

**SDS PODCAST**  
**EPISODE 757:**  
**HOW TO SPEAK SO**  
**YOU BLOW**  
**LISTENERS' MINDS,**  
**WITH COLE**  
**NUSSBAUMER**  
**KNAFLIC**



- Jon: 00:00:00 This is episode number 757 with Cole Nussbaumer Knafllic, CEO of Storytelling with Data. Today's episode is brought to you by CloudWolf, the Cloud Skills platform.
- 00:00:14 Welcome to the Super Data Science Podcast, the most listened-to podcast in the data science industry. Each week we bring you inspiring people and ideas to help you build a successful career in data science. I'm your host, John Krohn. Thanks for joining me today. And now let's make the complex, simple.
- 00:00:45 Welcome back to the Super Data Science Podcast. Today on the show we've got the mega bestselling author and data presentation megastar, Cole Nussbaumer Knafllic. Cole is the author of Storytelling with Data, which has sold half a million copies, been translated into over 20 languages, and is used by more than 100 universities worldwide. Nearly a decade old, the book is the number one bestseller still today in several Amazon categories. She also wrote the follow on the Storytelling with Data: Let's Practice Handbook, a bestseller in its own right. She also serves as the founder and CEO of the Storytelling with Data Company, which provides data storytelling workshops and other resources. Previously, she was a people analytics manager at Google and holds a degree in math as well as an MBA from the University of Washington. Cole's latest book is Storytelling with You, which covers how to plan, create, and deliver a stellar presentation. Whether you're using data in that presentation or not. As a treat for you, I will personally ship 10 physical copies of any of Cole's books to people who comment or reshare the LinkedIn posts that I publish about Cole's episode from my personal LinkedIn account today.
- 00:01:51 So, I'm posting it today. You have up until Sunday, February 18th to make that comment or reshare of that LinkedIn post that I make today. Simply mention in your

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comment or reshare which book you'd like. Would you like her Storytelling with Data, Storytelling with Data: Let's Practice or her latest Storytelling with You. I'll hold a draw to select the 10 book winners next week. So you have until Sunday, February 18th to get involved with this book contest. Today's episode will be of interest to anyone who'd like to communicate so effectively and compellingly that people are blown away. In this episode, Cole details her top tips for planning, creating, and delivering an incredible presentation with a few special tips for communicating data effectively for all of you data nerds out there like me. All right, you ready for this amazing episode? Let's go.

00:02:48 Cole, welcome to the Super Data Science Podcast. It's awesome to have you back on the show. You are probably our most requested return guest. I don't have a formal quantification of that. I don't have data that you can chart for us on that. But in terms of my memory, you just come up all the time. I ask at the end of episodes who we should bring on the show and you come up constantly as somebody that we should have back on. So your first episode was number 395, that aired almost four years ago in August of the pandemic, fun times, 2020. And yeah, so awesome to have you back, Cole, where in the world are you calling in from?

Cole: 00:03:33 Well, so first of all, I'll say that's super fun, Jon, and I am happy to be here. And I am sitting, at the moment, in snowy Milwaukee, Wisconsin, for those who are watching the video...

Jon: 00:03:46 Oh.

Cole: 00:03:46 Periodically peer in this direction, and that's me looking out the window at 18 inches of snow.

Jon: 00:03:54 Yeah, we've had, a colleague of mine who's in Michigan, he's been Slacking that he's like, "I can't make this meeting because my kids' school has been canceled again today and I need to be dealing with this."

Cole: 00:04:09 Yeah.

Jon: 00:04:09 He's got a lot of kids too.

Cole: 00:04:11 I do [inaudible 00:04:12] but quiet house today, they're at school.

Jon: 00:04:14 Oh, nice. So they were able to make it despite the 18 inches of snow?

Cole: 00:04:17 Yeah, Wisconsin hardy, we're used to it here.

Jon: 00:04:21 Oh, right. Showing Michigan how it's done. Very nice. So you have a new... Well, I mean, it's your newest book at this time. It's not new, new, new in the sense that it came out about a year ago. But-

Cole: 00:04:34 Yes.

Jon: 00:04:35 ... your latest book is Storytelling with You, which builds on your Storytelling with Data series. And I got to say, Storytelling with Data, it's absolutely crazy how much it has sold. You and I talked about this a bit before we started recording. But it's insane. In a niche like ours, where that book called Storytelling with Data, people are really only going to pick that up if they are going to be charting data at some point. And so that's probably 1% of the population, and yet, can I say on air how many copies that book is sold?

Cole: 00:05:12 You can if you want to? But I'm going to challenge something.

Jon: 00:05:17 Okay. Half a million copies, half a million copies.

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Cole: 00:05:20 Something like that.

Jon: 00:05:21 That is wild. I mean, because publications that... Is the term... I always forget, is trade publications when it's the niche or is it trade publications when they're for everyone?

Cole: 00:05:34 A trade I think is the everybody printing.

Jon: 00:05:35 It's for everybody. Yeah. Right, right, right. So trade publications are really proud of themselves when they sell a million copies or more. I mean that's about as big as they get. You almost never see 10 million copies, a million is as big as they get. And now I think you're going to challenge me on my 1%.

Cole: 00:05:51 On your 1% only because everybody increasingly is being asked to do things with data, even in roles where it's not historically been the case. And so, I think many more people are trying to figure out how to do that. Then, it's not just the data scientists and the engineers any longer.

Jon: 00:06:15 So now all of a sudden data storytelling is a trade publication?

Cole: 00:06:16 Maybe. We'll see.

Jon: 00:06:20 Fantastic. Well, so Storytelling with Data, super mega bestseller, half a million copies, so crazy. But that is not the focus today. Today we're focusing on the book from last year. So Storytelling with Data is almost a decade old.

Cole: 00:06:34 Yes.

Jon: 00:06:34 But a year ago you published Storytelling with You. Now that, really, is something that everybody certainly can buy. I mean, this is not necessarily anything to do with data science, though I suspect there is still... Data science listeners like ours might especially benefit given your

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strong background in data and visualization, that probably plays a big part in Storytelling with You.

- Cole: 00:06:59 Absolutely. And all of that is carried forward, I would say, from the concepts that are taught in Storytelling with Data and the types of examples. But re-imagined and with the appreciation that a good graph only gets you so far. And we've all seen scenarios like this, where maybe we have spent the time or someone has spent the time putting together a beautiful data visualization, or a fantastically complicated maybe, slide or presentation that just doesn't... It isn't met with what you would hope for, given all the work that goes into it. Whereas, we also see really simple presentations that maybe you should have data but don't even be met successfully. And so much of that comes down to the person who is doing the communicating, where, if the speaker is engaging and thoughtful and is appealing to you directly as the audience or the stakeholder, they've got passion that shines through.
- 00:08:12 You want to support them, you want to listen, you want to do the things they want you to do. And that's really the superpower that I'm trying to bring to everyone through this new book. Because, as you mentioned, Storytelling with Data was published about 10 years ago. I was just actually, before we sat down to record, was thinking, "I have been living in the world of graphs and data for more than 20 years now," which is crazy to think about. But first, as the doer, as the analyst, the statistician, building the models, learning how to communicate that effectively. Then as the teacher, and I think one of the things that has come out over being in front of a ton of different audiences and teaching many different types of people about the visual piece, about the graphs and how to make an effective graph, is there is this other skillset that's not being addressed through that. And for a lot of people who find themselves in a data world and who love being in a

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data world, they've not had, maybe the schooling or the opportunity or maybe even the desire to develop that part of their skillset. Communication is often termed or described as a soft skill.

00:09:32 Which I hate because you can be so strategic in the way that you communicate. And for me, this was learned by doing in the same way that building good graphs was. With the data visit it started off like, "Make a graph, figure out what works, do it again, iterate, learn what works, make it better, learn some of the science behind it, use that to make it better," and to get to the point where you've got this like, "You can't miss the point that I'm trying to make in this graph."

00:10:00 I've looked at teaching and honing presentation in the same way where anytime I've been in front of somebody, whether it's a person, a table of people, an auditorium where I'm speaking from stage to 1000 people. Used every one of those to observe and practice and try something and learn from that and iterate. So it's this process of trial and error that I'm really trying to speed up for other people, and just the appreciation of how important developing yourself as an advocate for your work and your data and your project and your mission, how important that is. Especially if it feels uncomfortable. Because that probably means that you've not invested sufficient time there, to date.

