1:33

Alexey

**This week, we'll talk about developer advocacy. We have a special guest today – very special – Hugo. Hugo is the Head of Developer Relations at Outerbounds. He's also a co-host of the Vanishing Gradients podcast. He's a data scientist, educator, evangelist, content marketer, and data strategy consultant. He is a very well-known educator. He developed over 30 courses on the DataCamp platform. Many of you probably already know Hugo. With these 30 courses, he managed to impact over 2 million learners through online education. It's a big honor to have you here today. Welcome.**

2:14

Hugo

Thank you so much for having me here. It's a great honor to be here. For those who don't know, this will go live soon, but we also recorded an open-source demo of Metaflow and full-stack machine learning using the sandbox we've built recently, which kind of shows all the layers of the machine learning stack and how we can interoperate with them. We'll chat about that later, but we can include a link to that in the show notes as well. So this is a fun week for me and DataTalks.Club as well.

2:39

Alexey

**We definitely will do this. Not everyone knows that Outerbounds, or rather, it's not obvious to most people that Outerbounds is the company behind Metaflow, which is a tool that you guys are working on.**

2:54

Hugo

Exactly. Yeah, we'll get to that, but Metaflow is a human-centric tool for developing full-stack machine learning applications and software. As a company, we support it and build software and a platform that supports it and helps people to use it. Sorry, I'd have to fire myself if I didn't say that.

3:13

Alexey

**[chuckles] The questions for today's interview were prepared by Johanna Bayer. As always, thanks Johanna for your help. By the way, because Hugo is based in Australia and Johanna is based in Australia, today Johanna can actually join our session live. Hi, Johanna. That's cool.**

3:35

Hugo

Amazing. Thank you for all your work.

# Hugo's background

3:36

Alexey

**Yeah, let's start. Before we go into our main topic of data developer relations, let's start with your background. Can you tell us about your career journey so far?**

3:46

Hugo

Yeah, and feel free to stop me at any point. I'm not quite sure what level of granularity to go into. But I'll kind of give a bit of background that's relevant to what we're talking about today, as well. My background is in scientific research in mathematics, then cell biology and physics – biophysics – so, studying the physics of the cell. I was doing that, not too far from you, actually, for several years, here in Berlin. I was doing this in Dresden. There's a big Max Planck Institute for cell biology there, where I did the first half of my postdoc. Ostensibly, my job was to do applied mathematical modeling – to model cellular biological phenomena. At this point, my colleagues (biologists) were able to collect increasing amounts of data up – to millions of rows (and beyond, if they're doing genomics and that type of stuff).

At this point, I've done a bunch of programming, but I didn't really have a strong statistical data bent to myself. This is over a decade ago now. So it became clear that to do my job, it would be a good idea to learn as much as possible about what was becoming data science at that point. I started playing around with RStudio and then notebooks in IPython. At that point, Jupyter Notebooks didn’t exist. So I started to learn all the tools that I needed to analyze and model data and cellular biological phenomena. Then my postdoc boss moved to the east coast of the US – to Yale University and so I worked there with him for a couple of years. In both these jobs... I loved the research, but it became clear to me that there are lots of good researchers, but there was a gap at both these places in terms of actually teaching these tools to all the biologists and all the scientists. I mean, I worked with tenured professors at Yale who really didn't have the computational skills to do the science that they needed to – wonderful scientists and experimentalists – nor did they really have the time or the bandwidth. The incentive system is pretty screwy there, as well.

So I carved out time in the department I was working in order to teach what I called “practical data science for researchers and scientists workshops”. At that point, I met some young entrepreneurs who had started the company DataCamp. They had built out a pretty serious base R curriculum and they were looking for someone to come in and build out Python courses and do a bunch of product and internal data science stuff and that type of stuff. I was applying for academic positions at the time and applying for some industry positions. As it turned out, I was able to jump in and start really building up Python courses there. I was very fortunate to be able to not only build out courses that I could teach myself, but collaborate at that point with what was then Continuum Analytics (now Anaconda, of course) to build out things like the first set of pandas and Matplotlib courses and to work with Andreas Mueller of Scikit Learn on the first Scikit Learn course. So I was really getting a huge amount of insight into the open source world and being able to collaborate with a bunch of these really interesting, insightful tool builders and practitioners as well. I started doing... we'll get to why I did this soon, when we're talking about getting into developer relations and getting into developer advocacy.

I started doing a bunch of developer relations advocacy then – a lot of writing, speaking, online live coding sessions, and started a podcast called DataFramed, which I think some people probably listened to. That was a huge amount of fun, once again, getting to do stuff like this – I mean, talking with people who I'm interested in about stuff that we're both interested in and having conversations with an audience about that. So a lot of community building there. After DataCamp, I've been to several places. I was first at a company called Coiled, which is a Dask company – Dask is for distributed parallelized compute in Python. I was doing a lot of evangelism, developer relations, and marketing stuff there.

