

## 25-06-2024 AHMED ABBASI – TRANSCRIPT

### 2 SPEAKERS

Sebastian Reiners  
Ahmed Abbasi

Duration

25m 19s

### START OF TRANSCRIPT

#### **[00:00:01] Sebastian Reiners**

Hello everyone, and welcome back to another interview on the Design Science Research Academy. My name is Sebastian. I'm a researcher at the University of Münster, and today I have the great pleasure of welcoming Ahmed Abbasi from the Mendoza College of Business. He is a professor of IT analytics and operations and has published hundreds of articles at MIS, ACM TOIS, and MIS Quarterly. He is an advanced researcher and a design science researcher. I'm so happy to have you here today. Do you mind telling us or the audience a bit about yourself?

#### **[00:00:43] Ahmed Abbasi**

Yeah, I'm happy to talk. First of all, thank you for having me, Sebastian. I've enjoyed watching some of the other interviews that are on the DSR Academy website with some really big names in the design field, so it's a pleasure to be here. I'm Ahmed Abbasi, and my background has been in artificial intelligence for the past 20+ years. I actually worked in the industry, doing fraud detection. Decided to get a PhD. I initially started out doing operations research work for my PhD in New York and then moved to Arizona. I was drawn to design work, actually at Arizona. Arizona in the United States is one of the traditional IS sort of powerhouses, but really focusing on design with J. Nunamaker, Hsinchun Chen, and Sudha Ram. In fact, my great, great grand advisor is Herb Simon. So, I've always been very much into design research. I was a first-year PhD student when the Hevner et al. paper came out in MIS Quarterly in 2004. And so that really just changed my life in terms of what I wanted to do. So, I'm really passionate about design, and I'm excited to be here to talk about it. I run a human-centered analytics lab, so a lot of my work is very socio-technical with design, and I try to do a lot of downstream deployments and evaluations of artifacts in organizational settings. So there are a lot of field studies and a lot of longitudinal research. But a lot of the artifacts are computational, so I do tend to do a lot of machine learning-driven design work. That's a little bit about me.

#### **[00:02:10] Sebastian Reiners**

Yeah, perfect. I mean, doing this computational stuff, doing this machine work — you, from this position, have written a paper. This paper is called Pathways for Design Research on Artificial Intelligence, which is, as of now, the end of June still upcoming, I believe. It's still not officially published, but it's already in preprint. In this piece, you go on about the specific challenges we currently have with artificial intelligence, especially the combination of artificial intelligence and design science. And I would like to dive into this paper today and kind of see how this paper progressed, how this paper shaped or will maybe shape our perception of design science and artificial intelligence. Maybe, to get a start, why did you write the paper in the first place?

#### **[00:03:09] Ahmed Abbasi**

I think that's an excellent question. And I think that's the question we always need to ask. Especially first of all, it's an editorial. And that's an important thing to note.

#### **[00:03:17] Sebastian Reiners**

Sorry, yeah.

**[00:03:17] Ahmed Abbasi**

No, and I don't mean to distinguish between paper and editorial in that way, but it just means that editorials have a different process through which they go to get published. For design, we've got a wealth of different perspectives. The DSR methods research on how to do different types of design research has been very vibrant, especially in the last 20 years. And so really our, focus was not to, as you alluded to, kind of before the recording started; we did not want to do a methods paper per se; what we wanted to do was say, Okay, it's an editorial. How can we allude to or elucidate some of the pain points that we're seeing as editors? And really, the pathways — as the article title says — pathways for design research on AI. Now, how do we kind of just talk about things that are happening during the peer review process? Right. And so I think the key thing to start with is to acknowledge my co-authors on this editorial. So it's Jeff Parsons, Olivia Liu Sheng, Gautam Pant, and Suprateek Sarkar, of course. So it's very much the four of the senior editors at ISR right now who have been there probably for at least 10+ years as a ESC, etc. and have handled a wealth of papers. And in the case of Jeff, he also has a lot of experience at MIS Quarterly as a senior editor. And so the idea was that we are going through this process where we handle tons of papers, we get a large volume of submissions at ISR, and we started to notice these patterns over the years about what the pain points are and what is happening in terms of the author-editor-reviewer triangle, if you will. In terms of the conversations we're having, in terms of the causes for papers getting rejected, in terms of revision plan feedback, in terms of the zoom meetings that we're routinely all having with our AEs and reviewers on papers. We said, Hey, we're developing this large knowledge base of the things we're seeing. But also crucial was that it wasn't just the papers coming in but also enough papers that had been accepted. And I think that's really important because it can't just be the things that aren't working. It also has to be, well, we need the wins. We need success stories so that we can say, Okay, here's some evidence of things that have worked well. And how can we use that to come up with this framework. So, long story short, we looked at over 300 papers that we've handled and about 30+ that have been accepted. So we're not just rejecting everything. And that's important to note. But we'd like to see more. And sort of the motivation for this is that we know design has a significant role to play in thought leadership in an AI-enabled world. We think that for information systems as a discipline, design is one of its differentiators, right? Because of technology with digital transformation, a lot of fields are studying phenomena that are technology-centric now, right? AI is not unique to any field. Digital platforms, digital transformations, blockchain, cloud, etc. are all phenomena that a lot of fields are studying. But we think that design research, which I would define as where the knowledge claims are prescriptive, is the focus. So, how do we design artifacts and knowledge claims that are prescriptive or prescribing? Best practices, design principles, etc. How can we further that? So that was the backdrop. That was the motivation for doing it. And at the same time, we wanted to be very mindful of well-intentioned tutorials that could have negative consequences in terms of adding more gatekeeping and layers. And so we tried our best not to be overly prescriptive with guidelines but to sort of hit that sweet spot where we're not sure that the authors, reviewers, and editors are all speaking the same language sometimes. And so the hope was to bring people together.