Jon: 00:10:52 Wow, really well stated. And I can certainly underscore again with my non-scientific data, but-

Cole: 00:11:02 Empirical data, one might say?

Jon: 00:11:04 My empirical... Yeah, that's even strong. I mean, it's like this is going to be me just telling in the same way that Cole Nussbaumer Knafl is the person that gets requested most as a return guest in the same way,

although this one I feel super confident about because it is like an extreme outlier. I used to, before we had Serg Masis as our researcher on the show, who just comes up with so many incredible bespoke questions for every guest. I just have more to ask them than I can ever possibly get through. Before that era started, for a couple of years, I had these frequently asked questions that I did have some bespoke questions I issued guests, but I also had some that I often asked if anybody who did any hiring in our space, in the data science space, I would ask them, "What do you look for in people that you hire?"

- Cole: 00:11:52 Yeah.
- Jon: 00:11:53 And number one, by far, no question. While I don't have the data to back me up, I can guarantee that the most looked for skill, by far, is communication.
- Cole: 00:12:05 Yes. And it looks like magic when you know data and you can communicate it in a way that resonates with someone else. Because those skills don't frequently go together. And so, for the person who's listening who wants to go for that new thing or wants to advance more quickly or just wants more attention on the hard work that you're already doing, if you're feeling like you're not getting that, I would say, don't double down on your technical skills at that point. Because that's often what I see people do. Rather take a step back and consider how you can round that out with the ability to... And it's not about speaking knowledgeably about your project or your data. You can already do that. It's almost a step, I don't know if it's beyond or before, depending on how you're looking at it. But it's being able to meet your audience where they're at, which I think often will get characterized as simplifying, which sounds like you're dumbing it down, you're not.
- 00:13:13 You are making it accessible to people who are coming in with a different level of familiarity with it than you have.



And I'll often have people as you're trying to do this and trying to get comfortable with it because it feels uncomfortable at first. There is a great exercise you can do, which is just to grab somebody else, a friend, a colleague, a partner, somebody ideally who has very little knowledge or insight about the thing that you want to communicate. And talk them through it. And just that process of them asking questions and the back and forth that ensues as a result of that will help you see things from a very different perspective. You get a fresh perspective you could insight into where you might be using specialized language or acronyms that may not be widely known. All of these little things that can get in the way of, really what we're trying to get across.

00:14:15 And then when it comes to backing off of that for your audience or your stakeholders, then you want to think about, "Okay, that was somebody who had no context. Where is my audience?" Along the spectrum from me at one end, where I have all of the context, and that person with whom I just had a conversation has none of it. They're not over there with the person who has no context, but they're also not sitting there with you. So, your audience is also not right there with you. And I think that is the main failing I see of whether it's a graph or a slide or a presentation or a report, is that it is done for the person who's doing it. Or it's easy for me to make a presentation about my data, about my project without ever really pausing to think about the people on the receiving end of it.

00:15:06 And everything in Storytelling with You is framed to get you to switch that perspective and really think about how you create, when it comes to the materials that you're going to communicate, not for yourself, for your data, for your project, but first and foremost, for your audience. Because when you can do that, you automatically get their attention, you get to have better conversations. And

even if the action that you're driving for isn't followed, now you have an understanding of why, because of the discussion that you're able to put forth. And I think so much of that gets lost when we don't take the step to do this because it just gets lost in the data. And somebody looks at the data and says, "Okay, that's interesting." And they turn their attention to the next thing, or they see the data and they have this really obscure question and realize that the data that you've provided doesn't answer this really obscure question.

00:16:03 And so you go down this rat hole and nothing gets accomplished. Or you get sent off with requests for more data. I think in any of the scenarios where those things are happening, it's because you're not addressing your audience's needs. You're not answering the question of, "So, what?" My view is that anyone who is working with data, your responsibility is to not only help people interpret that and understand it, but help them make smart decisions and actions based on it. Because you know that piece better than anyone else.

00:16:41 And certainly there are other things that come into play, business dynamics, what's happening in the economy, all these other things that are outside of the realm of data. But you can think of yourself as the voice for your data to your audience. And so helping those two pieces be able to talk to each other in a language that works and, where you're not talking past each other or misinterpreting. Which is easy to say and hard to do and takes practice, but we've got a lot of practical strategies for folks to use when it comes to that in the book, in the workshops, on the website. And so trying to help that along.

Jon: 00:17:20 Data science and machine learning jobs increasingly demand cloud skills with over 30% of job postings, listing cloud skills as a requirement today, and that percentage set to continue growing. Thankfully, Kirill and Hadelin

who have taught machine learning to millions of students have now launched CloudWolf to efficiently provide you with the essential cloud computing skills. With CloudWolf, commit just 30 minutes a day for 30 days, and you can obtain your official AWS certification badge. Secure your career's future, join now [@cloudwolf.com/sds](https://cloudwolf.com/sds) for a whopping 30% membership discount. Again, that's [cloudwolf.com/sds](https://cloudwolf.com/sds) to start your cloud journey today.

00:18:01 Clearly you've been doing your homework on this because you are unbelievably good at communicating. There was a part in what you've just been saying. We probably won't have this even in the video version because we usually just cut to the guest speaking or whoever's speaking is typically what's showing on the video. But I was just like, lean back in my chair, just really enjoying listening to you speak. So I don't know how exactly you're doing it. I guess I have to read the book to get all of the details on that. But I was just like, "Wow," I am so entertained as I'm learning.

Cole: 00:18:32 So let's talk about a couple of things there. One, thank you. That's super complimentary. I wasn't always this way, and I think that-

Jon: 00:18:40 I know. We actually dug that up in our research. I was going to have that later on.

Cole: 00:18:43 You found some really awful old recording or something? Like, "Look at her. She's shaking like a leaf."

Jon: 00:18:49 We're going to make you watch some really bad recordings and get your reactions on her. No, I'm kidding.

Cole: 00:18:55 Yeah. Yeah. Anecdote came to my mind. I won't share it now. No, I certainly wasn't. I mean, I am naturally an introvert. My comfortable place is in a room by myself behind my computer screen. I'm trained as a

mathematician. None of these scream extrovert. But it was when I got really excited about the power of being able to make a good graph, honestly, that that enthusiasm started becoming contagious. Happiness, enthusiasm is a very contagious thing. And so that's one trick, is when you are communicating about something, you have to be genuinely interested in it. Because if you aren't, there is no way you're going to get other people interested in it. And so, I think it was my enthusiasm and my passion that carried me through at first, because those presentations had to be awful, and I never breathed deeply enough so my voice would shake. I couldn't ever hold a piece of paper in my hand because my hands would be shaking, but the passion for it.

00:20:03 And then I got the opportunity to take a course when I was at Google and starting to teach, which was, "How do you teach adult learners?" We recorded ourselves. So I picked up some, or I picked out, I should say, some bad habits there that I curbed. But then it's really this practice of doing and being a careful observer every time. And understanding how little things can make a really big difference. And for me, this has been the most fascinating part, I think, of my job, my role as I look back over the past decade plus. Because at first it was about getting the lessons right, getting the material right, getting the slides right, having those be perfect. But once that was done and I knew my stuff there, then I got to be this really conscious observer. Both, observing myself and how what I would do in a room would impact other people. But then also, the really cool thing you get when you're talking to other people is real time data. You get immediate feedback from them in terms of their facial expressions, their body language. Like you said, are they sitting back? Are they leaning forward? Are they smiling? Are they nodding? Are they with you, are they not? And I started to make connections between how I could do things that would change that response.

00:21:30 So for example, where I stand in a room, if I want engagement in the back of the room, I can walk as a speaker back there and it happens. Or as you see somebody get out their phone, in the right scenario, you can just walk closer to that person as you're talking. And that becomes really uncomfortable when they feel all the eyes in the room shift towards them. Or, it's interesting, you're talking, and I just want to listen. So much of that is simply how I've learned to use my voice. Cadence, it's volume, I'm genuinely interested in what I'm saying and that comes through in the sound. I'll speed up if something gets important and get loud and use my hands and that's exciting. So you can play with these things. And it is this superpower that is so underutilized. And it's not about overdoing it. I get dramatic when I'm doing it, and particularly in ways where it's to try to bring attention to it. And it doesn't mean you have to be overly dramatic to get your point across. Or, if you're thinking of written words, it drives me nuts if every sentence ends in an exclamation point. You don't want to sound like every sentence ends in an exclamation point. It's the variety that can help keep people interested and listening and waiting to see what you're going to say next. And it takes practice. Do you see that? Yeah. Pausing is a phenomenal tool that, if anyone is at all nervous-

Jon: 00:23:16 I wish I had the guts.

