Aalto University
School of Arts, Design
and Architecture

Observation presentations

MUO-E3036 Interaction Design (IxD)

14 January 2022

Antti Salovaara

Link to these slides:
MyCourses > IxD > Split S > Lecture slides > Week1-Day5-observation-presentations.pdf

Contents of the day

13:15 – 13:50

Discussion about reading materials

14:00 – 16:00

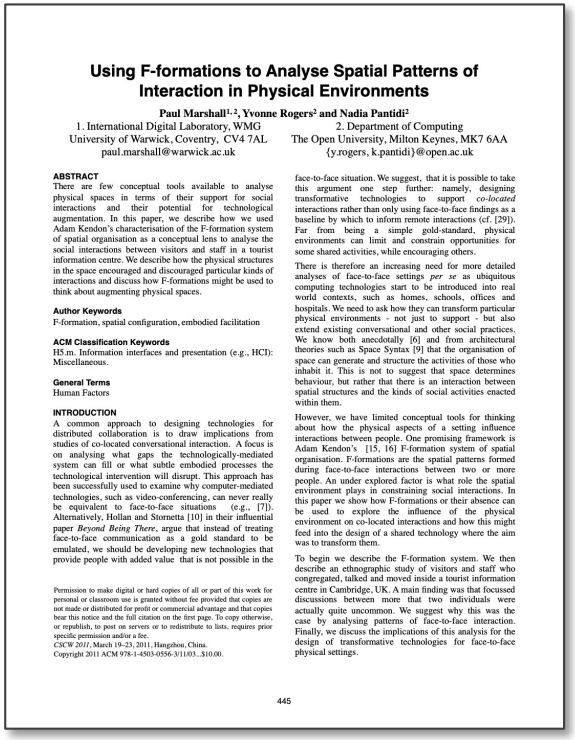
6 group presentations (á max 25 mins)

16:00 – 16:15

Orientation to week 2 (Google Design Sprint)

Discussion about reading materials

13:15 – 13:40



Using F-formations to Analyse Spatial Patterns of Interaction in Physical Environments

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ABSTRACT
There are few conceptual tools available to analyse physical spaces in terms of their support for social interactions and their potential for technological augmentation. In this paper, we describe how we used Adam Kendon's characterisation of the F-formation system of spatial organisation as a conceptual lens to analyse the social interactions between visitors and staff in a tourist information centre. We describe how the physical structures in the space encouraged and discouraged particular kinds of interactions and discuss how F-formations might be used to think about augmenting physical spaces.

Author Keywords
F-formation, spatial configuration, embodied facilitation

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms
Human Factors

INTRODUCTION
A common approach to designing technologies for distributed collaboration is to draw implications from studies of co-located conversational interaction. A focus is on analysing what gaps the technologically-mediated system can fill or what subtle embodied processes the technological intervention will disrupt. This approach has been successfully used to examine why computer-mediated technologies, such as video-conferencing, can never really be equivalent to face-to-face situations (e.g., [7]). Alternatively, Hollan and Stornetta [10] in their influential paper *Beyond Being There*, argue that instead of treating face-to-face communication as a gold standard to be emulated, we should be developing new technologies that provide people with added value that is not possible in the face-to-face situation. We suggest, that it is possible to take this argument one step further: namely, designing transformative technologies to support *co-located* interactions rather than only using face-to-face findings as a baseline by which to inform remote interactions (cf. [29]). Far from being a simple gold-standard, physical environments can limit and constrain opportunities for some shared activities, while encouraging others.

There is therefore an increasing need for more detailed analyses of face-to-face settings *per se* as ubiquitous computing technologies start to be introduced into real world contexts, such as homes, schools, offices and hospitals. We need to ask how they can transform particular physical environments - not just to support - but also extend existing conversational and other social practices. We know both anecdotally [6] and from architectural theories such as Space Syntax [9] that the organisation of space can generate and structure the activities of those who inhabit it. This is not to suggest that space determines behaviour, but rather that there is an interaction between spatial structures and the kinds of social activities enacted within them.

