

Episode 8 transcript

Hello everyone and welcome to the SciComm Toolkit podcast. This is the show for researchers and science communicators to get all the tools they need to communicate their science with confidence. I'm Soph and I will be your host today - and for the rest of the podcast. That was a bit of a weird thing to say. I am a science communicator and I have a real passion for sharing science stories with the world.

I've thinking recently more about what I actually want from my scicomm career and have been thinking up ways to create different video content to improve not just my editing skills but my presenting to camera confidence too - and don't worry I am already eyeing up some amazing guests to cover this on the podcast in future episodes. But I have been thinking about Tik Tok and Reels and YouTube. For those of you who know me a little more, you may be surprised to hear that I have a YouTube channel. Don't get too excited though as there are only two public videos on there currently. But over the weekend, as I was brainstorming some different video ideas for a relaunch of the channel - if you can even call it a relaunch - I rewatched the very first to camera video that I did. It wasn't terrible, but it wasn't great. I was looking down at the camera which isn't completely flattering. At that time I remember balancing a whole tower of things on my bed just to try and get that height as I didn't have a tripod. But the stark thing was that I didn't sound like me - I didn't think anyway. It sounded odd. It did however help me notice how much I have improved since 2018 at talking to camera. I am far from perfect, but I feel a little more comfortable now and I think that is almost definitely down to using Instagram stories because I don't think I've done any other to camera videos since. So, if you are looking to improve your speaking confidence or camera confidence, my advice would be to hop on Instagram stories. I am well aware that it is cringe at first, but trust me you will become more used to it and it will become more natural.

So, why am I talking about this? Well today we are talking about science filmmaking. Slightly different to the vlog and other short form videos that I have been chatting about already, but a lot of the processes are the same. Today we are talking to Dr George Chan who is a science filmmaker and videographer. With a background in science, he studied Zoology and then did a PhD in evolutionary biology, he then moved to be a producer and director for the BBC. He has worked as an independent filmmaker creating a heap of different TV shows and now has his own company Blue Fire Films that creates science and research videos, as well as filmmaking training.

I went to one of George's courses back in 2019 now I think, and I found it so, so valuable. I'm just a little bit bitter that the pandemic pressed pause on being able to actually put all those skills into practice. Today we are talking to him about science filmmaking as a career but also some tips on how you can get started and do this too. We talk about his career in TV and now as an independent. We talk about the stages of video production, working with Sir David Attenborough, some top tips for interviewing for videos, how you can let go of those shots you spent all that time capturing but don't really fit it when editing and the best classroom for growing as a filmmaker. So I hope you are excited, I was excited to learn more, so let's get straight to it. I am thrilled to introduce you to Dr George Chan.

Sophie 5:25

I have a list of questions that I would love to ask you, that is probably about as long as my arm. So I will stop rambling and get to it. So I know you have like a scientist background, you did a PhD in evolutionary biology, right? That's right. And so then how did you make that move from PhD into filmmaking? What? What made you want to do that?

George 5:52

I think there are two things, I think the first thing is that I never, during doing a PhD made me realise that I wasn't going to be a natural academic. And I had friends and colleagues who were natural academics. And I felt like I wasn't in the same ballpark as they were. But I think also, I always love doing more creative things in science can be creative, but not in the same way as for example, visual arts painting, or drawing or filmmaking or photography, that sort of thing. So I think I was always missing that side of things. And then I had a friend who went into wildlife filmmaking while I was doing my PhD. And I just thought he was having the best time. And I wanted to do that, too.

Sophie 6:39

Yeah, I've always been in awe of everyone who does these wildlife filming and like camping out for days at a time just to get that one magical shot. So why, why then were you interested in filmmaking? Out of all of the things you could have done? What was it about science videos that

Sophie 6:56

got you hooked?

George 6:58

making documentaries for television is amazing fun. And it's really rewarding, and you learn a lot. Television is quite prescriptive. And it can be a bit superficial when it comes to how much information you can get across. So I think what I really like about making science films and films about research is that you actually get to delve deeper into a subject, and you don't have to be so superficial. And I find that, in many ways, more rewarding than what you can do with television.

