

## UDL Research in 15 Minutes

With Dr. Sara Wilford

LOUI: Hello and welcome to UDL Research in 15 Minutes where researchers share their findings about the implementation, the impact, and their introspective investigations of the UDL framework. I'm Loui Lord Nelson, UDL author and leader. Today, I'm talking with Sara Wilford is a Senior Lecturer and Senior Research Fellow at The Centre for Computing and Social Responsibility and a Faculty of Computing, Engineering and Media at Du Montfort University, in Lester, England. Today, Dr. Wilford and I are going to talk about the research she reported in her article, "Responsible research and innovation: Using the requirements tool for stakeholder engagement in developing a universal design for learning guidelines for practice." Hello Dr. Wilford, how are you?

SARA: Hello. I'm fine, thank you very much. And thank you for having me.

LOUI: Oh, you're welcome. And first, can I call you Sara?

SARA: Please do.

LOUI: Thank you very much. All right, so my first absolutely burning question Is this your interests are in, I'm going to read this, computer ethics, privacy, surveillance, public policy and e-government. And you have a background in public administration and management, as well as your PhD in computing, ethics and public policy. How did you come to know about Universal Design for Learning?

SARA: Yeah, it was, I guess it was sort of by accident in the first instance. My university had said that it had made the decision that they were going to actually implement universal design for learning across the whole of university for all students and this piqued my interest. What is this universal design for learning? So, I volunteered to be the champion and I was successful in being the champion for my faculty. So, I started to learn about what that actually meant and how it was involving learners that

basically knocking down barriers. And I thought, just thought that was fantastic way for learners to grow, so that's how I started into it.

LOUI: That's fabulous! So, then I also understand...actually, let me back up for a second, within this article, you are using responsible research and innovation as an approach. I've never, I'd never heard of that specific approach to research before so I'm, I'm already in love with it. But I think I'm going to fall further in love with it because I'm going to ask you to give a description of that in a way that our researcher community can understand.

SARA: I'll be happy to. So, responsible research and innovation basically says, what we need to do is we need if we're going to do innovation, we're going to do research, we're going to create new things, new artifacts for humans to use, then what we don't want to be doing is bulging on everything end. So we go, "Oh we'll make this thing! It's a blue-sky thing! We'll just do it! Don't worry about the consequences!" And then, oh you know we'll bolt on some security or we'll tweak the algorithm or something like that afterwards if there's a problem. Now what responsible research and innovation says is no let's back up. Let's say we build the idea of responsibility, taking responsibility not just for what you do, but the impact of that technology on the current period and future generations. And we go okay, let's do informed design. Let's build it in from the very beginning, at the concept stage. So, the idea of building responsibility at the concept stage is the whole pillory if you like of responsible research and innovation, and it brings in all sorts of concepts like, like ethics and self-determination, co-creation, all those different concepts that build around the idea of responsible research and innovation. And just key point, it does require action. So, this is not something you're oh what a lovely concept. No, you go, "Okay, how are we going to build this actually into the design? So, it's like privacy by design, ethics by design, all those different ideas brought into one, one concept that you would take, you would, basically that would be your methodology, your methodological approach to the research. So yes, very much in a nutshell.

LOUI: So is this something that came out of the computing world? Did it come out of social sciences? Do you know?

SARA: No, it actually didn't. It was originally responsible innovation with regards to mechanical engineering. This, this concept, the idea was that there were things that were being built, that were being made that weren't actually sustainable. You know, the idea of a built-in obsolescence with things, that type of thing. And it was realized that this was not sustainable. And so, it was originally thought of in practical in a practical sense, then it developed. It was actually taken on by the European Commission in the Horizon 2020 research series. It was one of the key pillars for the, for all the projects. So all of the projects that were done under the Horizon 2020 program, all have to have an element of responsible research and innovation. So it focuses your mind on, you know, not just doing something because you can but doing something with the work, with an eye to the future. With an eye to, to that sort of, to that sort of approach if you like. The future generations and how it's going to impact them. Had we been using something like responsible research and innovation during the development of YouTube or Facebook, we probably would not be seeing the problems that they're now encountering where their algorithms are designed such that they are actually causing further problems, and they hadn't anticipated. They actually could have anticipated this had you considered those issues at the design phase.