However, we have limited conceptual tools for thinking about how the physical aspects of a setting influence interactions between people. One promising framework is Adam Kendon's [15, 16] F-formation system of spatial organisation. F-formations are the spatial patterns formed during face-to-face interactions between two or more people. An under explored factor is what role the spatial environment plays in constraining social interactions. In this paper we show how F-formations or their absence can be used to explore the influence of the physical environment on co-located interactions and how this might feed into the design of a shared technology where the aim was to transform them.

To begin we describe the F-formation system. We then describe an ethnographic study of visitors and staff who congregated, talked and moved inside a tourist information centre in Cambridge, UK. A main finding was that focussed discussions between more that two individuals were actually quite uncommon. We suggest why this was the case by analysing patterns of face-to-face interaction. Finally, we discuss the implications of this analysis for the design of transformative technologies for face-to-face physical settings.

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CSCW 2011, March 19–23, 2011, Hangzhou, China.
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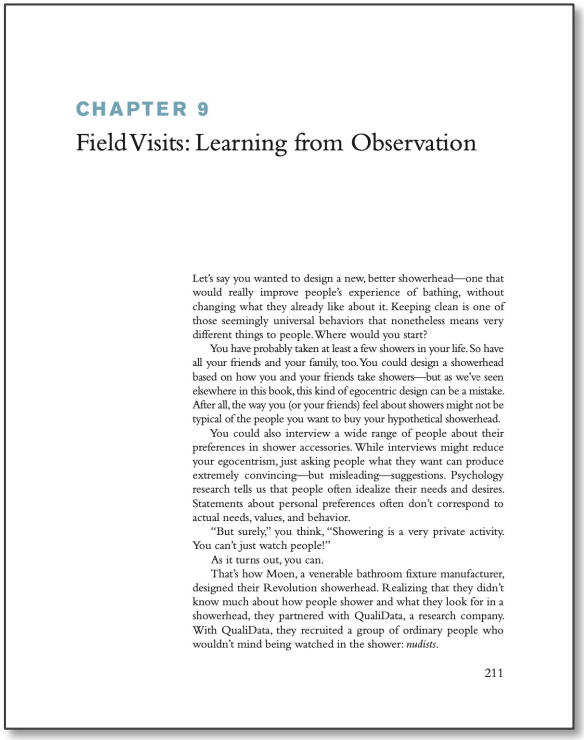
Marshall et al. (CSCW 2011)



CHAPTER 9

Field Visits: Learning from Observation

Let's say you wanted to design a new, better showerhead—one that would really improve people's experience of bathing, without changing what they already like about it. Keeping clean is one of those seemingly universal behaviors that nonetheless means very different things to people. Where would you start?

You have probably taken at least a few showers in your life. So have all your friends and your family, too. You could design a showerhead based on how you and your friends take showers—but as we've seen elsewhere in this book, this kind of egocentric design can be a mistake. After all, the way you (or your friends) feel about showers might not be typical of the people you want to buy your hypothetical showerhead.

You could also interview a wide range of people about their preferences in shower accessories. While interviews might reduce your egocentrism, just asking people what they want can produce extremely convincing—but misleading—suggestions. Psychology research tells us that people often idealize their needs and desires. Statements about personal preferences often don't correspond to actual needs, values, and behavior.

"But surely," you think, "Showering is a very private activity. You can't just watch people!"

As it turns out, you can.

That's how Moen, a venerable bathroom fixture manufacturer, designed their Revolution showerhead. Realizing that they didn't know much about how people shower and what they look for in a showerhead, they partnered with QualiData, a research company. With QualiData, they recruited a group of ordinary people who wouldn't mind being watched in the shower: *nudists*.

Goodman et al. Observing the User Experience (2nd ed.), Ch. 9

Quiz questions

1. Compared to stationary F-formations (i.e., when people are not moving), what kind of formations might be common when people walk, and why? Give two examples.
2. If you would research F-formations using an on-site interview instead of passive observations, what additional preparations would you need to do, if you would follow the recommendations in Goodman & Kuniavsky's book? Tell 2 examples and explain them.
3. When you do passive observation through video, photos and note-taking (such as on this week), you may notice people doing some unexplainable things. Invent at least one way by which you can find out why people do these unexplainable things.

