

Portfolio

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Week 1

Reading

R.1

Following is a small summary of the text. Notes that I have taken during reading can be found on google Drive in the Notes folder.

Summary: The mind operates using two systems. System 1 operates quick and automatically, while system 2 is used to answer more complex questions/activities and monitor system 1. System 2 is also in charge of judging and unbelieving, but does this based on the information given by system 1. The problem can be however that system 2 is very lazy and lets system 1 do most of the work, only interfering when either the question is too difficult or the quick answer generated by system 1 turns out to be insufficient. System 1 operates using heuristics. Heuristics are methods of finding answers that are adequate but often imperfect. One example of problems caused by heuristics are visual illusions.

R.2

Following is a small summary for each of the papers read. Notes that I have taken during reading can be found on google Drive in the Notes folder.

Software Requirements and Specifications: Building software is like making a machine. The parts that will be interacted with is the application domain. In general developers tend to combine the requirements for the application and the machine. This is however often problematic because in most cases the developers will only focus on the machine part. The author states that the requirement of the application domain should be defined separately and explored extensively. The author also states that the evolution of development methods has been harmed because the idea is created that there is a single best method of development.

Contextual Design: Contextual design is a design approach in which the designer is involved in all steps. This also includes tasks like data collection. This helps the designer to get to know what is important for the customer. The designer should start with interviews, and focus on interviewing all types of people in the process, and not just the experts. These interviews should be combined into consolidations. These consolidations should then be shared with all people that could provide with good feedback. Another important thing is to redesign the workplace. During this process it is decided what technology is essential for development. Another suggestion is the creation of An User Environment Design (UMD), which shows each part of the system and all interactions with them. Lastly, the author states that it is important to iterate a design early and often. A good way to do an initial test is to use paper prototyping.

Setting the Scene: To make sure that software solution correctly solves a particular problem, we must first understand the problem. The aim of a software project is to improve the world using a machine. In a machine-building project, our business as requirements engineers is to investigate the problem world. There are two versions of this world: System-as-is, the system that exists before the machine and System-to-be, the system when the machine is done.

A problem can be structured into three dimensions. The first dimension is why. The why dimension focusses on defining what the problem is that the machine is going to alleviate. Common actions in the why dimension are the following:

- Acquiring domain knowledge
- Evaluating alternative options in the problem world
- Evaluating technology opportunities
- Handling conflicts

The second dimension is what. This dimension is concerned with the functional services that the system-to-be should provide. This part should be defined precisely and should be written in such a way that all parties understand fully.

The third dimension is who. This dimension defines who of the staff is responsible for specific tasks. Decisions about responsibility are vital for a projects success.

TaskModeling: Traditional functional requirements specify the system's role but ignore the context. This is unsuitable because it prematurely divides work between the computer and the user. The author suggest making a work area description, which states formal requirements and overall purpose. The author states that it is very important to determine what are seperate tasks and what are subtasks. This will provide a much better overview of the systems essentials and structure. A good systematic way of expressing problems and solutions are tasks and support descriptions. These discriptions combine subtasks and potential solutions.

R.3

Sensemaking is the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way violate expectations [4]. Sensemaking is a critical organizational activity. For top managers, sensemaking activities are key tasks that significantly influence organizational decisions[3]. Maitlis states that methods of sensemaking can be devided into four distinct forms: guided, fragmented, restricted and minimal. [3].

The first type of sensemaking is Guided sensemaking. This type is highly controlled and highly animated. In guided sensemaking, the stakeholders had a high level of engagement due to many orgainized controlled discussions. This results in higher knowledge of the issues.

The second type of sensemaking is Freagmented sensemaking. This type is animated but not controlled. This is similar to guided sensemaking with the stakeholders still being very involved, but without controlled discussions.

The thrid type is Restricted sensemaking, This type is very controlled but not animated. This is similar to guided sensmaking but instead of involving all stakeholders, only a few specific stakeholders are involved.

