

## **S2E3: Finding science stories and turning them into scripts with Maren Hunsberger**

Sophie 0:23

Hello, everyone and welcome to this episode of the scicomm toolkit podcast. This is the show for those who want to start doing science communication, or those who are already doing it, so they can gain more tools to level up their scicomm confidence. I'm Sophie and I am your host, I am a scientist turned science communicator and I am passionate about giving everyone the skills they need to be confident science communicators, as well as always learning more about science communication myself, so I can continue to improve as well.

Sophie 1:00

Today is the return of my chats with other fabulous science communicators. And I will probably end up saying this for every single one of them. But this was my favourite one yet. Today I will be talking to the incredible Maren Hunsberger. Maren is a scientist, science communicator, writer, video producer, podcaster, actor, and just downright inspiration of mine. While she is a freelance science video writer, host and producer, she is also studying for a master's in medical microbiology. She co hosts and writes and produces the science history podcast surprisingly brilliant and is a science scriptwriter and host for Seeker. And if you haven't watched Maren's videos in their latest series body language, you have to go and watch.

Sophie 1:53

So when I was chatting to Maren and recording ready for this episode, I had so many epiphanies, so many moments, where I was just sat there thinking about the personal scicomm idea and just going, Wow, that makes so much sense. And one was even about the format of this show, and whether I should change it up to be just sort of conversations with other science communicators or the communicators from outside the field. So we could learn even more. And that's because as I've been doing these chats, and just asking the simplest of questions to these incredible communicators, I have learned so much that you might think it's really simple things, but just chatting to someone about a particular topic science communication or not. It just really opens your eyes into other ways of thinking about things and you just learn other things. So even if you don't listen to the rest of this episode, please just take that away and go and talk to people and ask people questions about what they do and what you can learn from them. Because it's, it's really made me think about whether I need to change the format of this podcast already. But we will stick with the current setup for now.

Sophie 3:13

We chatted about a range of things around the topics of her science communication, and specifically then finding science stories, and then turning them into scripts. We mainly talk about scripts for videos, but also think about podcast scripts as well. So once again, we had a chat that was nearly two hours long, and I have had to cut so many gems to get this episode to a listenable length for you. I really do need to start sharing some bonus clips or tea break chat, so I can share more of the gold all of my guests are sharing. But don't go anywhere. That is plenty to get your teeth stuck into in this episode. All right now. So let's get to it. I am delighted to introduce you to Maren Hunsberger.

Sophie 4:09

Yeah, this is the bonus that I have of interviewing people who do their own podcasts. Like Yeah, we'll just record it this end as well, too. Just in case, just in case. So hopefully, fingers crossed. We'll have everything we need. So thank you so much for joining me today. I'm very, very excited to chat to you finally.

Maren 4:30

It's absolutely My pleasure. I'm so excited to be here. Thank you.

Sophie 4:34

So you You are a microbiologist and a science communicator amongst many many other things. So maybe you could tell us a little bit more about your science, your career, your scicomm journey so far.

Maren 4:48

Oh my goodness. Yes.

Maren 4:50

So it's a little bit of a saga a little bit of a journey. Buckle in. But essentially I when I was growing up I never, ever considered becoming a scientist, I that was just not something that I saw for myself. Because everything that I, I don't know, my image of a scientist was very, like, they have to be very logical and very, like non emotional and cold. And they wear a lab coat, and they work in a glass building, and they never see the sunlight and they can't talk to other people about nothing. So really definitely internalised a lot of that pop culture image of what a scientist was. And also, like, I really struggled and still do with math. Like it was definitely my weakest subject by far.

Sophie 5:34

tell me about it.

Maren 5:36

Right, exactly. I think a lot of people can relate to that. So that definitely led me to believe like, well, I'm gonna just stop doing math as soon as I can. Ha, Joke's on me. But that meant that the things that I enjoyed the most, and the things that I felt strongest in were things like writing, you know, my English classes, art classes, places where there were like a lot, there was lots of room to be creative, and lots of flexibility and not necessarily one right answer, which I really liked. And so when I went to college, started out as an English major, and a year in was like, This is miserable. I hate this. We're reading like, ancient books by gross old men that I don't know, getting the books aren't interesting. And I'm not having fun. And this, we're not doing anything new. Like, this isn't this isn't fulfilling any of my creative desires. And so I sort of had a, like, an existential crisis about what am I going to do with my life? Oh, my God, what am I going to do in college? I don't know. And so just ask myself, you know, what else do I like to do? And the answer was, I love to be outside, I love to be in nature. So I decided to major in environmental science, because I was like, Alright, that just lets me be out in the woods touching nature and stuff. And sure, it says science in the title, but like, you know, it's just being with animals, right? There's so much science. And I had to pair environmental science with a more quote unquote, hard science. So I chose biology. So I double majored in biology and environmental science.

