FDM3520 Soma Design 7.5 credits

Soma Design

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for FDM3520 valid from Spring 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

The course can be taken by doctoral students of all research disciplines but aims first and foremost at doctoral students working in Human-Computer Interaction or interaction design.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completing the course, the PhD-student will know how to:

• Perform a soma design process, bringing out design concepts deeply rooted in our somaesthetic appreciation skills

• Have improved somaesthetic skills – empirically as well as theoretically, with and without technology

• Analyse and criticise different examples of soma designs

Course contents

We are at a watershed moment where our relationship to technology is about to undergo a dramatic and irreversible shift. With the rise of ubiquitous technology, data-driven design and the Internet of Things, our interactions and our interfaces with technology will look radically different in the years ahead, incorporating changes like full body interaction, shape-changing interfaces, wearables and movement tracking apps. These changes offer an enormous opportunity—indeed, a necessity—to reinvent the way we interact with the inanimate world. Once-familiar, everyday objects, from our phones to our vacuums, require novel interaction models – not just typing text on screens, but, increasingly, movement-based, bodily communication. A qualitative shift is required in our design methods, from a predominantly symbolic, language-oriented design stance, to an experiential, felt, aesthetic stance permeating the whole design and use cycle.

A path to such design is introduced here: soma design —a process that allows designers to 'examine' and improve on connections between sensation, feeling, emotion, subjective understanding and values. Some design engages with bodily rhythms, touch, proprioception, bodily playfulness, but also with our values, meaning-making processes, emotions, ethics and ways of engaging with the world. Soma design also provides methods for orchestration of the 'whole', emptying the digital and physical materials of all their potential, thereby providing fertile grounds for meaning-making and engagement.

This PhD-student course will engage with Soma Design not solely through an analytical engagement. Instead, soma design must also, by necessity, be a pragmatic study of methodologies to improve our functioning and a practical study in which we test those pragmatic methods on ourselves to render experience and design concrete. To really grasp the somaesthetic design experiences introduced here, an active stance is required. The somaesthetic interaction design project demands improving our designerly skills through engaging the whole self in creative activities.

Disposition

The course will alternate three activities:

1. Reading seminars where we go through the book together as well as a guest lecture (probably by Dag Svanaes), a total of 5 - 6 seminars

2. Exercises aimed at improving our somaesthetic practical knowledge through movements and focus on our minds, such as walking slowly, Feldenkrais lessons or dance improvisation exercises

3. Design exercises where we actively create soma design concepts by using technology and methods of relevance for soma design: actively shape different actuators, shape-changing interfaces, which are linked to soma sensors and soma forms

Course literature

The course involves reading a book:

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

The extra interested student might also read:

• Shusterman, R. (2008). Body consciousness: A philosophy of mindfulness and somaesthetics. Cambridge University Press.

• Sheets-Johnstone, M. (2011). The primacy of movement (Vol. 82). John Benjamins Publishing.

• Schiphorst, T. (2009, April). soft (n): Toward a Somaesthetics of Touch. In CHI'09 Extended Abstracts on Human Factors in Computing Systems (pp. 2427-2438). ACM.

• Sheets-Johnstone, M. (2019). Phenomenological Methodology and Aesthetic Experience: Essential Clarifications and Their Implications. In Performance Phenomenology (pp. 39-62). Palgrave Macmillan, Cham.

• Petersen, M. G., Iversen, O. S., Krogh, P. G., & Ludvigsen, M. (2004, August). Aesthetic interaction: a pragmatist's aesthetics of interactive systems. In Proceedings of the 5th conference on Designing interactive systems: processes, practices, methods, and techniques (pp. 269-276). ACM.

• Wilde, D., Vallgårda, A., & Tomico, O. (2017, May). Embodied design ideation methods: analysing the Power of estrangement. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (pp. 5158-5170). ACM.

• Shusterman, R. (2013). Somaesthetics. The Encyclopedia of Human-Computer Interaction, 2nd Ed.

• Charles Windlin, Anna Ståhl, Pedro Sanches, Vasiliki Tsaknaki, Pavel Karpashewich, Madeline Balaam and Kristina Höök (2019) Soma Bits | Mediating Technology to Orchestrate Bodily Experiences, RtD conference, Delft and Rotterdam, NL, March 2019.

• Kristina Höök, Baptiste Caramiaux, Cumhur Erkut, Jodi Forlizzi, Nassrin Hajinejad, Michael Haller, Caroline C M Hummels, Katherine Isbister, Martin Jonsson, George Khut, Lian Loke, Danielle Lottridge, Patrizia Marti, Edward Melcer, Florian Floyd Müller, Marianne Graves Petersen, Thecla Schiphorst, Elena Márquez Segura, Anna Ståhl, Dag Svanaes, Jakob Tholander, and Helena Tobiasson. 2018. Embracing first-person perspectives in soma-based design. Informatics 5, 1 (Feb. 2018). https://doi.org/10.3390/informatics5010008

• Sara Eriksson, Åsa Unander-Scharin, Vincent Trichon, Carl Unander-Scharin, Hedvig Kjellström, Kristina Höök (2019) Dancing With Drones: Crafting Novel Artistic Expressions Through Intercorporeality, Proceedings of CHI 2019, Glasgow, ACM Press.

Equipment

None

Examination

• EXA1 - Exam, 7.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

To complete the course, students must:

• Read the literature and attend the discussion seminars

• Bring out a soma design concept/quality through the practical design exercises

• Deliver a short essay on their somaesthetic experiences and skills obtained from the practical design work

After completing the course, the student will know the current state of art for soma design with the ultimate purpose of bringing forth sustainable design through sustainable design processes. Soma design offers an important strand of design thinking permeating and altering all sorts of settings across the globe, in the formation of the Internet of Things, in designing workplaces, and in shaping open-design processes. We do have a strong development toward sustainable businesses. Sustainable businesses often have progressive environmental and human rights policies—not only because it is the right thing to do, but because it is profitable.

Other requirements for final grade

• Active participation in at least 80% of the seminars

• Presentation of a design work that corresponds to one week's work

• Approved essay

Ethical approach

• All members of a group are responsible for the group's work.

• In any assessment, every student shall honestly disclose any help received and sources used.

- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.