11-04-2024 JOHN VENABLE - TRANSCRIPT

2 SPEAKERS

Sebastian Reiners

John Venable

Duration

34m 37s

START OF TRANSCRIPT

[00:00:01] Sebastian Reiners

Hello, everyone. My name is Sebastian Reiners. I'm a research assistant at the University of Münster, and today I'm here with John Venable, an adjunct associate professor at Curtin University. He has been an associate professor for 19 years, including positions of senior lecturer, head of school. But before I talk too much about you, John, maybe you would like to introduce yourself a bit?

[00:00:31] John Venable

Yeah, yeah. Okay. Well, I'm American, I've lived in Australia for 26 years. 27 years now. Yeah, and been at Curtin University almost the entirety of that time. Started out as fairly junior. But have risen up a ways and assumed a lot of different duties and the academic areas in both research and teaching and leadership kinds of positions. My background in the United States as a PhD student was with Professor Heinz Klein, who is well known for his work in qualitative research as well as critical research and research methods. And I've been interested in research methods for a long, long time. But my own PhD was a design science PhD. It was concerned with architectures for tools for computer-aided software engineering as well as conceptual data modeling as a way of providing some sort of input to the structure of those kinds of tools in the data support for them. As such, I completed it in 1994. And I was struggling a bit because there was no guidance for doing design science research. The term didn't exist at the time. Yet that was what I was doing. So I struggled a bit about how do I know what's good about it. Is what I'm doing sufficient, and so forth, which it was. But perhaps I was a bit lucky in that regard, but I made some decisions about what I thought was good, and other people agreed with me. Then I went to a position in New Zealand, where I was again doing design science research, and then moved to Australia, still doing design science research. And then finally Alan Hevner et al. came out with their paper in 2004, and I said, Ah, that's what I've been doing all of these years. And they gave some advice about that, and a number of other papers followed and started publishing at and attending the design science conferences, the DESRIST conferences. Myself and Richard Baskerville and Jan Pries-Heje, who I've known for a long, long time decided that we wanted to do some work together in this space, and we wanted to deal with the lack of guidance for how to do some aspects, at least of design science research. So, that's sort of where I stood in this journey, if you will. And we did a lot of work in that space, and then were able to continue and ultimately publish that. But maybe we should return to your questions then.

[00:03:51] Sebastian Reiners

No, that's alright.

[00:03:52] John Venable

What did you want to know? Oh, you wanted to know about my tasks and so forth? Well, the usual research tasks.

[00:03:58] Sebastian Reiners

Yeah.

[00:03:58] John Venable
But I have no teaching duties because I'm not being paid. So, it's entirely at my own expense. Well, almost entirely occasionally, I get some support from other organizations. But current work is largely in the space of design science research, developing further methods for supporting doing design science research together with Jan and Richard, as well as Robert Winter and Jan vom Brocke. So, very happy to be doing all of that. I also have an adjunct, not an adjunct, a research associate position at University West in Sweden, which happens to be where DESRIST is this year. And I'll be co-chairing the doctoral consortium at that conference. And also, I should be presenting two tutorials there or co-presenting them, one on a method called Colored Cognitive Mapping for Design Science Research, which is concerned with problematizing and theorizing in design science. And another one called mermaids methodology for risk management in design science with Robert Winter and Jan vom Brocke. So those should be providing some information for students that they could use, as well as other design science research, as well as their formative for us in developing publications to come out of that work. So things are developed, but they're still being evaluated and tried out, and so forth. So that's what I'm up to these days, plus all the usual stuff of editing and reviewing and writing and I'm doing a few other things about journal rankings and so forth as well for the Australian Council of Professors and Heads of Information Systems.

[00:06:06] Sebastian Reiners
The scientific background noise you always will have probably.

[00:06:10] John Venable
Yeah, yeah. But all these things are important, for example, for funding and so forth.

[00:06:16] Sebastian Reiners
I really like the abbreviations you choose. Like the mermaids. That's pretty, that's pretty good.

[00:06:22] John Venable
Well, I figured out one good thing about design science is give it a name that people can pronounce. So you can see I did that with mermaids, but I didn't do it with CCM for DSR, so.

[00:06:37] Sebastian Reiners
Yeah.