Maren 7:14

And I, that's why I kind of say I sort of like accidentally fell into science was because I never really intended to be a biology major, you know, like, but that was when I very first started, you know, at like, 19/20, to learn how to learn and to overcome this narrative of like, I am not x, I cannot do y. Like, that's only true, if you really believe it. And if you start to try to change that self narrative and say, like, No, actually, I think I can do this, I do understand it, maybe I learned it in a different way from other people. But that doesn't mean that the way that I'm learning it, or my level of knowledge is any less valid or advanced. So that's just sort of when I started to internalise that kind of thing. And as I progressed, through my science degree, I realised that I really, really loved science. I really loved the ways it lets us ask questions about the world. senior year of college, I ended up taking a specified class, like an advanced seminar in microbiology, and just absolutely fell in love with it. Like all of the tiny, minuscule, invisible things that literally like our planet, and our bodies would not exist Without

Maren 8:31

It's amazing, like the number of things that they let us do. I mean, I read a paper recently about how we think that viruses in the ocean are the the very base of the food chain, because they're splitting open all of these other microorganisms and letting nutrients into the ocean. So literally, like the reason we have blue whales is because of viruses. Right? How crazy is that? So cool. So I fell in love with microbiology, but that, you know, throughout that whole process of college, I was still feeling kind of insecure about my knowledge and definitely had a lot of imposter syndrome because of the way that I came into science. And everybody else just seemed so sure about what they wanted to do, and that they were going to go on to do a PhD immediately. And they had been doing research already or they were going to go to vet school, they were going to go to med school and that wasn't me. And I still had this really deep love of writing and being creative and storytelling. Because I initially you know, when I came in thinking I was going to do an English degree what I wanted to be was a TV writer, I wanted to write, you know, for like fiction TV. So I still had that desire. And then I also fell in love with theatre. I had always, you know, with this love of TV, this love of film, this love of storytelling sort of had a secret desire to act and got into that in college and did a bunch of plays and short films and things. So I was sort of left at the end of my college journey being like, Alright, I don't know what I'm doing. So I looked at like all my passion, so I was like alright, I love Science. I love writing. I love performing what's at the intersection of all those things? Yeah, there was science communication.

Maren 10:09

So this was sort of right when SciShow and you know, Hank Green. Yeah, that whole. Zeit Geist was really coming into the public mainstream and being really popular with Crash Course and all of those platforms. And so I saw that and I was like, Alright, YouTube is a democratised arena. Like, let me just put myself out there. So I started making the shittiest science videos you've ever seen Sophie, in my dorm room in college when I was 19, you know, and I had no idea how to work a camera, I had never filmed anything on a camera before a digital camera, I didn't even know to like, turn my AC unit off. When I was recording, I didn't know how to use the microphone, like it was just a whole disaster. But it was this perfect entry into like, I think with things like making videos, and this goes for the writing and the recording and the post production, you have to do it to learn how to do it. Like you can take all the courses you want, you can watch a million videos about how to do something. But unless you're hands on unless you're doing it unless you're iterating and drafting and

making crappy, crappy, crappy things, you're never going to get better. So you have to just that's always my advice to people who come up to me and are like, hey, how do I get started in science communication? The answer is you literally just have to start, you have to start doing something and then see what you don't like about it so that you can, the next thing you make is just a little bit closer to that end vision that you have. So that's sort of how I got started in into scicomm.

Sophie 11:40

So I wanted today to delve a little bit deeper into kind of script writing, mainly for kind of videos, podcasts and things like that. I'm sure there's other things you'd write scripts for. But I kind of wanted to focus on those today. So I don't know if you can remember the first ever scripts that you wrote.

Maren 11:58

Oh, my gosh, that is a great question. I actually do. I do remember it. It was a big milestone for me. You know, remember I was saying about how I started making really crappy YouTube videos in my dorm room. The very first one I ever made was about why Rice Krispies snap, crackle and pop. So I need to know why now. Okay, well, I remember the explanation. So essentially, Rice Krispies are grains of rice that have been superheated and puffed up. And that means that they have these little air chambers inside of them. And those air chambers are delineated by, you know, really thin, crispy walls of rice fibres, actually. So when you add liquid, those bubble chambers burst, and they make a sound.

Sophie 12:47

So when it comes to videos, podcasts, why are scripts important? Or even? are they important?

Maren 12:55

Yeah, oh, my gosh, I love this question. Because when I very first started making those videos, I, I didn't use Word for word scripts. I just sort of riff on like, I did the research. And I knew what I wanted to explain. But I yeah, just kind of talked a little more conversationally to the camera. And I started just by talking about things that I was curious about, like questions that I had about the way the world worked. And I was like, maybe somebody

Maren 13:19

else will find this interesting, I don't know.

Maren 13:22

And it was much more casual. And I think a lot of people really like that because it feels much less rehearsed, it doesn't feel like someone's trying to convince you of something, it feels much more just like having a conversation. And that's really what I'm trying to replicate in all of my science communication is making somebody feel like they are a part of whatever I'm making, that they're not on the outside of it, I'm not explaining at them, we are having a conversation together. And so I think having a looser, unscripted video, with still a point and a purpose that you're trying to make a that that can be the advantage of that. One of the reasons that I started moving more towards scripted content, however, like, you know, much more, I'm gonna say this line as it is written is because I started delving into much more technically complex content. And that meant that what I was saying had to be incredibly

accurate and specific, and I had to write it down beforehand, otherwise, I was not going to be able to replicate it. You know, when when filming. And I think too, one of the things that I really love about scripting out beforehand, and this can be done with a detailed outline as well, like you don't need to script it word for word to do this. But one of the things that I'm still working on in my practice today is making sure that I'm getting my point across in the most efficient and relevant way possible. So it's not that I want to, you know, get through the videos as fast as I can. It's that I want to make sure that I know what I'm trying to say. And every single thing in the video is working towards that purpose. It can be fun It can be there can be jokes, there can be funny visuals, but none of it is extraneous. None of it is work that the viewer is going to have to do to sort through the information and be like, Okay, well, that's not relevant. So like put that to the side, you as the science communicator, you need to be doing that job for your audience. Because I think, especially at the beginning, I often was making content that was a little bit all over the place and unfocused. And that makes it especially if you're trying to communicate a