More recently, for the past year and a half, although I've been working with them for for longer, I'm really excited to be working at Outerbounds, where we're working on full-stack machine learning. As we'll get to, I think one of the big challenges here, as should be becoming clearer, I think something I love doing is helping scientists get access to software tools and education and content that helps them to better science. Right? What does that mean in industry now? We're trying to tell the productionization story of data science and machine learning more and get that out of larger organizations. Meta and Google know how to do machine learning at scale. Netflix knows how to do machine learning at scale. How do we get that into Mom and Pop ecommerce stores? And how do we get that across the board? And what does this full stack look like? And how do we build software and education so that scientists can do this in any company and they don't need to worry about configuring YAMLs and Kubernetes clusters. How do we build a stack of infrastructure that allows scientists to focus on the top of the stack – the modeling the data, the things they love, the productionization – without having to become the most robust, intense software engineers.

Although, as you and I have discussed, these skills are important as well. Also, I've put a link to this in the chat – I host another podcast as well, called Vanishing Gradients. The reason behind that was actually, after I did the DataFramed podcast at DataCamp, I always wanted to get back into podcasting. It was in between jobs that I thought... A lot of my friends work in the space and I was having what I thought were a lot of interesting conversations with them, so I thought, “Why not record them and put them out there?” So it's really nice. I get to have conversations like this with friends and put them out. So definitely check that out for those interested.

10:24

Alexey

**Google (YouTube) decided that it was spam, so your link did not go through, but I just Googled it and posted in the live chat.**

10:33

Hugo

Fantastic. It's funny because in my job at Outerbounds, we host Fireside Chats around full-stack machine learning and I have noticed that only I as host can post links.

# Why do tools and the companies that run them have wildly different names

10:47

Alexey

**I still don't know how exactly it works. Sometimes people can post links, sometimes they can't. Most of the time, they cannot. Only if the host can, which I guess makes sense because otherwise people might come and post spam. I'm really wondering, Coiled is the company behind Dask, while Outerbounds is the company behind Metaflow. Why not just call the company Dask or Metaflow? Why do you come up with these names that sound completely unrelated?**

11:18

Hugo

That's a good question. I suppose the way I frame it is that other people work on these open source projects, right? Metaflow, for example, has 75 historical contributors on GitHub, and a bunch of other people still contribute and other companies as well. I would say Outerbounds is the company that probably you would consider supporting Metaflow a lot, just as Coiled supports Dask. Having said that, I think Anaconda still employs a bunch of Dask maintainers as a bunch of contributors for Dask work in a variety of other companies as well. I think that's actually really important. Because if we think about what open source is – it's a pretty broad church. If you think about something like TensorFlow – think about the governance of TensorFlow, where it isn't open source in the classical sense of how many people get to make decisions. It's very company-backed. So I do think it's important to have that distributed.

Also, there's the converse in that, for companies/institutions to adopt open source, I think that we want to make sure that a certain number of companies support them as well. Definitely before Coiled started, there were companies that, when we were considering Dask versus Spark, like “Well, Spark has more support in the industry, from Databricks and that type of stuff.” So we want to just make sure that Dask is supported by a handful of places first, as well. So I think there's an interplay there. And that speaks to the fact that having these companies can actually really support the open source ecosystem.

13:10

Alexey

**Okay. Interesting. So it's on purpose that the name of the company and the product they work on are not the same. Right,**

13:17

Hugo

Yeah, because they are different entities. And Outerbounds, although we support Metaflow and work on Metaflow, and have a managed offering as a product and these types of things, what we definitely want to help people do is solve machine learning and take machine learning from prototype to production and improve that speed of iteration there. Whether we do that through Metaflow or not, isn't necessarily the primary concern. We happen to be [doing that], currently.

# Hugo's other projects beside Metaflow

13:46

Alexey

**Do you work on anything else apart from Metaflow? Are there other products?**

13:52

Hugo

At the moment, our main product is definitely based around Metaflow, but it does interoperate with a variety of different things. So if you're on AWS, we make sure that you can have access to all of your resources, all of your data, and have that secured in AWS. If you use Kubernetes clusters, we make sure you can do that. I think something I showed on the OSS demo spotlight the other day was that we integrate with the Argo scheduler, so when you want to push your models to production, you can do that using Argo. So we support a huge section of the ecosystem.

# Transitioning from educator to DevRel

14:34

Alexey

**When you were talking about your career journey, that was pretty interesting. So you came to develop relations through education. You first noticed that for researchers it is difficult to learn about practical data science, so you created a bunch of courses there. Then you joined DataCamp and through that, you became a developer relations [person].**

**I'm wondering, how did this transition happen? Was it natural for you, as a teacher, as an educator, to go there? How exactly did this happen? How did you make the decision that “Okay. Actually, you know what? What I'm doing seems to be close to DevRel. Let me do this professionally.”?**

15:17

Hugo

Yeah, that's a good question. I suppose one way of thinking about it (and this isn't the only way) but DevRel kind of is education, right? Someone who works in developer relations, their job is to at least create educational content that helps people use your software. So it definitely was natural in that sense. The other reason it was natural for me, I think – as I said, a lot of the other things I've done, I think there are lots of people who are really good at these things. I actually think there are lots of people who could be good at DevRel, we just haven't carved out the career paths for them. I suppose it was a differentiator for me and I could make more impact then in DevRel than in other positions.

