



Catalyzing Computing Podcast Episode 29 - Digital Learning with Peter Mirski

Intro [00:00:10]

Khari Douglas: Hello, I'm your host, [Khari Douglas](#), and welcome to [Catalyzing Computing](#), the official podcast of the [Computing Community Consortium](#). The Computing Community Consortium, or CCC for short, is a programmatic committee of the [Computing Research Association](#). The mission of the CCC is to catalyze the computing research community and enable the pursuit of innovative, high-impact research.

This episode of Catalyzing Computing was taken from a video interview with [Peter Mirski](#), the chair in Management and IT at the [Management Center, Innsbruck](#) or MCI, and this interview was recorded as part of traversing separation with the [Heidelberg Laureate Forum Foundation](#), “a nonprofit which was established in 2013 to foster mathematics and computer science. The foundation organizes the annual [Heidelberg Laureate Forum](#), a networking conference where 200 outstanding young researchers in mathematics and computer science interact with the recipients at the most renowned prizes in the field. Another primary focus of the foundation is turning the public's attention towards mathematics and computer science not only to awaken but to strengthen their interest through events and exhibitions held in the [Mathematics Informatics Station \(MAINS\)](#).” In this episode, I interview Peter Mirski about digital learning, particularly with regards to the impact of the COVID-19 pandemic. The video version of this interview can be found on the Heidelberg Laureate Forum’s [YouTube channel](#).

Enjoy.

Interview with Peter Mirski [00:01:35]

Khari: Hello. I'm Khari Douglas, the host of the Computing Community Consortium's Catalyzing Computing podcast, and I'll be interviewing Peter Mirski as part of traversing separation with the Heidelberg Laureate Forum Foundation. Peter holds a chair in Management and IT at the Management Center Innsbruck. He is the director of the academic study programs, Management, Communication and IT as well as Digital Business and Software Engineering Online.

So how are you doing today, Peter?

Peter Mirski: Well, hi Khari. Thanks for having me. It's very exciting to give that interview.

Khari: So could you tell me a little bit about yourself? What is your background and what is MCI?

Peter: Well just in a nutshell -- starting with the MCI -- MCI is actually a spinoff from the [University of Innsbruck](#). Our University of Innsbruck has an age of 350 years, and twenty-five years ago a small group of people were invited to create a spinoff in order to create the university of tomorrow. And that's the last twenty-five years of my personal career.

I studied at the university in the field of business informatics. As a very small group of students we started to create MCI as an institution with the vision of creating something very special, something which focuses on more HR structures in universities, and perhaps an institution which would like to make the difference in terms of focusing on enhancing the careers of our students. That will be, in a nutshell, what my background is education wise.

You see I'm heading the [Department of Management, Communication and Computer Science](#). So this is for sure also my background. Also, most of my professional background I've been in the IT industry, mainly researching in those three fields. And I'm very happy that I can say that our institution, when we started twenty-five years ago, had zero students, now we have almost four thousand students; a very broad international network with a lot of partner universities; and also a very strong business standpoint. So in a nutshell my background. Still totally motivated to run my department.

Khari: So what is the connection between MCI and the Heidelberg Laureate Forum Foundation?

Peter: Well, actually, it's a great honor to have this connection, to have this bridge from MCI to the Laureate Forum. In the last years we were invited to create the Friday afternoon session: it was called "[Scientific Interaction](#)". And we were invited just to work with alumni, with students, with participants on their career paths. That was the whole idea, at the end of the week just focusing on your strengths, on your personal and individual career plans.

I think these workshops were successful. We all enjoyed these workshops and we thought we might push the ball up a little bit further and start a project out of that. And, actually, this is what we did last year by saying, "OK, we could even institutionalize this workshop series, actually," and base that also on scientific research, on career pathways for young scientists in the network, in the community of the laureates.

Khari: So is that program going on now? Currently?

Peter: Yeah, yeah, we started this year, it was a very special year. But yes, we are really, I would say, very, very committed to the project. We are in the first year focusing mainly on women's careers in tech: on the one hand in the field of science and on the other hand in the field of business. We're just identifying successful pathways. We're checking what the community could support for all these alumni and which insights we could share.

Khari: Ok, so the focus of this interview is kind of on digital learning. So has that program been affected by the pandemic? How are you guys handling that?

Peter: Well, this is actually a question which is for sure to be answered by yes. Everybody on Earth, I would say, is affected by this pandemic. And also we, with our universities here in Austria, are sure affected as well.

