



# **SDS PODCAST EPISODE 637: HOW TO INFLUENCE OTHERS WITH YOUR DATA**



- Jon Krohn: 00:00:00 This is episode number 637 with Ann K. Emery, Data Visualization Designer and owner of Depict Data Studio. Today's episode is brought to you by Kolena, the testing platform for machine learning.
- 00:00:17 Welcome to the SuperDataScience 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, Jon Krohn. Thanks for joining me today. And now, let's make the complex simple.
- 00:00:48 Welcome back to the SuperDataScience Podcast. The absolutely outstandingly talented speaker, Ann Emery is my guest on the show today. Ann is an internationally acclaimed speaker, who through the company she owns called Depict Data Studio, she delivers over a hundred keynotes, workshops, and webinars each year to enable people to share data-driven insights more effectively. She has consulted on data visualization, data reporting, and data presentation with over 200 organizations, the likes of the United Nations, the US Centers for Disease Control, and Harvard University. She holds a BA in Psychology and Spanish from the University of Virginia and a master's in Educational Psychology Evaluation, Assessment, and Testing from George Mason University.
- 00:01:29 I rarely say that everyone should listen to an episode, but this is one of those rare cases. Whether you're a technical expert or not, if you ever use data to make decisions or persuade those around you to make data-driven decisions, today's episode is jam-packed with practical tips for you. In this episode, Ann details what data storytelling is, best practices for data visualization, surprising tricks you can pull off with spreadsheet software, how to report on data effectively, and her top tips for presenting data in a slideshow. All right, you ready for this fun and highly practical episode? Let's go.



- 00:02:08 Ann, welcome to the SuperDataScience Podcast. It's awesome to have you here. I've wanted to have you on the show for a long time, and now it's happened. Where in the world are you calling in from?
- Ann K. Emery: 00:02:18 Orlando, Florida. I just had to turn on my heat for the first time. It smells like firecrackers and burned out candles in my home. So if you see any flames in the background, let me know. It might not be the heater, it might just be that my house is burning down around me.
- Jon Krohn: 00:02:32 Okay. Yeah, it must be really nice most of the year in Orlando, I guess, or maybe it's better in the winter.
- Ann K. Emery: 00:02:41 Yes.
- Jon Krohn: 00:02:41 Is it like too hot sometimes in the summer?
- Ann K. Emery: 00:02:43 Yes. Yeah, I leave. I leave and go places that aren't so terrible.
- Jon Krohn: 00:02:49 Well, we are going to dig into your leaving and going places near the end of the episode, I have some questions for you on that, for you have led a very interesting life nomadically around the world with your family in the past. So I think our listeners are going to love hearing about that. But before we get to that, we've got a lot of technical content to go through. You are a deep expert in data storytelling, data visualizations, and so I've got lots of questions to equip our listeners to be the best at communicating their brilliant findings with any audience. So let's get started with talking about dusty spreadsheets. You're an internationally acclaimed speaker. You equip organizations to get their data out of dusty spreadsheets and into real-world conversations. What, Ann Emery, is a dusty spreadsheet?



- Ann K. Emery: 00:03:45 We've all dealt with dusty data, unfortunately. It's the data that you spend so much time on, so much staff time, consultant time, therefore money, and it doesn't go anywhere. It doesn't actually lead to any real-world decision-making. And now in a perfect world, in a perfect world, my goal would be that every data project we work on should have something happen, like a policy change, people vote differently maybe, or they make more informed decisions. A programmatic change, they actually go lead their work or manage their program differently. Maybe it's a personnel change. They hire staff. They, heaven forbid, let go staff, but they change the staffing to get the right skillsets on. And that doesn't always happen. A lot of times we pour so much energy into reports, slideshow, dashboards, infographics, and it just kind of sits there in somebody's inbox or on somebody's website and doesn't have the impact that it deserves to.
- Jon Krohn: 00:04:44 Cool. So how do we transform this kind of dusty data that is inactionable into something that is actionable?
- Ann K. Emery: 00:04:53 Yeah. Do you want to talk data storytelling? That's a tricky term.
- Jon Krohn: 00:04:57 I do. Absolutely.
- Ann K. Emery: 00:04:58 It means different things to different people.
- Jon Krohn: 00:05:01 So data storytelling is the skill that your company, Depict Data Studio, focuses on teaching, so we definitely need to get into that. Yeah, let's get into that. Yeah.
- Ann K. Emery: 00:05:10 Okay. So data storytelling has a million different definitions. Some people just think it means you make a graph or some people have really sophisticated definitions. They'll say it's scrollytelling, which is a new term to a lot of people, but it might mean that you open up a website, and as you scroll through a New York Times



or Washington Post graphic, it appears. And that's wonderful, who doesn't love data scrollytelling, but it's also very hard to do just for your regular old weekly report or memo to your boss as well. So my definition of data storytelling is, you have a takeaway title, a takeaway title at the top of your graph, not a topical title, so takeaway instead of topical, and you have a dark light contrast instead of just all the colors having equal weight.

00:06:04 So what that might mean for, let's say it's a line chart. And a lot of line charts we work on, we have a lot of data, we have a lot of different data points, we have a lot of different lines we want to display, and a lot of times they turn into what we lovingly call in the database community, the spaghetti line chart that everybody's seen. It's like the tangled mess of all the criss-cross-y lines. So instead of just showing that with rainbow colors and the whole jargony title of X, Y, Z variable over this timeframe, blah, blah, blah, sometimes I see paragraph long graph titles, you would just transform it ever so slightly. You'd put the takeaway finding in the graph title, and then you gray out all the lines, and you highlight one at a time, and you just make it really skimmable for your audience.

00:06:54 A lot of the groups I work with, which is data heavy organizations... So I work with a lot of federal agencies. I did a workshop with a transportation agency, like a city subway system this week. Hospitals. They have so much data, and a lot of times the important insights are hidden in the paragraphs, which, of course, take much longer to read than just glancing at a graph that already has that key finding standing out right away with the dark colors. So I just say, take the paragraph you've already written, just copy and paste the key sentence that says what the graph's all about, just plop that in the graph title. So that's data storytelling in a nutshell. It's take away titles and dark light contrast.