**[00:07:13] Sebastian Reinert**

I mean, the acceptance rate of good journals shows that most people don't actually speak the same language. So there is a little bit of a difference, so to speak. I would call this editorial, for the moment, a call to action — maybe actually how to call to action. Maybe this makes sense. If we look further and move into the future because this editorial just came out. So far, the impact is not measurable probably. What do you

hope to achieve? What do you hope to contribute with your idea of this editorial, with your idea of design, of how to conduct design research?

**[00:08:01] Ahmed Abbasi**

Yeah, I think we alluded to this in the introduction: our goals, which I think were like 2 or 3, and I don't remember off the top of my head exactly what all of them were. But first and foremost, we wanted to acknowledge these author impediments. This is feedback we get. And we think that obviously, in academia, we live in a publish or perish environment, and publishing in top journals is crucial to developing design scholars and our design community. So we want to, and as you alluded to, all the top journals are tough. Publishing is hard. Acceptance rates are always going to be low. It is what it is. But what we would like to do is create a more vibrant community. And at least at ISR and some of these journals, even at MISQ and the AIS basket more broadly, design research has always been a very small percentage, frankly. And it's changing. I think EJIS has some great papers that have come out in recent years, and the European Community is doing great. Germany thankfully. In the US, even in MISQ and ISR. But in general, there hasn't been as much. So first and foremost, we would like to try, to the extent possible, to reduce some of those impediments and frictions for authors and junior scholars. And we've already been getting a lot of feedback. The paper has only been out for a month. It's got over like close to 3000 downloads. And, I was just at ECIS and I'm giving a few keynotes and Olivia and Jeff and others as we travel and Gautam. People are saying, yes, this is me, because we actually included actual quotes from actual AE reports and reviewer comments and SEs and sort of tried to highlight, without getting into specifics of the paper, some of those challenges that are happening. So really the goal is we want to identify and provide pathways to some of those impediments. But the goal isn't just to have more papers published. It is to contribute to a cumulative tradition. We want design research to be providing thought leadership, and that's informing all aspects of, like I said, IS work within an AI enabled world. And so that was why we also did talk about abstraction a lot, which is a key theme here, where abstraction is important to help build a cumulative tradition. And then the other thing is design work. There's these three big communities for design research. There's the DESRIST community, which started I think, in 2005 was the first conference. So it's probably been its, I think 20th anniversary or something soon. And that's been fantastic. Then there's WITS, which has been around for about 35 years. And then there's also the college on the I, which has been started in 1996. And these are all IS communities, and they kind of have different perspectives about what abstraction means. What are contributions? What are your contributions to the cumulative tradition? And so we wanted to bring those together as well. So we sort of problematized it in figure one of the paper, where we said, Okay, AI is fast pace. Its general purpose is greater than ever. It is generative. And then, on the design side, we have these different perspectives. And how can we try to embrace a broader set of abstractions and things so that, hey, maybe your paper doesn't have all the design principles completely figured out, but maybe there are some salient things because the phenomena, the artifacts, and the space are moving so quickly. Is there a path for those types of papers, or are we going to have to continue to have this checkerboard where, depending on which sort of abstraction I espouse, I'm going to either like or dislike your paper from day one, and we're going to have four rounds where we just try to bring people on board. So that was sort of what we were trying to do with this. And so the hope is very much to grow a community that is kind of contributing to the broader cumulative tradition. And we want more to continue to have impactful work. At ISR, I think we alluded to this. In the last ten years, five of the best paper awards have actually been design papers. So there is good work happening. We would just love to have more of that as well.