Sophie 7:34

And what would you say it was your favourite TV show to work on?

George 7:38

I think it's difficult to say what, which TV programme I enjoyed most, because each different project is rewarding in a different way. So making wild China was incredible. Because of the places we got to go to breaking new ground, no one had made anything like that before. Getting to do work with some incredibly creative and, and talented people. But then, you know, I've made films about things like chess, or steam trains. And they're not necessarily subjects that I would be naturally drawn to or interested in making films about. But when that happens, you have to dig really deep to find out what's going to be engaging about the subject, and you get absorbed into a world that you didn't know about, could be really incredible. You get to meet these, these people who are very passionate about a subject and you get to find out new things about it. It's a whole new world that you go get to go into. And I've really, I really enjoy making films about things that I knew nothing about. And didn't think

were necessarily interesting and actually turn out to be really interesting. It's it's, it's more eye opening than making films about things that you already know a lot about.

Sophie 8:54

And I know from another programme that you did during your time at the BBC, I think maybe that you've got to work with David Attenborough, right.

George 9:04

Yeah, so my first job at the BBC straight out of doing a PhD was on a series called state of the planet, which was a David Attenborough series. And I guess, you know, it was a lot of people. It takes them a long time to get their first job in TV, and they might work on things they don't really want to do. My first job in television was literally my dream job of working on a huge series about the Environment and Conservation, with David Attenborough. So it was an incredibly enriching and lucky experience to get to do. And I worked on a few other series with David since then one was called Attenborough the giant dinosaur where I went to Argentina to film the biggest dinosaur ever found being taken out of the ground. Amazing. And I also did a film with him. Richmond Park, which is his, his nearest. And often he says most favourite, wild space.

Sophie 10:10

So, you mentioned this was your first job in TV, if there was anyone looking to get their first job in TV, is there any advice that you could give to them? Or what should they be looking to do now in order to help them do that?

George 10:28

When you speak to people who work in TV, there's not a straightforward way to get in. And everyone seems to have a slightly different story. Some people go to college, and study television production or filmmaking. I didn't do that I learned on the job. I, I saw my job advertised in New Scientist and the Guardian, that's where my job, I first became aware of my job, that doesn't really happen anymore. I think the thing to say is that every TV company or organisation has lots of young people trying to get a foot in the door. And they all bring different potential skills. This tooth, this, there's at least two things, one is timing. You just, you can get lucky that they are looking for someone, and you happen to be around at the time asking for a job at the time. And the second is, Well, unfortunately, it's who you know. And that doesn't help anyone who doesn't already know people working in TV. So the third thing is you if you can be if you can make yourself stand out from everyone else who's trying to get those first jobs, and really get the attention of the people who might be able to help you out and give you a job. That's the best thing that you can do. And you can do that in a whole bunch of ways. And I'd say the best way is, learn about filmmaking, make things. And then when you do grab someone's attention, say, Look, I've made these. And if they're good, and you've really put a lot of effort into them, and you've learned how to make something half decent, you will already be in the top 1% of people knocking on the door of these people,

Sophie 12:19

then you moved from working at these broadcast companies to now having your own agency bluefire films. So what made you want to take that leap,

George 12:30

I been at the BBC for about 11 years. And I had also made some films for them as an independent freelance filmmaker, for a while. The next step for me was going to be making another spending another three years making a big series and travelling around the world. And I know that sounds amazing, obviously, is amazing. But I'd already been doing that for more than a decade. And it just felt like time to start doing something else. I felt like I'd done television. And actually, I didn't feel excited about the next project that was going to come up. So it felt like it was it was time to try to do something for myself something a bit different. And because I have a PhD because I have a science background. It just felt like the natural step to be making science films outside of the television world.

Sophie 13:27

And now as part of that you do a lot of teaching and coaching did that. Did you start the teaching at the start of when you launched the company initially? Or is that something you've become more passionate about? Now?