- Jon Krohn: 00:07:40 Cool. So the takeaway title thing, to try to make that concrete with an example, it would be like instead of having the report be called sales numbers, sales numbers from last week, it's like widget X sold 20% more because of this promotion.
- Ann K. Emery: 00:08:05 Yep, yep. It's this simple mathematical explanation. Things increased for three days in a row. Something decreased last quarter. This number is twice as big as the other number. Sometimes people with traditional data backgrounds... I used to work inside a university. I churned out all the peer reviewed journal articles. I did the very basic research design, nothing applied. It was very much like, "We're going to research this thing. We're going to go present at scientific conferences. We're going to write up our very technical papers." My old self, I would've cringed at the term data storytelling. I would've hated it. I would've totally turned my brain off and tune out if I heard somebody talking about data storytelling because I would've thought it meant biasing or exaggerating or fudging the numbers or leading people.
- 00:08:58 It's none of those things. It's none of those things. You're extremely accurate and honest and truthful and trustworthy with your data. It's just looking at that paragraph you already wrote, or if it's a presentation, think of the paragraph you're going to speak, where is that mathematical simple explanation of what you're going to say about your graph, and just put that in the graph title. So that if somebody leaves your report or infographic or slideshow, they'll remember that. They're going to remember that because it's not burying the lead inside the paragraph.
- Jon Krohn: 00:09:34 Just as you started to talk about how data storytelling is this term that you're like, ah, it kind of has this reputation as being something different from... Everything that you just described is crystal clear and so tangible



and so important for our listeners to know. And so in my mind I was thinking, "What am I going to title this episode?" Because I kind of want to call it data storytelling, but I don't want somebody to see that and be like, "Eh, that's not for me," because this episode, I know with what we've already talked about and everything that's to come, and we have this rough structure that I know we're going to go through, this is going to be potentially one of the most valuable podcast episodes of this program that anybody has the opportunity to listen to. Maybe that's what I should call it. I'll title this episode...

Ann K. Emery: 00:10:22 The most valuable.

Jon Krohn: 00:10:25 The most valuable episode for you. Yes, you. Listen to it. There, we got it. It's catchy. It's a takeaway instead of the topical title. So okay. Data storytelling, we've got a takeaway title instead of the topical title, and we use dark light contrast instead of equal weighting in our charts to highlight the key piece of information that people need to be drawing from a chart. It makes so much sense, it's so straightforward, and something that I have definitely got to do going forward. I don't do that. I don't do that. I just give them all the lines in equal weighting. And even in this scenario that you're describing where one of those lines is the one that I want them to be focusing on, "I'm like, find the red one. The red one is the one you need."

Ann K. Emery: 00:11:11 Let's talk common pain points. Because when you're talking, that's what I'm thinking of, is the common challenges that a lot of us as data people run into, and certainly the types of organizations that we work in and with and run into-

Jon Krohn: 00:11:26 Please. Yeah.



Ann K. Emery: 00:11:26 ... I think it's really hard, really, really, really hard for us data people to be focused on the details of the data and get everything accurate, which is such a huge lift to make sure we don't make any typos. Whether you're doing Excel formulas or you're coding or you're clicking buttons, just making sure every little thing is perfect and accurate in our data. That is a lot. I do a lot of public health work. There are real-world implications if I make a mistake. I'm working on just child mortality and maternal... very heavy, heavy topics. COVID data, things that have huge real-world implications. And I think it's so hard for those of us to be working in the data to be so focused on the details and then also step back and see the bigger picture and be able to say like, "Oh yeah," let's say it's the spaghetti line chart example, "out of these five or 10 lines, this is the one that really matters, that my audience needs to see." So I feel your pain. I think that's hard for a lot of us to do.

Jon Krohn: 00:12:29 But I think it is that way of taking a step back. I'm one of these people, I regret to say, that leaves everything for the last minute. I've always got just enough time and no extra time to get something done, but this sounds like a perfect scenario where if I could develop the habit, then having the report done a day early and then sleeping on it and looking at it with fresh eyes the next day and being like, "Okay, what is the really big point here that I need to emphasize instead of just presenting everybody with all of my diligently curated data?" Like you're saying, there's so many things that I have to get right. I'm so focused on getting everything accurate in the report that, that will be my focus in the hours leading up to having the report done. But if I have that done the day before, I could wake up the next day and say, "Okay, what's the really big point here? I know what it is. I need to make it clear and easy for the reader of this document to see that immediately."



- Ann K. Emery: 00:13:41 My rule of thumb is that it takes two brains to do data storytelling. It's impossible for the same person to get the details right and also get the bigger picture right. So it either has to be like you plus a coworker, you plus a boss, you plus your roommate, significant other, or friend, like two people, or the same brain with some time that's passed. So yes, sleep on it if you can. Better yet, give yourself a week or a little bit more time just to let some actual time... go on a walk, all the usual things that we do when we're stuck on projects, and then come back to it with the fresh eyes and fresh brain, like you were saying, and think about, "Okay, what does this really mean that my audience needs to focus on in their very limited time that they have?"
- Jon Krohn: 00:14:31 That is a brilliant tip.
- 00:14:34 Are you unit-testing your machine learning models? You certainly should be. If you're not, you should check out Kolena. Kolena is an ML testing platform for your computer vision models. It's the only tool that allows you to run unit and regression tests at the subclass level on your model after every single model update, allowing you to understand the failure modes of your model much faster. And that's not all. Kolena also automates and standardizes your model's testing workflows, saving over 40% of your team's valuable time. Head over to Kolena's website now to learn more. It's [www.kolena.io](http://www.kolena.io). That's K-O-L-E-N-A.io.
- 00:15:15 Okay, so that is a key pain point. What other pain points do you see out there, Ann?
- Ann K. Emery: 00:15:20 Oh gosh, so, so many. I think these are common challenges. So much data. We have so, so much data. I was telling you before we started recording that I used to live and work in downtown DC before I did the digital nomad thing, before I did the live in Orlando and be a



suburban mom lifestyle that I have now. And back a decade ago when I worked in downtown DC, one of my jobs was I worked in a big nonprofit as one of their internal data people, and I was new on the job. I was putting together this annual report. And I asked a coworker like, "Hey, I want to compare our numbers this year compared to last year. I think that'll be a more accurate, compelling data story. I don't just want to say the number is 80%. Like 80% compared to what? Was it, 70% last year? Was it 90% last year?"

00:16:10 There wasn't enough context to really say much, and they literally handed me a key and they said, "Oh yeah, we just switched offices. You'll have to go down the street to one of the charter school basements and go in the basement and look in the file cabinet." And I was expecting an Excel file or a link to a SharePoint folder or a shared drive of files. And it was like, no, no. The data... It was collected through a lot of surveys and assessment forms and forms that people were filling out. It was in the file cabinets. Luckily, having that limited data on physical paper is no longer an issue. Over the past decade plus, people have been switching to all sorts of electronic data collection. I mean, even surveys, for example, they're almost all done over a Survey Monkey or a Google Forms or one of those many, many electronic things now, which means people add more survey questions, they can survey more people cheaper and faster, and we just have more data sources than a lot of us know what to do with.