[00:06:37] John Venable
Yeah, colored cognitive mapping for design science research.

[00:06:39] Sebastian Reiners
I mean, you learn along the way, I guess. So, always room for improvement.

[00:06:44] John Venable
Yeah.

[00:06:45] Sebastian Reiners
You were so very interesting. I really liked that you actually stuck with the way you were passionate about 30 years ago during your PhD and still are passionate about that today. That's amazing to see. And you were already touching on some work you did with two co-authors, and you did a paper. You did a paper which is going to be the focus of today, which is, again, an abbreviation, called FEDs, a Framework for Evaluation in Design Science Research, which you published in the European Journal of Information Systems in 2016. And it's renowned to be one of the leading design papers for evaluation. Basically, you argue that the approaches

before were kind of insufficient in guiding other researchers in the evaluation of design science practices. And you then present a framework and also some steps for addressing these issues, these gaps. Maybe can you take me back before publishing the paper? What was the first idea? So why did you write the paper in the first place? What did you see?

[00:08:04] John Venable
Yeah. Well, my co-authors and I were involved with the DESRIST right from the start, and we published a few papers that provided a little bit of guidance and thoughts about some areas relating to evaluation, like the validity of evaluation and so forth. But we recognized that the papers that thaught presented sort of a methodology or steps for doing design science research. So Hevner et al., Vaishnavi and Kuechler framework, five steps and so forth. The Peffers et al. DSRM design science research methodology and even, the work on ADR action design research, as well as some of our own work, actually, that looked at soft systems use for design science research, for example, or does a soft approach to it. Anyway, none of them really provide, they sort of said you need to do evaluation, you need to do it well. One would say there are five sort of ways to do it. One said there are eight different methods you could use, but there was no guidance as to why you should use them. For what? How should you choose? How should you decide which way to go? And so forth. So we thought that that was a gap and that really needed addressing for the community. Right. So, because otherwise it was going to be very hard for this DSR community to develop and progress. So, particularly for junior researchers to get involved and be successful in doing this research. So we developed a number of approaches along the way. And finally, we developed this framework, two-dimensional framework. That's a key part of FEDs, and we then started presenting tutorials on it. So encouraging people to engage in this kind of research. And here's some guidance that you could make use of. And in doing that, we also were conducting evaluations of it to see what did they like about it, what they didn't like about it. What did they understand? What did they have trouble operationalizing? Why? What improvements would they suggest? And so forth. So we sort of reached a point where we said, We think we've got enough to really write a paper here that summarizes where we are now, and we can put it out in a pretty good journal. It took us more than one journal to get it published. So it took three years to get it rejected somewhere before EJIS. By which time, Richard Baskerville, who had been the editor in chief of EJIS, said, Well, I'm not the editor in chief anymore, so I guess I can publish there now. So we put the paper forward there now. Got it published actually online in 2014, and it is now my most cited paper, although I think it's Richard's 10th most cited paper or something like that. He's a very, very well-known researcher. So anyway, that's sort of why we wrote it and how we got there, if you will. Yeah.

[00:11:47] Sebastian Reiners
Very interesting, really. Just to see like you only see the final product as someone who looks at the paper, you don't really see the progress getting there. So that was very, very insightful, actually. And if we now move actually into the paper.

[00:12:04] John Venable
Okay.

[00:12:04] Sebastian Reiners
Can you try to summarize the key idea? Maybe we were talking about how you got there, and what do you try to summarize in the paper, really?