George 13:41

I didn't start out with the idea of doing teaching. And what happened was somebody who I shared an office with when I was doing my PhD, he got in touch with me after 20 years and said she lives in she's Portuguese. She lives in Portugal. And she got in touch and said, Look, I'm working at a place where we do science courses of all kinds. And some of it's about statistics or ecological modelling all kinds of things. And they said we'd like to offer science filmmaking as a package that we do, would you be interested in coming in teaching it in Portugal? So off I went, and I taught my first course there and it went down really well. When they asked me to come back and do it again the next year, which I did. And I just thought well, so they were getting people from all over Europe, and mainly in Portugal, to come to their cause but I just thought I could do this. This is you know, I could do this in my own country. This is a brilliant thing to do. And I really enjoyed it. And I got good feedback from people. So I thought yeah, that's, that's something I'm going to stop to offer. I didn't order and don't intend to stop making films because I love that. And I think also to teach us a practical subject like filmmaking, you really need to be doing it all the time to just keep on top. new trends, new technologies just to stay current.

Sophie 15:05

When it comes to making a science video, film, documentary, whatever you're trying to do, where where do you start? What are the core stages that you need to go through from beginning to very end

George 15:19

filmmaking, whether you're making, you know, a massive 10 part documentary for Netflix or the BBC, or whether it just making something really small, can be divided into three parts. So you've got production, which is where you actually go out and shoot material or acquire the material that you need to make your film. Pre production is everything up to that point, it's organising, planning, writing, preparing. And then post production is when you have the material that you've gone out and shot or found, if it's archived material, and you put your film together. So it's basically editing and all of the stages around editing, so sound mixing or, or colour grading, and then promoting your film. So those are the three stages. And in the pre production stage, the way you would do it, both professionally, and I think, just as an

independent filmmaker, you've got to get your story idea right before you, you even stop making your film. So you need to know for example, who the film is for what's your audience, where you're going to show it, what messages you're trying to get across, and who's going to deliver them. If your idea isn't really tied, and really clearly thought out right at the beginning, you're not going to make a very focused film, write a good story, it's important to have a good story because people like to listen to stories. It's the way that most people absorb their information is through storytelling in one form or another, we will help to make it a more engaging film. And ideally, write a script if you can. And then you need to go and be prepared for your shoot. I would say for production, where you actually go out and film you really need to understand your equipment, how it works, you need to know how to shoot a sequence, you need to know how to interview people. And then for post production, it helps to know what your story is going to be, again, for your edit. Editing is about two things. It's about understanding how to drive the software. And it's about knowing how to tell a story using pictures. And that comes mainly with experience. And then of course, you can learn about things like animation.

Sophie 17:40

So you have your three stages, you go from pre production, post production to then post production, which part would you say is the most crucial to make your film a success?

George 17:53

Well, you need all three of them for sure. I think I think where people let themselves down mainly is in pre production is is they just stopped making something. And you know, like, if you're cooking, if you just just get stuff out of the fridge and just cut it out and stop cooking it without a thought of what you're doing. without some idea of where your end point is going to be, it's likely that it's going to be a bit messy. Now, sure, you can go into your fridge and find the bits that you need to make a recipe. And it could turn out quite well. And a lot of that is down to experience and knowing what works well together. And that's fine. But the more you can plan at the beginning, the better things are going to turn out at the end. And so when I teach filmmaking courses, I start off by saying, Look, I'm going to tell you a whole bunch of really obvious things. And none of it is rocket science. But actually they I often get people say it was so illuminating. Because actually, instead of just launching into it, I go to really think about things before I set off. You know, it's it's about planning, planning, and really thinking about what it is you're trying to do. Who's the audience? What messages Do you want to get across? Who's going to deliver them? How are you going to get people to see this film, those sorts of things, knowing that stuff before you pick up your camera is really important. I would say in production, knowing your equipment is really important. Because I think where people let themselves down is, you know, we can we can pick up our phones and film things. And they're pretty good. They're pretty good cameras, but often you see shops that are very overexposed, or very underexposed, or things are not in focus, and that's down to people not really understanding their equipment. If you're going to make half decent film, you should really get to know your equipment. Even if you just spent half a day playing with the different settings and googling, you know, best settings for my particular camera. It will really make things a lot better. One of the things for post production is that you get an idea in your head of what your film is going to be the job of An editor is to make the best film they can with the material that they've got. It's not necessary to make the film that you started out making because things don't go according to plan or you have pleasant surprises or you interview someone and they say things you didn't expect. Some people

