Fireside Chat with Orlagh Neary, Senior Director at Microsoft AI and Innovation

Video Transcripts

Olaf Groth: Okay, everybody, welcome to our course Future of Technology. This is your instructor Olaf Groth. I welcome you to the fireside chat series. Today, I am very pleased and very privileged to welcome my friend Orlagh Neary, who is a senior director of Microsoft AI and Innovation Go-to-Market team. I have had the pleasure of having an ongoing dialogue with Orlagh and am convinced that she will bring fascinating insights to us today.

Let me just give a few headlines and then I'll hand it right over to her. Orlagh leads the Microsoft AI and Innovation Go-to Market team after spending quite a bit of time in various other roles and market development and in business operations, in engineering ,and now in marketing for Go-to-Market of Artificial Intelligence, in particular, as such. She has great experience talking to business executives, just like you who are listening here today about the value of AI, about the potential pitfalls about what it means to be successful with AI, to be ready to harness AI, not just commercially but ethically as well. With that very thank you very much again for being with us today. Welcome to the course and I look forward to the conversation.

Orlagh Neary: Yeah, I'm excited to be here with you all today. It's great. Yeah I've been in the AI space for about five years now. Having a blast, so looking forward to chatting with you more about it.

Olaf Groth: Great, well why don't we start off simply talking about what you and your team do at Microsoft, can you explain the charter of your daily activities around AI.

Orlagh Neary: Yeah ohh, I could talk about it till the cows come home. So my team is a pretty unique team inside of Microsoft and Microsoft Marketing, where we actually don't have a hard focus on revenue, for you know cloud consumption. Our team is all about perception, shifting perception or creating perception of Microsoft as a leader in AI and a leader in innovation. And so when I first started working in this space, it was crazy like what does that even mean you know, to create perception and shift perception.

But really, what I focus on is we work very closely with our teams and Microsoft research around the world. We now have eight labs around the globe who's full time job is to research the technologies that are going to fuel the future. And the researchers are prolific you know. I think they write 20 odd thousand papers and most of them really on AI. And so we've been partnering really closely with them to really understand okay what of all that could really inspire and excite the audience's that my team wants to inspire.

So, whilst you know Microsoft research has a huge reputation in the academic space, not so much in the commercial space. And so my team's role is really to change that right and to talk more about the breadth and depth of the research happening in Microsoft around the world, in particular, and AI. So it's you know fascinating the different projects that I'm getting exposed to.

Olaf Groth: Maybe you could give us an example. Is there anything in particular that comes to mind that's truly fascinating that people will want to hear about?

Orlagh Neary: Yeah I mean so many things right. So like a couple years ago when we first started down this path. I was working with my team, my boss on okay what does Microsoft think about AI? What is our vision you know, and how are we even gonna start to talk in a comprehensive way about everything that's going on in the AI space? And we started looking at okay well there's a way that AI has empowered organizations of course, and that's what everybody on this course is looking to do right.

And there's a way that AI is empowering developers right, to create AI and to create software applications. And then there's a way that AI can be used by people to change our lives right, and so that's the part that I'm mostly passionate about. Of course I love working on all the cool new ways the cognitive services can be used in an organization. Or you know if you're really into custom development and custom solutions, the custom ML and what I'm really passionate about is our offerings around AI for society and the work that we're doing in that space.

You know it's not just about the work that Microsoft is doing. You know Microsoft, I mean one of the reasons why I joined Microsoft now almost 20 years ago is because of the mission that Microsoft has, which is like to empower everybody on the planet to achieve more. And so, with AI I really believe that that's the case. And so we're empowering other people not just inside of Microsoft to use AI. And so one of the programs right that we have is AI for Good. It started off as AI for Earth I think about three years ago, maybe more. Where we're working with nonprofits around the world to help them leverage AI to look at things from climate change to species conversation.

But, most recently, like that AI for Good program has evolved. It has like AI for cultural heritage humanitarian action, accessibility is another one, but, most recently and coincidentally actually AI for Health. So we actually launched AI for Health back in January pre-pandemic and quickly change that program to accelerate the amount of funding, as your client credits and training that we can provide to researchers and organizations around the world, look into how we can I guess recover right from Covid-19.