I think the key aspects for those wanting to get into DevRel are, of course, to enjoy and be good at the computational side and understand data science and machine learning. Although there are things – they say that the best teacher sometimes is someone who's just learned what they're teaching. Definitely, if you have a background in these things and want to pick things up and teach them, that can be useful. But to have a command of the technical, scientific side of things, and then the other thing is to be an explainer. When I walk down the street and I'm having my morning coffee, and I've done something – my mind naturally gravitates to explaining that in my own head, in kind of the most straightforward terms possible. I have colleagues and friends who don't operate that way, right?

I know a lot of engineers who just want to build cool products – not *just,* they want to build cool products. They don't want to write blog posts and they don't really want to break things down. And that's totally cool. If that's you, I wouldn't necessarily get into the DevRel side of things. But if you enjoy explaining things, and you enjoy the technical side of things, I definitely think um... I think there's a hiring challenge in DevRel, generally. And I think that's going to increase.

I think the demand side of the labor market for DevRel is going to grow as we get more and more tools. People are like, “Am I going to be replaced by GPT-23 (or whatever)?” Right? And I've got no idea. But what I can tell you is that working in DevRel, I think there's definitely a significant chance of being employable for a long time. I'm not saying there's less chance in other fields, but I definitely think the pie is growing, if that makes sense.

# What is DevRel?

18:03

Alexey

**What is actually DevRel? What is it?**

18:07

Hugo

It's a good question. I think the best way to think about it – there are multiple terms that fly around. There's developer relations, there's developer advocacy, there's evangelism. The way I think about it is – we can think about open source or not open source software, it doesn't really matter. It's [about] helping developers understand how to use software and why, essentially. In my current job, as I said, (and this is something we talked about earlier this week) there are scientists who are great on the data and modeling side of things, and they need to understand certain things about compute, versioning code, versioning models, about orchestration – all of these these types of things. So a DevRel function there would be in the name of education, to give them access to the information they need about these tools, but also to resources for how to learn it and how to implement it. That speaks to the sandbox that I demoed at the Spotlight, as well.

As we discussed, getting set up with this entire infrastructure stack is days of work. So if you can do DevRel in the name of education, but have these tools that allow people to spin things up in 10 seconds instead of 10 days, that's incredibly useful. Another way to think about it, and this is actually one of the several reasons I joined Metaflow and Outerbounds – the co-founders, when I first spoke with them, showed me some slides on what they referred to as “the wisdom layer of Metaflow”. And Ville Tuulos, who you know, and who is the CEO of Outerbounds, and used to run machine learning infrastructure at Netflix when they developed Metaflow – Ville said to me, “This software, of course, is incredibly important. But the reason we want to hire DevRel immediately is because the wisdom layer is not secondary. It's equally important.” And I think recognizing that is key.

I'll give maybe two other examples. Scikit Learn. I mean, it's wonderful software. But I think one of the most important reasons for its huge adoption is its documentation. Documentation, of course, is part of DevRel – not only in terms of documenting methods and arguments and docstrings and this type of stuff, but giving easily accessible SEO-findable examples that people can then use in their day jobs. I think the Tidyverse in the R ecosystem is the same way. Tidyverse originally with ggplot deployer, several other packages had vignettes – the caret vignettes that Max Kuhn developed on the machine learning stuff is absolutely wonderful. So all of these roll into DevRel.

I'll shush in a second. I did want to mention the other thing. I just used the term SEO (search engine optimization) and this is actually incredibly important. What we're seeing now is that DevRel is related to marketing in some way. Right? And the cynical take on this is that developers don't trust marketing, so you need to invent a new function called something else. Kinda like... No, it's nothing like this, but I was thinking of Edward Bernays, who coined the term “public relations” because the term “propaganda” had a bad name. So he coined the term that's propaganda for propaganda. But that's the cynical take. What's really happening there, I think, is that the tools DevRel needs to get to the right audience are some of the same tools marketers do.

There's a joke for a lot of open source developers that when you search something about their package, Stack Overflow comes up first, even though it's answered in their documentation, so a lot of the time people will just link to the Stack Overflow answer with documentation and spell it out there. So that's to say, in DevRel you also – and I'm trying to entice people to think more about DevRel – you get to do a bunch of fun stuff. You get to develop content, give talks, chat with developers, also fold developer feedback back into software and product, and also learn about the internet and search engines and all of this type of fun stuff as well.

