

21-01-2025 EDONA ELSHAN – TRANSCRIPT

2 SPEAKERS

Fabian Tingelhoff
Edona Elshan

Duration

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START OF TRANSCRIPT

[00:00:00] Fabian Tingelhoff

Hello and welcome, everybody, to yet another interview in our interview series of the DSR Academy. Today I have the pleasure of interviewing Edona Elshan, who is an assistant professor at the Vrije University of Amsterdam, and she is researching a lot in the design science research domain. She just published last year in the Journal of Management Information Systems, and the year before in Information Systems Frontier, all targeting the DSR method. We are very keen to see and contrast our previous findings that we had with the other interviews with a younger, more emerging perspective on how DSR can be used in order to build a career on it. But before we already dive into the topics, why don't you introduce yourself and tell us a little bit about your research?

[00:00:49] Edona Elshan

Yeah, sure. Thank you very much for having me. So my name is Edona Elshan. I'm an assistant professor here in Amsterdam at the Vrije University. Within my research, I investigate the future of software development and how we can empower citizen developers, so non-experts in large organizations to partake in the digital transformation and also create digital applications. A good way to investigate that issue or that problem is by design science research. By creating solutions with the help of design science research that organizations can then take and implement within their contexts.

[00:01:34] Fabian Tingelhoff

Very interesting. I think the paper that I want to talk with you about at the very beginning also very nicely illustrates this. It's your recent JMIS article called Leveraging Low Code Development of Smart Personal Assistants: An Integrated Design Approach. At the very beginning, can you tell us a little bit about what this paper was about, and why did you decide to write this paper in the first place?

[00:02:00] Edona Elshan

Yeah, sure. The paper is basically about what we're facing today. Where we have AI assistants that run certain tasks for us. The question was like, okay, well, as a domain expert, if I have knowledge about my own fields, would that be in marketing or as a business process manager, how can I design something with the knowledge that I have but lacking the knowledge of actually building this application, or in this case, an assistant. We investigated then different local development platforms. Back then, it was the Amazon web developer kit for Alexa that we had a look at more specifically and ran a design science research project around it. We interviewed developers to get a grasp on how they are designing AI assistants, or smart personal assistants, as we called them, and also looked at the literature. What are design elements that need to be included? What are steps in the design of such assistance and how can we combine them? Then, in a framework or integrated framework for domain experts to make their lives easier. To take a bit of the cognitive load of domain experts and to give them some sort of support, which they're not getting within local development platforms.

[00:03:31] Fabian Tingelhoff

I mean, it was a study on design, but why did you also decide to study it through design? So through design science research.

[00:03:42] Edona Elshan

Because it combines both. We had to combine theoretical as well as practical relevance. It was a mix of both of them. So it was not only a theoretical problem that we were trying to solve, but it was a highly practical, driven issue as we were facing a company that I was working at as an intern during my bachelor's and master's that had such AI assistance. But they were not developed by the domain experts, and the domain experts that I faced—I talked to them, I worked with them—had the issue that these AI assistants were then developed by the IT, and the requirements were not quite brought into the AI assistant. The domain experts would put on requirements; the IT could not fully understand what they wanted to do with them. It was like a back and forth a little bit with them. So it was a highly practical, driven issue, and this was the best way to approach it: with design science research.

[00:04:57] Fabian Tingelhoff

And in the application of design science research, where there are also some pitfalls you encountered during the project. And how did you manage them after all?

[00:05:06] Edona Elshan

Yeah. Well, we propose a framework within our research project on how to develop those AI assistants or how to support domain experts to develop those AI assistants. One of the pitfalls was that you have to evaluate this framework. We did a proof of concept evaluation; this was quite easy. To check if the whole framework was actually feasible, understandable, and also easy to use by the domain experts. But then we wanted to go further, beyond the proof of concept, and to actually put the framework into use. We had to develop AI assistants with the domain experts, and that evaluation was quite tricky. It was quite tricky to figure out what are then good to criteria for that evaluation. So is a framework a good one as an artifact if they can actually contribute or create such an assistant? What if they don't? So is the framework's fault, or is it a fault within the domain experts because they lack the knowledge? Or is it within the local platform because it doesn't provide them the support? Sometimes it was a little bit difficult to figure out which part of the evaluation could go wrong. I think that was the difficult part about the design science research project, because it was also not so straightforward on how to evaluate.