Cole: 00:23:17 ... going too fast. What?

Jon: 00:23:19 Yeah, it takes such guts to do that.

Cole: 00:23:22 To pause?

Jon: 00:23:23 To pause, yeah.

Cole: 00:23:25 Oh, it's so fun though. And it's one of those things, once you start doing it, you almost can't stop because it's

super fun. So, what I used to have to do is count, in my head. And particularly when you are giving an instruction. So if I'm giving a presentation or a workshop or anything, but I'm the one speaking and I'm going to give you an instruction to do something. You, on the receiving end of that, have to be listening. Take that in, decide whether you're going to do anything with it or not, and then maybe participate.

00:23:58     So there's this whole lag that happens. If you do a lot of stuff, video, by the way, you get really comfortable with this. One of the platforms we use, there's a 30-second delay. So it's like you put the thing out there and then you keep talking or you do other things to fill the time, because you know that by the time, if somebody's going to chat back, they have to receive the instruction, take the time to process it, figure out if they're going to do anything with it, then type, and then there's the actual delay.

00:24:25     And so, back to my point, if you are putting something out there looking for a response, you have to pause because it takes longer than you think it's going to for somebody else to fill that space that you're giving them. And so, when you're starting to get comfortable with it, counting. Count slowly to 10. I mean count to 20 if you can. And then when you get comfortable, now it's like, I'll pause and just call out the fact that pauses don't make me uncomfortable. So, I'm actually going to remain quiet here until somebody says something. And it only usually takes the first person or two or somebody to break that silence. And then it gives people time. One way, by the way, if that makes you really uncomfortable is you can think about how do you fill that time so that someone can decide whether they're going to participate?

00:25:17     And this is similar to that scenario I was describing, where you've got the 30-second lag where you can pose a

question or pose a thing you're going to want input on, and then start by sharing your own thought or your own input or your own anecdote that's related, and then turn it back over so that you've already given people basically a buffer in which to think about that. Or you have people, you prompt people ahead of time, or before you're taking a break or something like that, so that there are things you can do to reduce the friction there. But pauses, once you start doing it, are fun. They're like the punctuation of your spoken word. And, especially for people who struggle with filler words, pausing is such a great way to slow yourself down, help your mouth catch up with your mind. And, if I'm speaking and people are tuned into me and I'm... Really, I mean, that's awful versus if I pause until my mind lands on the word I want or suitable substitute, that sounds thoughtful. So slowing down so that you can be more refined, maybe?

- Jon: 00:26:31 You're so good at not doing filler words. I just noticed that. I just did one. I thought it was almost as simile. I just noticed that you haven't done it at all.
- Cole: 00:26:43 Well, it's funny. And in a scenario like this, so with filler words, practice not using them. But once you get in a thing, try not. Because once, if you catch yourself using them, if you're too conscious of it in the real thing, then that can be kind of... Kind of, there's one of my downward spiral. And what has happened, I do use filler words, but they've gotten slightly more graceful over time. I almost just used one there. So... And I did just there. So starting a sentence with, "So." That never needs to happen. Ending a sentence with, "Right." Maybe sounds like I'm trying to involve you in the conversation, but also, completely unnecessary. It's clear that we're having a conversation even if I don't ask a question at the end of every statement. But yes, I've curved the um's and the ah's for the most part. It took a long time.



Jon: 00:27:32 So, on that point specifically, on curbing the um's and the ah's, how do you recommend that people get rid of that? I mean, asking for a friend.

Cole: 00:27:40 Sure. Recording yourself is a fantastic way to... Even if you know you're using filler words, to fully recognize how detrimental they can be. Because you hear yourself saying them. I think it's very easy for people to excuse their use of filler words with the excuse, "But I sound conversational." Yeah, no. Don't-

Jon: 00:28:05 It's never better, is it?

Cole: 00:28:05 If you want to sound like a poor conversationalist, no.

Jon: 00:28:09 My conversation style-

Cole: 00:28:10 When you can hear-

Jon: 00:28:12 ... is poor.

Cole: 00:28:12 Is filler words. Yeah. No, but when you record yourself... So for example, I mentioned when I was at Google and took a course on teaching adults. And so as part of this, we recorded ourselves. And I caught myself, I was wearing high heels at the time, which I'd almost always do when I present. And I was rocking back and forth. Had no idea that I was doing this. And had somebody given me the feedback, "Hey, Cole, plant your feet. When you're rocking, it's super distracting."

00:28:41 I would've been like, "Whatever, it's fine." But seeing myself do it's like, "That's really distracting. I'm going to stop immediately." And I did. And I think filler words can be the same. What I recommend doing with filler words or when you are evaluating a recording for how you speak, actually don't watch it. Just listen. Because, that will give you a really clear, clean understanding of how you sound.



Which, particularly useful in a scenario like this, where you're going to be going on a podcast and people are mostly listening to that because then you can pick out, not only what words you tend to migrate to, but also when. Oftentimes it is when your brain and your mouth are out of sync and you're trying to catch up.

00:29:30 And so, you're trying to find that next word. And so, pausing can be useful there. I think in important scenarios where the stakes are high, doing some rehearsing ahead of time is great. You don't ever want the first time you say words in an important setting to be in the important setting. And rehearsing, I would say not to memorize. Memorizing is risky because if you forget the thing, it throws you all off. But to commit certain things to memory. So, for example, if I'm getting ready to do a keynote or some big presentation, even for a podcast, if I'm the one hosting and it's video and I don't want to have notes, I will commit to memory the things, the main points that I want to cover in the first couple of minutes. So basically the introduction. And I will talk about those aloud, several times. And it can be a little different every time.

00:30:29 You want it to be a little different every time. Because what's happening then is, my brain is establishing different pathways for me to get... If there are three points I want to hit, it's giving me different pathways to get there. And, I'm articulating the transitions between them. Which can make things feel really smooth. And so, particularly in a scenario, if there are any nerves involved, committing to memory how you're going to approach things or the main things you want to hit in those first few minutes will get you past your nerves. And then you'll be able to speak more eloquently because you will have settled in. So some of these things you can do to trick the things you know that are happening. And these are the things that I've played with over time. For example, if I'm

teaching a full day workshop, I know if I eat anything during the lunch break, after lunch, I'm going to have a hard time catching my breath. Do you know why?

Jon: 00:31:23 Oh, really?

Cole: 00:31:24 Because my body is digesting food and it's hard to breathe deeply when your body's digesting food. So what do you do? You can do a couple of things. I can eat less during lunch. I'll make sure I eat in the first part of the hour. I also reconstructed how I typically do things after lunch. So it's discussion, not me lecturing. By the way, I will share this anecdote that popped into my mind earlier because it's more relevant here. But we were talking about comments and feedback that you get, and particularly that of the negative sort on videos and books and things.

00:31:55 And one that sticks with me is I did an author talk at Google shortly after my first book came out and Google posted it. And so it's been viewed a lot and has a ton of comments. But one of the negative ones is, "She can't even catch her breath." But then it was fun to watch because then somebody else responded back and it was like, "She's pregnant, you idiot." Yeah, you can no longer fully breathe because your diaphragm gets pushed up. So I was happy that somebody else knew why.

Jon: 00:32:23 It is really nice when that happens on a YouTube video or something. It's actually, that's... We were talking actually earlier about Amazon reviews and how as the author of a book, you can respond to Amazon reviews, although they're not prominent.

Cole: 00:32:38 But you shouldn't.

Jon: 00:32:38 They're really not prominent.

Cole: 00:32:40 Yeah.

Jon: 00:32:41 But, maybe it would be great? I don't know? Good or bad. If any Amazon user could comment, because then you would get on the really outrageous... I remember-

Cole: 00:32:52 Oh, for somebody else to jump in, yeah.

Jon: 00:32:54 For somebody else to be able to jump in. Because I remember one of the first ratings I ever had, my book comes out, I was checking several times a day, Amazon reviews. I only had one book out. 2019 it comes out. I'm checking Amazon reviews constantly.

Cole: 00:33:07 Yeah.

Jon: 00:33:08 One of the first reviews, the third one, was a one star review because they said that the price had gone up since they looked yesterday.

Cole: 00:33:17 Yeah, I think you're-

Jon: 00:33:22 And I'm like-

Cole: 00:33:22 [Inaudible 00:33:22].

Jon: 00:33:22 ... that is not the book.

