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Deliverable 1: Summary of Kristina Höök's Research Contributions

• Research area(s) this individual is known for

- affective interaction
- somaesthetic design
- internet of things
- HCI
- Interaction design
- UX
- Design theory

• H-index (from Google Scholar)

- 54

• List the five most cited full publications (include full references and citation count) – (These were pulled from the Google Scholar list.)

Höök, K., & Löwgren, J. (2012). Strong concepts: Intermediate-level knowledge in interaction design research. *ACM Transactions on Computer-Human Interaction (TOCHI)*, *19*(3), 1-18.

614 Citations – This paper is so highly cited because of its contributions to design research. I have come across the term "strong concept" in many papers, especially art papers in HCI. The paper provides a theoretical foundation for designing new artifacts in the field.

Höök, K. (2000). Steps to take before intelligent user interfaces become real. *Interacting with computers*, *12*(4), 409-426.

457 Citations – This paper seems to be highly cited because it is foundational to intelligent user interfaces. Since this was written in 2000, probably forecasts issues that are current today with the use of AI. It probably relates to interaction discussions at that time regarding direct manipulation and interface agents by Shneiderman and Maes. Only knowing her work a little, it probably has some profound ideas to contribute to that discussion.

Höök, K. (2018). Designing with the Body: Somaesthetic Interaction Design. United Kingdom: MIT Press.

403 Citations – That a 272-page book is her 3rd most cited publication in Google Scholar speaks to its importance and impact. From what I know about her work, this is her main area and a term she developed and coined. It is surprising that it is so recent (2018), but it probably accumulates the work and writing she did on the subject for at least the previous 10 years. This is one on my reading list because I am interested in design and the body.

Dieberger, A., Dourish, P., Höök, K., Resnick, P., & Wexelblat, A. (2000). Social navigation: Techniques for building more usable systems. *interactions*, *7*(6), 36-45.

327 Citations – This article is so frequently cited because it also has another big name, Paul Dourish, as one of the co-authors. Keeping that in mind, this paper probably lays out some fascinating new conceptual approaches to designing for transferring ways humans navigate their social worlds to the way humans interact with information on computers. I think these papers appeal to me and so many others

because of the way these authors can reframe simple issues in the field drastically by referencing seemingly unrelated issues in our daily lives.

Höök, K., Jonsson, M. P., Ståhl, A., & Mercurio, J. (2016, May). Somaesthetic appreciation design. In *Proceedings of the 2016 chi conference on human factors in computing systems* (pp. 3131-3142).

294 Citations – This paper is probably one of the first on Somaesthetic design and comes two years before the book listed above. Looking at the abstract, it also touches on Somaesthetic design as a strong concept, connecting to the first paper in this list from 2012. This is the type of building of ideas and creating an area of your own work I aspire to. I'm sure this paper introduces exciting, new ideas that weren't fully fleshed out until the book came out later.

• List two full papers that this individual has published that are not widely cited

Ferreira, P., & Höök, K. (2011, May). Bodily orientations around mobiles: Lessons learnt in Vanuatu. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 277-286).

30 Citations – That this paper is not highly cited could be related to a few things. It involves an ethnographic study of the people of the Vanuatu islands who recently started using mobile phones. It might not take Dourish's ideas about implications for design being generated from ethnography into account. Also, the paper was presented at the "Sex & Bodies" session of CHI 2011, which may scare some people away from referencing it. I still think it is an interesting concept and am surprised it is not cited more.

Mentis, H. M., Laaksolahti, J., & Höök, K. (2014). My self and you: Tension in bodily sharing of experience. *ACM Transactions on Computer-Human Interaction (TOCHI)*, *21*(4), 1-26.

33 Citations – I was surprised to see this paper also has Dr. Mentis as an author! It might not be highly cited because of the niche topic area – designing systems for sharing experience through bodily interaction. I would think the pandemic would have renewed interest in this topic and it would've been more highly cited, but it wasn't. Its low citation number is probably related to "social embodied interaction" not being a popular term or research area yet. I was unaware of this area even though I did my metaphor-based embodied interaction research last semester and scanned a ton of papers using the term "embodied".

• Why do you think this individual was inducted into the CHI academy?

Kristina Höök is one of the major names in the field. Even though I was new to the area last semester, her last name was one I heard referenced many times in class discussions. Looking into ACM articles that related to my work, she was listed as an author on many of them. Her ideas about the body and interaction design are important as we move into new interactive areas with cheaper and more available technology. I think developing your own area like she did with Somaesthetic design is what many in the field dream of doing, and she did it!

• Describe similarities between your research interests, and the CHI academy member's

accomplishments.

An article Kristina Höök was an author on, "Ethics in Movement", really connected with me when Golnaz chose it for one of our 810 classes. In it many ideas that link up with my thinking are discussed. For

example, "Norms for how to move, feel and reason become part of ourselves, sometimes so ingrained in our habitual behaviours that we can no longer 'see' them. It is only when they are disrupted that they become discernible (and thereby possible to change)" (Eriksson et al., 3). This is something I think about a lot, how our interactions with technology are chosen for us and how limiting this could be in our experience of them. I like to think about expressive new ways to use the body to complete the same tasks we do when we sit and type at a desk. This is also why I look to a lot of assistive technology for inspiration for interfaces because of how they are designed to complete the same tasks using different parts of the body. The idea that there are "alternative movements" that might expand the range of experiences we have with technology is exciting to me and a goal I hope to help pursue in my academic and creative work. Studying some of Kristina Höök's idea at this point in my PhD journey will help me immensely.

Eriksson, S., Höök, K., Shusterman, R., Svanes, D., Unander-Scharin, C., & Unander-Scharin, Å. (2020). Ethics in Movement: Shaping and Being Shaped in Human-Drone Interaction. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1–14. https://doi.org/10.1145/3313831.3376678