The last type of sensemaking is minimal sensemaking. This type is neither animated or controlled. This meant that all parties in the organisation kept to themselves and only conclusions were shared between them.

R.4

Online education is getting more and more important. In 2013 already 33.5% of student were enrolled in at least one online course [1]. Another factor which makes online education so important is the global pandemic caused by the corona crisis. While online education is often seen as inferior to offline learning, it has some advantages. Examples of advantages are the increased access of courses for students that live far away and the allivaiation of capacity constraints due to room sizes[5]. Online learning is however not only positive. Examples of problems are teachers feeling less able to retain student attention, students requirering more discipline to succeed and the loss of social interaction[1].

What the ideal online course should look like is difficult to describe but I will try to define what I think are important factors for a good online course based on a small study, interviews with other students and my own experiences. From the interviews as well as my own experiences I conclude that structure is very important for online courses. Because online courses require the student to work more on their own it is important that the student should be able to get a clear idea of what is expected without much interaction. The second important factor in an online course is the tools that are used and how well a teacher uses it. A research into the success of online learning[5] states that lecturers should adapt their lessons to make optimal use of the online tools available. Most importantly is focussing on the interaction with students. A research on the satisfaction of online education in China during the pandemic[2] states that the biggest factor of satisfaction for students was the quality of the tools used.

As a conclusion, I think that the success of an online course is dependent on how well the tools to give an organized and structured course. I think it is also important that the lecturer focusses on the interactive parts of his lectures.

Exercises

E.1

A small presentation on online learning can be found in my Drive

E.2

My favourite interviewer is Louis Theroux. What I admire about Theroux is his ability to interview so many types of people. I think the reason he is so successful is that he makes his interviewees feel very comfortable. One of the reasons I think he is able to do this is because he seems very unjudging and passive. Even though he might not look or act very daring, I think it is that kind of atmosphere that allows him to get away with asking questions that might be too extreme for other interviewers to ask without any bad responses. These things make it possible for him to interview people that don't want to be interviewed by other people.

Another thing I like about Theroux is the type of questions he asked. Most of his questions are very simple, but his interviews still result in very interesting conversations.

An example of Theroux getting away with asking something bad is in the following clip: <https://www.youtube.com/watch?v=wU02MBKICiE>. Theroux is talking to the Phelps family, one of the most extreme religious people, and at 3:30 suggests that the mother might not actually believe what she is saying.

What I hope to emulate from Theroux is to also create a comfortable environment and ask simple but good questions.

E.3

The recordings of my interviews can be found on Drive in the interview folder. Following are what I found to be the most interesting thing from the interviews. After this I will reflect on the interviews.

Clement Julia: Clement does not have any experiences with online learning so far. This made it more difficult for us to talk specifically about online learning. Instead we discussed what he finds important for courses in general. Clement stated that structure in lectures is very important. An example he gave to reach this is by having a clear first slide which shows what will be discussed in the lecture and how this is connected to the rest of the course.

Lucas Steehouwer: Lucas has experience with online while he was doing his previous master last year. For Lucas it is important that courses have practical elements that are connected to the theoretical part. Lucas did not enjoy the online courses he had followed last year. Lucas stated that this was mostly due to motivational issues and unclear course structure. Lucas thinks that we are currently focussing too much on simulating the offline learning environment in an online setting. Lucas questions if this is the best way to get to ideal online education.

Jelle Witsen Elias: Jelle did not have any experiences with online learning so far. Interestingly, Jelle does not have a background in computer science but in law. This meant that the focus of the interview was more on his experiences with offline learning and how he thinks this will transfer over to an online platform. Jelle stated that motivation is an important part of a course for him and that teachers should focus on this part. Jelle thinks that in an online setting it is even more important for the teacher to interact with the student.