Maren 15:37  
complex technical subject,

Maren 15:38  
makes it harder and makes it harder for the viewer, or the listener to get your point. So as as much as you can really focus, who are you trying to talk to? What are you trying to say to them? And make every single thing in your video relevant to those two questions? Who are you talking to? And what are you trying to say, then? That's where scripting and more detailed outlining is really helpful, because then you can cut right, you can cut and trim. Alright, actually, I don't even need that in there. Because that is not that's going to be confusing to add in. I think I was talking to somebody else about this. And we were saying how it's really, really hard,

Maren 16:19  
especially if we have if you have a science background, to not want to put literally everything in the video or in in Yeah, in my guest episodes good because you never want to be accused of leaving something out or getting something wrong, right? That's like the ultimate sin in science communication is is being inaccurate. But you have to balance that with saying, Okay, this video isn't about the entire history of black holes. We can't do that. Right? That's, that's like a two semester course, in university. What we're doing instead is telling a story about this one guy who did this one thing when measuring black holes at this point in time, right? So we got to focus it on down and make sure that everything that we're saying in the video, or in the podcast episode is relevant to that relevant to the audience that we know we're talking to. So we may need to give this background but we're just not going to try and include the entire history of everything ever. Which is hard. That's hard

Sophie 17:14  
Yeah, I think it's, maybe particularly difficult. If you kind of have come from that, let's say academic background, because you kind of write a massive thesis that's hundreds of pages long, and you kind of have to do that almost complete literature review. And if you're telling someone you want to share that knowledge with everyone else, not everyone cares about everything that you've written in your thesis.

Maren 17:38

Exactly. And it's going to distract from the ultimate point you want to make, right? If you're making a video about a specific thing, you don't want to muddy the waters, you don't want to decrease the strength of your own point. So I always try to remind myself actually, a question that I try to ask myself, every video is, could this be two videos? You know, it doesn't make sense? Is there enough here? Are there two different points that we could make? And then produce two even better, highly specific, really focused videos? Is that the case here? And if the answer is no, then that's great. Because you can just keep on chugging along. But if the answer is yes, it's like, okay, we might want to think about separating is not, you know,

Sophie 18:18

yeah, that's a really, really great point. I don't know if there are any particular skills or experiences or maybe perspectives that that a good script writer might need, maybe, I don't know, let's say a performing background, you know, how things might appear on screen, or you might need to be a reader? Or, I don't know, creative writing and things like that. I don't know if there's anything from your background that has helped you with that or other things that you wish you had?

Maren 18:50

Oh, man, such a good question. Um, well, first of all, I Yeah, I definitely think a performing background is really, really helpful if you want to do on camera work. Not necessarily if you're going to be in production, right writing. Yeah, producing directing. I don't think you necessarily need to have a performance background. But I think if you're doing any kind of, on camera, work on microphone work, or even just public speaking, and this goes for scientists, too. I say this in my trainings for scientists as well, when I'm talking to them about you know, getting into science, communication, even if it's just for effectively communicating your own research, even just to your colleagues, like to your lab, an improv class, a basic acting class, just for fun, right? No stakes, you do not have to be good at all. You do not have to have any performing skills. But just having that experience is so valuable to knowing how to communicate with other people in a public setting in front of other people because it's very different from when you're just having a one on one conversation with someone, but those skills are completely trained. relatable to any kind of communication anyone is doing anywhere. So I'm always a big proponent of take an acting class take an improv class. And I say those instead of public speaking classes, because they're just more fun, right? They're, they're low stakes, and they have a lot of very similar skills that you will be able to transfer over into regular public speaking, in addition to performing I think, also consuming a lot of fictional media, right, like I was saying, I'm a huge TV hound and wanted to be a TV writer because I was just I'm fascinated by the way that they tell stories over such long periods of time and make you vested in like, sometimes a huge cast of characters where you can just fall in love with a world and with a cast of characters. I think a lot of people see you know, something like Loki right on Marvel, they see that and they're like, not as far away from David Attenborough's Planet Earth as you could possibly get. In reality, they are using the exact same structure to tell their story to make you care to draw you in as the viewer about two completely different subjects. And so I think recognising the narrative devices that are used in media that people really care about and have this huge emotional attachment to, is really important to understand and then try to translate over into nonfiction media. Because I think we fall into a trap a lot of the time of science media being perceived as like boring, or you are only into it if you are already interested in science. And that's my biggest goal is to

try and make things that people who are not already interested in science people who think science is not for them, people who think science is boring and hard that they will be interested in these products because they they draw you in and they make you care in the same way that TV does.

Sophie 21:59

If someone was out there kind of watching Loki and thinking, I want to make better science videos or even just write better scripts about the science. How what how should they be watching Loki? What things should they be looking out for? And how can they then translate that into? How do you apply the nonfiction? No the fiction things to the nonfiction things?