Joint discussion question

When you do passive observation through video, photos and note-taking (such as on this week), you may notice people doing some unexplainable things.

Invent at least one way by which you can find out why people do these unexplainable things.

1. Go back to the space, interview others who were present / any other experts
2. Watch again, widen/reorient your focus
    1. Analyse longer time spans
3. Analyse the environment: personal belongings, physical space/architecture
4. Re-enact the behaviour yourself
    1. Embodied cognition

Answer 1:

Generate an explanation
Are there other contexts where the same explanation should explain the behaviour?
Go to see those other contexts: do you see the same? If yes, you might have the right explanation.

Starting at 14:05

Break

Presentation order: 11, 15, 16, 13, 12, 14

Group presentations

14:00 – 16:00

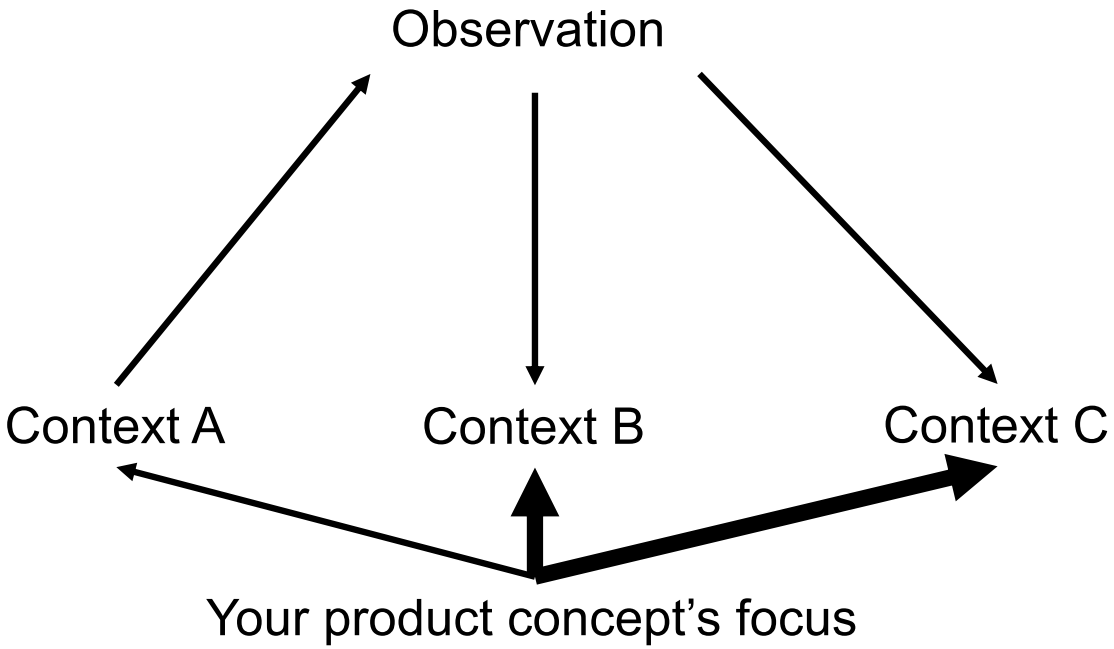
General discussion

6 group presentations (á max 25 mins)

Helping each other

Groups may present suggestions and interpretations

- Comment them
- Offer alternative views
- Are there situations where similar things also happen?