Reflection: I think that the interviews turned out decent but I do have some points I think I should improve on. The main thing is that I felt that the three interviews resulted in very similar answers. This is because I felt that the interviews stayed very surface level, and did not explore the subject enough. Another point of improvement for me is ending the interview. I did not really know when to end the interviews. A possible way to fix these problems is to prepare better questions and define my goal for the interview better.

E.4

I have reviewed the interviews of Ivan Venio. In my review I will mainly focus on how the interaction with the interviewee is, what kind of questions you ask and if you can get all the information out of the interview that you might want. I will start with my overall impressions and follow it up with some snippets which I found interesting. The interviews can be found using the following links:

David: https://www.youtube.com/watch?v=fLVJzaw_s0U&feature=emb_title

Wilco: <https://www.youtube.com/watch?v=W6CUbnptKhY&start=135s>

Joachim: <https://www.youtube.com/watch?v=7HV3gSq9D1c>

My general impression of Ivan's interviews are very positive. The interviews flow well and everyone seems to be very comfortable. I like how Ivan managed to get much information out of the interviewees with few questions. I also liked how Ivan was reacting to the answers and turning them into new questions. The only problem I have with the interviews is that they felt somewhat short, especially the interview with David. Another small problem I have is that Ivan sometimes summarizes the answers quite extensively which can effect the flow of the interview. All in all I enjoyed the interviews.

snippets

David: 2:54 good continuation of his answer into a new question

Wilco: 2:35 good continuation of his answer into a new question

Joachim: 2:16 Joachim just tanked about his hard times with being motivated in the first few lessons. A good follow up question here might be if he has any suggestions on how to fix this problem

E.5

For the overview of Corona apps we have made a google Drive file located at https://docs.google.com/document/d/1u6IUTjyClg6BgeTiaZAXrhK2G_hl9F87RY0gBVDjTw4/edit#heading=h.r3e7ka7zotug

Week 2

Reading

R.1

Following is a small summary of the text. Notes that I have taken during reading can be found on google Drive in the Notes folder.

Summary: People are not great in handling statistics. System 1 cannot properly understand statistical facts, which leads to many bad conclusions. Extreme outcomes are more common when dealing with smaller samples. People often tend to create patterns in random events, because system 1 prefers certainty over doubt. This creates what is called the law of small numbers. Small probabilities are handled by people in two ways: either they negate them, or they value it way to strongly.

People use other numbers to anchor to, even when these numbers are not related. anchoring means that the answer to a question is similar to another number, this number is the anchor. While anchoring is something done by system 2, it still inherits the biases of system 1.

People have biases when judging situations. For instance stating what is a higher cause of death is very difficult. Another problem with the human mind is the that we have difficulty understanding probability. An example of this is Linda, a woman who can either be a "bank teller" or a "feminist bank teller". The second is a subset of the first, so the first is always the correct answer. This is however not how all people answer.

When dealing with probability people also tend to give much more weight to specific information about a case compared to the base rate. A good way to not fall into this is to first set a base rate by making an average assumption and then deviate from this assumption using the given information.

R.2

Following is a small summary for each of the papers read. Notes that I have taken during reading can be found on google Drive in the Notes folder.

Apprenticing with the Customer: In this paper the author discusses the use of a master apprentice relationship for the designer. This type of relationship works well because it does not require the customer to be an expert at explaining himself. This method should lead the designer to have a better understanding of the situation he is building software for.

What Great Listeners Actually Do: People often think that they are good listeners, but this is mostly false. To be a good listener one should ask good questions, include interactions that build self-esteem, create a cooperative conversation and make good suggestions.

R.3

R.4

R.5

R.6

R.7

R.8

Exercises

E.1

E.2

E.3

E.4

Ad Active listening

Ad Reliability of information you get ou of interviews

References

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- [4] Sally Maitlis and Marlys Christianson. “Sensemaking in organizations: Taking stock and moving forward”. In: *Academy of Management Annals* 8.1 (2014), pp. 57–125.
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