00:17:17 And in a perfect world, you'd have all this automatic coding behind the scenes that automatically cleans and tabulates and visualizes your data, but a lot of groups aren't there yet. People are trying to figure that out now of how to deal with just all the numbers that are coming at us.



Jon Krohn: 00:17:34 So just volume of data is the second big pain point. So for our first pain point, you had a really nice solution. So our first pain point was it's difficult for a single individual, at least at one time, to be able to get the details of their data presentation, as well as being able to show the forest for the trees. And so you had a really great solution there, which was either have somebody else look at it and talk to you about it, or you take some time away and you come back to it with you being kind of the second person taking a look at it yourself. So that was a really great tip. With this one, with having just huge amounts of data to deal with, do you have a quick fix or is that just kind of a tricky one?

Ann K. Emery: 00:18:22 I know this is controversial, but don't collect it. Don't collect data you're not going to use or... Okay, here's the less controversial take. What's the point of asking 50 questions on a survey if you realistically only have the staff capacity to even tabulate how people responded to the first 10, and then it shoved inside a hundred page dusty shelf report that's just emailed out with 50 other million things, and it's just unread in somebody's inbox. I just don't see the point of bothering survey respondents if you're not... It almost feels disrespectful to spend money and people's time doing stuff that's not going to be used. So hence my whole career focused on trying to change that. Here's the less controversial take. I work with a lot of organizations that are collecting demographic data on people. Maybe they're running a community program, they want to know the ages of the people in the program. So there's several steps of data cleaning and tabulating you have to do.

00:19:28 At the end of the day, they just want to know, let's say. Age ranges. How many 10 to 19 year olds? How many 20 to 29 year olds? Well, in my Excel formula brain, I think, "Okay, well first you have to know the ages to do the age ranges, which means first you have to know the birth



dates." And a lot of people I work with, they don't do data as a career. They're like the program officer at a foundation. They know their content area, but they're not a data person. Their title's not data scientist or anything with data. They work on their program, or they're working at a federal government agency, and, again, their expertise is the content area. They're not a spreadsheet person. So what I try to teach them is rather than every time you survey people, rather than asking them their age over and over, which changes over and over every single year, just ask one time, ask the person what their birthdate is.

00:20:25 And then from the birthdate, you calculate the age and then the age range, which is pretty simple math to do behind the scenes. And just things like that alone cut down on survey questions, for example.

Jon Krohn: 00:20:39 Cool. That's a great tip. All right. I thought I might have backed you into a corner there-

Ann K. Emery: 00:20:43 No.

Jon Krohn: 00:20:44 ... but you had a really great solution. I think they're both relatively uncontroversial. I like the idea of collecting fewer data, especially the survey example you gave there. If you can predict that when you get all the results, only 10% or 20% of the information's going to be really valuable to you anyway, save your survey respondent's time. And you're actually probably also then going to get more survey respondents when they see that, "Oh, it's three questions, not 30. Great." I should have talked to you before. I made the SuperDataScience podcast listener survey, which is currently live. I tried to cut it down to as few questions as I could. I did put an effort into that. There were many more questions in the initial iterations.



- Ann K. Emery: 00:21:30 I trust that you have the data skills, though, to be able to analyze it and find insights really quickly, so maybe that's not going to be an obstacle for you.
- Jon Krohn: 00:21:39 I genuinely believe that all the questions we're asking we can take action with. And also, some of the questions are things like... I wanted to open the door for people to give candid feedback on certain things. And so if they don't want to, they can skip the question.
- Ann K. Emery: 00:21:56 Great.
- Jon Krohn: 00:21:57 Cool. All right. Any other pain points?
- Ann K. Emery: 00:21:59 Tight turnaround times. We all have that, right? You never have as much time to do the perfect project every single time and just kind of letting go of that perfectionism that a lot of us do have of wanting to do our best work. That's tricky. I'm, of course, speaking from personal experience here, trying to just give myself a little bit more permission to do the best work I can, but with the resources and the time I have available. And then another one, this is really related, but I know a lot of companies and a lot of organizations have really limited staff capacity, really limited budget, graphic design and data viz design are related, but different.
- 00:22:44 So in a perfect world... oh gosh, this almost never happens. I can count on one hand how many time this has happened. In a perfect world, a big company would have not just like a communications person who's expected to do all the things, all the things. They have to do PR. They have to do copy editing. They have to make all the social media images. They have to put together the new... That's so many hats for one poor person aware. In a perfect world, you'd have all the skills, you'd have a full-time graphic designer, a full-time data viz designer, and all these other things. Nobody has that, nobody has that.



So we all have limited capacity and limited budget for the types of skills we want to bring into our projects.

Jon Krohn: 00:23:30 Those were great pain points and clear solutions. You talked in your most recent pain point there about data visualization. You are an expert at data visualization, and do you have some best practices for our listeners?

Ann K. Emery: 00:23:48 Yes. So I'm thinking through all my six different classes. I've been blogging a decade now. My 10-year anniversary is popping up on my calendar in a couple days. I have 312, 315 blog posts. I have about 100 YouTube videos now. So here I am running into one of my pain points. I'm like, how do you take all that data and actually just distill it? And if I had to pick some top data viz tips, it would be to declutter your graph, dashboard, report, et cetera, diagram, table. Declutter first. We can talk about what that means. It basically means deleting half the extra ink that doesn't need to be there. Half the software default settings that are very outdated, that are very 1990s era graphic design, not based in the latest brain science of how we read graphs. Declutter first. Highlight your key takeaway message in a dark color, use brand colors, make sure it's accessible for people who have color vision deficiencies, of course.

00:24:56 There's nuances to color. And then put your takeaway message in the title. There's nuances to fonts and texts that are skimmable and easy to read and at the appropriate reading level, but it's basically just that. You declutter, you use some dark colors, you use some takeaway text. That's about it. That's about all I teach in different ways, said different ways for different audiences. There's report specific advice, presentation specific advice, dashboard specific applications of that, but that's really the key to good data viz and good data storytelling.