think, well, I took it was really hard to get this shot. You know, it took me ages to set up and, and I had to get my scientists to walk through that 15 times before I got it quite right. It doesn't none of that matters. None that matters. If the shot doesn't fit in the film, it shouldn't go in the film doesn't matter how hard it was to get. You know, I've I've made films where I, I dropped an interview because it just wasn't working. Even though it's a bit embarrassing to go back to the person saying we didn't use you. You know, it might say it was for I'm famous, it doesn't matter if it's not the right thing for the film, you drop it, you make the best film you can in the Edit, it's hard to let go of the material that you meant to me is one of the reasons why you hire an editor rather than doing the editing yourself. If you can, one of the reasons if you can hire an editor for yourself is because they won't be precious about some of what you went through to get the material, they will just look through the material and try and create the best story

Sophie 21:11

for you as the camera operator how, how do you learn to kind of let go of something like that, that you would have spent so much time on and really wanted to get?

George 21:21

I think because I've sat through enough edits, to know, to know that you need to let go of things that you're precious about. The greatest classroom for a filmmaker is, is sitting in the Edit, because that's where you learn why things work and why things don't work. It's where you learn about mistakes that you've made during the shoot that you know something won't cut together, because you didn't do it quite right and you you won't do it next time. In the same way, you'll do it differently. And you learn that in the Edit. When you work in television, one of the biggest problems is that you've got it as an assistant producer who's learning how to become a producer, is you often will go on shoot day and you'll come back with material. And then we'll go into the Edit. But unless you get to sit in the edit and sit next to the editor who says this isn't this is really difficult to edit. And you've you tried to find out why that won't work together, why those shots don't go together, what you didn't get on the day, you won't learn. And so editing material is where you learn why your shoe didn't go according to plan and how not to do it that way next time.

Sophie 22:31

So for someone who might be a beginner, how, how would they try to replicate that? Is it more about sharing it with their peers and seeing what they think? Or do they try and maybe get a mentor who is an editor or has experience editing and try to learn with them that way?

George 22:50

I mean, those those are definitely things to do. So I would say the first thing is if you can't find someone else, is practice by shooting things, shooting sequences, shooting interviews, and then go and cut that material together. Does it doesn't cut? Well, if it doesn't, then what would you do differently next time, that's the first thing I would say is practice. Practice making mistakes in your outside of the films that are important. Here, if you're going to go and interview a professor who doesn't have a lot of time, you wouldn't arrive and say, Look, I'm really sorry, I don't know how the camera works, you would have practised it beforehand. And I guess that's what I mean. So sit with an editor who's more experienced than you and say, I've shot this material with, you know, would you show me how it can cut together, most editors probably won't have the time, they really won't have the time to do that. But certainly

editing something together, or getting someone help you edit something together, and then showing it to someone else. And say, what do you think of this? Tell me, you know, give me some critique on it. Tell me what's working and what's not working, will help you because sometimes, when you've done it all yourself, you become a bit too close to the material, it becomes very hard to see what's working on what's not working. And even with 25 years experience that's true. I mean, if I make something and I'll show it to someone else and say, Look, what do you think? And they don't have to be a filmmaker, they can you know, we all watch TV, we all watch movies, so we all have an opinion. So make something, shoot it, cut it together as a first draft and show it to someone and say, What is this working for you? What, why and why not. And their feedback is is incredibly valuable. It doesn't matter how much experience they have as a filmmaker, they have an opinion, because they are your potential audience. But but actually going back to the point you were making before about working with other people. filmmaking on your own is really hard. And one of the most rewarding things about working in television is the collaborative nature of filmmaking that happens there because someone will say when we do it this way, and if you listen to them, which you should do, they will often tell you things or suggest things that you couldn't have thought of yourself. And they'll they'll make you look good. So clap, collaborate, if you can get other get and work with other people if you can, because you'll be surprised. filmmaking is one problem solving exercise after another. And when it comes to problem solving more heads are better than one for sure.