[00:12:13] John Venable

Yeah. Well, really, the key idea is what you can call the the FEDs artifact, if you will. So, designing our frameworks and methodologies, and so forth, is design science research. So it's design science research about how to conduct design science research. So the artifact itself is the thing that I think is the key idea. So that key idea is a two-dimensional framework. It's quite simple really, of artificial versus naturalistic evaluation. So artificial evaluation, failing to be naturalistic, which borrowing. Who did we borrow from? I can't remember the names right now, but anyway, three realities: real users, real problem and real system or real artifact, if you will. So the more naturalistic an evaluation is, the more you can sort of rely on the validity of the outcomes, if you will. So if you have students on a pretend project with a prototype, conducting evaluations is not naturalistic in, very much, in any way, really. On the other hand, artificial evaluations are really useful for controlling, for external effects, for having control variables, whereas naturalistic evaluations is very difficult to do that. Yeah. And then the other dimension is concerned with formative evaluations, that is, evaluations conducted to help you learn about and improve the artifact. So they don't need to be highly rigorous, and so forth. They just need to aid your learning and improve the development. And then summative evaluations are concerned with providing evidence about sort of the final version of the artifact. So other terms have been used, like ex ante for formative and ex post for summative evaluations. So that simple framework said, All right, there's sort of you can think of four quadrants, but the dividing line is permeable, let's say. Yeah, it's fuzzy. But the second part of that artifact was we realized that there are sort of trajectories of progression of individual episodes of evaluation. So you might have 3 or 5 episodes of evaluation that you conduct over the course of a DSR project. And there's typically a progression from artificial, formative to naturalistic, summative. But different goals and different contexts for DSR projects mean that different trajectories are more appropriate. So we came up with four archetypical, if you will, trajectories and mapped those onto this two-dimensional framework. Finally, we felt that a third part was needed, that is a set of steps. First do this, then do this, then do this, then do that. More for novices than for experienced people. Experienced people can wing it to some extent because they understand why things are the way they are and they can make choices to aid themselves. Anyway, so that artifact itself is really the key paper idea. There's also a little bit of how it was evaluated and so forth, which is important in providing evidence. But once you decide the quality of the evidence is sufficient as a reader or as a reviewer or editor, then you don't care about it much anymore, other than as an example of how to do an evaluation for somebody else later on. So, less of a contribution or not really a key idea there. So the way we did it was the way we did it. There are other ways to do it, and probably some better ones than the way we did it. It just happened to fit very well with what we were doing.

[00:16:49] Sebastian Reiners
I mean, what's better is going to be subjective anyway, I guess. So, maybe some people will think there are better ways. I think you did a pretty tremendous job of actually writing it down, and being a young researcher myself, I really am getting behind these steps. So, having some steps to follow, and I like to give them to my students as well when I do seminar thesis or so. It's just an easy way to just get into the topic. So, very appreciative of you doing these steps in the paper.

[00:17:20] John Venable
Okay. Welcome, all of you listening; you're welcome.

[00:17:28] Sebastian Reiners
I mean, I was kind of saying what I enjoyed as a PhD student of the paper, but maybe you can talk about what do you really like about your paper. What's like the main contribution that you are particularly proud of? Looking back, there are more than 1000 citations on your paper, so some people would agree.

[00:17:47] John Venable

Yeah, yeah. I think I'm most proud of the DSR artifact. The FEDs artifact itself. But also the conceptualization of design science evaluations behind that. That is just conceptualizing this idea of artificial versus naturalistic and conceptualizing these ideas of formative and summative, because you won't find that in Hevner et al. You won't find it in Peffers et al. You won't find it in Vaishnavi and Kuechler. You sort of find some of it in ADR. But yeah, maybe not all of it. So anyway, for me, that sort of framing of ideas is pretty good. I guess as well there are some thoughts about what are the goals of evaluation. I think we identified 5 or 6 different kinds of goals for evaluation. So comparative evaluations and those sort of things as well. Safety critical issues come out as well. But I think we, maybe that's a little later work, anyway. It's been a while since we wrote that.

[00:19:02] Sebastian Reiners

Yeah, I mean, it's ten years if you publish it in 2014, and maybe looking back in some kind of retro perspective, would you change something now? Is something not as perceived as you wrote it down, really?

[00:19:18] John Venable

Well, I think we're happy with the outcome at the time, but absolutely, I would change a few things. So rather than going back and changing things, we've got another paper under review currently on what we call MEDs, which is methodology for evaluation in design science.

[00:19:41] Sebastian Reiners

Again, abbreviations.