Maren 22:21

Totally, totally. Well, I think, you know, if we if we look at Planet Earth again, this is a very simple example. And it has its drawbacks, right. It has its flaws. And it's there's valid criticism of it. But the personification of the animals, right. And they have names, they have families, they have struggles, right mama lion has to go do this thing because she has to feed her family, but oh, no, she has to leave the Cubs behind. Are they going to survive? You know, imposing that drama. You know, when when looking at Loki, we have these undercurrents of things like family like belonging, like wanting to prove yourself, those things are very inherently human, very universal, right? Every human knows what those things feel like. And I think all of those things are missing from a lot of science, communication media. But the thing is that science is done by people and for people. So let's bring humanity back in, in terms of looking at a fictional TV show, how are they structuring those narratives to be clean and efficient? Like I was saying before, you know, they, they want to do this exact same thing. They want to tell their story as efficiently and in the most satisfying way as possible. So let's take the way that they're doing that storytelling efficiently. Let's take the elements of humanity. And what's universal about that? and apply it to science is immediately applicable because science is a struggle, right set for for funding, overcoming, you know, failed experiments for, you know, is this even the right direction to go in? And what are we doing here? I think so many people want to portray science and so many people think of science as this perfect discipline, right? This is the most pure, the most logical, it is the way that we understand quote, unquote, the truth. Actually, there kind of is no one truth. Science is just a really organised way we have of asking questions. And if we can kind of demystify that about science and say, like, Listen, the people who do science aren't perfect science isn't perfect. It's a process is always being iterated on. We can bring those people back into the stories we can bring, like, why do they care? And what is this science having to overcome as well in terms of like this problem? Maybe it's stem cell science, right? This is immediately applicable to folks with lymphoma who may be undergoing experimental stem cell trials, you know, and that's, again, a very obvious example of how a piece of science is applicable to humanity. But I think there's always that link and as much as we can bring back The fundamental human elements of the science being done and apply those narrative structures to bring out the emotion without distorting the science or the facts or making it, you know, into some melodrama that it's not still being honest. But having it be authentic, having it be flawed, revealing the Yeah, the humanity and the feeling behind the science, I think that's something we can take away from popular media,

Sophie 25:28

is that anywhere we can go to or maybe resources, you know, of, where we can go and learn about narratives and story structure sort of more generally. So then we can sort of apply it to our science stories, whether that's research, whether it's people and so on,

Maren 25:45

oh my gosh, yes. And this is why I say like, again, people are people are going to totally come at me for this. But this is why I say you don't need is because just type into YouTube free film school. And there are like 5 million channels that do up be considering the fact that I have taken, you know, academic film, courses, theory of film courses at the Masters level, I can tell you that a lot of those YouTube videos have exactly the same content that I learned in that class. And you know, they dissect a scene, frame by frame, like, why did the person choose this shot? What does it mean? It means something, this is why this framing makes you feel a certain way, right? These folks on YouTube, oh, wow, doing God's work out here, giving us

Sophie 26:30

Well I know exactly what I'm gonna be doing for the rest of the weekend.

Maren 26:33

Free film school, for sure, where you know, and you'll find somebody that you whose opinion or whose voice rather, that you really resonate with to because obviously, film criticism, and film theory are relatively subjective. And so you'll get people having different interpretations. And yeah, there, there are lots of great videos out there from the very basics of narrative structure, right, like Beginning, middle conflict, climax resolution, then you won't finish, you know, they can take you through that whole roller coaster, and all the way up to more advanced, yeah, filmmaking techniques of this is how this actually works on a film set. This is why you would structure this this way. And that's the other thing that I think is so essential, and that I'm still really learning and that I think we all will be as long as we're practising in this space, is how is meaning created, when you have multiple modes of input for the information. So for example, in a video, you not only have the sound, and maybe that's narration, maybe that's an interview, maybe that's voiceover whatever. And you have the visual. And I think, for a long time, I, as a creator was making things where the visuals just exactly matched the input to the audio information input. And it was just sort of there as like an illustration, basically. And now, and that's very valid and works. But moving into the next level is how can you create more meaning than either of them have on their own? Right? How do you create something that has that is larger than the sum of its parts. So maybe you say one thing in the voiceover. And the visual adds to that, right, it contains information that you didn't say in the voiceover. But together, they create the whole concept that you're trying to get across. And you can do that, you know, in animation, right, maybe you're saying this gene is copied by this protein, blabla, blabla, blabla. And you have extra information that you don't see in the voiceover on the screen, in text on screen, or in little graphical elements. Or maybe it's more artistic, maybe it's more evocative of an emotion. Maybe it's more cinematic, right, you can do it in so many ways where you create more meaning, together with the elements that you're the separate elements that you're you're combining. And I think that's both one of the most exciting parts of creating multimedia content of any kind, but also science, communication, multimedia, and also maybe one of the most challenging.

Sophie 29:10



So I guess, talking about scripts and structure and things, what are kind of the main stages you need to go through to ultimately end up with a script, I guess, broadly, maybe planning, writing, editing, and then delivery if you're kind of the host, so to speak. So I don't know whether you can talk us a little bit through your process and this kind of things you get out to each time.

Maren 29:33

Absolutely. So the very first thing and I'm sure many people have said this on your podcast is Who are you talking to? And what do you want to know? Obviously, like a video about a malaria vaccine is going to be completely different like a like a unrecognisably different video if I'm making it for a scientific audience, to play at a conference of people who you know are extremely familiar with mRNA vaccine technology versus if I'm Just making it for the average person on the street. So that's one very obvious difference. But there are even, you know, more niche, things to think about, like when I have worked at a big science laboratory in their public affairs department, you know, making videos about the science that they did at that laboratory. And the question always was who are we talking to you, because it's all well and good to make a video, but I think a lot of people, especially some of my freelance clients, right, people I make videos for sometimes think they come to me, and they're like, we want to make a video and I'm like, Okay, why?