Sophie 25:17

So I think the way my sort of personality, I might be a little anxious or shy maybe to ask these academics and professors who have very little time to kind of repeat doing something, or can we try it another different way? So are there any kind of tips you can share with people who might feel like that, to make sure they get everything that they need without feeling that they're annoying people for asking for the same thing over and over again,

George 25:47

filmmaking is about a lot of different skills. And one of the most important skills is people skills, interpersonal skills. I think that people don't mind. They don't mind doing repeating something four times, which is often what you do, if they understand it's for the benefit of making the film good. So one of the things that I find that scientists really like when I'm making films with them is they like knowing that I'm confident about what I'm doing. Because they know that there's going to be a better product in the app, the better results for the film. So if I explain to them, this is how you do it, and it means that I can cut a sequence together, then they don't mind repeating something I find. So it's an interpersonal skills thing. And you just have to ask, I find people don't mind doing it several times, I really do. But I think the second way, is that if you don't ask them, if you don't feel you can ask them to do that. And then you go into your edit, and you realise your sequence won't cut together, because you haven't asked them to do repeat something four times, you jolly well, remember to do it next time, because you don't want to go back into your edit with not having the material you want. And in a way, that's I mean, I, I was a little bit like that when I started at the BBC, and you do not want to come home from a shoot, which might cost quite a lot of money. Without the material that you need to cut the sequence together, you can't do that. Because your career would just become, you know, untenable. So you learn, I've just got to come home with what I need. Therefore, I have to ask for what I need. And you get better at it.

Sophie 27:33

Yeah, I guess it's just weighing up the sort of risk and reward because you might, you might be really anxious and think, Oh, I'm going to damage my relationship with this person. But if you then deliver a film, that isn't what they want, because you were too afraid to do that, then that's probably more damaging.

George 27:49

Most scientists are logical people. And if you explain to them why you're doing it this way, I think most of them, you know, will absorb that logic and say, Yeah, okay, that sounds like the right way to do it, what they don't like, and one of the biggest mistakes you can make is if you're working with someone a contributor. And you just ask them to do things, and you don't explain why people want to know why they're being asked to do something, it's, you know, the filmmaking process might be a mystery to them. And so you have to take them along on your journey and say, Look, this is why we're doing what we're doing. You know, you'd have to tell them how much time this might take, you know, and so that they, they're not sprung surprises. So if you say to them, this interview will take up to an hour, and I need half an hour to set up before the interview. And then after that, we need two hours in the lab for me to get all the shots that will go with the interview. And I could ask you to repeat during the experiment four times, if that's okay, then then they're prepared for it. And they know that that's how films are made. And actually, you'd be surprised how many people have maybe had to do it before, especially if you know, if they're a bit more senior than they've had to do it before. Just don't spring a surprise on them. It's about communication. One of the greatest skills you can have as a filmmaker is good communication skills. Let people know what you expect, what you're doing, how you're going to do it, how long it will take.

Sophie 29:14

So I wanted to ask about style as a creative how, how did you develop your style as a filmmaker, and what sort of things might contribute to someone's video style?