# DevRel vs Marketing

22:52

Alexey

**Yeah, interesting. So it's about education, it's about discoverability, and it's about producing content that developers can understand and developers can trust. Right? [Hugo agrees] As you said, if it's just somebody from the marketing department, then maybe they don't necessarily believe that this person speaks the same language as them. Speaking about marketing, I'm curious. Is developer relations usually a part of the marketing department or a part of the technical department?**

23:29

Hugo

It depends on the organization. I've seen both. I've spent most of my time in recent years working in early-stage to middle-stage startups. What's interesting, in my two most recent startups is, with high DevRel people before – full-time marketers. I think for an early- to medium-stage setup, you can get away with having the several people do all the marketing as well. As you scale and grow, you're going to want to have a pretty serious marketing team, and you can either have some of the developer relations people in there, or in an independent unit as well. It depends on how you want to structure things. It is always interesting when DevRel reports into the CTO and is as close to engineering as possible.

In my current company, at Outerbounds, we're pretty non-hierarchical, so I'm pretty generative. That's actually the other thing worth worth mentioning. DevRel is also not just about creating content yourself out of the abstract, but it's leveraging and collaborating with your engineers to see what they can bring to the world and lowering the barrier to entry for them. Who's the best person to write documentation of a new feature? It's not me, it's the engineer who rebuilt the feature, right? But, in collaboration with me, depending on them, perhaps we can write something together. Or if they're not into writing at all, maybe I'll jump on a call with them like this, talk it out, get a transcript and I draft something from that. So it's really fun because you have all these touch points internally in a project and also externally, with the developers who use it.

# How DevRel coordinates with developers

25:17

Alexey

**Yeah. I think you mentioned that not all developers are really into writing blog posts and other things or being in talks. But then, other developers who need to use the tools that these developers produced, they need documentation. They need to know how to actually use this, and then somebody needs to make this happen. Then it's you, it's DevRel. [Hugo agrees]**

**DevRel makes sure that even if maybe the developer wrote something, “Is it actually understandable? Can I take this piece of documentation and do something with this? Or maybe it's completely (or maybe not completely) but there are some missing things – there are some areas for improvement, there are some unclear parts – that could be improved.” Then you give this feedback to developers, or maybe go ahead and just improve these things. [Hugo agrees] Does this sound right?**

26:10

Hugo

Yeah. The other thing worth mentioning is, it's fun because you get to stay professionally on top of current trends. Recently we've seen, I suppose what we'd call a revolution in generative AI, from last year – all your Stable Diffusions and these types of stuff, to all the large language model stuff happening now. So when that occurs in a company, in a project, you want to figure out how you can support these efforts more generally. And because with Metaflow, we really think about how to get machine learning and data science in real world software stacks, and in robust, reproducible applications, and of course, all the generative AI stuff is really built around proof of concepts and not robust software, it's been a lot of fun to start working on that type of stuff. I'll link to a few blog posts of how we're thinking about supporting the infrastructure that allows people to build all this generative AI stuff. I think your audience will find it interesting. So yeah, it keeps you on top of current trends as well, which is cool.

# How DevRel coordinates with marketers

27:17

Alexey

**Okay. We already discussed that you, as a DevRel person, work closely with the developers who create a product (create the code). How closely do you work with marketing? Because what marketers do, in my opinion, (I might be wrong) they are usually in charge of different campaigns. They might run ads on Google, they might work with communities to advertise something through these communities, or they might create an event, and then see how well this event performs.**

**So they're not necessarily into the actual content, but rather they make sure that this content reaches the right people. So how do you work with these people, with marketers? I guess you produce content, but then they make sure that this content is discoverable and people find it?**

28:14

Hugo

Absolutely. It's usually an iterative process. There are many, many different examples or ways to slice this. I'm thinking, part of a marketing team's job is to make sure a company, or a product, or a piece of open source software appears in places where people will be looking for it. Right. As it turns out, at the moment, search engines are really important for that. You want to make sure that when you have a digital marketer, that they're aware of who your ideal customer or ideal user is, and they can help you figure out what type of searches they make and get you in front of their eyes with relevant stuff. Now, as you've ascertained, it's the DevRel team, among other potential people (there are content marketers as well) but the DevRel, the technical people who develop content, that digital marketers will be able to use in order to get that search engine stuff happening.

So there's a serious back-and-forth there, where, perhaps the engineering team and the DevRel tell the marketers, “These are the types of things we're thinking of writing about,” and then the marketers will do their SEO research and come back and go, “Okay, this has high search traffic, but we're actually really competitive with Google itself for this. So maybe we won't win that. Whereas this has medium traffic, but it's something that is super relevant and not a lot of people are going for it at the moment.” So it's an ongoing conversation in that sense. And I'll definitely say that there are a lot of very good marketers out there, but not necessarily a lot of great marketers who understand the technical space – who would know what XGBoost is, for example, or the difference between gradient boosting and other forms of...

30:18

Alexey

**That's not their job, right?**

30:21

Hugo

Exactly. So the way I think about it is that DevRel is kind of the marketing team's best friend, in a lot of ways. The more they can work together, the better off. And then at some point, perhaps a project or a company will want to have a conference that the marketing team is responsible for putting together. Then DevRel will play a significant role in constructing the lay of the land for who they invite, what actually happens there, what type of talks there are, whether there are panels – this type of stuff, as well.