Maren 30:35

like, what, what

Maren 30:35

is the purpose? And and what are you hoping it will do, because I think a lot of people just stop at the, we're gonna make a video, and then we'll have a video and they think that that's going to, I don't know, just do something magic. Whereas you have to know you have to know who you're talking to, and what you want them to know, and what you want them to do at the end of it. So a video always has to have a purpose, I think. And sometimes that purpose can just be to entertain, or to inform. But I think the more specific you can be, the better it is, in focusing the rest of the process, which, for me, starts with outlining. So that's where that information and that understanding of narrative structure comes in. How are we going to pose the problem? Is there conflict in this? Who are the main characters? Maybe the main character is a technology? Maybe the main character is a question, right? It doesn't have to be people. But who are we going to care about in this story, so that you can outline the the structure of how you're going to present the information. With science communication, it's especially challenging because you have to overlay that narrative structure on top of complex technical information. And that is why the audience, identifying the audience is so important, because then you know, what understanding of this topic do they already have? Or what do I have to introduce? Where is the background information going to come in to this video and this explanation so that everybody can understand the conflict, the resolution, the main characters, so the outlining is is super, super important. And then all of the research, right, all of that good background research, and then the the actual scripting, and for the scripting part of it as I'm going along, right? I'm always doing that pruning thing of like, is this really important to the story that I'm trying to tell coming back to my outline? is this relevant to the story? Is this important to the emotional arc of the story? And if the answer is no, it's like, Okay, can I get away with not having it in? And this still being correct? Because sometimes, obviously, there's like an issue with having an

incorrectness by omission. Right? So you have to ask yourself that as well. Like, is this going to be wrong? If I omit it, I'm not saying this doesn't exist, I'm just not going to include it. So you have to ask yourself those questions. And in the scripting stage, I'm also usually storyboarding at the same time. So this is where that concept comes in, that I was talking about earlier of creating meaning with the visual. So as I'm scripting the video script, I'm thinking, what is the viewer going to see here? Because the information is really important. And this is something that I've kind of only learned relatively recently, I used to just script and that was the only important part to me. But as I've gotten, you know, more experience, I've realised how important it is to have that in your mind while you are scripting, because it's going to change the things you write. If you if you think about what detail Can I add in the visual here, maybe I take some words out of this sentence, maybe I can have this expressed visually, instead of, you know, by the host or by the narrator. Because then you get the maximum amount of information across to your audience, in the minimum amount of words, right, going back to that efficiency, making it easier for the audience to absorb that information mentally, how easy Can you make this to understand and that involves combining those information in words and the visual information. So I think doing those things in tandem is really important. And your outline, having a really nice solid outline that you feel confident in is going to help you along that way. I also think getting somebody else's eyes on it is really important

Sophie 34:19

Yeah, I was gonna ask about feedback and who the right people to ask were.

Maren 34:23

Yeah, I mean, it depends on the team, right? So you know, for my YouTube channel, it is just me. Whereas, you know, for videos that I make with seeker, we have a team of not only script editors and producers, but also visual editors and animators who are we're all working on it together, which is obviously a huge privilege and amazing. But everyone can contribute and especially if I've been like knee deep in this research, and somebody comes to it with fresh eyes and is like, I don't understand this at all. What are you talking about? You know, I it gives me great perspective about like, okay, so somebody hasn't been reading about this for the last week. There's not going to get this. Okay, back to the drawing board. How can we fix that? So yeah, I think having different perspectives is really important.

Sophie 35:09

Yeah. And you mentioned that you were you kind of prune your script, sort of as you're going along? Is that something you've gained through experience and just constantly writing more scripts? Or is that something you've always done, because sometimes I find when I'm, say, writing an article, if I'm sort of trying to edit it as I go along, that sort of stops the flow of things. So I don't know if you've ever found that pruning, as you go along has been kind of a hindrance to you, and whether you kind of just dump everything and then edit later.

Maren 35:40

Yeah, that's a that's a great point, I think it just comes down to individual writing style, you know, there are some people who like, do not write a rough draft, like what they write and as they write along is the is the final draft, like they're only ever working on the final draft. And there, yeah, do a whole draft, and then, and then edit and do a whole other draft, edit and do a whole other draft. So it just comes down to practice, I think, to find out what works for you

in terms of how your brain works and what you like, because it is a very individual practice. For me, the outline is kind of that info dump, I tend to have a research document where I have all of the stuff that I'm looking up about this, all of the things that I think might be interesting to include all of the things like background context stuff, that's just for me, that will never make it into the article, I have like a whole messy document that's basically just cut and paste, you know, links and quotes from articles or journals, stuff like that. And then the outline is sort of the first place that I start to think, alright, this is all all of the information I have to cover. What am I going to include, that's the first step is taking that research document and making it into the outline. And then I think, as I write that, I already have an idea of everything I have available to me. And working from the outline, I can decide what we're going to include in more detail or less detail or what actually, we don't need to have. So for me, editing as I go is more effective. And it's kind of just the way that I have always written anything, but everybody's going to do it a little bit differently. I think, are there any kind of like core elements that a script needs? I think, you know, that all comes down to that very first question that we're always asking is, who are we talking to? And why? You know, if it's because every single Yeah, piece of science communication is going to have a different goal. So I think the things that are important to that goal would be the things that have to be included. But I think something that is universal, is a reason to care. Right? You know, as someone and maybe you can relate to this, like as someone who's just like very inherently curious about a lot of things. I really want to know why this is the way it is. Or like, I just really want to know how this works. I always have to pull myself out of like, well, somebody just like this is going to be cool, just because it's cool to know, like, of course, anybody would want to know this. It's cool. You know, and that's where my first, my first attempts at science communication, were always rooted in that right from the rice krispies video onward. I was always like, Well, of course, somebody will want to know this. It's very interesting. I was like, you haven't really given them a reason to care. And I think that's true for some topics, right? Some things that are fun, it is just kind of like a fun factoid that like you can throw out there and be like, Oh, hey, look, bring that up at a party, you know, but especially for more complex things, you You first have to give the people that are consuming that product, a reason that they should want to keep watching and a reason that they should be emotionally invested. And a reason to continue to the end. Right? So not not spoiling everything at the top. This comes back to narrative structure, teasing out the narrative to say like, this is the goal, but oh, no, it was it gonna make it to this. Who knows. And adding this element of tension, if you can give it Yeah, giving your audience a reason to care. A and then be a reason to keep watching. Those are the two most important things,