George 29:26

The truth of the matter is, we're all influenced by the people that we've worked with and the types of film that we watched and liked. You know, I was influenced by some of the nature documentaries I've watched, because I worked on them for a very long time. And before that, I liked them for a very long time. But there's a lot of other documentary styles that I really like. My style tends to be quite based on television model. You sit that people down with an interview, and they're looking just off screen at the interviewee. You cut two sequences, which shot in the in a traditional sort of way. And you don't have to make documentaries that way, you don't have to make your films that way at all, you can do it on your phone, by doing a selfie, walking around your lab and explaining things. That's not wrong. And it could be really engaging. If you bring your, you know, a good personality, and presenting style to it. There's no right and wrong way to do it. But I think Watch and learn. I mean, we all watch TV or films, and we watch things on social media. And I think you are inadvertently liking things and without knowing why you're liking them, I think one of the things you can do is to start to pay more attention to what you like and why you like it. We are all copying people who've gone before us and making slight changes. I think there's instead of saying there's nothing wrong with that, I think it's actually a really positive thing. Watch what other people do. Note the films that you like, and sort of see why you like them,

and copy styles, copy, copy what other people are doing, if you like it, it's a really positive thing to do.

Sophie 31:04

When you are then on set recording. Obviously, the footage is really important to tell the story. But what about other things like audio quality lighting, maybe the background or the scene that everything set within? How important are they for a successful video.

George 31:22

You mentioned audio quality, I mean, it's really the most commonly overlooked and the most important thing that people need to do to make their films good. I think it's fair to say that audio quality is as important as video quality, if not more important, people can forgive something that's not brilliantly shot. But if it sounds awful, they will leave, they'll stop watching the film, they can't hear what's being said properly. So good quality audio is incredibly important. And it's you know, in a way, one of the most important things, you know, inexperienced filmmakers can spend their time getting better at and doesn't it's not very hard, good quality microphones, microphones near the subject that's making noise in or the speaker, in other words are the first two things to do. And then you know, well, while you're mixing your film in your edit, make sure that you can hear what people are saying clearly that music isn't drowning people out. So it's those sorts of things. But but really focusing on audio, from the very beginning is a very important thing to be doing for your films.

Sophie 32:27

If we touch on equipment briefly, what would you recommend for a beginner wanting to try out making videos like do you really need lights, microphones, tripods, etc.

George 32:40

No, you don't need anything special, really, you just need to learn how your equipment works. And then you can start adding things in if you want to. So you know, there's no point in having a fancy equipment if you're not getting it in focus, or you're making it too bright, you know your shots are overexposed. There's no point in using fancy equipment until you know some of the really basic things like that. You don't need a tripod, if you know we've all seen films that are shot and they're slightly wobbly and we're all fine with that. tripods are great for some things and you don't have to have them I use them quite a lot. But I also shoot lots of things without them. You don't need lots of lenses but they certainly give you a huge a huge palette of different shot options and ways of shooting them if you shoot just on your phone. Lights. Yeah, I mean it takes a lot of time to learn how to use lights to light a scene. But having said that, if what you're filming is too dark stick some lights you know turn on the room lights or open open the curtains or or just stick a desk lamp on or whatever it might be just get some more light into the room. You know so this simple in this complicated things with everything. You know, there's so much equipment that you can use and you don't need it all. But every little bit of equipment there is can be used to make films better. Get to know the equipment that you have available to you. Borrow things if you work for a university there will be likely be equipment that you can borrow and try and or use regularly. Or you might have a friend who has got a different piece of equipment that you can use so don't feel that you need to be bound by the equipment because you don't whatever equipment you've got available to you get to know the equipment and get to know how it works and try it out and practice with it that that's that's more important.

Sophie 34:37

With all of your years of experience. Are there some key pieces of kit now that you just can't live without?

George 34:46

My standard kit would be a tripod, a camera with several lenses, headphones, and then two different types of microphone I can make a film with have just a camera, a microphone, and one lens, of course. And that's it. I think it really depends on the situation. But I would say, I like I like having a decent camera. And I definitely will always have decent microphones with me. That's absolutely essential. I wouldn't try doing something without a decent microphone. I would rather shoot on an iPhone and have a decent microphone than shoot with my digital SLR. with just the onboard camera, microphone on the camera.

Sophie 35:36

What microphones would you recommend?