Concept design	W1	User research
	W2	Sprint
	W3	IxD pt. 1
IX design	W4	IxD pt. 2
	W5	User evaluation
	W6	Wrapping up

Presentations

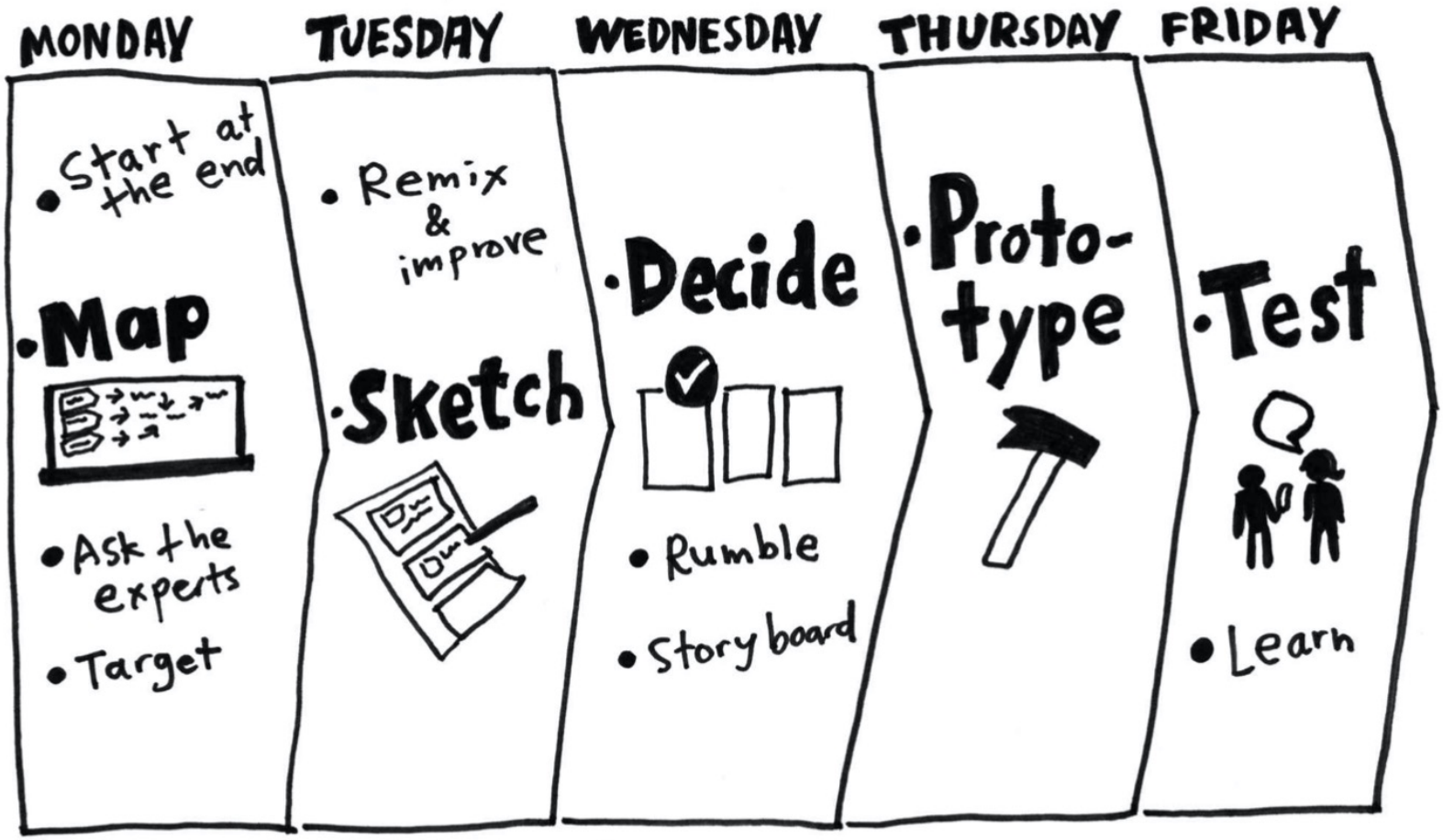
Order: 11, 15, 16, 13, 12, 14