- Jon Krohn: 00:25:38 Crystal clear. Declutter the graph, try to remove half of the ink. That makes perfect sense to me. It is interesting how the defaults in pretty much any plotting package are, I guess, trying to show off in a way all of the different things that the plot could do.
- Ann K. Emery: 00:25:53 Yes.
- Jon Krohn: 00:25:55 But yeah, most of it is irrelevant and simplifying is... That is something that I think I'm pretty good at getting right. So that was number one was declutter. Number two was dark colors that are legible, including to colorblind people. So you can be thoughtful about the color palette that you select so that it's legible to the widest number of people. And then number three is have the takeaway message in the title. So that's similar to what you said with the whole data storytelling premise. So that was at the report level. So at the report level, instead of having a topical title, you got a takeaway title. But then similarly on each of the charts, you've got a takeaway message right there in the title too.
- Ann K. Emery: 00:26:39 Yep. And there are little nuances to titles. This is a big culture change for a lot of groups, especially if there's a lot of master's level and PhD people who are used to just very technical writing and maybe they have to write peer reviewed articles or go to very scientific conferences as part of their job. So for some people listening, I might be asking you to make a major culture shift in your organization, but it's okay to take baby steps. So how I take baby steps with some of the agencies I work with, is I say, "Keep your topical title that you're used to. Keep the topic like sales, whichever title you would come up with earlier, just a regular old title of the topic, but right underneath below there, we can call it a subtitle, just put the takeaway message. That's a win. I consider that a win.

00:27:27 Another nuance to titles, for example, would be you can add annotations, which are just text boxes, that's it, that's just it, in the body of the chart. It's especially helpful for line charts. If something happened, something contextual happened, some milestone happened, and the graph, all of a sudden you see the numbers going up or down because some external thing happened, the person making the graph usually knows what that thing is that happened. Funding doubled. You hired a new staff person. You changed your approach. A policy change. It's so painfully obvious to the person making the graph why some sharp increase or decrease might have happened, but it's not painfully obvious to the audience who sees that graph among 50 million other graphs every single week, so you add the simplest. You just add a text box on the body of your graph and you say like, "In March, 2020, this thing happened." Just make it really obvious what's going on on the graph.

Jon Krohn: 00:28:28 That's a perfect example of something that I seldom do and seems so obvious now that you've said it. The title of this episode is going to have to be, everyone must listen to this episode. It's going to be [inaudible 00:28:39]. All of the data presentation mistakes you've been making but didn't even know you were.

Ann K. Emery: 00:28:47 Yeah. Yeah, that's okay. That's okay. Now people know.

Jon Krohn: 00:28:53 So adding annotations, I guess that's something that you can do even in a tool like Excel?

Ann K. Emery: 00:29:00 Yeah. I mean, you can add data labels. I hate to just use line chart examples. What's another example? Well, it would be data labels no matter what chart type. If it's a donut chart or a bar chart or a tree map or a whatever diagram, you can add it within the data label. Oh, did I publish this yet? Did I? No, it's going to come out early 2023. I have a blog post on how to do that. I took gif



recordings. We had a hurricane last week in Florida, so I had no internet, but my laptop was working, and I just cranked out all of the how to blog posts that had been on my rainy day list for years. So anyway, I have a blog post coming out on how to actually do that. It's very simple.

00:29:43 You can add a text box. Don't get hung up too much on the software how tos. I like everyday software, but you can do this in all the software programs. It's just the idea of putting a call out box on the graph, again, so it's not buried inside a paragraph or it's not just us assuming that the audience knows that. They might not know that obvious thing.

Jon Krohn: 00:30:04 Cool.

00:30:07 Mathematics forms the core of data science and machine learning. And now, with my Mathematical Foundations of Machine Learning course, you can get a firm grasp of that math, particularly the essential linear algebra and calculus. You can get all the lectures for free on my YouTube channel. But if you don't mind paying a typically small amount for the Udemy version, you get everything from YouTube, plus fully worked solutions to exercises and an official course completion certificate. As countless guests on the show have emphasized, to be the best data scientist you can be, you've got to know the underlying math. So check out the links to my Mathematical Foundation's and Machine Learning course in the show notes or at [jonkrohn.com/udemy](http://jonkrohn.com/udemy). That's [Jonkrohn.com/U-D-E-M-Y](http://Jonkrohn.com/U-D-E-M-Y).

00:30:51 What else can somebody do in a spreadsheet tool like Excel or perhaps Google Sheets? I don't know if this is going to be controversial for you, but I'm a Google Sheets person.

Ann K. Emery: 00:31:03 Oh.



Jon Krohn: 00:31:03 inaudible 00:31:04] yeah.

Ann K. Emery: 00:31:04 Do you know Ben Collins?

Jon Krohn: 00:31:06 I don't know Ben Collins.

Ann K. Emery: 00:31:07 Okay. You should be friends with Ben Collins. He's fantastic. He's a great Google Sheets instructor. Just Google Ben L. Collins. And likely if anybody hears Google like how to do blah, blah, blah and Google Sheets, you've likely come across Ben's blog. He's excellent. He consults to Google on how to use Google Sheets. He's that good.

Jon Krohn: 00:31:28 Oh, wow.

Ann K. Emery: 00:31:28 You guys should be friends. I know you'd hit it off. I'm not anti-Google. I just like spreadsheets. Google Sheets, Excel, they're very similar. Way back in the day, my dad's an economist, so he would teach me spreadsheets in elementary school in the '90s. I'd be like, "Let's go kick a soccer ball in the backyard," and he's like, "I'm going to show you this spreadsheet thing in Lotus 123," which apparently is still around, but that's a spreadsheet program. All the spreadsheets are pretty similar. Oh, cool things. Okay. I wonder if this is popular in Sheets. This is a newish Excel feature that I just encountered about a week ago.

Jon Krohn: 00:32:10 You can do the Excel stuff. That's great.

Ann K. Emery: 00:32:13 Can you do the image function in Google Sheets? Is that a thing yet?

Jon Krohn: 00:32:18 I don't know. I don't know.

Ann K. Emery: 00:32:18 It might be.