In my department, I mentioned computer science...the computer science part has always been an online program. So if you would ask me if the didactic approach for an online program did change I would say to a minor stage. But in the management and communication sciences, we also have on-premise programs in my department and here, for sure, from one day to another we had to switch the whole program into the digital world.

That was for sure a huge challenge for lecturers, professors, scientists, and also for our students and the administration as well. The university is, I would say, an ecosystem where all these three parts really need to understand the needs of each other in order to create a wonderful degree program, a good study experience. Yeah.

Khari: So what would you say are the main components of digital learning, like does that that include things other than just being on Zoom? I assume it does.

Peter: Well, I assume that we don't have the time to have to go through all these details and thru all of the didactical approaches, but in a nutshell I would say the first and easiest thing to do if you have a didactical concept, which is based on a face to face teaching, is to switch to Zoom -- or more or less for a platform like Zoom -- not to focus on just one solution, but there are many, many platforms which enable synchronous teaching. So that the transfer of an face-to-face teaching into this digital setting, as we are now talking, is perhaps the first approach which you would use, mainly if you are under time pressure. So the faculty and the students need to understand how to deal with this software solution and do more or less the same as they did before.

But you will see, and I think a lot of people recognize that during the last month, this is not a very satisfying situation if you do this setting for eight hours a day, for example, or just switching and swapping from one video conference to the next video conference because in the program each interaction needs personal reflection, etc., etc..

So there are so many things which are also occurring in the classroom which are transferable to an online setting, but not only due to switching on your webcam. So interaction does play a very, very strong role. Thinking about the students workload so that it is still fair. Taking the benefits from online teaching like having strong chatrooms, strong options for individuals to contribute, for example, is a strong plus. Integrating that into a didactical setting is, I would say, the next step.

I think this is what a really online design program is focused on. So a lot of learning from both sides, I would say in a nutshell. You could also even push the ball even further to the future, saying, "Well, only looking through webcams is perhaps what we do today and maybe in future we have virtual reality in order to meet in virtual rooms and we redesign our kind of old school lecture halls in a way."

Khari: Yeah, that makes sense.

Peter: It's a long way to go.

Khari: So you mentioned MCI was doing some digital learning or online classes prior to the pandemic. So what do you think makes a class a good option to be taught digitally? If you have the choice, obviously.

Peter: Well, actually if you allow me to just get a step backwards then I would say it is not only dependent on the content you're delivering, it's also very dependent on the learning situation of the student. Our experience is that...actually we are teaching our computer science program online, you would perhaps say this is a very hard thing to do. We are also offering degree programs in business or in social sciences. So all of these

degree programs have some tasks which are quite easy to do and others are very hard. I think a very strong trigger is the motivation of the students, for example, a full time employee who only has time in the evenings takes that online format and knows exactly what he or she has to do, perhaps also with the background of already made experiences. This is a totally different situation than somebody coming from high school with no job experience. Who needs much more, I would say, interaction and much more practical approaches in order to get the right understanding of the theory.

Khari: Ok.

Peter: So I want more focus on the customer, to give you the answer, than on the content. In my experience, more or less each and every content is possible or is eligible for creating an online experience out of it. For some things it's a bit easier for sure and for others to have to think much more about it and split the lessons in smaller personal portions, in smaller chunks. But I think the motivation of the student, that is the core driver of a good learning experience.

Khari: So with the pandemic and a lot of people switching to digital learning, how do you think that will impact young scientists who are currently getting their degrees or in school?

Peter: That is a good question. I think, for scientists the way to interact or collaborate, for example, is much more digitised than it has been before. So picking up the tech savviness in order to run Zoom meetings or moderate Zoom meetings -- once again, it's not only Zoom but it's also Adobe, and Microsoft, and all the other software vendors who offer these solutions -- it's a part of the game.

I think sharing knowledge, working together is something which is hard enough if you're sharing one lab, if you're sharing one space. Even if we create really inspiring and interesting spaces for our scientists the space alone is not the solution, right? And that is the same for the digital world. I think creating a very productive setting in a digital

world is even a bit harder than in the real world, and it's much more than just having the tech savviness.

So it will have an impact because we are not able to travel as we were able to travel before: meeting up in conferences, sharing our experiences, etc. So, yes, this will have an impact. It already has an impact, and I think this impact will stay a little bit longer than we hope that it might be.

Khari: So I guess, are there other ways, maybe that are less obvious, that you see the pandemic accelerating digital learning trends?

Peter: Well yes, on the one hand, what we call technology acceptance in the whole population has been fostered a lot, this is for sure. And this would have taken, I would say, 10 or 15 years to get the whole population, from school teachers to parents, who needed to take care of the education of their children online. So this was a strong boost.