LOUI: [overtalking] So it's been going

SARA: Yeah, it's been going on for quite a while, and I would say at least 10 to 15 years in the UK and Europe. I think in the US, it's only just starting to show itself a little.

LOUI: Yeah, it's this brilliant overlap of coming from mechanical engineering, but it's got this incredible social side to it that brings in that thoughtful design and so, oh my gosh it's so obvious why you saw, to me, why you saw this connection with universal design for learning because of course, inherent to that framework is that you're, you're doing this work upfront. You're preparing for that access, you're creating an establishing that within your design, but alright so I don't want to steal that thunder, because

SARA: No, keep going! It's great! I mean I'm really happy that you can, you can see the point. I mean that is being the point. You do have to, I think in the in the past, the idea of creating something just because you could was the be all and end all and then, then it was like, "Oh, how do we get that to market? And how do we take that further? And then

taking into business?” And start in with lots of money and there wasn't really this thought about the impact. So, for example, I'm introducing ethical thoughts, and then again this is to do with responsible research and innovation within our “mec ed” we call them, our mechanical engineering students who in their final project, creates a thing. So they design a cup or something similar. So what we'll do, we're not going oh you know thinking about privacy and data so much when these guys are thinking, “Okay, where are you sourcing your materials? What are you going to do about those materials in that vehicle is no longer working? And can you recycle it? Are you, are you going to be using materials that are sustainable?” And on. So responsible research innovation is really looking anywhere that you're going to do an innovation and say, take a step back. Have a look about the future. So yeah, it can be it can be across any any sort of field, which is one of the wonderful things about it. So, of course, when I did when I became UDL champion and I started thinking about the concept of breaking down barriers for students. And I realized that what was happening in my, in my university was they were sending all this stuff from on high. You know, everything was coming from on high. Here's a set of guidelines. There's another set of checklists. And I was thinking, how can we, how can we implement UDL effectively if we are not actually practicing what we preach with the staff. How can this staff, who have got loads of different styles, lots of different approaches, lots of different needs. We weren't meant to be effective at implementing UDL for the students, and we need to take that responsible and UDL approach to the creation of the guidelines and everything else for them. So this is how I ended up bringing the two together, because to me it seems quite obvious.

LOUI: Yeah, so I love... so first of all I am going to say that this whole RRI approach is like an answer to my prayers since I've been like a middle schooler. I mean these are the kind of things I've been thinking about. If I hadn't been in education, I was going down the pathway of mechanical engineering so maybe that's why this is all coming together for me. I mean this is just...oh my gosh! But I would love it if you would go into more detail about how you use the RRI approach to bring UDL to the faculty there at Du Montfort.

SARA: Okay. So, as I said we received all these documents and things like that and we basically told, "Right. Okay guys. Off you go! Use these documents. Go and implement UDL." So I thought, no, no, no. This is entirely the wrong approach. And prior to taking on this role, I'd been involved, I was actually leading on a project, it's an EU project. It was called Governance, Responsible Research and Innovation. And as part of that, I had to create a tool, which was the idea being that if you're going to create a set of guidelines for someone or for a group or something like that, what you need to do is not just go, "Hey, here's the guidelines, give us some feedback." No. You say, "Excuse me, what would you think would be an effective form of guidelines? How would you like that to look? What would you think that would be useful to have in there? What would you think that would not be useful?" So, this co-creation approach and I thought this is interesting, we could do this within these guidelines of being creative with UDL. So, I utilized the tool. I obviously got everybody together, the faculty, and we have this ongoing working group, whereby I said okay, "We've been given this stuff, but I want to throw that out. We can use it as a resource, I don't want that to be the guiding principle. The guiding principle is, "This is UDL as we're seeing it. Here is the tool for actually considering what you need in order to be able to implement UDL, and let's work together to create guidelines and everything else that will enable us to effectively implement UDL within the faculty. So this is basically what happened. It was, it was over a period of around about three months, with lots of different iterations and each iteration was obviously, we'd have further meetings, further discussions, further changes that were made until everybody was going, "Hm! This makes sense." And I would add that not... because it's university faculty. So we have different schools even though it's all technology, you know, we have one media, we have a one of engineering, and we have one of computing. So each of them have their own distinct flavor if you like. So beauty of using the tool, was that, for each of these different schools that I was going into, we were able to tweak and adjust the guidelines and everything else, and create the specific to their field. So it was directly relevant to what they wanted to deliver and experience that they expected their students to have and so on. So each of the sets of guidelines were very specific to, to what they directly wanted. It was, it was a really satisfying experience I have to say.