- Jon Krohn: 00:32:21 But just tell about it in Excel, and then people can look up the Ben Collins post or whatever and see if they can do it in Google Sheets too. Let's leverage-
- Ann K. Emery: 00:32:25 Yeah, see if it's available.
- Jon Krohn: 00:32:28 Let's hear about this cool new thing you can do it in Excel.
- Ann K. Emery: 00:32:30 So I was working on a dashboard automation project last weekend, on Sunday, as I told you before we started recording. I was supposed to have a month to take all of these responses and get them ready for this big foundation board meeting, but as it happens on every project, there were all these delays. And I had four working days, so I needed to use a Sunday. These things happen. I wasn't going to not get the dashboards ready for their board meeting. This was the agenda on the board meeting, but it was a dashboard automation project, so they had different grants and grant making areas, and each one had to have their own dashboard. Which the old way of doing that, this is how people... maybe not so old, I still see people doing this. They make one dashboard, and then they copy and paste those graphs into a new sheet and they manually fill in the data. And they copy and paste, and they manually fill in the data, and there are so many faster ways to do that.
- 00:33:31 I set up one template in Excel, and then I either use Excel slicers, which are just filters really, or you can set up dropdown menus in Excel. So you select the name of the dashboard you need, like grant making area A, grant making area B, et cetera, and then it automatically behind the scenes, all the formulas are tallying themselves and the charts are making themselves. So long story short, I had to make all these different dashboards, and I wanted them to each have their own logo on them so they each had their own branding. The



old way of doing things would've been that you can't automate it. You used to have to go to insert image, select the JPEG or the PNG from your file, which means you can't automate it. You're adding in all this manual work.

- 00:34:16 I mean, it's not that manual like, oh, heaven forbid, we have to go insert image, but it's still a little bit of work where you could make a typo. So I was Googling last Sunday night, how to make this faster, and apparently Microsoft released this thing called the image function just in August, 2022. You have to download... Oh, what's the official name? It's a beta version of Excel, like a beta community tester. It takes less than 60 seconds to download it, and then you get all these beta features, which is pretty cool because there are likely other things beyond the image function that I don't even know about yet. And you basically say, equals image. You open up your parentheses just like you would a normal formula. There are maybe three or four pieces you have to fill in. And you pull in from a URL. So these dashboards are all for things that have websites.
- 00:35:07 So I put in the URL to the image file, you can write alt text, so it was like grant making area A logo, just saying what it is. It was so cool. So then you can select the name of the dropdown menu and the logo automatically appears and is linked. It just blows my mind that these things are possible and such massive time savers and typo eliminators for us as well.
- Jon Krohn: 00:35:37 Cool.
- Ann K. Emery: 00:35:38 Hopefully, people listen and get a kick out of that because I was fascinated about this being invented.
- Jon Krohn: 00:35:44 Yeah, that sounds useful. So you could use this image function to then have the standard Excel equal sign thing to bring in something from a specific URL and then

include that in, say, one of these dropdown menus that you have that enable you to create charts much more quickly than if you were to try to be copying and pasting into new sheets.

- Ann K. Emery: 00:36:06 Yep, absolutely.
- Jon Krohn: 00:36:08 Cool.
- Ann K. Emery: 00:36:09 Because my goal is that the woman working at the foundation, when she does this dashboard quarterly, I just want her to open up Excel, she's going to select the name of the dashboard she wants, and that's it.
- Jon Krohn: 00:36:19 Nice.
- Ann K. Emery: 00:36:20 She doesn't have to do any data cleaning. She doesn't have to check for duplicates. She doesn't have to recode birthdate into age, into age range to feed into a histogram. That's all happening behind the scenes. She doesn't have to select the logo. She doesn't have to change font colors. The takeaway sentences get written for her with concatenation saying, "This dashboard shows these mini grants in this time period." If people don't know what concatenation is, please Google that. Those are amazing techniques that save me so much time all the time.
- Jon Krohn: 00:36:51 Nice. Okay. Those are awesome tips, very practical. In addition to courses that you have on data visualization and on specific Excel topics, you also have workshops on reporting in general. So I'd love to ask you if you have top tips for our listeners on how they can get reports right in general. We know a little bit from the data storytelling at the top of this episode, so things like having the takeaway title on the report instead of a topical title. You got any other big tips for our listeners?



- Ann K. Emery: 00:37:26 Yeah. That's a pretty granular edit and a detailed edit of thinking about the specific chart, what chart type should it be, is this even important data to include? Once you get those things right, you also have to look back and see the bigger picture of the document, presentation, dashboard. We'll focus on reports right now though. And let's see. Oh, if I had to pick one, I have a favorite. I have a favorite. We haven't talked about this yet. I love taking those big reports, whether they're 20 pages, 30 pages, 300 pages. I work with a lot of federal agencies that have so much data, huge, huge reports about their projects. I love taking each chapter and using a different brand color. Let's say the brand colors are blue and green and purple, or whichever. Lots of groups have two, three, four brand colors.
- 00:38:20 So chapter one's overarching color is blue. So you start it with not just chapter... You don't just say chapter one in size 12 font, start it with chapter one in a huge font, preferably size 50 to 100. Give it its own divider page with, let's say, a blue background, so people know we're in the brand blue chapter. And then everything in that chapter is overwhelmingly brand blue. The heading ones are brand blue, the heading twos are brand blue, the images are brand blue. If you have a line graph that is a spaghetti line graph to start and you've already grayed everything out, and you're going to highlight that one line in a darker color, you're going to use brand blue in chapter one. So that when they turn the page or when they scroll in the PDF, because so many things are for on-screen reading nowadays, the next chapter has the next color. What did I say we had? Blue and green and purple.
- 00:39:17 It's the green chapter. Chapter two is the green chapter. Chapter three is the purple chapter. So it's a very monochromatic chapter. You'd have blues and grays, greens and grays, purples and grays. But the report as a whole is very colorful and branded.



- Jon Krohn: 00:39:34 Brilliant.
- Ann K. Emery: 00:39:36 It's one of those things I learned in grad school about visual chunking and that our brains associate different colors with different content areas. You see a new color, your brain says, "Oh, I know it's happening. We're switching gears. I'm about to learn about something new in this chapter."
- Jon Krohn: 00:39:50 I like that a lot. That's a great tip. So yeah, having a consistent brand color across all of the key elements in a given chapter of a big report, so across the titles, across key elements of plots, across highlighted text and paragraphs, make it all blue in chapter one, all green in chapter two, whatever. That makes perfect sense to me. And when I think about some of the best reports that I've ever seen, they do do that, and it hadn't occurred to me.
- Ann K. Emery: 00:40:18 It's behind the scenes in our brains. Our brains notice that being done. I saw it the first time in... A lot of books are like this. Not books that are just black and white text only, but a lot of books with photographs or images. I think the first time I consciously noticed it, I think it was Presentations Zen by Garr Reynolds, and I noticed that each chapter started with a beautiful... I'm trying to not say full bleed anymore, but full screen, full screen photo. It was very zen. It was very Japanese beautiful rocks piled on one another, and it was its own color. It was the green chapter. And you turn it, and then the heading one was green, and then the bullet points are green, and the diagram is green, and then the next chapter was the next color. And I just thought, "Oh, what a perfect way to not make it feel like this huge book or a huge report. It's just this little chapter, and it's just this little chapter."
- 00:41:20 And then it's kind of a way where you... Trick's not the right word, but it's a way to trick your audience into like, "Hey, I'm going to give you all this data, but it's not going

to feel like a lot of data. It's just going to feel like this little chapter with just a couple simple, skimmable graphs."

