Interaction relabelling and extreme characters: methods for exploring aesthetic interactions. In Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and techniques (DIS '00), Daniel Boyarski and Wendy A. Kellogg (Eds.). ACM, New York, NY, USA, 66-71. DOI: <http://dx.doi.org/10.1145/347642.347664>
- [4] Caroline Hummels, Kees Overbeeke, and Sietske Klooster. 2007. Move to get moved: a search for methods, tools and knowledge to design for expressive and rich movement-based interaction. *Personal Ubiquitous Computing* 11(8), 677-690. DOI: <http://dx.doi.org/10.1007/s00779-006-0135-y>
- [5] Steve Benford, Gabriella Giannachi, Boriana Koleva, and Tom Rodden. 2009. From interaction to trajectories: designing coherent journeys through user experiences. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '09). ACM, New York, NY, USA, 709-718. DOI: <https://doi.org/10.1145/1518701.1518812>
- [6] Marianne Graves Petersen, Ole Sejer Iversen, Peter Gall Krogh, and Martin Ludvigsen. 2004. Aesthetic interaction: a pragmatist's aesthetics of interactive systems. In Proceedings of the 5th conference on Designing interactive systems: processes, practices, methods, and techniques (DIS '04). ACM, New York, NY, USA, 269-276. DOI: <http://dx.doi.org/10.1145/1013115.1013153>
- [7] Philip Ross and Stephan Wensveen. 2010. Designing aesthetics of behavior in interaction: Using aesthetic experience as a mechanism for design. *International Journal of Design*, 4(2), 3-13. <http://www.ijdesign.org/index.php/IJDesign/article/viewFile/765/294>
- [8] Heekyoung Jung and Erik Stolterman. 2012. Digital form and materiality: propositions for a new approach to interaction design research. In Proceedings of the 7th Nordic Conference on Human-Computer Interaction: Making Sense Through Design (NordiCHI '12). ACM, New York, NY, USA, 645-654. DOI: <https://doi.org/10.1145/2399016.2399115>
- [9] Wendy Dassen and Miguel Bruns Alonso. 2017. Aesthetics of Haptics: An Experience Approach to Haptic Interaction Design. In Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems (DIS '17 Companion). ACM, New York, NY, USA, 254-259. DOI: <https://doi.org/10.1145/3064857.3079156>
- [10] Rawbyn - Aesthetics of interaction Group 2.1. Video. (April 7, 2019). Retrieved April 9, 2019 from <https://vimeo.com/32897415>