

The Futurum Editorial team

In this podcast, we give a behind-the-scenes tour of our editorial and production process. We talk about how we collaborate with researchers to create educational resources based on their research and careers and about how these resources can be used by teachers and students. We also discuss our favourite things about working for Futurum Careers.

Break the **podcast** down:

00:00: Joe Aslett: Hello Erica and Isla, welcome to this special edition of the Futurum podcast. How are you both this morning?

Isla Foffa: Great, morning Joe, happy to be here.

Erica Morgan: Very well thank you, looking forward to this.

Joe: Very exciting, isn't it? So, before we start properly, I'm going ask you the question I ask all the researchers, just for a bit of fun. If you could be any animal, what animal would you be, and why?

Isla: I think that a cheetah is one of my favourite animals. I just think they look beautiful, and they run quickly, so maybe a cheetah.

Erica: I was also going to say a cat, but I was going to say a domestic house cat that likes lounging in the sunshine. Sometimes can be active, sometimes can, yeah, be a little bit more engaged but sometimes quite sleepy.

Joe: Nice, good answers.

Isla: What about you Joe?

Joe: I'm going to say a gibbon or something like that, a spider monkey, because I want to fly but then I also want to be a mammal because I feel like that's just, it feels better. So, a gibbon can swing through the trees and hang out and eat some fruit and I think that would be fun.

Erica: Nice, nice. More active than me.

02:06: Joe: Yeah, a little bit. Cool, so why don't we go around and introduce ourselves and explain a little bit about our background and how we came to Futurum.

Erica: Okay, well I'm Erica Morgan, I'm the editor at Futurum, and I've been

here for just over five years now, but before that I was a secondary English school teacher. I've worked in a range of schools in the UK, a range of state schools and so have a good experience of teaching quite a wide range of abilities. And I also had a spell of working in an international school in Thailand, which again was interesting, different sort of social, educational context and gave me quite an interesting insight into education around the world.

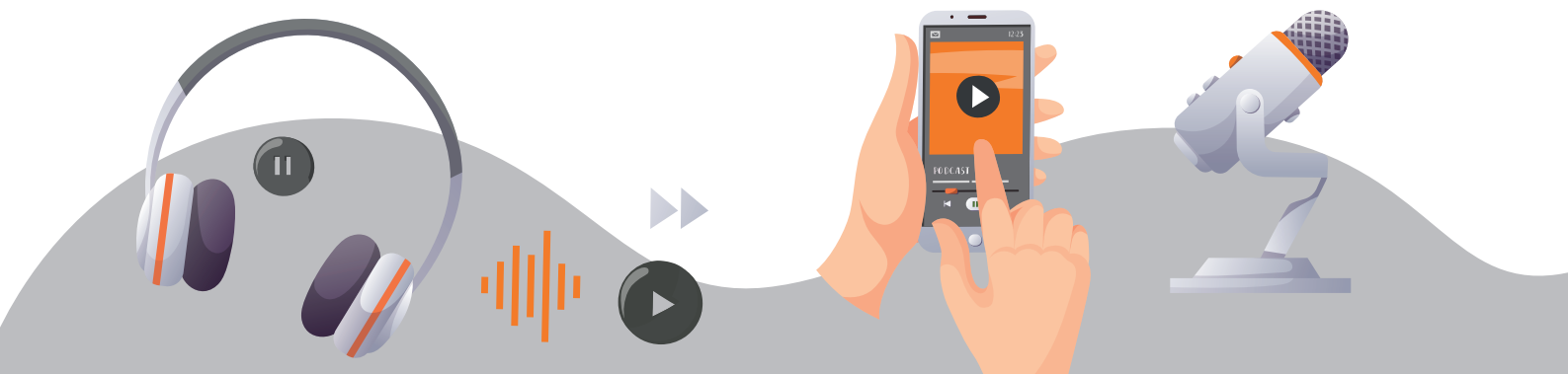
Yeah, so that's given me quite an interesting background then for Futurum, especially as I'm not a scientist, I'm not an academic. So, I feel like I come with this classroom perspective and not necessarily any expertise that I read about, which is why it's so fascinating because I learn so much and I can put myself in the mindset of a young person who also doesn't know about these wonderful things going on. So, I can kind of act as the conduit with my educational background.