Cole: 00:33:22 Yeah.

Jon: 00:33:23 I have two five star ratings. You come in with your one star because the price went up by a dollar since yesterday. And so, if other people could come in and be like, "That is the worst comment, this is not helpful."

Cole: 00:33:40 So for those leaving comments on Amazon, review the product, not the shipping, not the procurement, not the pricing. Yeah. You may be able to get your publisher to step in and respond there. Mine does that sometimes.

Jon: 00:33:51 Oh.

Cole: 00:33:53 Because every once in a while, I mean they print thousands of books at a time and there's wonky things that can happen. Here, I have one on my shelf, I'll pull for those who can see. But wonky things happen. And I've been to the printing press and I don't understand how such things happen. This one I understand. Do you see what happened here?

Jon: 00:34:13 Oh, it has no cover.

Cole: 00:34:13 Let me open the book. No, the cover was put on backward, inside out.

Jon: 00:34:17 Oh.

Cole: 00:34:18 The outside is white. There was a whole batch that were miscut. So they're in a trapezoid shape, which means that half the words are cut off. And having visited the printed press, I have no clue how that happens. But when you actually get a bad print, you complain about that or you return it. Or, for me, if anybody says that we send them a book or the publisher sends them a book that's just a lemon, if you will. That happens when you're printing thousands of books.

Jon: 00:34:48 Wow.

Cole: 00:34:49 I don't know how we got there? Oh, because I brought up my-

Jon: 00:34:50 No, neither do I.

Cole: 00:34:50 Yeah.

Jon: 00:34:56 As we often discuss on air with guests, deep learning is the specific technique behind nearly all of the latest AI and machine learning capabilities. If you've been eager to

learn exactly how deep learning works, my book, Deep Learning Illustrated is the perfect place to start. Physical copies of deep learning illustrated are available in seven languages, but you can also access it digitally via the O'Reilly Learning platform. Within O'Reilly, you'll find not only my book, but also more than 18 hours of corresponding video tutorials if videos are your preferred mode of learning. If you don't already have access to O'Reilly via your employer or school, you can use our code SDSPOD23 to get a free 30-day trial. That's S-D-S-P-O-D-2-3. We've got a link in the show notes.

00:35:46    Yeah, Cole, we are half an hour into our conversation, and I haven't even gotten to the first question that Serg wrote or the first topic area. It's-

Cole:            00:35:55    So much to talk about.

Jon:             00:35:56    It has been perfect. And so I've written down some tricks here already that you've been talking about. I've got five big tricks that our listeners can already take home with them.

Cole:            00:36:03    Awesome.

Jon:             00:36:04    So the first one is that having a genuine interest in the topic that you're speaking about is critical to delivering a great presentation.

Cole:            00:36:10    Yes.

Jon:             00:36:11    The second one is that you can study your audience's body language and you can adjust accordingly. So you gave some examples of moving around the room, but it also could be things like, I guess if you're giving a day long workshop, it could be something like, "Okay, maybe this is a good spot to take a break."

Cole: 00:36:26 Yeah.

Jon: 00:36:31 Filler sounds. Now as soon as I give it. I feel super self-conscious. Three is, pausing. Mario, don't cut out that pause. Mario's our editor. And sometimes I pause for dramatic effect and Mario-

Cole: 00:36:45 I don't know if that was even long enough to be a pause.

Jon: 00:36:48 Just because I'm so nervous about Mario cutting it out. As soon as there's white space, he's like, "Oh, well, we'll lop that out." Which is great, Mario. You should keep doing that. But every once in a while, I am pausing for dramatic effect.

Cole: 00:37:01 Nice.

Jon: 00:37:01 We'll see if that stays in, hopefully. Four is rehearsing. That is so smart, and I'm so bad at that. So I'm so bad about trying to make sure everything in the slides is absolutely perfect. And just going through the slides and the last few times that I do that, making sure all the slides are perfect, I should be standing up and talking through the presentation.

Cole: 00:37:24 Always that time is going to, when you're at that end point, focusing on your delivery is going to serve you much better than more tweaks to the slides. The slides are fine. You want to be able to talk through them eloquently and with command so that you can command the attention of your audience.

Jon: 00:37:46 Yeah, probably few people notice that I moved that image in the penultimate slide, a pixel right.

Cole: 00:37:53 No, yeah. Nobody did.

Jon: 00:37:53 It was good that I spent the last hour going through the slides to find that. And then, another one that I really

liked, and is also one that I don't take advantage of enough, is memorizing the main points. So not memorizing verbatim the words that you're going to say, but memorizing the main points that you want to get across. Those are great tips.

- Cole: 00:38:10 And that's something that you can even write down. And oftentimes when you write it down, you don't need the thing you've written down. It's just knowing it's there makes you a little more comfortable.
- Jon: 00:38:18 Yeah.
- Cole: 00:38:19 Can I add just... That's a fantastic summary. Can I add just two more thoughts?
- Jon: 00:38:24 Oh, I don't know if they're going to want to have more tips, Cole? I think-
- Cole: 00:38:27 No, not more tips.
- Jon: 00:38:29 Oh.
- Cole: 00:38:29 These are things that go along with the tips that you-
- Jon: 00:38:34 No, no. And I'm joking. Of course, we want all the tips. Please bring them, bring them.
- Cole: 00:38:37 So, be authentic because what you don't want, you don't want at the end of this to sound like someone else, that will come off as fake. And one way to understand what that could look like is the next time you are engrossed in a conversation with a friend or a colleague about something that you're passionate about, notice what you do. Notice how you're using your body and your hands and your facial expression and your voice and figure out how you might roll more of that into how you talk about your work as well. And a lot of that is about finding the interesting piece. Because if you are genuinely interested

and excited about what it is you want to share, that will come across in a really good way. And then I think something else that goes along with this is, especially for anything that feels uncomfortable.

00:39:28     So Jon, I'll say for you and pausing, try it out in low risk places first. Don't go to the next super critical thing you have and try to do everything differently than you've done before. That's too high stakes for that. You want to test things out both to build your own confidence, but then also to help build the credibility of those around you so that if you're trying it out in your weekly team meeting, for example, then somebody can say like, "Oh, no, that didn't work." When you call out, "I'm going to try something new today." Or, "Did you notice when I..." And you can practice that. You can practice these things on your own, also. So when I'm rehearsing aloud, I'm not rehearsing aloud to anyone. Half the time I'm taking a walk around my neighborhood talking to myself and I look like a crazy person. But it's super helpful.

Jon:             00:40:20     Yeah, that's a great tip as well. All right, so speaking of pause, pauses. Here's a joke that, it's my sister's favorite joke. So, a bear walks into a bar, walks up to the bartender and says, "I'll have a rum and coke." And the bartender says, "Why the long pause?" And the bear lifts up his hands and says, "I don't know. I was born with these." That's a bad one.

Cole:             00:40:45     You still could have paused longer, Jon.

Jon:             00:40:51     All right. Well, I'm going to work on it. I'm going to rehearse that joke, and the pause.

Cole:             00:40:55     The pausing.

Jon:             00:40:57     Walking around my neighborhood. In New York though, I'd fit right in. It's fine.





- Cole: 00:41:02 Yeah.
- Jon: 00:41:02 No one would look at me twice talking out loud to myself in the street. Nice. All right. Yeah. So now we've got seven tips, although the practicing in a low-stakes environment, I'll just add that on to rehearsing. So we really, we got six. I think, be authentic is a new one. But, genuine interest in the topic, a studying audience, body language, pausing, rehearsing, including in low stakes environments, memorizing the main points, not necessarily verbatim, or probably definitely don't recommend verbatim you're saying. And then number six is be authentic. So those are great. We've already started off the episode with tons of take home facts. I'm sure the audience loves that. But now I can finally get into the stuff that I wanted to. And so speaking of facts, as data people, we seek and rely on facts. We love facts and perhaps, think that facts alone can convince people and prompt change. Negotiate our case. What are the facts missing, Cole, to make an impact?
- Cole: 00:42:02 Dory. So, not everybody craves facts. For those in analytical roles, that can be a hard thing to wrap one's head around. But people want to feel a part of something. And that's hard with a number. And that, I think, is where story comes in. And not story, you're not going to go to your next board meeting and tell a fairytale. That's not what we're talking about here. But just the structure of story can be a useful mechanism for thinking about how we communicate, for ordering our communications and for helping ensure that we are thinking about our audience and that we're resonating with them really by crafting this story for them. So when I think about storytelling, when it comes to data, when it comes to communicating in a business setting, I am thinking story. The narrative arc, you start off with a plot. There's context, there is a sense of space and time.