- Jon Krohn: 00:41:35 Cool. I love that. Any other report tips for us beyond the chapter coloring?
- Ann K. Emery: 00:41:42 Covers. Covers matter. I had to learn that the long hard way as a data person. All of my graphic design friends had to really, really repeat that for years. I was so stubborn. I thought, "The data will speak for itself. The graphs are so exciting. Who cares if I cover is just some Microsoft Word template or default or something." They're like, "Ann, the covers do matter. First impression matters."
- Jon Krohn: 00:42:07 The cover or the whole report?
- Ann K. Emery: 00:42:09 The first page of your PDF. Or if it's a report embedded in a website, like the front page. That absolutely matters. I'm a big fan though... If you're a graphic designer for a living, go do all your fancy bells and whistles with your covers. Of course, that's a big part of your job is making things beautiful and eye-catching and well designed. But if you're a data person, I told you I'm a spreadsheet person at my core, I don't think the data people should spend too much time on covers. My rule is 20 minutes. You're making a 20-minute cover. I have some tutorials in my blog. If you Google 20 minute report covers or Ann Emery 20 minute covers. I show you exactly how to do this in PowerPoint. You can do it in Word. You can do it in Canva, publisher. You can do it in any of the software programs of adding a beautiful photograph. Typically, a photograph.
- 00:42:58 It's nice for audiences to have photos and graphs to remind them of the humans behind the data. They typically do a full screen photograph and some large text about the report, and that's it. It's just nice, beautiful, 20 minute cover.



- Jon Krohn: 00:43:14 Nice. All right. Those were great tips for reports. All right, so we've done a bunch of your courses so far. Database we started with, then Excel specifically, reporting. Another course you have is on dashboards. So a specific question for you on dashboards, when do we want to have an interactive dashboard versus a static dashboard?
- Ann K. Emery: 00:43:39 Yeah, this is... What did I say before that you said wasn't controversial? Just don't collect data you're not going to use.
- Jon Krohn: 00:43:46 Yeah, that's right.
- Ann K. Emery: 00:43:48 I'm so glad you said that because we'll see if you think this next thing is controversial or not. We'll give the Jon stamp of is this going to make people angry or not? I don't think we should design interactive dashboards for non-technical or busy audiences. I don't think that the executive director of a nonprofit or the director or president or vice president of such and such, I don't think asking them to have a separate login, username and password, one more thing they have to remember. Sure, there's like password manager. It's one more thing for them to remember. They have to go to some specific URL. They have to know which windows to click on. We have 50 different graphs. They have to use a little checkboxes and drill down. Yes, there are exceptions to that. There are some dashboards that are perfectly easy to navigate, that have had enough staff time and budget that it's already gone through a whole data storytelling edit and simplification process.
- 00:44:47 But the vast majority of dashboards are just like... It's just the data volume challenge. It's just so much data for some busy, important person to dig through. And sure, the audience is highly educated, and they're motivated, and they're hardworking, and they're capable of reading the graphs, I just don't think they have the time, and I



don't think that's also a good or ethical use of funds to spend tens of thousands, or in some case, like millions of dollars, on dashboard licenses that nobody's going to use and they end up as dusty dashboards at the end of the day. I'm a big fan of one-pagers, two-pagers, like bring a printed PDF to an in-person meeting, put the data on the table in front of them, talk them through the insights that you see, ask them what other data they need for the next meeting, like focused on a couple key graphs. I've found that to influence business decisions much better than asking somebody to wade through all the data in your repository that you've ever collected in your whole life.

Jon Krohn: 00:45:52 That makes perfect sense to me. We can end up wasting so much development time and therefore money on creating fancy, interactive dashboards that no one ever logs into, never looks at. People that do log in have to potentially struggle to find the insight that they're looking for, when part of the job of the person who's doing the data reporting should be to summarize the key elements and use your reporting tips, your data visualization best practices to get an as concise as possible a document into the executive or the decision maker so that they can just quickly get the information they need, get the insight that they need, and be able to go onward with their day, instead of fiddling with your dashboard, your expensive dashboard. So not only does this approach of having static dashboards, as you describe, save time and money, it also makes decision-making easier. So it's a win-win probably in a lot of scenarios.

Ann K. Emery: 00:46:57 You get a faster turnaround time. If you're a Google Sheets person, you know about spark lines. Excel does these little data bars. They're like miniature within cell bar charts. I think Sheets does that too, right? Does it? I think it does. It's probably equals data bars. Ben Collins probably has a blog post about it. You can do conditional formatting in Google Sheets and Excel and other



spreadsheet programs where you have a table and you add some instant color coding on top of it. Those types of quick visuals that then you... I recommend distributing them as a PDF because so many busy people have their phones and tablets. and I know a lot of people are still working virtually, but for groups that are working in person, those busy people, they're like walking down the hallways to their next meeting. They're in meeting after meeting. They don't have the luxury just sitting at their computer and opening up this full-size dashboard, but they can open their inbox and see a simple one-page PDF attachment displayed correctly. Yeah, so I'm a big fan of the one-pagers. Absolute big fan of that.

- Jon Krohn: 00:47:57 Very practical. And then my final kind of top tip question for you is from the final kind of course that you teach, which is on presentation. So if somebody's done a report or they've created a dashboard, the key final step in the process of telling a story with data could be giving a presentation. So do you have top tips for succeeding at that final stage of data storytelling?
- Ann K. Emery: 00:48:26 Oh, there's so many. I typically teach this as a one-day class or a two-day class. I just taught this yesterday. Literally yesterday, I did four hours for a transportation agency. Oh, if I had to pick one, I would say... Are you familiar with the phrase, kill your darlings? It's a literature phrase.
- Jon Krohn: 00:48:47 No. No.
- Ann K. Emery: 00:48:47 I don't know if it's a Mark Twain or a Hemingway. Somebody listening knows. You all can Google that too. Kill your darlings in literature means you write your story, maybe you're really invested in your characters, you love this one scene you wrote at the end. As part of your editing process, you might have to kill off your main character, or you might have to delete that scene that you



personally love. You're letting things go that are personally wonderful to you for the good of the story as a whole. So we have to do that to our reports. We have to do that to our dashboards. We have to do that to our presentations. So what I see a lot of people do is they are brainstorming for their presentation. They're prepping. They open up PowerPoint, they make all their slides. Let me have my intro slide. Let me have this slide. Let me have all these charts. Let me have the question slide. All the slides. We make all the slides.