31:00

Alexey

**Because marketers can organize a conference, but they don't necessarily know which content will appeal better to the audience, right? And they need your input for that.**

31:10

Hugo

Exactly. But I also want to say that there are some pretty technical marketers as well. I've met some wonderful product marketers who's job is to (and they're usually from somewhat technical backgrounds) who know how to speak the technical talk as well. So I don't want to say, “No marketers are computational,” or anything like that. But they're not as easy to find.

31:33

Alexey

**Yeah. We should probably invite one of those folks to our podcast.**

31:39

Hugo

Yeah, absolutely.

# What skills a DevRel needs

31:41

Alexey

**But what are the skills that... let's say, I work as a data scientist and I am interested in exploring the DevRel space. I think I enjoy writing, and I think I enjoy giving talks, and I've heard that being a DevRel is about that. So I kind of want to go into that space – into that direction. What kind of skills do I need for that?**

32:05

Hugo

Well, I think you have a wonderful skill set, Alexey, for DevRel. Because you do it. I mean, the other thing that I probably didn't speak to enough is that DevRel is about community building. And this is something you do a huge amount of. So it isn't only about one-to-many broadcast mode, and then many-to-one – it's about getting all the connections between the community and interacting. I think, as I said before, the most important skills are having a base of technical skills that you can leverage. There are always things you can learn on the fly, as well. A willingness and a strong desire to learn more things.

And if you're working in data science and machine learning successfully, you probably already have that, because things are moving so quickly. So neither of these things are really special in this skill set, per se – in this audience. A desire and an ability to explain things in simple terms, and to community-build, as well. So it’s about enjoying having these kinds of multi-network conversations, between engineers and developers and data scientists and people doing machine learning, and that type of stuff.

33:29

Alexey

**Okay. So in summary – technical skills. If I already work as a data scientist, I got that covered. But then in addition to that, I need to know how to actually explain my work. It's not just “Okay, I finished my Jupyter Notebook. I put this to Metaflow and productionize and then my job is done.” Then I actually want to and am able to explain how these things work (and I enjoy doing this). Then I would probably be a good fit for a DevRel position?**

34:03

Hugo

Absolutely. And in a variety of media. Being a relatively good writer, I think, is important, as is enjoying going out there, speaking, doing videos, podcasts such as this, as well.

34:23

Alexey

**Okay. So was it related to the community-building aspect? Or is it something a bit different?**

34:29

Hugo

Yeah, I would say community-building as well. Because what you want to do is be able to take information and techniques and methods, and bring them to a broader community and get the community discussing, getting feedback from the community for the project as well.

34:47

Alexey

**How do I become...? Sorry.**

34:50

Hugo

I was just gonna say, the other thing worth mentioning – and this is always a challenge for a lot of data scientists and machine learning engineers who are thinking of getting into DevRel. It's not clear in a lot of organizations. Once you get into DevRel, you get to do a lot of cool data science and machine learning projects, but they're more for content and developer relations, as opposed to solving internal business problems. So that's something that you have to give up to a certain extent. There's a trade-off there.

Depending on the organization, there may be a structure which allows you to do internal data science as well. But if you're working on the data science team, you're also working on the data science team and not the DevRel team, right? There can be mixed incentives when you're reporting into two different teams as well. So you definitely get to do less impactful internal data science when working in DevRel. But as part of that trade-off, you get to do all these fun things we're talking about.

# The challenges that come with being an educator

35:49

Alexey

**So does that mean that you get less in-depth knowledge into certain things? Because when you solve a business problem, there are some problems, some bugs or some things don't work, and then you start digging deeper until you figure this out. This is how you learn and become proficient in some domain or with some library. But as a DevRel, whose focus is on creating educational content, maybe you don't necessarily dig that deep?**

36:27

Hugo

Yeah, you still end up dogfooding a lot of things that you're building, though in order to get to the point where something works for you and is reproducible. You've got to make it reproducible for other people as well. So you can end up getting pretty seriously in the weeds.

36:44

Alexey

**It can be even more difficult, right? Reproducibility.**

36:48

Hugo

Yeah, absolutely.

36:50

Alexey

**I remember it's one thing when you do this work – you commit it and it's working fine – but it's another thing if you want to actually teach others how you did this. Then it's a totally different thing. Then you'll notice, “Wait a minute, most of these things are more complex than they should be. How about I try to rewrite them?” And then you spend like a week doing this. That's kind of a different level of challenge, right?**

37:19

Hugo

Absolutely.

