



27-01-2025 LEONA CHANDRA KRUSE – TRANSCRIPT

2 SPEAKERS

Michael Gau
Leona Chandra Kruse

Duration

18m 14s

START OF TRANSCRIPT

[00:00:00] Michael Gau

Hello and welcome back to our interview session within the DSR Academy. And today I have the great pleasure to welcome Professor Doctor Leona Chandra Kruse. So hi, Leona.

[00:00:13] Leona Chandra Kruse

Hi Michi.

[00:00:14] Michael Gau

Glad to have you here. Leona is currently professor at the Department of Information Systems at the University of Agder. She has a research focus on how people use information systems for work, leisure and in particular, how technologies should be designed to provide people with support, pleasure and security. But, Leona, may I ask you to explain the audience a little bit about yourself, your current tasks, your previous positions and so forth.

[00:00:45] Leona Chandra Kruse

Yes, of course, Michi. So this is Leona. I'm now at Agder in Norway, professor of information systems. And before that, I was with Michi in Liechtenstein.

[00:00:55] Michael Gau

Exactly.

[00:00:58] Leona Chandra Kruse

Yes, I moved to Norway last year officially. I'm always having fun doing cool design science research projects with the CHERISHers. So CHERISH is our research group whose mission is to leverage sociotechnical digital design for human flourishing. Currently, we have projects on immersive training in healthcare contexts. We also have a project for small businesses and digital workflow, no code platform. We are also currently writing up a revision on learning with conversational AI.

[00:01:38] Michael Gau

Sounds very interesting. Thank you very much for your introduction. But today we selected a specific paper I would like to talk with you a little bit about. The paper has the title Research Perspectives: The Autonomy of a Design Principle. You published this paper together with the co-authors Shirley Gregor and Stefan Seidel in the Journal of the Association for Information Systems and back in 2020. In this paper, you derive and propose a schema for specifying design principles for especially information technology based artifacts and sociotechnical systems. With this schema, you provide guidance to create and describe design principles and specify design knowledge. Also, you illustrate the utility of the proposed schema by applying it to examples

of already published research. My first question would be I'm interested from your perspective, why did you write the paper in the first place, and what was the reason behind it?

[00:02:49] Leona Chandra Kruse

Yeah. So, first of all, it was a great pleasure and honor to work with Shirley and Stefan. They are both my supervisors, the supervisors of my PhD thesis. You can imagine, you know, we started this project in 2015. Back then it was really at the beginning of my PhD journey, and both of us were working on the sense making support system if you remember that. As a PhD student, my first task was to analyze prior works. What can we do about the decision-making support? What about sense making support systems and so on, and to come up with some suggestions for design principles. Back then I was nervous and I was confused. I said, okay, how should I design principle be written? Right. What should it consist of, where should I find some examples? So I started looking for design principles and I found some papers that proposed design principles. But then I realized, okay, so they looked different right from each other. Of course, some share similarities with the focus on what users should do with the systems. But there are also some other sets of design principles that focus on other things. For instance, focus on the features, functionalities or even the appearance, right? The interface itself. Then I wasn't really sure which way to go. I started to look for a guidance. Maybe there are some frameworks out there that can help me. I found some useful works on how to formulate technological rules, for instance, design patterns and all these things. But then I started to think and also spoke to Stefan about what if we do a more systematic analysis of all these published design principles to find some patterns within them. Maybe we can also come up with a framework to support other design science researchers. Especially students and those who are still new to design science research to really understand what is design knowledge and what is a design principle. Where do these principles come from, and how can we formulate them so that they are useful? That was the background story to that, you know, a confused PhD student.

[00:05:34] Michael Gau

That sounds very interesting. Thank you very much for elaborating on that. And what would you say? I mean, it's definitely about design principles and how to formulate design knowledge in a structured way. But what is, from your perspective, the main contribution of this paper you are particularly proud of?

[00:05:54] Leona Chandra Kruse

Yeah, I'm particularly proud of our focus on the artefact as a sociotechnical system and also of the design process being sociotechnical. It is reflected in the schema where we identify different types of users and also different types of agents. This really captures the sociotechnical aspects. What can we design into the systems or the overall design for the system itself and what each of these components are good for. The social aspects and who can benefit from that. So these all are captured in our schema.

[00:06:42] Michael Gau

You already mentioned it. You started back in 2015, and I think you had a previous publication. And if I'm not wrong, but please correct me at the HICSS.

[00:06:53] Leona Chandra Kruse

Yeah.

[00:06:53] Michael Gau

Also already dealing with this problem of how to articulate design principles. How would you describe the whole process and this particular research project. Were there any design decisions you had to take during the research project you want to highlight or maybe elaborate a little bit and describe?

[00:07:17] Leona Chandra Kruse

Yeah. You know how long it took us right? From the HICSS to the JAIS paper. So you're right the 2015 HICSS was the first version of our work, of our meta analysis of published design principles. There's also a kind of more problematizing why we need a framework to capture design knowledge and design principles. There the focus was really on the sociotechnical systems. But then we submitted a more thorough analysis with a more robust literature review as a grounding. We submitted the paper to a special issue. It was rejected, but it was back in 2017. We redid the analysis and I met Shirley. I visited her in Australia, and then we were so diligent reading all works of Bunge Philosophy of Science which is now included in the 2020 paper and what others have said about different types of design knowledge. There are many things that we included, which was not in the HICSS version and not in the other rejected version. After my visit to Canberra we got back, and we submitted a new version in to JAIS. Then I think it took about two years before the final accept. From the final accept, I think back then there was the proofreading afterwards and then the online first version and then the official publication. That's why it looks like it took so long. But actually the processing, the review of the first submission to JAIS was pretty straightforward, and it was a nice experience.