Joe: Great, and what about you Isla?

Isla: So, my background is in volcanology. I did an undergraduate degree in geology and then a PhD in volcanology. And for this, I was studying a volcano in Chile, which was a great experience, lots of amazing fieldwork, climbing volcanoes in Chile and also in Guatemala.

And so, I come from an academic background before I came to Futurum, so I understand what the academic process is like in terms of going through how academics usually publish work, so through the publication process. And so, I can see how different our process is in the Futurum editorial side of things as we create educational resources from academic research rather than academic resources.

Joe: Great, and we'll talk about that editorial process in just a second, but I guess I'll introduce myself. I'm Joe Aslett. During COVID, I did a master's in science communication, so that was a great course. I learnt a lot about writing, about podcasting, about filmmaking, and also about the theory of science communication as well. So that's been really useful. I'd been writing for



Futurum for maybe three years as a freelance writer at first, then started doing the podcasts, and then I've been an editorial assistant here for about a year and a half.

04.50: Joe: So yeah, let's talk a little bit now about our editorial process. So, if I was a researcher who decided to work with Futurum to create some educational resources, what could I expect?

Erica: Well, the first thing is that we would ask you for some materials to find out a little bit more about the work that you do, and then we would devise some interview questions for you. These questions are really, really important because we're doing it from the mindset of what we imagine a young person in the classroom might ask. So, that young person might ask questions that you wouldn't necessarily automatically convey if you were communicating your complex research to a different audience.

So, we're really skilled at thinking about the 14, 15, 16-year-old mind and what they will want to know. In asking you these questions, you can then provide us with the most up-to-date answers you want to give us, and that might not be something that is in a report you've written or might not be in a PowerPoint. So, it gives you a chance to convey what really matters for you to communicate to a young person.

It's about narrowing down your work, but in no way dumbing it down. It's about selecting the key important parts that we want to convey. And then once we've got those answers from you, the onus then is very much on us in taking those answers and creating a readable and accessible article for our young people.

So, I would say to researchers, that's probably the most important stage for you. That's when you're thinking, what do I want to tell them? What do I want to show them? What do I want the article to focus on? And then we take it and then we make it something that we know is going to be really digestible for young people and really easy for teachers also to communicate. So that's, I think, the key thing.

And it's at that stage we can start to work our editorial magic. We've got some amazing writers who are so skilled at reducing really complex issues to really nice, concise articles. But when I say reduce, in no way dumbing down, I'm really proud that our articles are also really stimulating and really challenging. But of course, we present them in a way with educational tools, such as the terminology, to make them accessible.

So, as a researcher, once you've worked with us and you've given us the answers, it's over to us to provide you with the draft. We'll ask you to review it. We'll ask you to check that the science is accurate. We'll ask you to check that you like the activities that we've come up with, which are also incredibly important. And then after that, we can move on to the design stage. But I don't want to

jump ahead too much. I'm getting too excited about the process!

07.37: Joe: Well, yeah, the activity sheet is a really important point because quite often researchers will give their comments on the article and maybe not look at the activity sheet so much. But I feel like that is really the way that the teachers can use it to engage their students with the research and really make it not just reading an article, but actually engaging.

Erica: Yeah. And it's not just about engaging. It's making sure that we do not just convey information to students. We don't even want them just to be able to read something and sort of select these key information parts from the text. We want them to really engage and really think about it. So, for example, in our talking points, which are based on Bloom's Taxonomy, the early questions are about information retrieval because the teacher does need to know, have you understood this, especially if it is about some very complex research that even I struggle with understanding.