# Becoming a good writer: nature vs nurture

37:21

Alexey

**Well, you mentioned that in order to become a good DevRel, you need to be a good writer and you also need to be a good speaker. But how do I become a good writer if I'm a data scientist? Is it something I'm born with and I either have it or don't? Or is it something I can become better at?**

37:44

Hugo

Well, I mean, nature vs nature, right? This is an age-old question. I'm probably a Bayesian at heart, so I think framing the conversation around likelihoods is the most useful way of thinking about it. Some people are naturally good at writing, explaining, and that type of stuff. But that's also because people enjoy it more, so people have done more of it and that type of stuff. But I think anyone... where there's a will, there's a way, as we say. So anyone who wants to become a good writer, can. I do think the way you do it is by doing it. Of course, there are courses you can take, but I think that by actually trying to explain things, trying to write things down – if you get some form of writer's block, you can record yourself talking through something, then get a transcript of that. These types of things. Or try to explain it to someone and get a transcript of that. I think one of the best ways to become a writer (to improve your writing skills) – well, there are two ways.

One is to collaborate with other people and with Google Docs, or whatever it is these days – Notion. Pick your tool, right? Collaborative writing is in a wonderful state. The other is by reading more and, I think, noticing what you like about what you're reading and what you're not noticing. When you read something and you don't understand something, I think a lot of us have a tendency to think that's our fault. I'll be like, “Am I too dumb to understand?” And then I go, “No, actually, I'm dumb in some ways, but not in this way. And this probably isn't written... they haven't explained it well,” and by trying to figure out what they haven't necessarily explained well and then how I'd do it differently.

Those types of things, I think, are incredibly important. But I definitely think through writing, you become a good writer. And it is a huge differentiator, man. I was very surprised when I started working in cell biology. The number of incredible research scientists (and I won't name any names or institutions) but the number of really amazing scientists who don't know how to write properly. I mean, maybe because their minds are on other things as well, but they all share what they call “final drafts” with things where the sentences aren't complete. So I think it is a really strong differentiator there as well.

40:17

Alexey

**What helped me is having an editor who would point out, “Hey, look. This paragraph is completely not understandable. I tried to read it three times. I still don't get it. Let's work on this paragraph to really understand what you meant here and let's try to write in simple sentences without all this passive voice, long constructions, and so on.” So that was helpful. What I did later is work with data scientists to actually kind of do the same thing. When they submit a draft say, “Okay, look. This sentence is a bit confusing. Can we make it clearer?” That is very helpful for both of you. Right?**

**At the end, you make sure that the readers actually understand. One thing you mentioned about the writer's block. I used to have it until ChatGPT came out. Now it's much easier to get started. I just ask it, “Hey, I want to write something about that. Can you give me an outline?” Then it gives me an outline and then I'm like, “Okay. Now I already have some things. They are not necessarily good, but I can iterate on these things. But I have something.” So then it's very helpful. I never tried speaking to myself and recording it and then transcribing. I think it's a very good idea.**

41:46

Hugo

Yeah. I journal a lot as well. I do that with journaling. Sometimes when I'm just too tired to write, I'll just... I think I've got the idea from Twin Peaks. I don't know if anyone's seen that TV show. Dale Cooper, the Kyle MacLachlan character, dictates his diary into a dictaphone in the 90s.

42:03

Alexey

**Well, I think now with all these tools from OpenAI – you can just dictate something to your phone, then have Whisper transcribe it and then have GPT summarize it into an article. So then you already have a draft to start with, and then you start working on it, reworking it with your own style, with your own extra content. Yes, it's amazing. I actually recently used Whisper. I attended a parents' evening in school. It was in German, and my German is very far from perfect. I did not understand everything, but I recorded this. I put this into Whisper and I took the output of Whisper and put it to GPT, which just summarized everything. I thought, “Wow!” Then I asked it to translate from German to English. That was also cool.**

42:53

Hugo

Amazing. That's so cool. I just noticed Johanna had a couple of questions in the chat that are really relevant to how to approach writing.

43:06

Alexey

**Let me read them.**

43:07

Hugo

Oh, yes. Of course.

43:09

Alexey

**Yeah. That's the Johanna who helps us write questions.**

43:13

Hugo

In Melbourne, right?

# Hugo's approach to writing and suggestions

43:14

Alexey

**Yeah. And she's doing this now online. Thanks, Johanna. The question Johanna has is, “How do you approach creating a piece of writing or tutorial? Do you start with structure or do you have some other approach?**

43:27

Hugo

Structure is pretty early, depending on whether I'm collaborating with people or doing it myself. Sometimes, by myself, I'll just start writing. I have an idea and start writing. I think when collaborating with people, getting a structure down beforehand is very important just to align. You want to make sure you're “rowing in the same direction”. But I think before structure is figuring out who your target audience is, and then what your goals are. Let's say I wanted to write something about using Whisper with Metaflow – how to build production software that transcribes audio, let's say, leveraging Kubernetes clusters. Something like that.

I could start drafting that or write a structure, but the structure might be incredibly different based on whether I'm writing it for a data scientist or a platform engineer. If I'm writing for a platform engineer, maybe they want to know about how to configure all the Kubernetes clusters in order for the data scientists to be able to do their work as quickly as possible. Whereas if I'm writing it for a data scientist or a machine learning engineer, perhaps we're abstracting over all that information. So I think that is incredibly important.