Sophie 39:09

going back to kind of the, when you're writing a script and looking for the right things, what things you actually look for, I guess, research articles is probably an obvious one. Are there any kind of other sources that you're looking for? You're googling for when you're trying to write a script about whatever video or podcast topic you're doing,

Maren 39:26

Totally, totally. Yeah. So all of my facts, you know, any fact that I state in the video, I always want to have really solid scientific support for in terms of evidence from a journal article, something like that. But I also really like to look at the news coverage of something maybe it's a new paper, or maybe it's an article that's been written about this broader topic, because I really want to see how other people are talking about it, so that I can see, okay, is there a

common way that everybody is approaching this? Is there a common narrative that everyone's using? Do I want to use something different? Do I want to use something similar? Is there a part of this that isn't being talked about right now that we could then fill that gap for? I really like to take in that media landscape to see who's talking about it? And in what ways already so that you can make something that either add something new or takes on this new perspective, or maybe even questions than the popular narrative, maybe the way that you structure the video is in opposition to the popular narrative? Because you're like, actually, I don't really like the way people are presenting this, it doesn't really make sense to me, or it's giving people the wrong idea, or how can we ask the viewer to think about this differently? So I like to do that as well.

Sophie 0:18

And how do you know when to stop researching? Because we've all been down those kind of Google rabbit holes. So when do you know enough? If you can ever know when enough isn't?

Maren 1:30

Another another one of my favourite quotes, I think about, you know, just production in general is, it's never done. It's just do.

So every single piece of science communication that I've ever made, I look back on and think I wish I could have had two more weeks on it.

I wish I could have had more time. But you do you do just have to decide. Alright, you know that? Coming back to my initial questions? Is this talking to who I wanted to talk to? Is it saying what I wanted to say? And if the answer is yes, for the most part, then I think you're grooving. And if it's due, it's due, and you got to get it done. Sometimes that answer, I'll very often that answer is yes. But I could add this or Yes, but I could change this. But if the answer is yes, but I think it it can be ready. Even though it's hard to let something go out into the world that doesn't feel perfect, I definitely have that problem. And it's one of the reasons that I published way too infrequently on my own YouTube channel is I've made some videos like five times because I wasn't happy with the way they were. But something that my mom always says and that I really like is, if you're looking back on the work that you did, even six months ago, a year ago, it's especially more than that, if you're looking back on that work that you've done previously, and you still think it's amazing. Maybe that's not so good, because it means that you haven't grown in that time you haven't progressed. So if you're looking back on it now with your eyes that you have now and saying, oh, that could have been better, that's good, because that means that you know how to get better. And you know that you can do better. So I try not to live too much in regret, because it's it'll just kill you, first of all. And then yeah, I think it all comes back to that idea of Have I told this story in the most efficient way. And the pruning and trimming part of the scripting and outlining process is really helpful for that. So that you can say, Hey, you know what, I do not need to include every single thing about this topic in order to make this video Good or valid. In fact, this video is better because I have chosen to talk about the things that I've chosen to talk about. And I'm assuming them the things that you decide to put into the video ultimately go back to who you're trying to reach what you're trying to tell them what you want to take away.

And does it serve the story? Right? Is it? Is it an efficient and compelling way to tell the story because often, you know, there's a piece of background information that I'm like, desperate to include, because it's interesting, but

aren't in the flow of the story. You know, it just is extraneous and distracting. And so you have to what's that phrase from Allen Ginsburg, that is, you have to kill your darlings, is you are going to have fans in any product that like you are in love with and that you don't want to take out but it's better for the story to do that. And actually something that you put out into the world Sophie really inspired me about this and made me feel better about this was when there's something that I love in a video or script that I just have to take out for the good of the story. I'm gonna save that and put that in my back pocket and share it in a different way right on social media so

you know, multitask or make make pieces of content and multipurpose. So you're putting out that long form video on YouTube. Yes, take that fact that you think is amazing, but didn't make it into the video and share it.

On Instagram as a way to talk about the fact that you made the video. So thank you for that. No, I love that you brought that up is a great way actually, if you think, Oh, I wish I'd shared that bit of information. But yeah, great way to promote the video that you're doing. Exactly and keep it all or keep it all cohesive, but also add add new, you know that you're not just putting out the same Yeah, on every platform, which is definitely a challenge that I have. Because, as you know, like, every single social media platform is so much work.

And the idea of having to make novel content for each platform is just exhausting sometimes.

Sophie 5:36

So I just don't any, it's just too much, especially when I spend like most of my day and my day job as well on social media for exactly. For an organisation. So when you're writing your script digitally on paper, however you do it, what do they actually look like? Are your scripts just literally like words on a page? And then because storyboards are kind of in like a grid sort of layout? As far as I know, right?