- 00:43:11 Tension is introduced. That tension builds over the form of a rising action. There's a peak in that, the climax, then a falling action and a resolution. Key here is the shape. It's not a flat line. This is not a chronological, "We did this, then we did that, then we did the next thing, and here's our solution." Which is so typically how a business presentation looks. It's simply a recounting of the order in which we did things and the details of what we did. Which, when you think about it, that has to happen. That's the analytical process, the scientific process. We start off with a hypothesis. We gather our data, we clean the data, we analyze the data, we come up with solutions. But that doesn't mean that's the most compelling way for us to then subsequently communicate that solution to our audience. And this is back to the problem I mentioned before, where we are so used to communicating for ourselves. And it is a different and more challenging thing to step outside of ourselves and communicate for our audience.
- 00:44:24 But when you think of communicating with story, I believe that becomes easier. Because the story and that tension, which is what gives the rise and fall, is not the tension that matters to me as the communicator. It's the tension that matters to my audience. And if we can identify that and bring it to light and emphasize it to the extent that makes sense for the given scenario, we will naturally get our audience's attention. We will motivate them, we will resonate with them. We will get them inspired to act in the way that we want them to, because their action becomes the resolution to the tension that we've brought to light. And tension, it's not about making up tension. If we have something that's worth communicating, the tension is there. It may not be some big dramatic thing, but it impacts something. And so, we'll often use, when we're teaching this concept in workshops and in other places, and actually there's an

entire chapter, it's chapter two, devoted to this in Storytelling with You.

- 00:45:34 The big idea. And the big idea worksheet, which I can give you the link that you include in the show notes if you'd like, is a construct that you can use for crafting your big idea. So the big idea is basically just getting your main point of the thing you need to communicate down to a single sentence. It articulates your point of view and it conveys what's at stake. And, in conveying what's at stake, it's again, not what's at stake for you as a person communicating, but what is at stake for your audience. And once you've taken the time to craft this, it becomes that guiding north star for the planning of the rest of your content. Because now you can ask yourself, "For this piece of data, for this fact, for this part of the research, for this context, does it help me get my big idea across?"
- 00:46:23 And if not, don't include it. Unless there's another compelling reason to do so. And it's not about cherry-picking to only do the supporting facts, being robust in how you do it, but being thoughtful in what your audience really needs to know, in order to be able to do what you need them to do. And so, when you think of that through their eyes or through their viewpoint, and you craft your message that way, and now you plan content that's going to help you get that message across, then you can say, "Now what order is going to help me do that?" And that's where story can come in, because so often if we're story boarding or planning our presentation, so often the first order we choose does look like that linear path that I talked about. And this is where we can think about what if we flip that on its head? What if we start with the ending? What does that look like? When could that be successful?



- Jon: 00:47:14 I always, always, always go chronologically. And this isn't just in business, this is in the way that I tell stories in my personal life. Everything is always-
- Cole: 00:47:23 Well, sometimes that's fine.
- Jon: 00:47:24 ... chronological.
- Cole: 00:47:26 If the thing you're talking about is so interesting to the other people that they want that, or if you've not established credibility, and that's a way to gain it, so they can see the steps you went through. There are times when that makes sense. However, most of the time, it doesn't. You had to go through it in that order. But then if you step back and think about, "Okay, that's what the whole picture looks like." I think about reality. If we think of the story construct, I talk about the narrative arc, which I characterize as this smooth rise and fall. It simplifies things. Reality is more like this jagged mountains, up and down, up and down, up and down that carries me from the beginning to the end. And so your chronological may go up and down, up and down, up and down. And there are many peaks and valleys.
- 00:48:12 And so, what I like to think about is for all of that. So those might be all of the peaks and valleys that you covered in your in-depth analysis or through your project or through your research, you needed to do all of that because you need to be the expert. You probably need to be ready to answer questions if they come up on any of that. But, for a given audience, we don't communicate all of that. For a given audience, we curate from all of that, the combination of specific peaks and valleys that are going to make sense for them. And, people's heads may already be going there, but that means for two vastly different audiences who care about totally different components, it might be a different combination of things that you include. And if I am trying to get project approval

for something that's going to be a huge investment, that's going to look much different if I'm going to my finance partner, who controls the budget, than it's going to be if I go to hr, who needs to develop training.

00:49:12 Then if I go to marketing, who's going to need to be able to sell it in... Each of these areas has their own needs, their own things they care about. And, when it's really important and when the needs are sufficiently different, it might mean crafting different things for those different audiences. Or when that's not possible, then you want to find the Venn diagram of where their needs overlap and figure out how to communicate from that point and then maybe get into more details that are specific to the given audience.

Jon: 00:49:46 Very cool. I'm going to try to recount back to you, chronologically what you've told me. No, I mean-

Cole: 00:49:54 Start with the ending. No.

Jon: 00:49:55 I think the main point, since I asked you my last question, was that stories are more effective than data. And that specifically crafting a narrative arc that is not necessarily chronological is the way that you tell a story. That's what storytelling is. And so you build tension, you realize the story in a climax, and then you have the fall, or I guess the denouement, in literary terms.

Cole: 00:50:22 Denouement is the resolution typically. The untangling of knots.

Jon: 00:50:27 Right, yes. Exactly. And so, that's fantastic. It's such a nice way to think about... I mean, I got to do this. I got to do this right away.

Cole: 00:50:38 Again, I'm going to correct one thing. Not correct-



- Jon: 00:50:40 No, go ahead. Please.
- Cole: 00:50:41 ... I will add to one thing because, and I'm going to butcher my recount of this. But you made a statement that was similar to story being better than data, or more effective than data.
- Jon: 00:50:50 I did.
- Cole: 00:50:51 And I would just say, use story when story is going to be helpful or when it is likely to work. Because, and this all comes back to audience, and so many questions that come up in this area can be answered by really thinking critically about your audience. Just coming back to the non-specific scenario I threw up there, if it's my finance partner who I'm communicating to, they may want the table of numbers. Don't fight against that and don't go... If you've got an audience member who wants the numbers, don't go in with a story, that's not going to go well. You want to look for places where you think this is likely to work and gain traction there. And-
- Jon: 00:51:37 All the accountants listening that are just going to start telling stories instead of just going through the numbers.
- Cole: 00:51:44 Yeah, no, you need numbers in some places. You need in a lot of places. And having both and combining those things together can be really powerful because then you can meet all of those needs when you need to.
- Jon: 00:51:58 Yeah, that's exactly the point. Them together is, in a lot of scenarios, particularly with this data science audience probably going to be, if you can manage that, if you can craft a story that also integrates key data points, maybe some data model results, great visualizations, that together, a story embedded with great data is probably going to be a home run for a of audiences. For a lot of the audiences that the audience of this podcast would have.



- Cole: 00:52:28 Yeah. And a great bridge. And, I'll say a first step when it comes to doing this, particularly if it feels very different from how you've done things before. One, I will say, when you're first starting out and you're trying to gain success and traction and you're playing around with it, it can be easier to do it for a new project than something that's existing. Because people tend to resist change. And so, if you take something that's always been done a certain way and now you want to flip that on its head, that's not always a super successful scenario. Another stepping point can be, and let's say it's a scenario where there's a pretty strong accepted format that people in your organization or in your team would use to communicate the results of an analysis or a study or a research project of some sort.
- 00:53:27 Rather than do that totally differently. I think one thing you can do is say, do that. And then for your audience you can say, "Audience, I've provided things. If you follow the scientific process," let's just say, because that looks very much like the chronological linear path that we talked about. "I've done that. We have that. We can go through it. But today I've also done something more. I've taken the time out of that to pull upfront into a few slides, the story of this project. And if it's okay with you, I want to take just five or 10 minutes to go through that, because that's really going to set us up with the information that you need for the discussion that needs to take place, or for the decision that has to happen."
- 00:54:09 So you don't take what they expect away, you augment it. And then over time, what you can find is, as you both gain confidence in your ability to pull out the right things in a way that your audience, a way that works for them and they get comfortable, that you're highlighting the things that they need to pay attention to, you wean what their attachment to how things typically were or how they used to be. Such that you can leave that latter piece out



and focus on the story. Where there can be an interim step where you provide story along with how things have typically been done.