In terms of goals, I think, for a company or an open source project, perhaps you want to start asking questions before writing a structure, such as, “Am I writing this to just build awareness of this open source software? Or am I doing it in order to support people who already use it? Or am I doing it for credibility in the space? Or am I doing it to generate excitement?” And so all of these types of different questions are important to figure out what your goal is, what your target audience is, and then start structuring it, and then move through it.

One thing I sometimes do when I write a structure is essentially write what the TLDR should look like beforehand and then write down what the headings are (what the h2s are). Then I break it up and then start filling things out. And if you're collaborating, then you can figure out who wants to write which part and then edit for each other, and that type of stuff. Those are the kind of general ways that I've started to think about it.

# Establishing a goal for your content

46:09

Alexey

**How do you understand what kind of goal you have? Maybe somebody comes to you and says, “Hey, we don't have any posts in our blog. Let's create blog posts.” And then you're like “Okay, let's create.” Then you think, “Okay. What is actually my goal?”**

46:33

Hugo

That's a great question. The way I think about that is – blog posts are there to serve goals of projects or companies and the audience – whoever the audience may be. So if an open source project wants to start a blog – if they don't have a large audience yet, I suppose the first thing they want to do is develop awareness. That's why they're doing this blog. As opposed to, let's say that they want blog posts because there are too many issues on the issue tracker, which are solved, but they need blog posts to point people to in order to say, “Hey, this is the solution to it.” Then that's a different thing. I would even push back and say, “You shouldn't create a blog out of a vacuum – for no reason.” If you're creating content, there is a goal embedded in your logic, so it's my job to figure out what your goal is.

A very different example is – I speak with a lot of founders who want to find things out about early stage DevRel, and a question that founders of companies (venture-backed, seed round, series A companies) that are building developer tools almost always ask is, “If I don't have one already, should we have an open source offering between what already exists and our product?” And my question is, “Why do you want to do that?” And a lot of the time they say, “It's for community building.” And my response to that is, “Well, that's an option then. But there are other ways to build community as well.” So once we get back to the goal, maybe writing blog posts isn't the way to solve your business problem or what your project needs at that point. So root causes the desire, and then generatively thinking through the potential options. Blog posts will usually form part of it, but then you've got that goal as part of that process as well.

# Choosing a form of media for your content

48:43

Alexey

**And speaking of that. If your goal is building awareness, then you can do it through an article, through a conference talk, or through a YouTube video, or through 1000 other ways. How do you actually select the right medium? If the company comes to you and says, “Hey, write a blog post for us?” Should you challenge that and say, “Maybe for this, you should just do a conference talk because there will be 1000 or 2000 developers watching it. Maybe you should do that instead of an article.”?**

49:19

Hugo

Yeah. I think, not to seem too business-y about it, but it's just a shorthand. I mean, you look at the return on investment – the ROI. You want several strategies. You want to make hypotheses, and then do experiments around those hypotheses and then figure out if they worked or not, right. The truth is, because search engines have such high ROI, you are going to want to do blog posts that are indexable by Google (and Bing these days, maybe) whatever it is. But conference talks are incredibly important. I think, also, low hanging fruit of organizing meetups and that type of stuff in terms of community building and developing awareness or sponsoring meetups?

It's a good question now, when returning to a lot of in-person conferences and that type of stuff, whether you want to go and do in-person conferences. Because let's say you fly across the country. Let's say you're in the US and you live on the West Coast, going to a conference on the East Coast. In the end, that's days of travel and hotels and that type of stuff – is that as impactful as doing a set of virtual conferences? You can do that in an afternoon. So thinking through those things is super important. I do think there's... and this is one of the things that's unquantifiable – what happens when you're in a room with people, and the conversations that happen then. Just having a coffee with someone and those types of things. The hallway track at in-person conferences is so important. So I think there is value there, but it's not necessarily as quantifiable, which is tough.

51:02

Alexey

**Yeah. For me, personally, that's the most interesting part of the conference – not the actual talk, but what happens before and after. All these hallway conversations.**

51:14

Hugo

Yeah. I always wondered whether we could just... ideally, we could just remove all the talks, right?

51:20

Alexey

**Yeah. Like that would be enough.**

51:21

Hugo

Then no one would go to the conference.

51:23

Alexey

**[laughs] Right.**

51:25

Hugo

Yeah. You could say people watch them beforehand or watch them after, or something like that. But it's almost an excuse. It's a proxy to get people together, even though everyone knows that's not the reason they're there. Right? But if you didn't have it, they wouldn't travel.

# Is DevRel intercompany or intracompany?

51:42

Alexey

**Yeah, right. I understand. Well, I see that we have a few questions. One question from Ella is about the DevRel role and whether it's intercompany or intracompany. Is it somebody who speaks more outside or within the company, or is it both?**

52:04

Hugo

That's such a good question. It should be both. At the moment, where I work, a lot of it is external. That's because internally, we're relatively small. Internally, everyone knows what's going on – they have a lot of domain expertise, for the most part. Whereas when you grow to a certain size and you start hiring a marketing team and a sales team, DevRel actually has an incredibly important function in getting resources internally to get everyone up to speed with what the company does and what they think. As DevRel, if you can educate your sales team, your account executives and business development representatives, and all of these different roles – if you can educate them on the software and product even more so that they can talk the talk, even if they can't walk the walk, there are huge, huge returns there. So I think it's both, but it's dependent on the size of the company.