Orientation to week 2

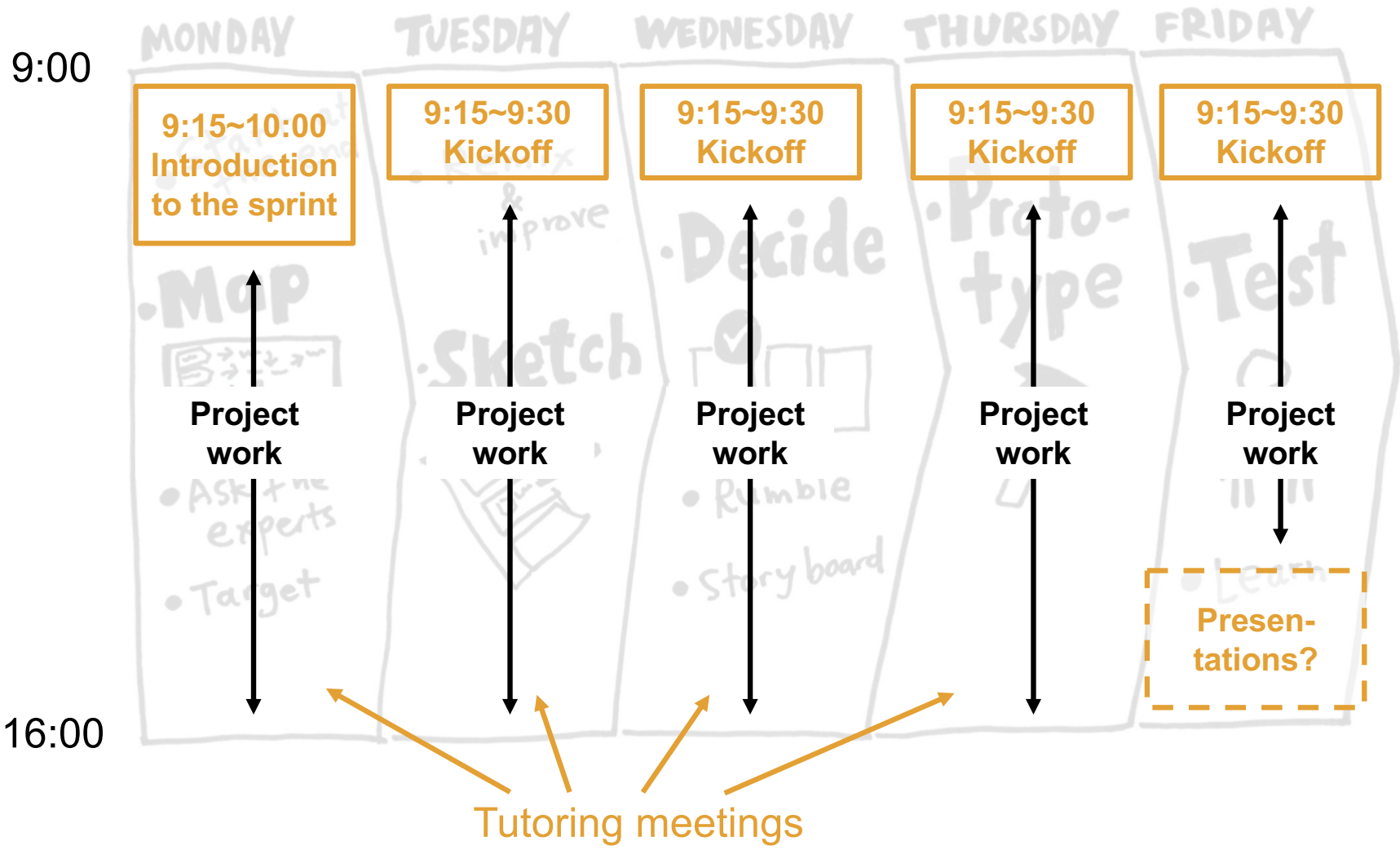
16:00 – 16:15

Google Design Sprint

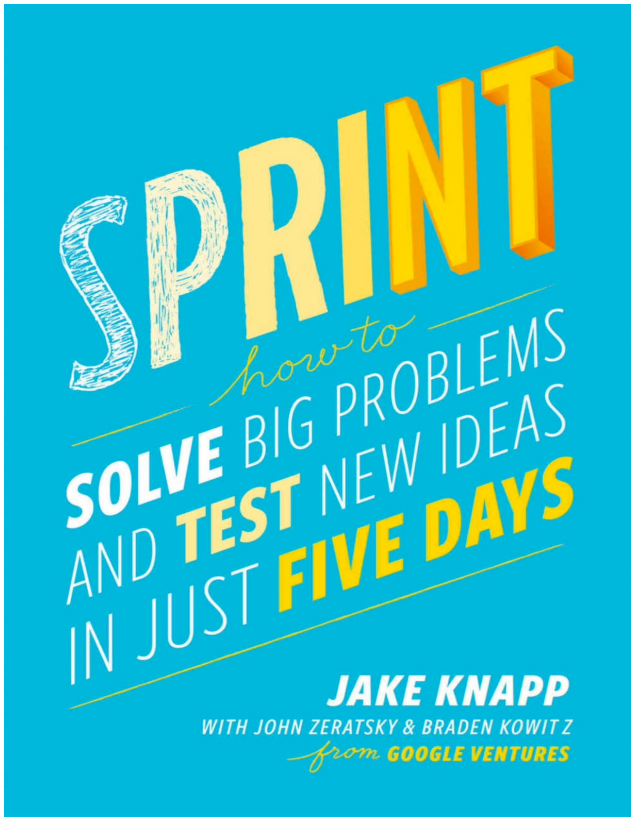
Week 2 in one glance



Week 2 in one glance