LOUI: Yeah!

SARA: And I can, I can say that Du Montfort University has implemented UDL across its entire university. It's been embedded now for four years. And so we are, well it's now just part of what we do. And all of the documentation, you know you have so much documentation to do as an academic which include teaching, and these are embedded within all documentation, it's just something that we do automatically. It is on all the, what have you done towards UDL? How you developed your module materials with UDL? These are questions that are asked continually to staff to make them reflect and think about how we embrace the idea of leveling that playing field. So yeah, it was, it was a very positive experience I have to say.

LOUI: Yeah, so, I'm thinking of the guidelines themselves. So I'm thinking, you really hung out up there in the recruiting interest area, right? You were just tapping into and making sure that this information about UDL was coming to people in a way that fit with them. It fit with what their experiences were as educators, what they were teaching, their content. And then I'm thinking about the sustaining effort and persistence. Well, it's because it's a part of your system now and part of that recording or reporting. Then, that's in there! And I'm going through all the guidelines going you guys are just hitting everything! This is wonderful!

SARA: [Overtalking] They are! They really are

LOUI: That's wonderful!

SARA: I mean that is another thing you see, because the RRI tool, because I actually used previously in a different in a different context. And so I knew it worked. And the great thing is that by using the tool, people had that buy in, so they felt like they were part of the development, so there was no persuading needed because they would have been being dissuaded at the stuff that they had created. So, so it was, it was so much easier than to get the staff to fully embrace it because they felt that they were involved in the entire creation. So that was also a very important part of it.

SARA: Yeah! So if listeners want to learn more about this approach, the RRI approach, where would you send them? What would you recommend that they read or website or anything like that?

SARA: Okay So we have, if you want to see some of the projects that my particular research group, The Centre for Computing and Social Responsibility are doing, we're still doing responsible research innovation research. We've got quite a few projects on the go, then you can go directly to our website, and you would find my putting "The Centre for Computing and Social Responsibility" into Google and you'll find it there. But there is also an affiliate with Oxford University that we have which is called "Orbit." It is a like a commercial training opportunity for people to learn Responsible Research and Innovation and to learn that and implement that within organizations and industry. So, 'cause one of the things about RRI, because that's easier to say, is that it's not purely academic thing, it's actually an applied, practical approach. So we have lots of we have lots of opportunities for training and all that sort of thing through The Orbit. And, through the Orbit site was have fully trained up trainers and people like that to help businesses and industry to implement Responsible Research and Innovation. And then of course, if you put Responsible Research and Innovation or RRI into Google Scholar, you will find an incredibly large amount of academic papers all about this topic, because it has been quite a big thing for well over 10 years in, in Europe, and we're just starting the feelers out into other areas. Some of my colleagues are doing Responsible Research and Innovation work in the global south. So we have quite a lot of African colleagues from Nigeria, South Africa, Malawi, places like that. We're actually also embracing Responsible Research and Innovation within their faculties and within their business. So we're...it's an expansive approach. But yeah, so there's a lot of resources out there that, yeah, that you can go to.

LOUI: Well this has been a fabulous conversation Sara thank you so much and thanks for sharing those resources. But I really appreciate your time. I reached out to you out of the blue, and you still said, "Okay! I'll give this a try!" So, thank you so much.

SARA: It's been a real pleasure, thank you so much for inviting me. I'm honored to be part of it. Thank you.

LOUI: You're welcome, you're welcome. So, for those listening to this podcast, you can find supplemental materials like a recorded video of the interview with closed captioning and a transcript at my website [www.theudlapproach.com/podcasts](http://www.theudlapproach.com/podcasts). The citation for the article we discussed as well as any other referenced can be found below the video representation of this podcast on my UDL Research in 15 Minutes YouTube Channel. Finally, if you are a UDL researcher or know of UDL research you'd like to hear about, contact me through my website, [www.theudlapproach.com](http://www.theudlapproach.com). I'd love to hear from you! And thanks to everyone for your work in revolutionizing education through UDL and making it our goal to develop expert learners.