[00:19:42] John Venable

Yeah. So it adds a few things to the FEDs paper. Yeah. So, what would we do differently today? Well, one of the things we do is we take a perspective on the importance of conducting evaluations efficiently. You can't just spend massive amounts of resources on conducting evaluations. Some people have said that design science is in danger because you, in effect, conduct two research projects: a design project and an evaluation project. So potentially, there's a lot of resources devoted to that to get both good formative evaluations and high-quality, rigorous summative evaluations. So part of what we were concerned with there is thinking about a really important aspect: scoping the evaluations that you're going to conduct in order to not conduct evaluations that don't need to be conducted. And in designing the evaluation episodes to do them efficiently. Another aspect that we're concerned with there is that, there's been some of the feedback we got on FEDs was that we did not provide guidance for selecting which methods to use for particular evaluation episodes, if you will. So which evaluation methods would you use to do this or to do that? And how would you choose among those? We'd actually had some ideas for those things, and we removed them from the FEDs paper because it just made the paper too big. So now we're battling with a really big paper, even bigger than FEDs and trying to deal with it succinctly yet provide good quality evidence. The third part is incorporating some other areas of work that have been done by other authors. So there have been other pieces of work in evaluation, some of them actually just prior published just prior to the FEDs paper after it had been submitted and under review for a good while, as well as some subsequent work. So, a little bit of that incorporated and some ideas from that incorporated. So, yes, we would absolutely do things differently. And we are doing things differently to enhance that work. We've done a number of tutorials over the years already for that. So, yeah, we're hoping to see an acceptance in this round, but my gut feel is there'll be another round after that. So anyway, we'll see.

[00:22:52] Sebastian Reiners

Scientific publishing.

[00:22:53] John Venable
You reviewers out there, you know who you are. So anyway. (laughing)

[00:22:58] Sebastian Reiners
Yeah. (laughing)

[00:22:58] John Venable
Anyway, if it's accepted at all, so yeah.

[00:23:00] Sebastian Reiners
The struggle of scientific publishing. I mean, all of us can relate to what it entails.

[00:23:08] John Venable
Yeah, maybe not the PhD students yet, but they'll get around to it. Yeah.

[00:23:13] Sebastian Reiners
To some degree, maybe. Depends on how you follow your PhD. But maybe going into that direction, actually. And you were talking about a doctoral consortium, which you are going to be supervising, at the DESRIST and looking at young DSR researchers who are trying to publish a paper they did.

[00:23:31] John Venable
Yeah.

[00:23:31] Sebastian Reiners
A project. Whatever. Maybe you can try to iterate over what are your experiences conducting DSR research and what would you recommend young researchers. What can they do with DSR? What are your experiences?

[00:23:50] John Venable
Yeah. Okay, so I've been pretty lucky to get a lot of things published in fairly quick order. A lot of that has to do with having good co-authors. So, good co-authors, as in particularly experienced co-authors, is a very good strategy because you may have very good ideas and you may have very good evidence, but organizing it in a way that reviewers can comprehend and follow takes a good bit of careful thought. Of course, the hardest part is actually starting. Just starting writing things down and getting things written. It's easy to procrastinate on those kinds of things. At least it is for me, and I see that in the students as well. But, looking at things like guidance for how to structure a paper in design science, Gregor and Hevner have a very nice, neat paper in that regard. It has a few other things in it as well. I always structure my papers following that now. A lot of very careful signposting about, here's what I'm going to tell you, here's what I'm telling you, here's what I've told you, and here's how it's organized, and so forth. So that readers don't lose track of where you are in a paper. And that takes a bit of thought and a few extra sentences that maybe you might not think of writing, having written all the content as you will. So I call that signposting. So directions: here's where we're going now and 300m to left turn and whatever it might be. So, those kinds of things can be really helpful. But clearly stating what problem you're trying to solve or what improvement you're seeking and providing evidence that that actually is a problem or an improvement that's needed. That's a very good thing to do. Then clearly setting out this is my artifact. It has these four parts. Part one is this; part two is this; part three is this, okay? It's been evaluated formatively. We won't describe how, because that's not important here. It's been evaluated summatively. Here's how we decided to do it. Here's why we decided to