Book and other materials



Book (electronic version):

Available at Aalto library:

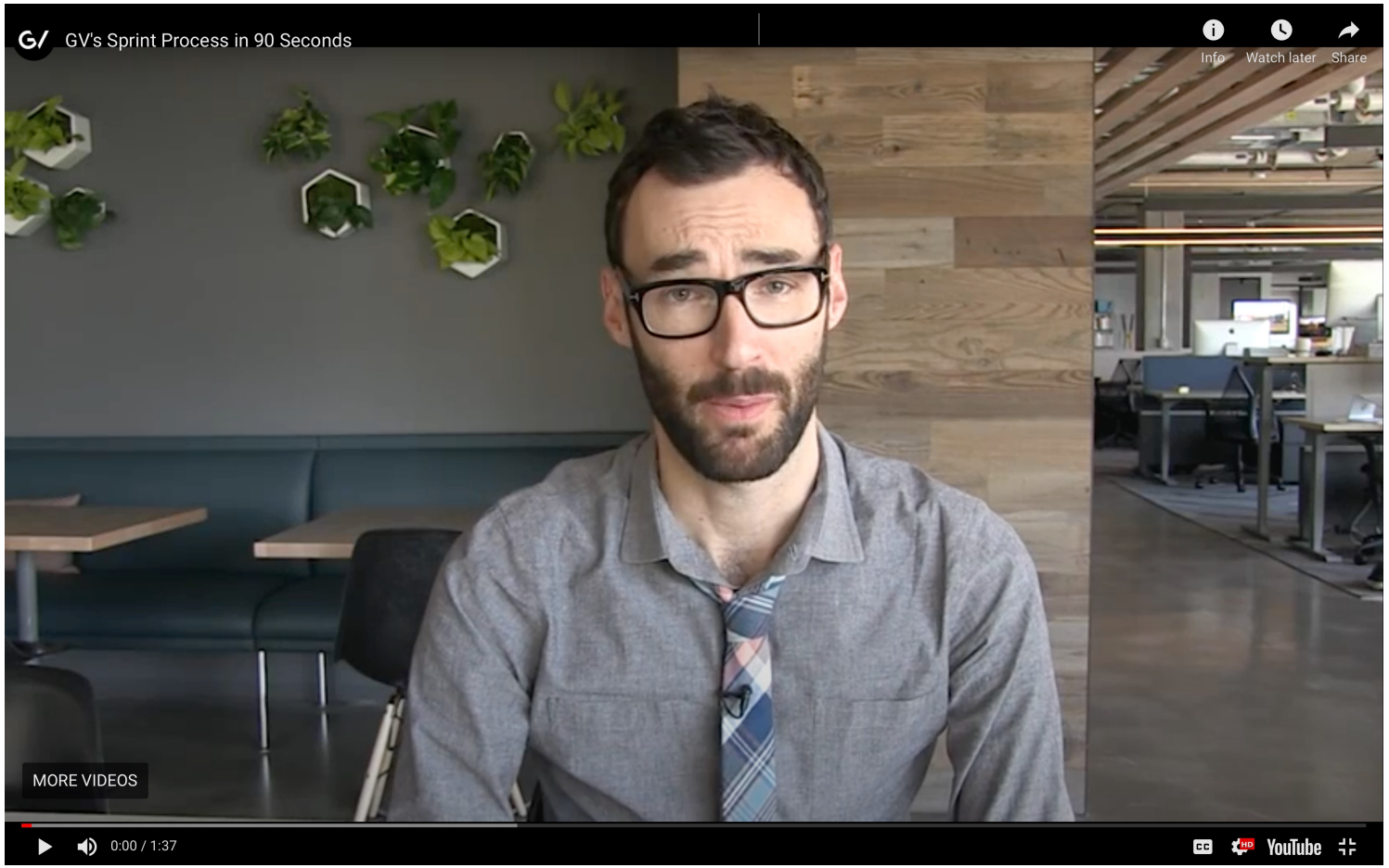
https://primo.aalto.fi/permalink/358AALTO_INST/1g8mond/alma999362057406526