Maren 6:03

Yeah, yeah, exactly. So that is, that is how I write the script is in a grid. So it's just a table, essentially, it's got two columns. And on the right hand side, I have my words that I'm writing that I will be speaking out loud, because most of my videos are hosted. And on the left hand side, I'm making note of what visuals I want to include. So sometimes that's just like, especially in the in the beginning drafts, that's just a little note to myself, like, find a picture of this, you know, or animate of this text on screen of this name here, for each line of the script, essentially, because nothing is worse than getting into the Edit studio and realising you have like a whole chunk of 30 seconds or a minute where you have nothing, no visuals, you don't know how you're going up there, then if you can figure that out in pre production, as opposed to in post production, that is ideal. And I know that because I have made that mistake before.

So taking note of the visuals as I go, and then I chunk it. So the table right is two columns. And then I separate into rows, my different sections that I have in my outline, so intro

conflict, you know, background, whatever, I'm separating them out so that I can sort of feel the flow of the script and the story. And maybe I need to reorder this. So I'm going to put actually put this row above this one, and then you can sort of move those around more easily. And then as you get into post production, especially if you're working within a team, you can share that document, I usually work in Google Docs, and that, that video script, you can put links to be role, right. So if I'm working with an editor, I will for each of my little visualisation notes, I will be like, you know, use this Getty stock footage, or this is an example of the animation that I'm talking about. So that you can have an idea of what I'm thinking of for style and feel. So that's really helpful. If you're working collaboratively. I usually am scripting for myself because I'm hosting. But I will also occasionally be making videos that don't have me in them at all. They're just other people's interviews, and B roll and talking other people talking. And what I do there is if I've recorded the interview, or if there's any sort of substantial length of content that I need to be using, and maybe editing, I put that into a transcription service. So I'll use something like rev, for instance. And that'll give you a audio transcript of the interview. And this is what we do first surprisingly brilliant as well, because we interview experts for each episode. But we do not use the whole interview where we pull out chunks that we put into the story at key places. So looking at it on the transcript is super helpful, because you can do what's called a paper cut, which is where you essentially edit that video, edit that interview. On paper, you take the different chunks that you want, you cut at certain places, you can rearrange things. And so I'm doing that for a video that is not scripted. And it's not me hosting. I'm taking the transcripts of the interviews and making the paper cut storyboard that way so that I can still do my visuals assignments, assigning the visuals to each line, but it's just with the transcript of the audio.

Sophie 9:20

So when you're delivering your scripts, do you memorise everything or do you kind of ad lib a little bit but still follow the flow of things?

Maren 9:30

Oh my gosh, I did not memorise No, no, definitely not.

I use a teleprompter just to put that out there like none nothing is memorised. Because the scripts are nuts. It would take forever. I I've tried to script as much as possible in the pre production process all of the sentences in the way that they most naturally come out but very often in the actual read and the actual shoot. It occurs to me on the spot that like oh, I want to put

This a different way or add this inflection or change this structure of the sentence. And I'll just do that on the fly because I've, I've done it so many times that I feel comfortable doing that reading from the teleprompter. And so I'll add in Yeah, little asides, little adlibs little changes as I go. And we'll have a couple of different takes, you know, we shoot the same take multiple times. So yeah, they're scripted, and I'm reading from a teleprompter, but I try to make them feel as unscripted as possible. And that comes Yeah, I was gonna ask, how do you do that? I mean, that just comes in, in the scripting, mostly, like, you've scripted it so that the words do not sound like they're scripted, which I know, yeah, sounds hard. But that's why reading it out loud as you go. And as you edit is so important is because you'll be able to hear it, and then becoming so familiar with it, right? That's why the read through really helps as well is that the more times you have read it out loud before the shoot, the more it just

sounds like it's coming out of your mouth, you know that it's just a conversation, that it's just something that you're thinking about at the time. And then the only, you know, way, again, to get comfortable with the teleprompter is to practice. So just doing it over and over again, finding the right speed, finding the right delivery for you, so that you do feel like you have the time and space to play with the wording and to shift things around if you want to. I mean, and you should see the bloopers like there. There's a million tics where I stumble over my words, and I don't finish a sentence correctly, or I've tried it I've lived on it didn't work. But obviously, the only things that come out are the things that did work. So you just have to play and you have to iterate me, you have to do a million bad things before you get a good a good one.

Sophie 11:41

So what would be your, I don't know, three top tips or your best advice for anyone who wants to write better video and or audio scripts.

Maren 11:55

I think the the three most important things would be to have a clear vision is number one, like we talked about a couple of times, know where you're going. And that is going to make the whole process so much easier.

So if you have a clear vision of what you want the end product to be. And that is all going to be informed by everything that I've talked about so far. Right? Who are you talking to? What do you want them to know that clear vision is is going to be informed by all those questions you're asking yourself, and it's going to make the process of making that product so much cleaner and less painful. Because yes, it's going to evolve as you go through. But if you have a clear direction that you're going, you can always sort of reorient be like, Okay, wait, we're getting sidetracked, we're getting lost. Let's get back on track here. So have a clear goal and a clear vision at the outset. Number two, I think is don't be afraid to ask for help. And by that, I mean,

don't be afraid to let somebody else see it. I think especially when you start out, it's really hard to let that that baby that you've just created, right? Go out in front of somebody else, because you're like, Oh, god, they're gonna see all the things that are wrong with that.