But you are asking for I would say the hidden secrets, the still not so obvious points. I would say, as mentioned before, technology will go on. A virtual setting, like virtual reality teaching in these kinds of digital spaces is something which we do in our lab here, but still on a research basis -- it's perhaps the next step. And it might be even true that this step will, I would say, become an earlier reality than it would have become if this pandemic wouldn't have happened, because, as I said before, the technology acceptance is really driving the race.

Online meetings are everywhere and going back to the business part of what a lot of companies are concerned about...companies need to make a difference, universities need to make a difference, scientists also need to make a difference. So the question is always who uses the right technology for the right purpose? And I think we should have a very close look, not only to using these technologies, but also asking our institutions what is the real customer benefit for it? Where can I really make a difference when I'm using or not using this or that setting? So I think the question, which setting is the

appropriate one for which culture, for which situation in this pandemic is a new know-how that hasn't been attractive before.

I would say, half a year ago it was totally obvious that specific conferences were not online, but in real person settings. Now you have to think about which part may be an interesting part to deliver still in a real on-premise facility and which part can be kind of combined with virtual conferences. And, as you mentioned before, it's not only web conferences that is the, I would say, the burner of a conference inviting somebody via a video chat. And there are really a lot of options which you can use: integrate social media channels, live streaming, etc. And orchestrating that is for sure a new know-how which is very important for the success of our scientists, because we need to exchange opinions and integrate new ideas as well as teaching -- as well as for our institutions, and at the end of the day, for the businesses and our society itself.

So I think, yes, it has a strong impact and we need to learn to optimize the usage of those technologies as fast as we can -- just because of the pandemic competition out there in the world has not disappeared. It is even stronger than it has been before, right?

Khari: That's true. So you mentioned that you've been using VR some for your own uses. Do you have any recommendations as far as platforms or contexts that VR is most useful?

Peter: Well, I would say, if you allow me, that... As a scientist, I would say...I would prefer to give a rather unusual answer. Otherwise, I would need to be fair to all of those vendors of all those software solutions.

[Laughter]

Khari: Right.

Peter: I think a very good plan is having a detailed plan of what you want to do, what you want to deliver -- the real uses for the ones who are sharing this virtual space. I think this is something which sounds so simple, but it's not that simple. And this is absolutely non...it's not really related to special technologies. This is an abstract answer, but forgive me that I would not like to mention specific vendors.

What is an important thing, I think, also on this point is that we are when we're talking about distance learning, e-learning, or using digital formats for our universities, for sure you have to take care that all these platforms, the data, the data security, the privacy of the students is a very important thing. There is the danger if you just switch from the on-premise setting to just one solution then you might optimize the video stream but forget about other aspects of this very personal interaction between a teacher and student.

The next thing is that you also have to bear in mind, and this is, I think very, very important to mention, that all these platforms share data. So the interaction between the systems should be as easy as possible for the end users. If you think about creating, if you think about learning channels, if you think about where the students if they learn something, deliver their content, where they store this content, and where they have a proper lifecycle to their content and their personal photos or a personal discussion point.

I think once you have just made the first step in order to use at conferences for teaching, the next step is for sure thinking about the right structure, the right concept, the right project plan for the lecture. And the third step would be to integrate these solutions so that the user experience for our students is proper, is alright, and also is taking concern of all of these legal regulations, for example, data privacy. I think this is also a very important point.

Khari: Yeah, that makes a lot of sense. Thanks for being here, Peter. We should probably wrap up, but any final thoughts you want to leave the viewers with?

Peter: Thank you. I think my final message would be to stay motivated because this is really not that easy in these times. Mainly if you're working online and teaching online for hours and hours -- and this is also true for the students. So stay motivated, don't give up, and be creative as well. I think the digital world offers a lot of really cool options, not mentioning only virtual reality settings, but there are, I would say, unlimited options and possibilities also in the virtual world. That would be my second point. First one is to stay motivated, second one is to be as creative as possible, and third one would be to share your insights with your colleagues, discuss about that, and listen to your customers. That is always a very good idea. Thank you so much.

Khari: That's a good way to close. Thank you, Peter.

Peter: Thank you for having me.

Outro [00:24:07]

Khari: That's it for the episode of the podcast. Tune in next week for my interview with [Andreas Matt](#), co-founder and CEO of [IMAGINARY](#), a non-profit organization for the communication of modern mathematics. In that episode we discuss open source exhibition as part of traversing separation with the Heidelberg Laureate Forum Foundation. Until next time, peace.