00:54:51 That can make it more comfortable, I think, for the person who wants to try this but isn't sure how it's going to be met. Or for the audience who's going to be maybe resistant to change, where you can try that out and provide both for a bit and then you can back off. You can think of the main report that had been going on is the appendix material, and then over time you can take that away and see if anybody cries out.

Jon: 00:55:18 Nice. Yeah, those are great tips. In your book, in your latest book, *Storytelling with You*, you specifically organize the book into three sections, plan-

Cole: 00:55:27 Yes.

Jon: 00:55:27 ... then create, then deliver. And so, it sounds like a lot of what you've been talking about since my preceding question has been related to getting that sequence right and following the steps along that sequence.

Cole: 00:55:43 Yeah. And so we've talked about some of the content that's in the plan section. So, I'll just walk through, very briefly, what folks will find. So plan, the first chapter is all about audience. Being specific about who they are, how to get to know an unfamiliar audience, how to resonate with your audience. And there's a case study that's introduced in the first chapter that I build throughout the book. So you can follow along and see what it looks like in a real world setting. And actually the final presentation for that is a YouTube video that's online that folks can check out as well. I can send you the link to include for that. So audience, second chapter, as I mentioned, is all about the big idea and getting your key message clear and concise. Third chapter is compiling the pieces. And so it's



all about story boarding and really putting together a low tech plan of attack.

00:56:39 And then chapter four is story. And how you can take your low plan of attack and now arrange it along the narrative arc, when you might want to do this, how to be successful. And that brings us to the end of the plan section. And the whole middle section of the book is create. There's a chapter on bringing your low tech planning into your tools. So how to take that framework and set it up so that you're never starting with a blank page. And so your order and story comes into your tools and makes sense. There's even a bit on the tactical, how do you design a slide template and pick colors and fonts and those things. Then there is a chapter each on content that is graphs. So that's bringing the Storytelling with Data pieces directly through in terms of designing graphs for communicating. There's a story on, or excuse me, a chapter on words as content. Both how you title, but then how you can use words within a presentation on your slides and then a chapter on images.

00:57:42 And so the idea is at the end of the create section, you now have this combination of slides or materials that are going to help you get your information across. And then the final section is deliver, and this is all focused on you and what you can do to become comfortable and confident and articulate and be the best representation of the message that you want to get across. So there's a chapter there on building confidence. There's another on rehearsing and practicing aloud that goes into recording yourself and some of these tricks that we've talked about. The penultimate chapter is all about introducing yourself and the art of the introduction. Which is actually a really fun place for people to start, particularly if you don't have an upcoming presentation or communication need. And it's a nice place to be able to test out a lot of the strategies

when it comes to story boarding and forming a story on a topic you know really well yourself.

00:58:47 And you think about how often do people really think about and spend time crafting their introduction and how they talk about themselves? And it doesn't have to be a formal introduction, but even the one-liner that you give when you're at a networking event, or how you convey yourself in your work sphere versus in other spheres of your life. And so it's a really neat exercise to be able to work through to get a glimpse of content that comes up elsewhere in the book. It becomes almost like a mini case study. And then the final chapter is, what to do directly before, during, and after that important presentation. And so a lot of this is, as if you're standing from stage or giving a keynote, you can be, but there are tips and tricks that are going to be very useful in any time you need to communicate basically anything. It can be the weekly steering committee, where you need to get people to pay attention and have a specific discussion. I'll stop there.

Jon: 00:59:47 Nice. Another good pause. All right, and so that gives us a very nice general overview of the book. I haven't read it yet and I am absolutely dying to. I mean this is presentations whether they are trying to get buy-in internally at my company on something or whether it is a keynote like you say, at some data science conference. I need these skills. There's so much here for me to be learning and this idea, the framework that you provide around getting all the disparate things that I want to cover in a presentation or that I think are important, getting those down to one big idea that I can convey in a single sentence.

Cole: 01:00:37 Yeah.

Jon: 01:00:38 Building a story around that big idea that supports it, pulling in the right data. Too often, I often get started

right at the create stage. So I don't really do the planning stage. Maybe I have some rough idea in my head? But oftentimes it's just like, "What have I done before, that I can build on?" So what slides have I done before that are relevant to this audience? And I just start there.

- Cole: 01:01:04 It's where a lot of people start, and I think a lot of people start there because it feels productive. It feels productive to put something on a slide.
- Jon: 01:01:12 Exactly.
- Cole: 01:01:13 And then to have another slide, another slide, another slide. But taking just a little bit of time upfront, and it doesn't have to be long. Half an hour of devoted thought time of thinking about your audience, crafting your message, maybe story boarding a bit, thinking about how you're arranging things and the end of that half an hour, and getting feedback hopefully as well, if that's important. You have a plan of attack and it helps ensure that the time you're spending on your materials is appropriately directed. We've all had this situation where we've made a slide or made an entire deck only to give it to someone or have the presentation and realize, "Oh, that actually wasn't what was needed at all." I misread it or I didn't think about it, or I assumed this was going to be the direction we wanted to go and it wasn't. And, some planning time upfront can save a lot of time.
- Jon: 01:02:06 Another big thing that I always mess up in addition to not planning before I start the slides, is that I include way too much, every single time. I never give a presentation that isn't a sprint to the end. Once I'm like, "Okay, there are 10 slides left in three minutes, let's go." I always do that. And so in chapter three, you specifically emphasize the importance of intentional discard when planning content. And so it sounds like that in the planning stage is going to be helpful for me getting out of the trap of trying to

include everything. All of this is important. They must get all of it. No matter how quickly I speak.

- Cole: 01:02:50 Well, and then you speak more quickly and then more filler words kept [inaudible 01:02:54]. Yeah, you get in this spiral. Less is almost always more. And I will often give the advice, that you can always fill the time. People will have questions, there will be discussion, plan less content than you think you need, always. And even if you get done early, people aren't ever mad about that.
- Jon: 01:03:23 No, I know, right? They're never mad. It's always great.
- Cole: 01:03:26 I know I had 30 minutes on the agenda, but I've only taken 20. I've given you the best gift of your day, 10 minutes of your time back.
- Jon: 01:03:36 So yeah, a little bit of planning upfront and you could end up spending way less time on the presentation overall because maybe, I bet a lot of my talks should be literally half of the slides that I make. Or maybe a third.
- Cole: 01:03:52 Maybe it should be [inaudible 01:03:51]. And with presentations in particular, you never want your slides to be competing with you or it feeling like this place that you have to get to the end.
- Jon: 01:04:01 Yes.
- Cole: 01:04:01 The attention should be on you. Your slides are just your helpful visual assistant when needed. I think the presentation, the recording of the case study of Storytelling with You is a nice short example of what that can look like in a business setting.
- Jon: 01:04:19 Nice. Yeah, we'll be sure to include that in the show notes. And something that you mentioned there, that is something that I do actually, I think get right. I'm sure

there's always room for tons of improvement. But something that I'm pretty good about and that I implore to people that I'm giving presentation tips on is people so frequently, you talked about competing with your slides. I thought what you were going to say was this thing that you see constantly, 90% or more of presentations, it's the norm. It's what people think they're supposed to be doing, is having tons of words on a screen that are sentences and then people don't even... You can't both be reading the sentences on the screen and listening to the presenter.

- Cole: 01:05:03 No. It's an invitation to not pay attention.
- Jon: 01:05:04 It's an invitation to not pay attention. And yet it is what almost everyone does.
- Cole: 01:05:10 Don't do that.
- Jon: 01:05:11 Don't do it. I'm one step on the many steps of the journey that you've been on and well, yeah. At least... Yeah. There's so much.
- Cole: 01:05:23 That's a fun place though because then there's so many things to try and it's not about doing it all at once. Each time, pick one thing to focus on and rock it. And then you just keep adding to that over time.
- Jon: 01:05:42 I suspect it's a lifelong journey. I suspect even someone like you, a guru, there's probably still sometimes you pick up some new things.
- Cole: 01:05:48 Always. I am a constant learner.
- Jon: 01:05:55 I just, "Um'd," again, super conscious of it. I don't have a great transition to the next topic except to say that, so the last-
- Cole: 01:06:01 Let's shift gears.