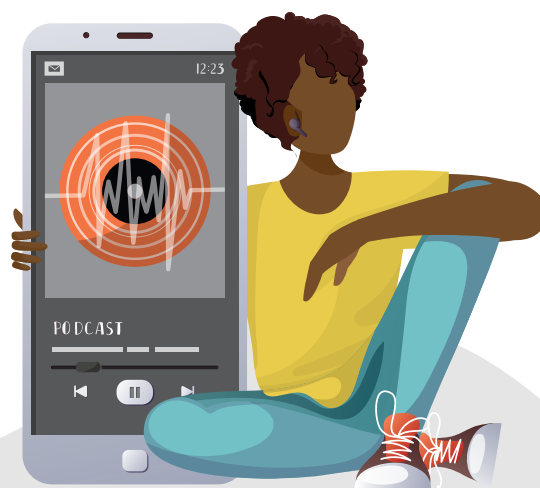
Joe: Even you, Erica.

Erica: Even me. Once they've been sure that they've understood what's gone on and they've comprehended it, we want the teachers to be able to ask their students if they can understand how whatever is discussed in the article is applied to the bigger world, the bigger picture society.

We also want our students to evaluate what they've read. This isn't just about telling them something. It's about them thinking, well, do I agree with that? What's the implication of that? How would that work? How could this change in the future? Our questions are about encouraging our students to think deeply and actually to be quite critical thinkers as well, which is we know what our researchers want. Our researchers are all about feeding into discussion and education. It's not just about telling students something.

And after the talking points, there is always an activity for students to apply their understanding or maybe to interpret or present it in a different way. And that's really important because we need teachers to be able to gauge what their students have learnt, and we need them to be able to gauge some sort of progress.

So, at the beginning of this work, they didn't know this research was taking place. At the end of it, they can show that they've really progressed in their understanding and their learning. They may not understand it all. They may need to go on and read a bit more, which is why we always provide links to more resources, but teachers are able to gauge and assess some sort of formative progress so that this isn't just a lesson about reading and then moving on. It's about really reading, engaging, thinking deeply and hopefully thinking about what the next steps could be for that student if they also want to go into that field. And if they don't want to go in that field,



that's fine, but they've thought about it at a deep level and it might just have helped their thinking about the field they do go into. Yeah, so that's why you're right. The activity sheet is incredibly important. So, thanks for reminding us about Joe.

Joe: And I think it's about bringing it back to the student themselves. And quite often our questions will ask what skills do you have that would fit in with this field and that kind of thing? So, it's really about making the student think, how would I fit into this?

Erica: Yeah, yeah. Hearing things from the researchers about their own experiences, it's a way of showing young people they do belong in research, they do belong in STEM and SHAPE, and there is a diverse range of researchers out there and every young person can contribute to that regardless of their background. So yeah, it is about them and whoever they are, they've got a role to play. And it's amazing that we can show some really inspiring role models for them.

11.08: Isla: Yeah, I always enjoy the personal interview questions for the researcher because it draws out their own personal story. We encourage them to think back to when they were a teenager. So, to put themselves in the mind of these students who are reading our articles, well, what did they enjoy when they were a teenager? Were they really into science at school or did they love playing music or did they love spending time in the woods with their friends?

And so, yeah, I like bringing out the story behind the researcher and then their motivations and inspiration, what experiences in their life led them to becoming a cell biologist or a geographer or a nuclear physicist or whatever. And therefore, students who have similar experiences or can identify with some aspect of their personal history go, ah, they've had this in their life and then this has taken them here. Oh, I wonder where I could go with my personal life experiences. How can my life experiences inspire me to follow my own direction? Where could that take me?

Erica: And some of those experiences aren't always positive. The good thing is researchers can be really candid about things that have happened to them that haven't been positive, but they have been able to overcome those challenges. I remember one researcher who's researching some incredible vaccine was told, you're never going to be a scientist. And I love the fact that she is, you know, she overcame those naysayers. And I think that's really, really worthwhile for young people to know as well.