**[00:12:13] Sebastian Reiners**

I definitely think that this paper is going to have a great impact on me personally. I will use this paper as a kind of headline for an upcoming seminar, which I will offer in the next winter term for our master students to just do design science in AI. So this is going to be the headliner. So it's definitely going to have an impact. I'm definitely with you. It is going to be very exciting to see how this turns out. And it will probably lead to more researchers actually doing DSR in AI. The submission process just finished. The paper has been accepted for two months now. Maybe you can look back at this process of actually writing the editorial, writing the paper, and you probably had a lot of discussions with your co-authors about how to find this way of presenting what you actually want to achieve. So maybe you can tell us about these decisions you had to make. About these moments of writing the paper. What was hard? What was difficult, and what was challenging for you as an author?

**[00:13:24] Ahmed Abbasi**

That's a great point. Yes, it was, I would say, 18 months. Early on, we would have almost biweekly meetings for the first few months. I think our discussions were almost a microcosm of some of the impediments and pain points we were talking about, because even amongst them, it's funny. Bless his soul, Supra, who really wanted to push this at ISR. And that's a big reason it happened. Of course, he's the EIC, and he knows the design community very well. I mean, he obviously knows everyone in IS very well. But I think he didn't realize some of the nuances of the different perspectives within design. And so I think for him early on, he was like, Oh, this is going to be complicated because we have these different perspectives. When we think about what the different types of artifacts we do research on are, and I think these are some of the big, big points that we really spent a lot of time on, well, what would what should an abstraction spectrum kind of look like? And by the way, that idea was inspired a little bit or quite a bit, as we allude to in the paper, by some of the computationally intensive theory construction work, including that editorial by Miranda et al. with Stefan Seidel, Nicholas Berente, Hani, and company. That was a similar sort of inspiration that, hey, can we embrace like a plurality of these abstractions? But then the other thing we realized early on was that our perspectives are very much conditioned by the types of artifacts, or the types of genres, if you will, of DSR that we do. Whereas people that are much more computational or have very different perspectives than those that are much more representational knowledge artifacts and so forth. So we thought, well, can we embrace that diversity and find that common ground? And we think that's sort of it, so it was nice to see that. And it was almost like a microcosm of how a lot of our zoom review strategy meetings go as well, like where you're trying to bring people on board. So it was very much about that. Then the other big thing was that all of us are very active in researching and publishing, right? So in ISR and MISQ, I think the nice thing about that is that we're mindful of not wanting to be overly prescriptive with the guidelines, because we've seen how that can be a challenge when you have 3 or 4 reviewers with 3 or 4 different perspectives on how you need to do this. Putting all those things together was a long, 18-month process. It went through. Then we got such great feedback from the external folks. We have about, I think, close to 20 people that we reached out to. Including at Münster Jan vom Brocke was one of the people we got really good feedback from, but we got great feedback from Sandeep Puroo, Samir, Tuure, and all these great folks. It was, for me, probably one of the most challenging things I've ever written. Just for that reason, or co-authored, I should say.

**[00:16:31] Sebastian Reiners**

Yeah. I could assume that 20 reviews would be quite the challenge to actually integrate feedback into. But it was very insightful. And you don't really see all these contributions from these 20 reviews, which also played a part in actually developing the paper. It's good that you mention them because it's not just five. It's probably like 25 opinions and feedbacks implemented into the paper, which makes it even more

contribution-heavy, I would say. So if we maybe move even further, abstract even more, like in your paper. What do you desire for the design research field in general? I mean, you give pathways for AI in general. Are there any more levels to it that you would recommend other researchers follow?

**[00:17:28] Ahmed Abbasi**

Oh, interesting. So levels being beyond, do you mean levels as in beyond the abstraction spectrum, or do you mean for like beyond AI research or like what?

**[00:17:40] Sebastian Reiners**

Mostly in terms of design research. So design science research. Maybe beyond AI research in that sense. Is there any general tendency in DSR that you can put any reason to, any opinion towards?