And it is really hard feedback is really hard. constructive feedback can be very difficult to internalise, especially at the beginning. But the more you get used to that the more you start to see people's feedback is a really good thing that's going to make everything better. It's not a personal criticism of you as a person, it's just, hey, how can we make this the best thing it can be the better you get at that, the sooner you get better at that. And by that I mean letting other people see what you've made, and give feedback that the more improvement you're going to see on a faster timeline. So that's number two, don't be afraid to ask for help and outside perspective. Number three, I mean, I think number three is one that I'm always telling myself too, which is don't let the perfect be the enemy of the good. Somebody is always going to be mad about something, somebody is always going to say I wish you had done this. Instead, somebody is always going to say, why are you the way that you are?

Somebody is always going to have something to say about it. So it will never be perfect. It should never be perfect. If it were perfect. And please everybody, it would be incredibly boring and probably not very good as a piece of science communication. So don't let this

idea of trying to strive for something perfect, prevent you from putting it out into the world because you just got to keep on going. You got to put it out, keep going make something new, put that out, keep going make something new.

Sophie 14:30

It's not like you're only going to make one video or one podcast episode in your whole life there. It has to be perfect. So

Maren 14:35

Exactly. You can make another one. You can try it again. You can always try again. Exactly. Exactly. Exactly.

Sophie 14:41

So my final question to you is something completely different, really. It's just a question I like to ask at the end of every interview I do.

Just to crowdsource some inspiration for me.

And the question is, where in the world would you recommend travelling to and visiting

And why

Maren 15:02

it's such a good question. Where in the world? Oh my gosh,

I have so many answers that come to mind. I will take more than one if you have both. Okay, okay. Okay, so I have two, and they're actually related. So one is, I'm sure. I mean, you've probably been here because you are English. The Lake District That's definitely one of my favourite places I've ever been in the world. And it reminds me of chinko Terra, which is in southern Italy, and they're completely different landscape wise, but they're very similar in that they're like this cluster of towns that you can hike between, and basically like do is do a circle, right. So the Lake District has all of these beautiful towns in between the hills and the lakes. And tributary has the same but it's like the Italian, mountainous coastline. It's incredible. And they both have like, yeah, these little towns nestled in the hills, and you get to walk between them and enjoy this incredibly gorgeous nature and wilderness, but then end up in a town where you can buy either clotted cream fudge or gelato depending on which one you're in. So

those are two of my favourite ever travel experiences I've had as taking time to hike between those towns in both those places. I've loved it.

Sophie 16:30

Yeah, I adore Italy. So definitely adding that one to the list.

Maren 16:34

I highly recommend. I mean, it's just like every Italian coast postcard you've ever seen it. And it's real life. And it's one of those moments where you look at it. You're like, this isn't



real. I'm looking at a photograph What is happening? I can't believe this is in front of my eyes.

Sophie 16:48

Oh my god. Yeah, just we're in a simulation now because this cannot be real. Exactly. You definitely like you're in your own your own movie. It's pretty amazing. Great. Well, thank you so much for giving up your time today to chat to us. I have loved every second. And yeah, thank you for all your tips and advice. Oh my gosh, it was my pleasure.

Maren 17:06

Sophie, thank you so much for having me on and for asking such great questions. And I know that I tend to ramble on so thank you to everyone for listening tonight. incredibly long answers. And yeah, thanks for listening. If anybody wants to ask me more questions or find me online, I am at Maren hunsberger on Instagram and Twitter and YouTube at Maren microbe on tik tok. So I'd love to see you anywhere that you'd like to find me.

Yeah, you took the last question straight out of my mouth.

Sophie 17:37

I'm a Pro.

You've done this before.

Maren 17:41

Always be plugging.

Sophie 17:48

I want to say a huge thank you once again to Maren for giving up her time and sharing all her psychic wisdom with us. As I said right back at the beginning of this episode, I had to cut so much out of this interview and the chat that we had. So there is plenty more to come from Maren very soon.

If you have listened to this podcast before, then you will know what point we have now reached. If this is your first time listening to the scicomm toolkit podcast, then Welcome to the DIY section. This is the part of the episode where I share a resource exercise or activity that you can do right at the end of this episode. Why? Well, I know I am guilty of it, and many others are too. That is where you read about take courses, maybe about a certain topic, watch videos about how to do something, and then never actually put that knowledge into practice. This is what I hope this section of the podcast helps with. So we can actually take action on the things that we're learning. So today's one is probably an obvious one. But I want you to practice writing a script. Do some research, find the story that you want to share. Write your script, think about what will be the visuals on screen if you're going to make a video. Share it with friends for their opinions, but most importantly, record it. You don't have to show it to anyone, but record your video or audio clip, see what feels right. See what didn't work. Get some more feedback once you've recorded it to please remember that you do not have to show it to anyone or publish it on a YouTube channel or anything like that. But get some practice in writing the script, but also then delivering it because they are two completely different things. And you don't know if what's written on a page works unless you

say it out loud or you deliver it to camera or you speak directly to your microphone. Once you've recorded it, then ask

yourself if the message you wanted to share is coming across, see what you can change for next time. You can get a script and storyboard template from my website right now, or create one of your own with just a simple grid in a Word doc. You can find that and all the other resources as well as show notes and transcripts for every episode of the podcast at [self talk science.com](http://selftalkscience.com) forward slash OSI comm toolkit. Thank you so much for listening to this episode of the seicont toolkit today. Don't forget to rate and subscribe if you enjoy what you're hearing. Share it with your friends to you must now go and watch Maren's video series body language on seeker. Then come back to us and listen to more episodes to level up your scicomm confidence even further. Until then, stay curious, keep creating, keep scicomm and I'll see you in the next episode. Bye