And one of the projects that I really love so, getting to eventually answer your question Olaf, there is Dr. Greg Bowman at I think it's the University of Washington and in St Louis, where he's been working on proteins right pretty much his whole life. And when the pandemic hit us he switched gears and started studying the Covid-19 protein, but it's really hard to capture the movements of the protein.

And so he turned to AI to see how AI could help them simulate the movements in the protein and created simulations that allows them to study that. But, of course, that needs huge compute power so what did he do he turned to the Community, so he is leveraging people around the world, their compute power, their computers, their servers, in addition to you know Azure and the cloud and to fuel the algorithms that are helping them create these simulations.

And his team has been able to accelerate the research. He was saying, like we did a story on him on his team a couple of months ago, and he was talking to us about how maybe there's like 500 you know years of research that he's been able to get his hands on and in six months. So you know that just blew me away right how you could you know, it was him. It was his idea, he's using technology. It's not the other way around here right. Technology is doing a lot of things, but it's the people with the ideas that are using AI to do stuff like this which is helping research, you know how we can recover from Covid-19, all of us.

Olaf Groth: Right that's fascinating and you know it's a great example of how AI can be used or is by default changing the very fabric of society right, not just the economy, not just industries and companies, but also society at large right. And you're saying you're working with a whole bunch of societal stakeholders, it seems, on innovating. Do you actively involve them in the development process? How does that work?

Orlagh Neary: Absolutely. So we at Microsoft, we believe in and then and talking to bunches of customers that we've worked with that AI is at it's best when people from lots of different backgrounds are involved in AI development. And in fact that fuels part of our principles around responsible AI as well at Microsoft, is how we need to bring lots of different perspectives into our development so yeah like from ethicists to biologists to data scientists to I mean, even if you think about how you can reinvent processes in an organization.

I mean Microsoft has been using AI I think, we have an AI Business School and we talked about this in terms of some of our failures with AI. And one of them was like around finance, we were trying to use AI to help us get better at predicting our forecasts, our financial forecasts. And we started off by having just data scientists work on the problem in a silo and it didn't really work that well. And it wasn't until we got the data scientists together with the sellers together with all sorts of other folks in the organization to really understand well how does forecasting really work and what are the different pitfalls that we should be looking at. And when we got different people from different backgrounds together, that's when the algorithms were developed that can help the forecasting system get much more accurate. So you need all sorts of different backgrounds. Even me! I still use like translation and interpreting at DCU. So I'm a communication specialist at heart, and here I am working on AI.

Olaf Groth: Shining example how you can be an innovator without having to be an engineer right and that's great.

Orlagh Neary: Yeah, I definitely believe that innovation comes from everywhere. You know anywhere and everywhere, people have ideas. And so you know that's why I'm excited about what I do every day. It’s because we're working to put AI into the hands of everybody to help them innovate right.

Olaf Groth: Right and these divergent perspectives right, they help us collide ideas right, often very different ideas and create something completely new from them.

Orlagh Neary: I mean think about any of your friends Olaf right. like you don't have friends that are all the same. That would just be boring, like you have to have multiple like you stick at multiple different people to have multiple different perspectives in your personal life so it's no different here.

Olaf Groth: Completely agree. Do your clients, your customers find that an easy thing to do? Because it does require a certain amount of openness right, you have to invite those perspectives, you have to sort of open up the gates to the castle, as it were, okay and let other people sort of look behind the walls and you know and talk, jointly talk about what you're about to do. Is that an easy thing to do for your customers?

Orlagh Neary: No, no it's hard, I mean depends on the organization, but it's hard. It's like if the data has been in your organization for a long time, it could be everywhere. But also like think about processes that could be automated. It's the what I said earlier, it's the subject matter expert. It's the person that's closest to that process that needs to volunteer their process for

automation and that can be hard. And so, really, really hard right because there's fear involved with Ai like what if I volunteer this process that I am the subject matter expert on. Then what happens to me? What happens to my value in the organization? Am I going to be replaced by AI you know?