Show Notes: <http://www.superdatascience.com/757>

- Jon: 01:06:02 Let's shift gears. The last thing that I talked about was in chapter three. Now, is something from another chapter, chapter 12. In chapter 12 you mentioned strategies for before, during, and after presentation. And so something that was particularly interesting about this, is that you have tips in that chapter on how the audience remains engaged with your talk after. So, specifically how after you've given your talk and the audience listens, that they are inspired to actually take action afterward. That's really interesting. And I don't think that that is something that I would necessarily anticipate would be covered in a storytelling book. But now that I have come across that I'm like, "Wow," that is the whole point is that people go to presentations to be changed. You don't expect to go in and come out exactly the same person. So inspiring people to actually act afterward, to be a different person. What tips do you have to do that?
- Cole: 01:07:07 I think this is a place where presentations often stop short. And particularly in the data space because so often people look at their role as to be, to inform. When I think that's too limiting that we should always be thinking about, "What do we want our audience to actually do now with the new understanding that we've brought to them?" Because the challenge in not doing that is, if I tell my audience something new and I stop there, they can say, "Oh, that's interesting." And nothing changes.
- 01:07:43 Whereas if I say, "Audience, here's something new and now here's the next step. Here's a discussion to have. Here is a menu of options to consider. Here's a decision to make. Here's an action." And that's where we want to think about verbs. And so, I think one thing to do is just list out a lot of different verbs and try to complete the sentence. "After listening to me speak, I want my audience to blank." Because if you're not clear on that, and it doesn't mean you say that to audience. "Audience, I want you to go buy my book." No, you don't say-



Jon: 01:08:16 I want you to blank.

Cole: 01:08:18 ... [inaudible 01:08:18]. But yeah.

Jon: 01:08:20 Every one of you.

Cole: 01:08:23 It doesn't mean you're that overt. Sometimes you might be? But if you have that in mind, it means you're already now crafting your materials. You're thinking about the words you choose and maybe how you decide to end in a way that helps drive that action. And the cool thing that happens there is that even if your audience disagrees with you and they're like, "No, I'm not going to do that. I want to do this other thing." Now they're focused, the conversation is focused on the right stuff. And it's a conversation that often gets missed when we stop at simply trying to drive understanding.

01:08:59 But when we go to action, we get people focused on the, "What next," instead of the, "What already." And I think the more we can do that, the better conversations we have, the better decisions we'll make, the more action we can drive with the analytical work that's already being done. And that's really, I mentioned this before, but that's the skill that I want people to both appreciate and recognize that they can build in themselves, is to be the voice. And to be the voice that's driving the change that they want to see. Everyone can do this. I didn't start out this way. It's been a lot of honing and practicing and if I can do it, you can too.

Jon: 01:09:46 Nice. One final topic from your latest book, Storytelling with You. So, specifically let's talk about virtual settings.

Cole: 01:09:58 Yeah.





- Jon: 01:09:58 So, especially in this post pandemic world, virtual presentations are a lot more common than they used to be.
- Cole: 01:10:06 They're not going away.
- Jon: 01:10:08 Yeah. No, they're not, are they? And so, what are some common mistakes that people make in virtual presentations and how can they be avoided?
- Cole: 01:10:14 Yeah, great question. And it's a lot of the same mistakes that you see in presentations in person. But they are, I think even more damaging in a virtual presentation. Because the allure of the inbox, for example, is only a click away. There are so many potential distractions. And so, one thing, one strategy I advise, which is something that we teach commonly in our data focused workshops as well, is don't show everything at once. Never show the cluttered full slide of data or of words. Because you are asking people to turn their attention elsewhere. And they may even think that they're paying attention. Because if you show the whole graph with all the words, they can scan it quickly and then turn their attention to something else and now they're not listening to you anymore and they've switched screens, it's going to be hard to get them back.
- 01:11:04 And so, what we'll often do is pace how we build things, whether it's words or a graph. Where you can imagine with a graph where I might start by talking about what I'm going to show before showing anything. I might just be on a slide that has the title on it and nothing else, and then I can bring up the axis and describe what those are going to show. Again, before bringing any data on. And what that does is this pacing. One, it allows your audience to stick with you so you could even build up to something that is dense or complicated and have that still be understandable. But also it plays on people's fear of



missing out. There's a FOMO that happens where they want to see what comes next and they know if they click the screen, they actually will miss something. And so, it can be a trick to help keep eyeballs on your stuff as well.

- 01:11:56 I'll also say, have your camera on. Invest in a good microphone and a good setup. If you are doing things frequently from virtual land, have good lighting. Know where you are in your screen so that you can use your hands and facial expressions. It's a little like presenting from stage though, where you from the perspective of your audience have been shrunk and flattened in size. And so, you need to be a little bigger to make up for that. So it means on camera, it means being a little more facial expression than you might normally. Again, knowing where your camera is so that you can use your hands or gesture when that makes sense. Also, your voice becomes so much more important because people may not be looking at you, but you still need to carry their attention. And so the way that you speak can help do that.
- 01:12:53 I think when you can have your camera on, have it big. If you're doing a lot of presenting, invest in a switcher. So I for example, I don't have it set up with slides that I'm presenting right now, but I can switch back and forth without fumbling through any screen sharing to just take over my camera feed with my slides. Or I can be picture in picture so that you can still see me so I can try to drive some engagement by looking at the camera and having people want to still pay attention. Those are just tricks to think about. Think about what keeps your attention when you're watching and learn from what you see others do that works. Learn from what you see others do that doesn't work as well, and try to fold the best pieces of those things into your own presentations. And I will mention we have a lot of, "How to," videos and strategy videos on the Storytelling with Data YouTube channel. So



for anyone who likes to learn via video, there's a lot of tips and information for people to find there as well.

- Jon: 01:13:50 Nice. We'll have that in the show notes for sure as well. So I imagine with all this discussion about being big, especially virtually, I expect that you might also then recommend standing even for virtual presentations
- Cole: 01:14:04 You can do, for sure. I have done before. I think it can bring a different level of energy that can be useful. It can also promote posture that can be helpful at times. And so a lot of that comes back to your setup and how you are when you're sitting. I'll often switch out chairs if I know I'm going to be on camera. Because having a stool that is stable for me is better than I'm in my swing-y chair now, and then I tend to move around a bit. So just being aware. And that, again, is where recording yourself and watching yourself, you can pick up on some of these things and recognize what works and what maybe doesn't work so well and get your environment set up so that you are positioned to be successful.
- Jon: 01:14:53 Fantastic. And so, I posted a couple of days before recording that you were going to be a guest on the show and got a lot of engagement. So, it actually got twice as many reactions per impression as a post of mine usually does. So, that's cool. And I specifically asked if audience members had questions. And so, a specific one that came up was from Adam Smart. So he works in retail operations. But specifically, I guess, using data to drive those retail operations and decision-making. So Adam asks, or Adam is interested to know actually a lot of detail about your virtual presentation setup. I don't know how much you'd want to get into? But he's like, "This includes physical equipment," like what monitors, lights, microphone, camera do you use and what software do you recommend using? So I don't know how much of that you want to share, or easy to catalog, but yeah. That's

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what one of the audience members here would love to know.

- Cole: 01:15:58 Yeah, absolutely. I'll walk through just briefly what my setup looks like. And then we do also have a doc that's out there that anybody can look at that outlines all of the different equipment that's used across the Storytelling with Data team. We each have a slightly different setup. So I, just right now, I have actually new, in front of me, a teleprompter screen. It doesn't have any prompting on it now. But it means that I can look at my external camera, but I'm actually looking at Jon and it looks like the camera is behind the screen. Let me think. My husband told me what this is, and I'm already blanking on this. He is the one who likes to add technical equipment, Elgato, that's what it is. It's the Elgato teleprompter. Which I guess are difficult to get in the States right now.
- 01:16:49 There's been a run on them. But we've just started playing around. It literally got mounted this morning, so this is my first day doing anything with it, but it's fun. I have an external microphone, it's a shore of some sort. And again, we can link to the doc where you want to put that. And I've got all sorts of arms and things because I do some different recordings with cameras where you're looking down at a book that I'm showing. So I've got another camera that will do that. I have a ring light that is here [inaudible 01:17:18] put my hand. So for those watching can see it's behind my monitor on my left-hand side. I have a bright window on my right-hand side, so I get nice lighting. Mentioned I have an external camera, and these are things where if you're not doing a lot of virtual or it's not high stakes, critical virtual, still recommend an external camera, external microphone.
- 01:17:41 You can get these things relatively cheap and the quality is so much better than a computer. And if you're doing more than that, then you may want to upgrade to some

better things. I have a large monitor in front of me, which is what I do my work on. I also have a switcher, I mentioned it before, it's called an ATEM Mini Pro and just allows me to switch back and forth seamlessly between my camera feed, slides, if I'm projecting them, and also do picture in picture. So for those who've watched things on the YouTube channel, if you see me flipping back and forth, that's how I'm doing that. There are other types of switchers that can achieve that as well. That's my main setup. Like I said, I'll give you the link that we can stick in the show notes if folks want to look through those details.