12.35: Joe: Yeah. And another way that we can convey the more personal, familiar aspect is through the design process. So, through the images that the researchers can provide and even just having a headshot of the researcher, which gives the students someone to relate to, someone to see.

Isla: Yeah. It shows the real people who are behind the research. I think for students, it's often easy for them to think, oh, science is something that happens away in a lab. Whereas if you can show them photos of what your research actually involves, it really brings it into the classroom and brings it alive for these students to see, oh my goodness, they get to go and travel to

those places. Oh, is that what their daily life looks like as a researcher? To really inspire and enthuse students and show that you are a real person, not just a researcher in an academic institution somewhere.

Erica: Yeah. And I know we often have researchers who are really keen to acknowledge the team they work with. And it's difficult to do that within a brochure because there's always a huge number of people involved. So, the images are a really good way for us to show students that science and SHAPE research is a team effort and it is about collaboration. And that's a really nice way to communicate that, even if only one person is actually speaking in the article itself.

Joe: Yeah, definitely. Anything else to add on that side of the editorial process?

Erica: Well, the only other thing I was going to say, and I know we don't have time to talk about it now, Joe, but obviously we're doing a podcast, and I suppose we've been talking very much about the articles. And of course, the articles are a springboard for many other things such as the animations, the PowerPoints. And we won't talk about that now, but it is just worth remembering we've got a whole variety of resources. And of course, you're our podcast guru. So, I don't know if there's anything you wanted to say about that before we move on.

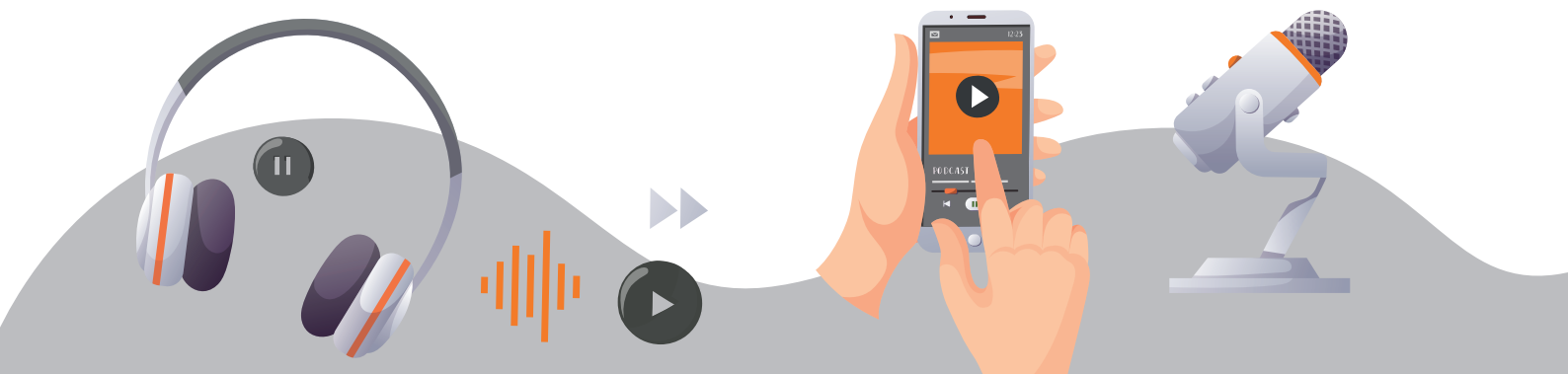
14.25: Joe: Well, yeah, I think it's important to mention them because it shows the versatility of the different products that we create and how teachers can tailor what we make to fit their class and their teaching style. And different resources might work for different settings or different learners or different teaching styles. So yeah, I love doing the podcast.

It's a really nice opportunity to, like we've been saying, really get to know the researcher a bit better. And then I get to just sit back and listen to these people talk about their amazing lives and their amazing work. And it's inspiring for me. So, I hope it's inspiring for the students that listen to it as well.

00.00: How else do the Futurum resources, how else can teachers use them in their classes? How else can they use them to inspire their students?