So I think a lot of what we see is organizations who don't simply think about AI as just a technology, implementation of technology, but rather much more and even much more than strategy. It's about culture. So I think leaders have a big responsibility to create a culture in which people can trust right. That by offering their processes for automation or for further study, that that is what the organization needs to be able to learn to be able to accelerate and what not. So yeah, it's hard.

Olaf Groth: That's really key you know, AI is not just an engineering change. It's not a good, a product change. It's a culture change. You change the paradigm right by which you create products, develop products jointly with stakeholders. And really make decisions internally as well. Can you give me some examples, like what are some of the things that leaders need to be doing differently or better all together with AI at play changing the organization.

Orlagh Neary: Yeah, I think maybe take a little bit of a step back, like we've seen that what like what are some of the blockers to AI right and an organization. How come some organizations are able to move you know full throttle on AI, while others, not so much. And whilst there is definitely sometimes a skills issue right, a shortage of talent. There's also like a huge gap in readiness right so there's existing talent in an organization that needs to potentially be re-skilled to participate in AI developments.

And so what we see is when organizations who do have that focus on the culture that we talked about who are really putting a lot of focus on not just changing business strategy, but really make an AI mainstream and as part of that strategy that they're helping bring everybody along on the journey. And so some of the examples that we see are you know people who are bringing IT together with finance, together with project management, together with you know even store employees right, if you think about retail. Those people are being successful.
Some of the pitfalls though that we're seeing is this approach to okay well let's pilots right and so people start piloting these AI projects, but they never end up mainstreaming them. And that, in a way, is also because it's just the the pilots, may be a little bit disconnected from the uber strategy. And so we've seen people who've been stuck in this like what we call pilot purgatory for a long time, and it isn't until they take a step back to really understand what are we trying to achieve. What is the purpose that we're after here? And go to answer those questions and then everything gets a lot easier.

Olaf Groth: That makes sense. It's almost like a workout culture right. You have to create platforms of different people from different stove pipes of different organizations coming together to solve these problems and really define the charter, not just the target function, but the overarching charter, the governance structure of AI for certain problems that you're trying to solve. That's a very, very different paradigm from what many of us are used to in traditional non-cognitive businesses.

Orlagh Neary: Yeah I think there's a glamour thing going on as well right. So people are looking for those glamorous AI projects. So it can get distracted a little bit too right so think about the chest, AI you know, AI winning at chest, AI winning at jeopardy, all these different flashy sort of glamorous uses of AI. But when it comes to a business setting or your organization setting like how do you apply that? What's meaningful? Right you got to really be able to figure out the

scenarios in which AI may try, but then there's scenarios that may be a won't. And so going into it with eyes wide open, with realistic expectations, I think is key too.

Olaf Groth: Which gets us to the topic of AI readiness right. How would you conceive of AI readiness and what would you advise executives who have never dealt with AI to do as a first step of exploration toward AI readiness.

Orlagh Neary: Yeah good question because there's sometimes it's hard to figure out where to get started right on any project. And so I think it's kind of gone back to what I just talked about a little bit. It's just thinking about those scenarios like how you want to connect the value of AI to your business right. And so from that, you'll figure out some scenarios, be they you know customer service, be they you know there's the whole different loads of different scenarios that we see our customers tackling first to kind of learn from and then grow from there.

But I think it's really just looking at what the scenarios are left as we typically try and get started. So we come into customers very early on, sometimes where they're not, the data as well is everywhere. So sometimes you need to look at a data transformation and projects in the organization before you can even get to the AI transformation right. So looking at what state the data systems are in. Is the data in the cloud? Is the data on premise? Is the data in people's laptop? Where's the data that you need to inform the models and AI? So that kind of is often where we start out with, but at the same time, you know it's kind of what we talked about as well, it's also preparing your company for the change too right.

So investing in training programs that can talk about the value of AI and what people on what the company is trying to achieve together through the data transformation, through the AI transformation. So things happen, Things happening in parallel are, I'd say, important. Like communication is key anytime there's change in an organization via the technology change or anything communication from management is key. So that's where I really stress the importance of that too and getting started on a really good communications plan and change management plan.

