TIDAL N+
Transformative Innovation in the Design of Assisted Living products and services

Global Disability Innovation Hub

Daniel Haja

Profile:

Daniel joined the Global Disability Innovation Hub and UCL Interaction Centre as an Innovation Manager in November 2021.

Born in Hungary, he lost his sight at 16 due to retinal detachment but went on to earn a PhD in Informatics from the University of Sussex. Daniel co-founded Grapheel, a social enterprise improving accessibility in STEM education through tactile graphics and web services. He has also worked with the IT Foundation for the Visually Impaired and Ultraleap Limited.

At GDI Hub, he drives innovation projects, builds partnerships, and expands the Hub’s portfolio. Outside work, Daniel enjoys cooking and reading widely.

Transcript:

[00:00:00] My name is Daniel Hajas and I'm the Innovation Manager at UCL.

(Voiceover) Can you share why you think it is important for your research to have diverse inputs?

[00:00:10] I think we live in a quite complex world and everything is dependent on a lot of other things. So no matter how much of an expert we feel we are, we will always have, I think, areas where we don't have that much insight into.

[00:00:29] So I think in almost any cutting edge kind of new knowledge generation, we just need to rely on diverse inputs from people who have certain lived experience of their own challenges but also different specialties or special expertise. If it's research I'm really good at I might want to work with someone or have the input from someone who knows how to translate that research into an impact either through open sourcing it or having a community behind it, having a business behind it.

[00:01:06] Or, you know, vice versa, if I'm really good at like business, for example, I most likely will want some sort of academic rigor behind it. So I think, It's just really important to have something tangible that, that will eventually help people, make their lives better to have loads of these diverse inputs from every level.

(voiceover) How have you used diverse participants or co design in your research?

[00:01:34] So the example I usually like to bring up is my personal experience of being involved as a co design research collaborator. There is a visualisation group at MIT and a few years ago, they actually asked me if I wouldn't mind joining their team almost as a research collaborator.

[00:01:59] And there's so many interesting lessons learned through that collaboration because, as I was saying earlier, the team is one of the world's leading experts, researchers in visualisation. So they really know the theory, the practice, the implementation through code, how to visualise data, but then having me on board enabled me to learn from them, but also to have a platform where I can share.

[00:02:34] My experience as a blind person of, how do I experience data visualisations when I look at the news on BBC, for example, if there's an election or a pandemic. And not only that it's being part of the team. So for me, that was really the highlight. It's not just you're brought in as a blind participant to user study.

[00:02:56] It's throughout a, let's say a nine month period for the research project. Where you go through the whole double diamond for those who are familiar with this kind of design concept where you start with an idea, you diverge. I was very much involved in that. So we started with a kind of like a fundamental problem that I could describe, what is the problem that I face with data visualisation.

[00:03:24] And then we looked at three, four, five different alternatives of what could be a good solution throughout. prototyping, adding my comments. So we really diverged and then realising that we can't do everything because ultimately in academia, we want to bring it down to one single academic paper. For example, for that specific project, we start to converge on what seems to be the most immediate or kind of action actionable kind of piece of research we want to work on.

[00:03:54] And from that level, I'm still being part of the whole process of working with user participants or user study participants part of the analysis, making sure that what we discussed, let's say in the first six months is still valid, how it affects our initial thinking, all the way to publication and presenting that work.

[00:04:17] So for me, being able to involve. Diverse audiences from the beginning to the very end. A life cycle of a project is really important and that's how I like to work as well.

(Voiceover) Can you share something you have learnt in terms of best practice when working alongside a diverse range of contributors?

[00:04:36] Definitely have like multiple levels of like quality assurance in a way. Co-design I think is a big part like I was describing earlier. Have the person really deeply involved with not only let's say lived experience of the problem but also an understanding of how research works or how commercialisation works depending on what you are doing. And once you have that strong collaboration then you still need to have some sort of an evaluation at the end because you don't want to risk that one person biasing the whole kind of research or the findings and because of, inherent subjective biases or, more opinions rather than facts.

[00:05:27] So it's definitely good to have some statistical validation at the end from, does what you thought works for one person best actually apply to 20, 30 people. And even then you often get the criticism. Sure. You had one cool designer, lots of people validating the same thing, but one better is to have actually two or three co-designers from the beginning, because then you can really tease out what is a personal preference, what is a consensus and the true nature of the problem you're trying to solve.

(Voiceover) What advice would you recommend to early career researchers to create inclusive settings when co-creating or conducting research?

[00:06:09] Definitely try to work with a partner in a way. So just like when setting up a startup, it's good to have a technology expert who, who really knows the problem space inside out for them. Usually the advice we would give is that, try if you're not really the best in like business affairs, try to find a co-founder who will run the business side of things and vice versa.

00:06:37] If you're a really good entrepreneur, you might want to pair up with like a chief science officer or so. And the same sort of analogy or advice I would give to early career researchers in a way that. If you're really good in like the PhD or postdoctoral research and your kind of deep expertise, try to bring someone on board who really knows the practical aspect of it.

[00:07:08] What does that research look like in practice? How the impact would be felt in a day to day experiences. So that's one thing. And. The other thing is really just to, not to rush to, for example, a, like an academic paper. I would very much encourage early career researchers not to necessarily chase deadlines or be too focused on like a specific conference.

[00:07:39] Really, I think with a co design approach, you need to give space and time for these ideas to diverge and then bring them back down to the right, one solution you will pursue. And only once you've completed that kind of initial cycle, you go into thinking about, okay, how do we actually disseminate this with the public?Either as a publication or some other form.

(Voiceover) Can you share any common mistakes that researchers should avoid?

[00:08:07] I think it's not only true for researchers, but most of us, that we make assumptions. We often don't even realise what we don't know and we just without realizing, assume that.

[00:08:22] a person with sight loss will just need like a new type of white cane, which tells you about head height obstacles. And that might not be the case. Maybe they need something else. So really trying to step and examine ourselves are we making an assumption, and if yes, what is that assumption?

[00:08:48] That's, I think, the first step, once you realise that you are making assumptions and what they are like, then, bringing on that partner to try and validate that or falsify those assumptions is a good thing. And I think the mistake people make is that they try and, bypass this self reflection.

(Voiceover) Is there anything else researchers should be mindful of when working with the disabled community?

[00:09:14] Yeah, I think that, you really have to ask that one individual or group of people you're working with at the time, what is that they would like to get out of that work, what it is that they expect, what their preferences are.

[00:09:30] I'll tell you this example, which I hear, every so often some people are really focused on the language used. The typical example, is it persons with disabilities or disabled people? Is it blind and partially sighted or is it blind and low vision people or users? And some people will have a strong preference towards one option or the other.

[00:09:57] And, yeah, sometimes, including myself, We don't necessarily care as long as, it's not offensive, or, it gets the point across, feel free to go with either of those. So I think just having lots of these little discussions in the beginning, making sure that, you're on the same wavelength across the team is a really good thing to do.