The other thing worth mentioning is that it's between companies as well. Because of the state of full-stack machine learning and that essentially what's required at the moment, and what's best practices, is a suite of interoperable best-of-breed tools as opposed to all-in-one platforms – at Metaflow, we interoperate with a bunch of experiment trackers such as Weights and Biases and Comet. So I get to work with these great people. I did a fireside chat yesterday with the head of product and a co-founder at Tabular, who work on Iceberg, which is out of Netflix as well – just like Metaflow. We were working on some blog post showing how Tabular can work with Metaflow to do really high throughput machine learning from there – from Parquet through to Iceberg, through to Metaflow. So it's really, really fun to work with a variety of different companies in the space as well.

54:18

Alexey

**So it's external, internal, and intercompany. External could be – you work with other companies, or external could be you where you educate developers, right? So it's both.**

54:31

Hugo

Exactly. The other thing worth mentioning is that, at a company that's 10 to 20 people, you end up doing a variety of different things. But as a company grows, people become more specialized, right? For better or for worse. Becoming increasingly specialized... I get bored easily, so I love doing a variety of different things, so maybe that's why I'm attracted towards early- to middle-stage startups.

The other thing that I didn't mention, and it's not necessarily part of the skill set for DevRel, you don't need anything major, but start working on a portfolio. Make sure your GitHub repository is looking nice. Write some blog posts and maybe publish them on Towards Data Science. Go give a talk at a local meetup before proposing something for a conference. Find some of the cool work you're doing internally, wherever you work, and try to bring that to the world. See how it feels, as well.

Experiment with your career. Maybe you start giving talks and you're like, “I don't really enjoy that.” But you enjoy all the other parts of DevRel. And that means if you're interested in applying for a DevRel position, you can say, “Hey, I don't really enjoy giving talks that much., but this is what I can offer.” So experiment with what works for you.

55:53

Alexey

**Maybe now I add a shameless plug. If any of you listening are a data scientist or ML engineer or data engineer, and you're working on solving some business problem, and you want to talk about that, there is a meetup – our meetup – where you can do this. So reach out.**

# The Vanishing Gradients podcast

56:12

Alexey

**Well, you also have a podcast. We still have 3 minutes. Maybe you can tell us about that podcast before we finish?**

56:22

Hugo

This was actually an idea that I had when I was building a lot of courses and technical content for developers. There isn't necessarily a lot of room when developing this stuff for long format conversations around what the industry actually looks like on the ground. And because a lot of my friends, as I said, a lot of my colleagues, work in the space doing a lot of interesting stuff, I have a lot of these conversations all the time. There are a lot of challenges in this space that aren't obvious from when you look at KDnuggets, or go to the Open Data Science conference or PyData or look at Towards Data Science. So I wanted to have a space for me and like-minded people to have longer conversations. It is pretty across the board.

It's called Vanishing Gradients, and it's on whatever app you use. I think it should be. If it isn't, please let me know. But I've had people from T-Mobile, from Pfizer and Novartis, data scientists from Twitter and Reddit, Facebook – so a number of different places. Each episode is kind of themed in some way, as this podcast is. But I suppose if you enjoyed this conversation, and you want to know what happens when the tables are turned, when I'm interviewing someone else, you can really get a sense of what the space looks like on the ground as well. I'd really welcome your feedback on it – if it resonates or what you'd like to hear more of, also. Its URL we've included, but it's vanishinggradients.fireside.fm.

58:10

Alexey

**Okay then. We will make sure to include these links in the show notes, in the description. So if you listen to this podcast in recording, you will find them.**

# Finding Hugo online

58:23

Alexey

**What's the best way to find you?**

58:26

Hugo

On LinkedIn or Twitter. It's Hugo Bowne-Anderson, of course on LinkedIn, and it's @hugobowne. The other place, if you're interested, we can share the link as well – if you're interested in the full-stack machine learning stuff that we're doing at Outerbounds, we've got a Slack where you can come and chat with us as well. And that's slack.outerbounds.co. We'll include that in the show notes as well.

58:51

Alexey

**CO not COM.**

58:54

Hugo

Yes, exactly.

58:56

Alexey

**Yeah, I would put com, usually. Okay, I think that's all we have time for today. Thanks, everyone, for joining us today. Thanks a lot to you, Hugo, personally, for sharing all your experience with us.**

59:16

Hugo

Well, thank you, Alexey. Thank you, everyone, for joining. It was really great to do it. It's the weekend now for me. It's 7 pm on Friday.

59:25

Alexey

**Well, have a nice weekend. And for those who are not in Australia, have a nice Friday, and then a great weekend.**