Olaf Groth: That's key right because otherwise, people are confused. There is chaos and that's often perceived as not just an efficient and wasting time but as hazardous to people's careers, people's well being. And then you can’t enlist them, you can’t make any progress right.

Orlagh Neary: Well, trust.

Olaf Groth: Trust exactly yes.

Orlagh Neary: Yes, trust and management and trust in the AI system too.

Olaf Groth: Perfect which sort of gets us to you know another pitfall which is you know responsible AI or conversely irresponsible application of AI right. What's your outlook on that? What’s Microsoft’s stand here? hWy does it matter for business beyond you know feeling good about complying to ethical standards? What's the real business value here?

Orlagh Neary: I think if you think about how AI could be used in lots of different scenarios like think about bots interfacing with your actual customers, human customers, And trust is key right. So maybe a couple years ago there was we didn't see customers focusing as acutely on responsible AI, but definitely as AI is maturing in organizations, there is much more of a focus

on responsibility because there needs to be right. So there needs to be a focus on okay, is the data secure. Is it secure? Are we keeping people's data private?

But then beyond that and for the AI models themselves, can we explain the results? How did they get to those results? And if there is, you know, a topic that I have that we talked about a lot is also you know bias in data. So if the data is biased and you know data comes from everywhere and anywhere and society is inherently biased, so there's always bias in the data, but then that bias gets perpetuated right So how do you detect that bias and then understand where those algorithms that may have had bias in them, where have they been used, so there needs to be governance.

And so Microsoft a lot like a long time ago, we came out with our principles for AI development inside of Microsoft. And we share these with our customers for them to benefit from and create their own AI principles that are rooted in the values of their company and ranging from fairness to transparency. But beyond that we then look at how do we put those principles into practice. And there in lies, some things that we need to do in readiness, so we've invested a lot in readiness programs for engineers and beyond, in terms of how to go about putting these principles into practice.

And then sort of complete the loop but it's like it's like a virtuous cycle, Olaf. It's the tools right, so now we actually have tools that can help. With putting the practices into practice and so those tools we've made available as well to our customers. And so yeah absolutely so we have also partnerships in the industry and in responsible AI, where we can come together with many of our peers in this industry to look at this because it's just so important right.

So in terms of why do I think it's so important? Well, I think we've all watched the movies right. We've all watched the Hollywood version of what happens when AI goes rogue. But, of course you know, on a day-to-day basis, what happens when there is bias in data and somebody doesn't get a loan or what happens when there's bias and data and somebody doesn't get access to a drug therapy that they need? So that's when you know and sometimes these mistakes or whatnot make their way into data unconsciously. And so, how do you prevent against that. So yeah lots of reasons why I think we'll focus on, why organizations now have a big focus on it.

Olaf Groth: And that's the real tricky part right, one of the pitfalls, is that we all want to do the right thing, as a matter of principle. But how do you know what the right thing is when you don't know what's going wrong right? A lot of the bias is not apparent to the onlooker, depending on what your background is. Until things go wrong, and then the damage is done and trust is eroding right, and I suppose that's why you train engineers to be conscious of the potential pitfalls.

The other pitfall with governance, of course, as you and I know well, is that it's all nice and good. To have you know, a monthly or quarterly meeting about preventing or mitigating, buta t the end of the day, governance is only as good as the teeth and the incentives that will come with it. What's your outlook on that? Do you see increasing awareness that we need to make this harder and more tangible and more impactful?

Orlagh Neary: I think like with everything else, like there's we talked about earlier like it's change. And change is uncomfortable. And I think go back like probably three years ago, I was doing some focus groups around responsible AI to come up with to get some perspectives from the different audiences that the marketing team was trying to communicate with right. One of the

focus groups was with developers and some of the perspectives where well you know I'm asked to develop X. I'm not asked to think about all these different things. I'm just asked to develop X and sometimes I'm asked to develop X in such little time that even if I want to think about all of this ethical and responsible AI, I just really don't have time. And so because it's seen as this extra thing and I think the way we need to change that is that it's not extra. It's part and parcel of what we need to be thinking about from the get go.