- Jon: 01:18:24 Fantastic. Any particular software tips?
- Cole: 01:18:27 We use Zoom. Well, I mean we're a Google organization. I grew up at Google, so my husband did as well. So we use the Google Suite for as much as we can. When it comes to client work though, and workshops, we are using Zoom. Mainly because we like to use the breakout room features and some of the other features there. But you, I think across the different platforms trade some issues for other issues and nothing's perfect.
- Jon: 01:18:56 I love the Google Suite. But I do not like Google Meet. I definitely, I also use Zoom.
- Cole: 01:19:02 We get some funkiness with it where, especially going back and forth between Zoom and Meet, you get some hiccups. Sometimes the camera will just stop working or, yeah, things get a little wonky.
- Jon: 01:19:11 Yeah, I mean, I think it's more affordable, the Google Meet, it's part of the Google Suite, and so I think there's decisions that are being made in Google Cloud on prioritizing video feeds and stuff. So there's sometimes a lag. Anyway, yeah, so great. Those are awesome tips. Adam Smart, I hope that that helps you out. Looking

forward to getting that set up doc and we'll have that in the show notes for sure as well. That was actually the only question that came up. But Dr. Alessandra Wall, who is an executive coach to noteworthy women.

Cole:	01:19:51	Interesting.
Jon:	01:19:51	She had a comment, which I think would be in great agreement with a lot of what you said here. So just highlighting this, Alessandra says, "Data without context is meaningless. The story, when it is context, is so helpful." So, I don't know, there you go. Underlines the importance of storytelling.
Cole:	01:20:11	Absolutely.
Jon:	01:20:12	That has come up a lot in this episode. So we talked a lot about your most recent book. But, you are in the throes of completing your next book and this is the first place that anyone will hear about it.
Cole:	01:20:30	Yeah.
Jon:	01:20:31	So, we're delighted to have-
Cole:	01:20:33	We're just starting to talk-
Jon:	01:20:35	Yes.
Cole:	01:20:35	... about it on-
Jon:	01:20:35	Right here on the Super Data Science podcast, Cole Nussbaumer Knaflig next book is going to be...
Cole:	01:20:40	So for a very different audience, a much younger audience here. I'll even show something for those who are on video. The next book is entitled Daphne Draws Data, features an enchanting heroine, a dragon named Daphne, who is going to be bringing data storytelling lessons to a

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younger audience and hopefully inspiring the next generation of data storytellers. So I was telling Jon as we were chatting before we started recording that on the other side of my office on the floor is entirely filled with paper. It's the printing of the first round of complete full-color illustrations. And so we're putting the final touches on those and then the book will get put together and sent to the designer next week or the following, and by summertime it should be on the shelves. So, stay tuned for that. We're also inviting people to sign up for notifications and giveaways and early releases, which you can do at [daphnedrawsdata.com](http://daphnedrawsdata.com).

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| Jon:  | 01:21:46 | Fantastic. And so in addition to the forthcoming Daphne Draws Data and your mega bestselling books from the past, Storytelling with Data, which is really a series, because you also have Storytelling with Data. What's the suffolk song? |
| Cole: | 01:22:02 | Let's Practice. Yeah. Let's Practice.  |
| Jon:  | 01:22:04 | Let Practice. Yeah. Which is so key as we've talked about in this episode.   |
| Cole: | 01:22:06 | Absolutely.  |
| Jon:  | 01:22:06 | And most recently, and the focus of today's episode was Storytelling with You. I also realized with the way that it's so much about framing the book for your audience, that is like Storytelling with You, for them.                      |
| Cole: | 01:22:25 | Yes, yes.  |
| Jon:  | 01:22:26 | Storytelling not for you.  |
| Cole: | 01:22:28 | Yeah. There was actually somebody early on when we were looking at different titles that suggested that, Storytelling not for You.   |



- Jon: 01:22:39 And so, yeah, so fantastic. And then, if people actually want to have, you alluded to it there when you talked about... So Storytelling with Data is not only a book, it is also your company.
- Cole: 01:22:53 Yes.
- Jon: 01:22:54 And you and other instructors do workshops from the Storytelling with Data company and my understanding is that you have some coming up. Yeah. So there are-
- Cole: 01:23:04 We do. Yes. Our full schedule for 2024 is posted, it's online. You can find details on that and everything else at [storytellingwithdata.com](http://storytellingwithdata.com). [Storytellingwithdata.com/workshops](http://storytellingwithdata.com/workshops) is where you'll find the 2024 public workshop calendar. I know we have an upcoming two-hour storytelling with slides on March 6th, that's 2024 that is based on content from Storytelling with You. And then we have additional Storytelling with Data workshops over the course of the rest of the year, as well as in person masterclasses in London in April and in Seattle in September. And we also are running an eight-week online course. We're partially into our first cohort of the year now, and then there'll be another cohort in the fall. So you find information on all of that on our website. And then we do workshops for organizations as well that get customized with the examples from the given group and go through lessons to help when it comes to communicating, whether graphs or anything broader.
- Jon: 01:24:10 Nice. What a treat it would be to attend one of those.
- Cole: 01:24:15 They're fun.
- Jon: 01:24:15 Cole, thank you so much for taking the time today. You may recall from your appearance four years ago that before I can let you go, I must ask for a book recommendation for a book that is not yours.



- Cole: 01:24:27 Sure. I'm actually going to grab something that's on my desk right now because I am going to be talking with the author, Kat Greenbrook, for an upcoming episode of the Storytelling with Data podcast. And that is the Data Storytellers Handbook subtitle is How to Create Business Impact Using Data Storytelling. Kat is based in New Zealand and the book is a really fun encapsulation of her process and the process that she takes her clients through when developing data stories.
- 01:25:01 And I'll just flip through some of the book for those who are watching on the video. She's got some fun illustrations that break things up. It's super scannable, has some different lenses in different ways on how to construct story that I think augments a lot of what we've talked about here today. So for folks who might be interested in picking that up, it came out at the, I think very tail end of last year or first thing this year. So it's quite new. And if you want to hear more about it, you can check out the Storytelling with Data podcast and there should be an interview with her up, if not now, then shortly after this one gets published.
- Jon: 01:25:40 Nice. Check that out. All right, and then in addition to your workshops and the Storytelling with Data podcast, how else should people be following you for your brilliant insights on data, on storytelling and beyond after this podcast?
- Cole: 01:25:59 You can find all the information, everything we've talked about is at [storytellingwithdata.com](http://storytellingwithdata.com). I'm @storywithdata on Twitter. We also have Storytelling with Data on LinkedIn where we post daily tips and strategies and tricks and all of that. We have a blog and a podcast and a video channel and online community. All the things. So what we like to do is put out lots of different ways for people to learn so that folks can pick and choose the things that will be most useful to them. So just encourage

everyone listening today, and especially if it feels more comfortable to use your technical skills than your communication skills to pick something from the podcast today and give it a try.

- Jon: 01:26:48 That's such a great call to action. All right, I'll leave it at that. Thank you so much, Cole. It's been amazing having you on the show. Thank you for coming back. I had such a great time and I'm sure our audience did as well.
- Cole: 01:27:00 Awesome. Thanks Jon.
- Jon: 01:27:07 I guess we should not be surprised that a world-leading author on effective presentation is an incredible speaker herself. Cole certainly practices what she preaches. In today's episode she filled us in on how the secret to making an amazing presentation is to make it ideal for your audience, not for you, including by having a compelling narrative arc that builds tension, reaches a climax, and then a denouement. For particular top tips include having a genuine interest in the topic you're speaking on, reading audience body language and adjusting accordingly, pausing for effect. Rehearsing, memorizing points but not verbatim and being authentic.
- 01:27:42 As always, you can get all the show notes including the transcript for this episode, the video recording, any materials mentioned on the show, the URLs for Cole's social media profiles, as well as my own at [superdatascience.com/757](http://superdatascience.com/757). Thanks to my colleagues at Nebula for supporting me while I create content like this Super Data Science episode for you. And thanks of course to Ivana, Mario, Natalie, Serg, Sylvia, Zara, and Kirill on the Super Data Science team for producing another amazing episode for us today. For enabling that super team to create this free podcast for you, we are deeply grateful to our sponsors. You can support this show by checking out our sponsors links, which are in the show

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