do it that way. Here's how it was actually conducted, and here are the outcomes. And then, okay, what have we learned from all of this? Here is the artifact and the theory about the artifact design principles, and so forth. You may include that. That so far seems to be a little bit optional, but it's becoming stronger and stronger as time goes on, that you really need to clearly state the theoretical contribution. So why is the design this way, as it were? And how to instantiate it. And then finally, well, what did we learn from all of this? Did it solve the problem? What were the contributions that the paper made? So, all of those things need to be done, yet they need to fit within a fairly limited space. Now, for those of you who are not English as a first language speakers, I highly recommend involving someone who is, or someone who maybe isn't, but is well experienced writing English language papers. I mean, that can be just someone who reads through it and edits it for you. They may not even be a co-author, but involving someone along the way is likely to improve your chances of getting published. So I know some reviewers get frustrated by not quite being able to follow what's being said. So, or I think you said this, but you might have said that, or you might have said that, and as a reviewer, I don't think I should be guessing which one of them you mean. Yeah, so involving someone else who can help you with that is a really good idea, unless you're strong already in that area. But frankly, I've been an English speaker for 70 years, and early on, I needed some help with that. So writing and writing clearly is an important thing to learn if you're going to be in the publishing game.

[00:29:02] Sebastian Reiners
Writing is immensely difficult. I always see young students, bachelor students, building sentences for four pages. Just writing clearly is a tough task. So I'm totally on you with that take. Maybe going into our last steps here and abstracting even more from these young researchers towards this entirety of the DSR community. Imagine having the entirety of the DSR community sitting in front of you. What do you wish for the field? How should it progress? Are there any recommendations, any ways to go you would like to see the DSR community really dive into?

[00:29:46] John Venable
Well, I think one that's sort of been in front of me for a long time now, and it's a bit difficult to deal with, is that, for me, the concepts and ideas of design science research are relevant to all applied disciplines. Not just information systems and IT, but medicine, management, librarianship, chemical engineering, civil engineering, social work, education. Okay. And you see bits of it in all of those disciplines. Okay. Medicine in particular has been, of course, heavily, heavily, heavily involved in it, but they haven't conceptualised it the way that we have. Yeah. So I think there's a lot to learn from other applied disciplines, and there's a lot that we can cross-fertilize with other applied disciplines. And I think it would be beneficial to extend our reach outside of the domain where we have it now. To other domains and think about, well, how can we collaborate? So there are pockets of people who are in other disciplines who are aware of the work that we're doing in this management, in this domain. That's what I want to say. So, that's something that I would like to see within the community. I think some further work needs to be done in the space of theorizing. And what really are the main concepts and how do they fit together, and how can we operationalize theorizing better both within our particular domain as well as in other sorts of areas? So education is one that's a natural fit because most of us who are researchers at universities are also educators. So there's a lot of work being done on improving how to do teaching and learning and so forth, developing artifacts, and developing evidence for it. But conceptualizing all of that. That's not as well done as it could be, in my opinion, and I think there's still room in DSR in the ICT and information systems space. Yeah.

[00:32:38] Sebastian Reiners
There's a lot to do.

[00:32:39] John Venable
Oh yeah.

[00:32:39] Sebastian Reiners
There's still a lot of stuff left unresearched. And, yeah, that's a good way of looking forward for young researchers. I mean, there are plenty of opportunities just looking at these cross-domain opportunities.

[00:32:53] John Venable
Yeah.

[00:32:53] Sebastian Reiners
The world is wide open.

[00:32:55] John Venable
So, I have a PhD student now working in the space of ICT for health. So, certainly, there's been, you know, such a huge push in the space of the UN Sustainable Development Goals. So, improving the quality of life, improving education, improving health, reducing poverty, improving the environment, et cetera. All of those are areas where these ideas apply, because sustainable development is an improvement that's sought, and building and developing new artifacts for doing it is, of course, an important thing to do, and lots and lots of work in that space already. But not enough, in my opinion.

[00:33:50] Sebastian Reiners
John, thank you very much for your time. Thank you very much for answering all these questions, for giving us insights into your work and to what young researchers can do and should do in the future. Do you have any last words or are you good?

[00:34:06] John Venable
Yeah, no. Don't think so. That's enough for now. So, stay tuned. The methodology area continues to change as time goes on. So, and I haven't even looked at how AI is going to do all of this, so yeah. I think that's for the next generation, really.

[00:34:29] Sebastian Reiners
DSR stays exciting. Thank you very much, John.

[00:34:33] John Venable
Okay, my pleasure. Take care everyone.

END OF TRANSCRIPT