Olaf Groth: We need to see unethical AI as ineffective AI as well right, and you know you have to have economics and ethics are attached by the hip, as it were. You know if we ever could fool ourselves that that's not the case in any area of business, it certainly is sitting home that that's sort of in a big way with artificial intelligence. Can you paint a positive and a negative thumbnail of the future when it comes to AI?

Orlagh Neary: Gosh. Well there's one project that I worked on recently that blew me away. And it's you know I think we deep fakes right, I think we've all seen deep fakes. And I think you know some of the uses of deep fakes are hilarious right. You know there's some apps out there where you know I can become Wonder Woman. I love wonder woman, I would love to be Gal, and so I can become Gal if I want to with a deep fake. But then, of course, you know deep fakes are hugely problematic in terms of spreading misinformation too right. Like a person said something, but they actually didn't say it all. It was AI.

And so there is a product called Project Origins. It's a consortium with a different like BBC, Microsoft is part of it, CBC and Canada, and a couple of other folks. They've been working really hard to try and align on how can they detect deep fakes and combat the spread of misinformation. In parallel, I think Adobe was working on their own, and I think it was called the Content Authenticity Initiative. I'm not completely sure.

But the two consortiums got together recently to form a new consortium called C2PA and don't ask me what that stands for, I can't remember. But like that, it's great to see the people are coming together across different like Microsoft adobe a bunch of folks to look at Okay, how can we combat the spread of misinformation. Because misinformation is you know polluting our society and hugely detrimental to our society, so I think that's one bad thumbnail but I'm delighted to see that there are people super passionate with the where i'm coming from all walks of life, like we talked about a couple of minutes ago that are trying to look at this problem and see how we can combat it.

I think a positive, I mean we talked about that too. There's so many good use cases for AI and there's a lot of people around the world leveraging AI to tackle things from species conversation that I chatted with you about to Dr. Greg in St Louis. But you know personally like I have a little niece at home in Ireland, Chloe, and she was diagnosed very early on with autism nonverbal autism. And she's so smart, and the words are coming. And my brother and his amazing wife, have been working with Chloe, and she's got a big brother too Callum, on a communication system that leverages AI to help her you know communicate with them in a different way. So that's like in my own family, how I'm seeing AI being used to help Chloe communicate with all of us. And so that's wonderful and you know impacts me personally and my brother, of course.

Olaf Groth: Yeah that's a heartwarming story, and you know, and I echo what you're saying about using it for good and how exciting that is. And there's so much spillover with for-profit business as well you know. In the words of one famous I believe venture capitalist, we need to make sure that we prioritize AI for good and investments in it right. I think he said at some point, you know we wanted flying cars and we got 160 characters. Right and sort of an attempt to say

not to dismay the 160 characters but you know we ought to shoot for and big investments that make this world a better world and it seems like you and Microsoft are well on the way to do that. I'm going to ask you a final question. Is there anything I should have asked you that I didn't? What are my blind spots here? Anything that you want to leave our audience with as we part ways?

Orlagh Neary: Gosh Olaf, I have so much respect for you. I don't know what your blind spots might be. I guess maybe what keeps me going right like I love new things in my personal life. I think sometimes people call me squirrel. I'm just on to all these new things. Well I'm in my elements right. So with AI and innovation things never stand still. And I get to engage with like my team who are super creative marketers who are talented in communications, another you know big passion of mine. And so I get to marry my love for communications with my love for all things new with you know some of the brightest minds that I've ever met over at Microsoft Research.

So that's you know what keeps me motivated every day is the team around me and what I learned. I learned something new, every day. I learned something every time I chat with you. So there's so much yet for us to discover about how AI can be used and what it's going to be used for next. So, I love it.

Olaf Groth: Well, it seems like that's a passionate we share: exploration and discovery right. And we need more of that in this world, as well as an emphasis on ground truth and on science. And again, thank you for your leadership in all of this and thank you for the privilege of chatting with you here today. And as we always say, it's not the end, it's the start of a series of conversations. And until the next time, I bid you farewell for now alright.

Orlagh Neary: Thanks everybody, thank you Olaf.

Olaf Groth: Alright, thank you.