00:49:39 At the end, you don't even have to delete your slides. You zoom out on your PowerPoint into slide sorter mode. It's where you see the little previews. You see all the little thumbnail size previews of all your slides. You can right-click on the slides that aren't central and you just hide them. You just tuck them away. So you might have brainstormed... The number of slides doesn't really matter. I think in general, we need more slides with less on them, rather than fewer crammed slides. Let's just say you have 20 slides for a nice even number. You might hide five of them and maybe you're left with the 15 core slides. You don't have to delete it because you might need that slide for a future presentation. I wouldn't want somebody to spend an hour making it and then, "Oh, well, Ann Emery said delete it. Now she wasted an hour of my time." No. No, just hide it.

00:50:30 You can use it in the future. Or if somebody asks a question, you look so prepared because you can just click on that slide, the just in case slide, and their answer appears in that beautiful, well formatted graph that's decluttered, that has the dark colors, that has the storytelling title, and you look like the most prepared person on the planet as well. So everybody wins. You win as the presenter, the audience wins because they're mostly just getting the core information and not the little extra stuff as you go as well.



- Jon Krohn: 00:51:01 Nice. I love it. So kill your darlings, hide those slides that might be personally dear, but aren't critical to the story that you're telling to this particular audience. That makes a lot of sense to me. You also alluded to another great tip there, which is that we might want to have more slides with less information on them. And something else that we talked about before we started recording was this idea of not just having text, not just having the bullets that you're planning on reading. That's my big presentation tip. Yeah, so a big thing for me is I might have bullets on a slide that are a few words that express a topic that needs to be covered, but you can't verbatim be reading your slides. That is a nightmare. Because anybody sitting watching your presentation cannot read and listen to what you're saying at the same time.
- 00:52:01 Unless you're literally reading the slide, but that's also really boring, you're going to be pressing next, you're going to be pressing the right cursor or pressing your click or whatever, you're going to be revealing this long sentence, which will then automatically cue the viewer to start reading that long sentence while simultaneously you're kind of describing the sentence in different words.
- Ann K. Emery: 00:52:23 Right. But even if you are, I mean, that's death by PowerPoint if you're reading off your slides, even if you are reading a sentence, and you said the audience is reading along with you, false. They're reading faster because we right read faster than we can speak. I think it's like one and a half times fast... Don't quote me on that, but there's stats on this of how quickly we can read. So you're reading the first sentence, and the audience, they're reading the second, third, fourth sentence, and they're bored to tears. If you're saying something, but they're looking at something else and there's that mismatch, that's death by PowerPoint. What we say should be exactly what people are looking at. We could have a whole podcast episode on how to not read off your

slides, how to reduce texts on your slide and increase visuals. The easiest thing would probably be take the text and just do a cut and paste and just put it below the slide in the speaking notes section.

- 00:53:20 And that's all your just in case info. That's like in case you're a new presenter or you're presenting on a new topic, maybe you're new to the job or new to the content area, and you get really worried, and you're like wanting to read off the slides. You've got the speaker's notes, but the audience sees just the couple keywords, the large legible graph or diagram or map, and then what they're looking at is what you're saying. You've got that nice cohesion. You've got them engaged in the topic.
- Jon Krohn: 00:53:50 Yep, yep. You're preaching to the choir. Of all the things you've said today, that is the one thing that I do do well,
- Ann K. Emery: 00:53:57 Podcast title is, just delete everything. Just use less. Just use less.
- Jon Krohn: 00:54:03 Delete all your data, all your text, but leave the visualizations, as long as those visualizations have just one clear spaghetti line-
- Ann K. Emery: 00:54:11 Just the key points.
- Jon Krohn: 00:54:14 ... and an annotation. Cool. All right. So brilliant. So many great tips that you've provided to us today across data visualization, data storytelling, Excel tricks, dashboards, reporting, presentations. I love it. But I did promise our listeners at the beginning of the episode that they would get to hear about your very interesting lifestyle. So one year before the pandemic, you decided to travel with your family full-time while you taught data visualization around the world. What was it like to have a digital nomad lifestyle as a family? Is it something you recommend to data professionals or other people that can

have a lot of remote work? Yeah, fill us in. What was that like? Why did you do it?

- Ann K. Emery: 00:55:06 I've been self-employed since 2014. I traveled a lot for conferences as part of my regular work before that, and I just... Back in the day, most things were in person. We didn't have the same virtual tools. What did we even use for... What did we use before Zoom? Like Skype? What was even before Skype? I don't know.
- Jon Krohn: 00:55:23 Skype, yeah. Skype was a big thing. [inaudible 00:55:24] Yeah. Yeah.
- Ann K. Emery: 00:55:25 Those technologies are newish, right? So a lot of my work used to be in-person, and I would travel to this conference, then I'd go to give a full day workshop for this group, and then I would go do a two-day workshop for this group. And that was great in my 20s. It was a dream come true to be able to fly all over the world, training on site with these groups. But then you add kids in the equation, and I just started to get really homesick. I just wanted to be able to read them bedtime stories. I wanted to be there for bath time. I just wanted to be with my kids. I didn't want to be in airports by myself all the time. And I felt really, really stressed and trapped for a while in there because I thought, "Okay, this is my job. It involves a lot of travel. I've set up this job because it used to be perfect until my life circumstances changed, but then I also have this wonderful family that I don't want to be away from."
- 00:56:17 So it seemed really logical at the time. In hindsight, it sounds wild, but my husband and I were like, "I know, let's just sell everything and not have a house anymore. Let's just do extreme minimalism and...."
- Jon Krohn: 00:56:35 Let's delete that too. You're always deleting.