George 35:40

So, with equipment, it's all there's there's the adage, you get what you pay for. And I think that's fair. Having said that, with a microphone, you don't need to buy the professional level microphones necessarily. So there's a couple of companies or there's at least three companies that are well known road is that really well known one Sennheiser is also very well known and Sony, they all make great microphones, they are expensive. So you don't need that, with almost every piece of equipment that you can think of for filming, there will be a cheaper version, often Chinese made and really pretty good. You can get which isn't as good as the branded names, but is almost as good. And can might be a third of the price in some cases. So I would Why don't I always do with equipment. And again, it's because equipment changes every year, I will if I'm thinking about buying something like a microphone, I would Google best microphone for podcasting or best microphone for video interviews 2021. And I would read the reviews. When it comes to microphones, there's two that I would have in my kit, when I'm out on a shoot one's called directional microphone, or sometimes called a gun mic, it's the it's the microphone use, you know, a reporter would have hold it held in their hand, or you will see on the top of the camera. And so that's really important to have. But it's also important to know that if you're far away from the thing that's making the noise you're trying to record, you need to get that microphone closer. So I wouldn't just have sat on the top of my camera, I would have the option with a long cable, and hopefully someone who can help me to get that microphone closer to the person to the person speaking or whatever is making the noise. If possible, I would also have what some people call a clip on mic or to call a time line because it traditionally clipped onto people's ties. And then, but it's also known technically as the valley or love la v Mike. And that's just sometimes radio. it's plugged into your camera via radio, so they wear it as a radio pack. And they can walk around your present or your contributor can walk around talking in the net, go straight to camera via radio that's more expensive. Or you can have a clip on microphone that's got a very long cable, and that still plugs into your, your camera or a set or handheld recorder or your phone or whatever it might be. So there's two, those two types of microphones that are worth looking at. I use both for safety, but you don't need to use both. Probably it's about getting used to your own way of working. If you can borrow one or the other and just get used to it, that's a good idea. A clip on mic with a long cable can be as

little as sort of 20 pounds. So it's worth it's worth going down that route as a first measure for sure.

Sophie 38:40

And you mentioned kind of having a backup almost would you recommend having two audio sources of the same thing when you're shooting?

George 38:49

If you can, yeah, but but I recognise that people often come on I do it because I've had a few situations over the years where I had a an equipment malfunction and I can't do that but you know people pay me to deliver high quality films for them and if something goes wrong, you have to figure out how to solve that on the spot. And so for me, I I will often plug a microphone into the back of my camera. But then I might also have with me a handheld recorder and sometimes I even have two handheld recorders with me, depending on what the setup is.

George 9:29

The first thing to remember is that science films are not the same as science papers that are designed for totally different purposes. They're not taking the place of one another. So there's a place for the scientific paper. Of course there is it's where all the information is it's where all the background information about how the experiment was carried out. Details about finding scientific films don't don't do the same thing. You need to make science films that get across maybe two or three points. They're not full of detail. They're not full of all of the background information about the experiment, unless, of course, your your film is, how do you run a, you know, electrolysis gel? Or how do you do a tie tration, you know, whatever. But if it's about the findings from our research, you need to choose two or three things that you want the audience to take home. And you need to keep them engaged. And you need to be a good storyteller and make it interesting and informative. Because if you don't, people will just turn off, they're used to turning videos off. And they will do that. So I think it's really important to not assume the same things. Keep it light hearted, keep the language simple. Ideally, have someone that is engaging as the front Person of the film. It needs a start a middle and an end, because that's what stories have. And you need to think about ways of explaining what you're trying to explain, which is engaging and not turning people off.

Sophie 11:00

Given the whole video creation process, then from start to finish, what were your three, say Top Tips be?