Reading the book is not required, but it is very well written and can be a useful reference

Website:

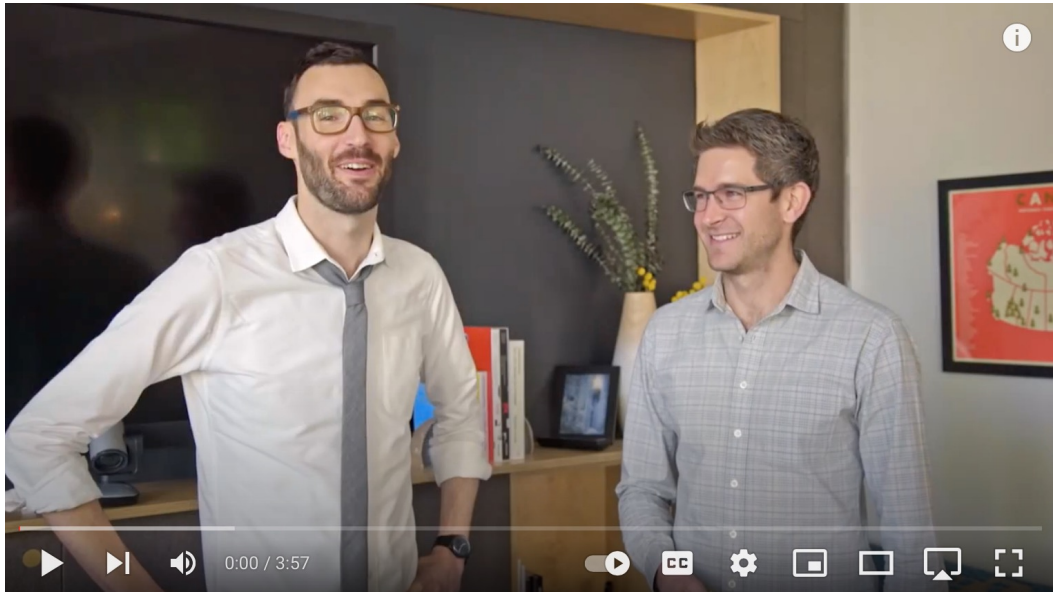
https://www.gv.com/sprint

Introductory video to the entire sprint



https://youtu.be/K2vSQPh6MCE

Setting the stage (before the sprint)



Page:

https://library.gv.com/sprint-week-set-the-stage-99f2f29ce0e7

Video:

https://www.youtube.com/watch?v=Fc6A2WuEkZI

Have a relaxing weekend!