Erica: I think you hit on the word when you said they're versatile. Yes, they could be used in class. They could be used for a starter in a lesson. Let's just look at this terminology today. Next lesson, we're going to actually read about this person's research. Do you know what? Next lesson, we're going to just read about the field a bit more. And the following lesson after that, we're going to read about their personal story. So, because the articles are broken up, they can be dipped in and out of, which I think is really, really nice, which then also allows teachers to focus on their course content, but every now and then dip out to beyond that course content, which I think is great.

Equally, because our resources are broken down, they are challenging, but they are well-structured and you're guided through them. Students could use them at home independently. So, I think that versatility is, it gives the teacher the onus of how they want to use it.



And it's actually not even for us to say how they could be used. There are some incredibly skilled teachers out there, but I'm confident that we are providing them with something that actually they and their expertise can use in the way that they think is most appropriate for their students.

16.24: Joe: Yeah. So maybe we can just end by asking each of you, what's your favourite thing about working for Futurum?

Isla: So, for me, it's very much learning about the amazing research that the academics we work with are doing. I love the fact that each day when I come to work, I get to learn about a huge range of different topics and the cool researchers doing all this cool research. I mean, at the moment I'm working with people doing everything from looking at the mitochondria in cancer cells through to people who are helping women farmers in Brazil to adapt to climate change.

So, the spectrum of absolutely every aspect of research is there. And I just love learning about all these amazing different topics that people are working on.

It's also great when we hear from clients who have really enjoyed working with us. It's great to hear happy clients. They've loved the process of working with us. We've loved the process of working with them. And it's especially great to hear from clients who have then used the brochures that we've created in their own workshops with schools, or also when we actually hear from teachers themselves who are using our brochures in their lessons and hearing their feedback about how wonderful they found them and how inspiring the students found it, learning about the research and also about the researchers' stories.

Erica: Yeah, I think what I've found over the course of the years is that knowing that there are people out there who have dedicated their working life to making society better, I find it inspiring in so many different aspects. And actually, it makes me feel better about life. And I think, I hope our teachers feel that, and I hope young people feel that as well.

In a world of negativity, there is some incredible, inspiring work going on. And it's an honour to be able to pass that on to people. And then it's a joy when we see that that resource has been downloaded that many times, that many students have got to read that.

And I feel like in our small way, we are spreading the joy of life, the joy of learning, and some of the wonderful things that humans can achieve. Not sounding too grand about it, but I actually truly believe that. And I think it's brilliant. We can play our small part in that. What about you, Joe?

Joe: Well, I was going say, I think that's a brilliant place to end, because that was such a well presented way of saying how great it is to do this work. I also just love the pictures.

Erica: Yes.

Joe: I love when you've written an article, and edited the words, and you spent ages going over commas and grammar. And then it goes to Sonia or Sophia, our designers, and then they come back with this amazing, beautiful brochure with all these awesome graphics and pictures. But that's not quite as grand and existential as your point!

Erica: No, but it is. And some incredible pictures. And also, these grand, grand aims, and then you meet the person, you have a chat with them over Teams or Zoom, and they're just regular people having their cup of coffee in the morning, and they're waking up. And I find that inspiring, that they are normal. And one day, I might understand quantum physics. I'll keep reading Futurum articles in the hope of doing so.

Joe: I think we're getting closer to understanding some of the basic concepts. We've done quite a few recently, quantum physics ones in the last year.

Erica: Yeah, yeah. I'm getting there, bit by bit.

Joe: What's the...

Erica: Don't ask me what...

Joe: I was trying to think of a quantum physics term to ask you, but I can't think of any.

Erica: I will go refer to a Futurum article, and I'll come back to you on that.

Joe: Great, cool. Well, thank you very much both of you for coming on and doing this. It's been wonderful to chat with you guys about all of this.

Erica: Brilliant. Thanks, Joe. Thanks, Isla.

Isla: It's been fun to be here. Thank you.

Joe: Bye, everyone.

Isla: Bye.