George 11:08

If I was going to say three things I would say? No, your audience for this film, know who they are, and make sure you're making the film for them. Don't just say this is for the general public, be targeted with with how you're making your film and who it's for, get to know your equipment? Well, so that it's almost second nature, because there's so much to think about while you're filming that you can't stop in the middle of a shoot and say, Oh, I don't really know how this bit of equipment works, you need to you should you should get to know it really well. I'd say the final thing is at every stage of your filmmaking process, you should test your plan and your your scripts or your edits or whatever it is that you're making, you should

test them out and ask for people's opinions and listen to what they say you don't have to change anything because of what someone said. But it's really worth listening, especially if they're a potential target audience for the film you're making. Don't just make something and never ask, during the whole filmmaking journey. Never ask anyone whether you know they like what you're doing, or they even understand what it is that's going on. The worst thing you can do is just make your film totally in an isolated bubble and then spring it on the world thinking it will be really clear. Because actually, if you can ask people along the way, what do you think of this? This? We think this script? What do you think of these shots? What do you think of this? First added or secondary? Does it make sense to get that feedback along the way from people people you trust? Because by doing so your film will end up being a lot stronger?

Sophie 12:46

Great advice? What is the best thing for you then about being a science filmmaker,

George 12:52

I love being able to learn about lots of research. Without having to spend years and years just looking at one particular question. I meet lots of really amazing people I find out, you know, I get to stay current in science, even though I'm not a scientist anymore. And I still get to do it in a creative way. And I love that it's really, really rewarding.

Sophie 13:15

So on my blog, I used to do some interviews with scientists called a scientist in the spotlight for anyone who's listening to this, who has read my blog before. And at the end of every interview, I asked everyone the same question. And I thought it might just be nice to spread that through into these podcast interviews as well. So I love to travel when we can do of course, and I'm sure your career has taken you to many places across the globe. So my final question to round this interview off is where should I be travelling to on my next adventure? So where would you recommend and why?

George 13:52

I think were amazing places to travel to. I mean, it depends on what you're looking for. You know, right now it's not the time to go to Ethiopia but Ethiopia is a totally amazing place to visit you know there's nothing there's nothing like a trip to New Guinea for being thrown into a world that is very different from what you're used to. But it's really amazing. What's been your favourite? You know? Getting to go to Easter Island with David Attenborough is a real highlight of my career. No wildlife there. But it was a really mind blowing experience.

Sophie 14:39

Fabulous, I will book my plane to Easter Island when we can Next go anywhere. Fabulous. Thank you so much for your time this morning and answers.

George

Thank you so much. It's been really good speaking to you

And cut to the DIY section of the podcast. This is the section where I share with you an exercise or tool that you can act on right now after this episode has finished and improve your scicomm confidence straight away.

The tool for today's episode is a handy little checklist for each stage of the video production process. It is something you can keep printing out again and again and again for each video that you do to make sure that you are as prepared as you can be and creating the best videos that you can.

Aside from that, another useful tool to have in your scicomm toolkit is a video buddy. Someone who can look over scripts, look through your footage and plans, someone to watch your first cut of a video and will give you some feedback. It is so so easy to get tunnel vision when making your own videos, so find that video buddy who can cast an eye over what you are working on and help you think about things in another way.

If you are looking for even more support to help improve your science filmmaking skills, George is running is filmmaking courses, and he has just announced the first in person training since the pandemic. Head to bluefirefilms.com/training for all the details, but there are online courses in June, August and September 2021. There is an in person course near Bristol in the UK in July 2021. This is the course I went on. It's three days but is such a great investment. I learnt so so much and met some wonderful other people doing similar things. There is also a training course available in Portugal in October 2021, and of course there are bespoke options too so get in touch with George if you want to learn even more from him and I really think you should. You can find George at Blue Fire Films on most social media platforms so if you have any science videos needs or questions reach out there.

And that's a wrap on this episode. I hope you enjoyed. If you did and found it helpful I would love it if you could rate and subscribe to the podcast. Leave a review if you wish as it helps others to find the podcast too. All transcripts, show notes and resources can be found on my website at www.soph.talks.science.com/scicommtoolkit and if you want to discuss anything you have heard in this episode, then please feel free to send me a DM on Instagram. I'm @soph.talks.science, or you can follow the pod too @scicommtoolkit. And I will see you in the next episode. Byeeee.