**[00:17:56] Ahmed Abbasi**

Yeah, no. I think it's worth noting that as we talked about the pathways, there are several aspects to them, like novelty, domain adaptation, and how you contribute to a cumulative tradition where we just alluded to other papers that we think are coming out that are very, very interesting and important. And I think that just broadly, the question becomes, how can we inform and impact organizations, policies, and decision-making at a time where, I think, design researchers are doing so? And I know every field feels this way, but I feel that design researchers are doing arguably some of the most important and consequential work. In one of the most important and consequential eras for technology, where everything's front and center, how do we ensure that we seize this opportunity and do really impactful work? And I think that means ultimately we need to build papers that have shelf lives. That's been part of the challenge with the design papers that are actual artifacts and actually doing the actual. Sometimes they're really ingrained in the phenomenon, right, because of the pace of change and how fast technology is moving. And you're right, AI might be just one example of that. And there are others as well with digital transformation that we're seeing where some of these considerations still apply. Right? If you look at our problematization, the three things we said from the design side are those that apply to really any phenomena. But our argument was that AI sort of has these characteristics that have caused it to reach a tipping point or breaking point. And one could argue that, yes, there might be other phenomena where that happens as well. So I think that the pathways were just meant to be a general framework for the review process. But then, in addition to it, researchers should look at some of the really cool papers on how to do cumulative traditions. You know, one of the things we actually wanted to do in the paper, and I actually have it open on this other screen here, is and it's actually Jan vom Brocke, Alan Hevner and Alexander Maedche stuff. They have these, like maps, representing knowledge. Knowledge of how you show cumulative tradition. It's almost analogous to those magic quadrants from Gartner and those kinds of things. But that's something where, on most topics in design research, you see one paper. For a class of artifacts, we usually have one paper. Then it's like, okay, we're moving on. It's harder to build a cumulative tradition that way. So how do we go beyond one and done in publishing on topics that are important? Then there's other really important things. I think the paper that just came out in MISQ on design complexity. So to me, complexity is such a phenomenal thing because, for years, the mantra in design has been complexity is death. Right? That's like the classic Microsoft saying, and now complexity is designed. You have to design for complexity. Then I think the complexity comes from the fact that with all these artifacts, there's so many considerations now. It used to be that the value of your artifact was its operational utility, but now let's take AI. The responsible AI tenants. Fairness, privacy, and these other considerations add a lot of complexity to your design. Just as a simple example, in order to make something fair, we have to know things about people, which creates a natural tension with privacy. So there are these really interesting tensions. I feel like, first of all, with the pathways, how do we publish this work? But then,

how do we think about contributing to a cumulative tradition? How do we think about complexity and responsible AI? All these factors are going to be really important to think about. So we didn't want to push too much downstream. But how do we inform policy more? That's something I think Europe is doing a great job with, actually. I think your research is impacting practice and policy. And I think the US is a little bit behind with our design research.

**[00:22:16] Sebastian Reiners**

Thank you as a representative of Europe. I thank you very much. I don't think I have any contribution to that as of now. But thank you very much for the props. When I hear you as an experienced researcher talking about design science, I always get kind of inspired because I think we have so much potential innovation lying around, and design science is such a good way of actually fostering innovation and having a problem space, but finding so many potential solutions for that. That's at least my takeaway when I talk with experienced researchers in design science—the potential possibilities that lie beyond design science and design science research. That was pretty much everything from me. I would like to thank you very much and give you the last words. If you have anything to say, or if I missed anything, any big questions that you would like to share for the moment?

**[00:23:15] Ahmed Abbasi**

No, I think. Just regarding the editorial, about two things. One, I want to come back to the DSR Academy, and thank you for what you're doing. But before that, regarding the editorial, one thing I didn't kind of allude to, which is really important, is that a lot of design research is about the context, the domains, we work in organizations, we work in social technical environments. And I think that as general-purpose technologies like AI, foundation models, etc. become pretty decent for a lot of tasks. We just saw the paper in Science that just came out on GPTs are GPTs, right? So this idea that these language models are general-purpose technology — that's what the second GPT means. The importance for us to go even further into these domains and incorporate the richness and texture. We talk about this a little bit in the paper about going from domain application to domain adaptation. I think that's one area where what does that mean and how do you balance that tension of going deep into a domain while still being able to have abstractions is going to be really important. We need more work there, because that's our sweet spot, I believe. Rather than saying, Hey, we're going to apply this to this context, we have to really deeply immerse ourselves. Last thing again, I just want to thank you and all the sponsors for the DSR Academy, and offline, I'd love to know how Notre Dame can become a sponsor because we need more of these types of things. We need to sort of inspire the next generation of design scholars, such as yourself, Sebastien, to pick up the mantle. And let's do world domination with design.

**[00:24:56] Sebastian Reiners**

I'm not sure if we need to aim for world domination, but we can at least try to make the world better. Maybe that.

**[00:25:04] Ahmed Abbasi**

That's a fair point. Yes.

**[00:25:06] Sebastian Reiners**

Yeah.

**[00:25:06] Ahmed Abbasi**

No. You're right. I think that's a better framing.

**[00:25:08] Sebastian Reiners**

Perfect. Ahmed, thank you so much for having me and for talking for so long about a very interesting topic.  
Thank you.

**[00:25:17] Ahmed Abbasi**

Thank you so much. Take care. Bye bye.

END OF TRANSCRIPT