[00:09:31] Michael Gau

Yeah. Sounds good. Very interesting. Looking back at this process and this is very lively process and a long process, but is there anything you would say different now? If you could rewrite the paper or have any thoughts about that, what you would change probably?

[00:09:52] Leona Chandra Kruse

I haven't really thought about that, but I think I'm quite happy with the result. If I were to add something else perhaps I would really illustrate the use of the schema more elaborately. Using other use cases, maybe in different scenarios. Now that I'm working in healthcare contexts there may be some use cases that maybe we can also walk through the process from reading, from synthesizing, from designing. How all these can contribute to the schema of design principles. I think that's something that would be useful. Also to elaborate more on the thought process, because I think that this is something that is still challenging. Even for myself. If I have to come up with a set of design principles during or after the completion of a DSR project there is no systematic way to arrive there. It's a little bit like going forward, going backward, introspection, reflection, abstraction. Going back to the theory. It's a bit of a messy process. That would be something that maybe I wouldn't change, but maybe that would be the way forward.

[00:11:25] Michael Gau

Yeah, I agree. That's a very difficult process. To find the right abstraction and formulating design principles in general. Do you have any recommendations for design science future researchers to tackle this and or how to start to come up with or formulate design principles?

[00:11:44] Leona Chandra Kruse

Yeah. First of all, we need to really acknowledge the sociotechnical perspective that we are not only designing the technical aspects of a system, right? We also design the change in the social components, change in organizations, change in the workflow, change in how people maybe work and think. So that

should be the first thing that we acknowledge. And second of all it's also important to think of what do we want to contribute through the projects, through the whole project. The project is larger than a paper, right? So it's not only a publication, but what do you want to achieve through this project, and what do you want to contribute, and who should benefit from that? I call this an ensemble of, or assemblage of, contributions. Not only the artifacts itself, but also the social changes, changes in the organizations. Also be mindful that whatever we put out there in the paper in terms of knowledge, contribution should be useful and usable by other design science researchers in the future. Don't just consider it a laundry list, right? A checklist, okay, now, I have design principles so that I can publish a paper. No, I think the reasoning should be I capture all this knowledge that I have gathered throughout the design science research. I put it in the paper so that other people can benefit from it so that they don't have to start from scratch again. Going through what I go through. And they can still add to this knowledge. Also think in terms of accumulation and the evolution of design knowledge, and think about us as a community that should benefit from each other.

[00:13:53] Michael Gau

Yeah. Thank you. I completely agree. This leads me already to the last question. Is there anything that you would desire for the design science research field or the community? And do you have any recommendations for other design science researchers in general to advance the field.

[00:14:13] Leona Chandra Kruse

This is tricky. You know, people will usually ask me during panel discussion exactly this question. I don't have an answer to that. But what I would like to emphasize is, again, I think, I've read many design science research papers. I've reviewed some of them. I'm also active in the DESRIST community. There are really cool projects out there. Most of them, if not all of them have really good contributions and noble goals, right? To improve something, to improve our lives, to improve workflow, to improve efficiency, effectiveness. All of these come with good aims. Most of them are also aware of the unintended consequences. So on the project level, I think we are doing well, we are doing great. But the issue is often about capturing all this in the paper, right? That's what we usually discuss. Nowadays, many journals do publish DSR works. It's not a problem. But the problem is still how can you capture the *crème de la crème* of your project in the paper. We should treat it as an iteration. What is the goal of capturing that? And to me the goal should really be knowledge accumulation. We don't want to reinvent the wheel. So we should add to the published design knowledge. We should keep adding, keep adding and by adding we can navigate through the unknown. And then second of all, I also don't desire the schema or any DSR methods, tools, frameworks, schema to be used against a project or a paper. I don't want them to be used as a reason to reject a paper. Because you don't apply this, it means it's not good enough. It shouldn't be used as a standard. It should be used as a guidance to help us navigate the process and to help us capture the knowledge.

[00:16:46] Michael Gau

Yeah. Thank you very much for this interview. It was a very inspiring. Thank you very much for sharing your thoughts and your valuable insights. You have the last words, anything you would like to say or?

[00:17:02] Leona Chandra Kruse

Maybe a question to you. Have you used the schema? What was your experience using it?

[00:17:09] Michael Gau

Yeah, that's a good question. Of course, I have used it. I mean, after you published this paper, you opened the trend for using design principles in design science research papers. I think everybody who's doing design research nowadays is tries to formulate design knowledge in a way or in the form of design principles. In my opinion, it's very helpful, your schema. It's a very good guidance, especially if you're not very experienced because it gives you a little bit of a hint how to formulate what is essential in design principles. Why is it needed, and what is it for? I think that's very useful. Yeah, I like it and I probably still will use it in the future. Yeah, thank you very much for the work. I really appreciate that you published this paper as well.

[00:18:01] Leona Chandra Kruse

Thanks, Michi. That's very kind of you.

[00:18:05] Michael Gau

All right then. Thanks again. Hope to see you soon back in Liechtenstein.

[00:18:10] Leona Chandra Kruse

Yeah. See you soon. Bye

[00:18:13] Michael Gau

Bye.

END OF TRANSCRIPT