[00:06:48] Fabian Tingelhoff

And did you also derive from this some learnings that you also now use in your other or newer design science research project, something that is transferable maybe?

[00:06:58] Edona Elshan

Yeah, totally. One of the first steps that we did was to look at literature and to look at how these assistants were designed in the past. So we had a look also at a variant of design principles. When we did that, we saw that actually quite a lot of design principles are not so reusable. I took it as a game for myself, or as a goal for myself at least, to create design principles in my future work that are reusable for others. That was one of the major takeaways. And the second one was along this way. We did all of the evaluations with the domain experts, but it was quite a hustle to keep in touch with them all of the time, because we were doing our research on our own and then would go back to them with the research project, so we would have touch ins

with them. For the future, we'll try to be more in touch with them. To be more in flow as well, with the relevance while still maintaining the rigor aspect. So it's not something that we can totally ignore. At least it's important, as we are researchers. But to balance that out a little bit. Also, the balance between rigor and relevance is something that I learned or took as a key takeaway out of that project, because it was not an easy one.

[00:08:34] Fabian Tingelhoff

And I think you already touched for this or with this answer a little bit on my next question, because I think you really hit the nail with, for example, now, this rigor-relevance, the evaluation of stuff like a lot of this, which we are already reading in the latest DSR papers and people try to get a hang of it. I mean, we already talked about this now a little bit more in specific when looking at your own project. But what do you think now from your entire experience with DSR, from the projects that you have done yourself and led yourself, or maybe even the ones that you contributed to? What would you say are the main challenges that people should be aware of and wary of when structuring their own DSR projects?

[00:09:22] Edona Elshan

Yeah, I think doing DSR for the sake of doing DSR shouldn't be the case. When doing design science research, to keep in mind that you really also have to keep a part for the knowledge dissemination into practice. So the handover, I think a lot of times, is neglected, especially because typically for most DSR projects, it stops with a conference paper or with the journal paper. Then the handover to practice is a little bit like an afterthought and not really something that we actually do. I think to keep the relevance of researchers for practice, this should not be an afterthought, but it should be an active step or part of the whole project itself. Even if it takes quite some time and effort to actually hand over the knowledge and then to put it into use in real organizations.

[00:10:22] Fabian Tingelhoff

Really, really cool, Edona. I think this is so important to also have the practical relevance and the impact of your own research in mind. The next question, I think very straightforward, is: What would you recommend young researchers right now, maybe PhD students or researchers at the start of their career when they want to use DSR in the future?

[00:10:47] Edona Elshan

Look for interesting problems. I think we have problems all around us. We face design science research problems every day in our everyday lives. I would start from there. I would start from personal issues that I face because I think the better you understand the problem space that you're in, the better you can create a solution space for it. Instead of going for the most hyped topic, probably, which would be something with GenAI currently, start from something that is familiar to you. That's because that's what I did in my original or first bigger design research project.

[00:11:34] Fabian Tingelhoff

Very well. Thank you so much, Edona. And I have one last question for you. Which is a little tricky because it's very general and broad, but do you have any desire for the DSR field as a whole to develop towards?

[00:11:48] Edona Elshan

Oh, wow. Good question.

[00:11:51] Fabian Tingelhoff

I warned you.

[00:11:51] Edona Elshan

Yeah. I think sometimes others, how should I formulate this in a nice way? Sometimes design science researchers are, well, are keeping themselves a little bit small. I think we can think a little bit bigger. Because it's an established method, it has now quite some history. Even though it's one of the younger methods in comparison to more traditional ones I think we've established it quite well. I hope in the future, whenever I get master thesis students or PhDs that think about their thesis, that they will automatically think about DSR as a potential method for their thesis, and that I don't have to nudge them towards it.

[00:12:50] Fabian Tingelhoff

That's a very nice ending sentiment, Edona. Thank you so much for taking the time for this interview and for supporting the DSR Academy. I think we're all very keen to see what publications are coming up from you.

[00:13:02] Edona Elshan

Thank you very much, Fabian. Looking forward to all of the design science research that's going to be published.

END OF TRANSCRIPT