- Ann K. Emery: 00:56:35 Just delete it. I know, I know.
- Jon Krohn: 00:56:35 Deleting texts from your slides. Let's just delete all our furniture.
- Ann K. Emery: 00:56:38 We lived out of carry-on luggage. All of my recording equipment that I've made courses with fit in my backpack. I showed you my backup mic before recording. I know a lot of people are listening to the audio, but it's got tape on it because it's been to South America and Africa and Asia shaking around in a backpack, and it's the little Yeti mic I used to use because the bigger Yeti mic didn't fit in my backpack. I think I own three pairs of jeans now. You don't need a lot of jeans in Florida. Like three nice fitting pairs is good. Maybe I owned one pair of jeans, one pair of nice black pants. I don't know. It was fine. I wore my favorite outfits every single day. My kids had their favorite toys every day. We just had the key toiletries. I don't know. Somehow it worked. And I traveled all around.
- 00:57:29 It was actually pretty easy to set up. I was booked to go speak in Bangkok for a week through a federal agency and train their staff, and I was like, "Wow, would a dream come true? Diver in a million years did I think I would get to go to Thailand? What a beautiful, amazing place to go to. And not just visit as a tourist, but live and go to the dentist there and take my kids to museums there." And then a coworker of theirs from Vietnam said, "Oh, as long as you're all the way over here, do you want to come to Vietnam next week? And I was like, "I want to go, but not next week. I actually want to be in Bangkok. Can I come next month?" Instead of flying back and forth and back and forth and back and forth between trips, I would just stay there and do remote work in the meantime.
- 00:58:17 So it was great till the pandemic shut everything down and turned my life upside down again, but it was a

wonderful year, even with kids. The kids loved it. I think kids are a lot easier to travel with than maybe adults think they are. The kids were just glad to be with mommy all day, every day.

- Jon Krohn: 00:58:38 Would you have kept doing it indefinitely if the pandemic hadn't hit?
- Ann K. Emery: 00:58:42 We would've done it one more year. We had this perfect window where we had little kids. We had two at the time. Now, we have three. And we were like, okay, "Kindergarten is still two years away. We'll settle down then." I love teaching, but I love teaching adults. I'm not like a homeschooling. I could figure that out if I want to do, but that's not my dream to homeschool my children on the road. So we thought we had this perfect two year window and that we'd settle down after that somewhere, and that timeline just got shifted a little bit.
- Jon Krohn: 00:59:16 Cool. Well, sounds really amazing. And yeah, maybe inspiring to some listeners out there either without families or with young kids that they could still do this with. Sounds really cool. And one last question I have for you about your background is that... So before you had kids, I assume, actually no, I definitely know because of the age of your kids, you did a master's in educational psychology and a bachelor's degree in psych and Spanish. So how did that background contribute to nurturing your interest in data storytelling?
- Ann K. Emery: 00:59:52 Psychology is this tricky degree area where people who aren't familiar with it think it means like you lay on a couch and you hytonitize-
- Jon Krohn: 01:00:00 Like psychotherapy.
- Ann K. Emery: 01:00:01 Yeah, false.



- Jon Krohn: 01:00:01 Yeah. Yeah.
- Ann K. Emery: 01:00:02 Psychology is a lot of research, a lot of research methods, quantitative and qualitative and statistics. I took as an undergrad, 30 or 40 credits worth of stats. I just loved all the quantitative stuff. So I use those skills all day, every day. And Spanish was just this fun hobby, I guess. I also majored in Spanish literature, so I'd read books by Latin American authors and then write on them. Just like we would do an English class. I just happened to do that in Spanish, which is great because being somebody who teaches for a living, in college, I had to give presentations in Spanish, which as a non-native speaker was very... It's very difficult, at least for me. It didn't come naturally to me. So now, just teaching people about data in English is just so much easier in comparison.
- Jon Krohn: 01:00:58 Yeah, I totally understand, Ann, what you're saying about the psychology education there. I also did a psychology degree as one of my majors in my undergrad, and that is basically what gave me my data science training. So in those courses, we were studying how to set up experiments, how to analyze data, how to understand probability theory and statistics. I think the only thing that was kind of missing from that education relative to a formal data science curriculum is that I didn't have programming in there, so I had to self-teach programming later in my master's and my PhD, and then as a professional. I think that the data science curricula today now have that built in.
- Ann K. Emery: 01:01:46 We would've been in college right around the same time, and programming was just starting to be a thing. I hadn't heard of R or maybe it hadn't been invented till after college. I did SPSS. We did MATLAB maybe for like a day. M+ was a thing, SAS, which I know is still around, but it's mostly R now. So yeah, if I could go back in a time machine, I wish somehow R would've been invented.



- Jon Krohn: 01:02:12 Yeah, I think R was around and actually the precursor. So R was an open source version of... Did you say S+?
- Ann K. Emery: 01:02:22 M+.
- Jon Krohn: 01:02:23 M+. Because there was, I believe if I'm, and there's going to be a listener out there that knows this for sure, but R is an open source version of a commercial package that I think was called S or S+. And so somebody took that kind of functionality and syntax and created an open source platform. And that has been around for a while, but it wasn't widespread like it is today. Psych students might be covering that. Anyway, thank you so much for taking the time, Ann, for providing us with so many insights over the course of today's episode. Before I let our guests escape, I ask them for a book recommendation. Do you happen to have one for us?
- Ann K. Emery: 01:03:06 Well, running a company and raising three children just leaves me with tons of time to read whatever I want. So I read lots of bedtime stories, and I'm currently on the Amelia Bedelia series with my first grader. It's her first chapter books. Very exciting, very exciting.
- Jon Krohn: 01:03:24 Do they color the chapters thematically?
- Ann K. Emery: 01:03:27 No, but it's that really flimsy recycled paper, so at you at least you feel like you're saving the environment as you flip through the paper and it's tearing into your hands. No glossy printing for kids' books. Yeah. Someday I'll get back to reading and I'll have a adult fiction or non-fiction book to tell you about.
- Jon Krohn: 01:03:48 Cool. Yeah, sounds great. We would love to have you on the program again. Perhaps unsurprisingly, given your expertise as a presenter and a data storytelling expert... I just used expert twice there. Forgive me. I am not a data storytelling expert, so I will say things like, "You're an



expertise in this expert thing." But given your expertise as a communicator, you were a brilliant communicator on today's program, very easy to understand everything you were saying. You're to the point. You're just an amazing communicator. I wish I could communicate as well as you and our listeners probably do too. So we would love to have you on the show again in the future, and I'm sure that I'll have another episode that I'll have to title, the episode with even more stuff that you must absolutely know, even more than the last time. That's what we'll call that future episode. But between now and then, how can our listeners follow you to stay up to date on your latest?

- Ann K. Emery: 01:04:47 Well, as we're speaking, Twitter is crumbling, so LinkedIn is the best place to get in touch. If people look on LinkedIn for Ann K. Emery, you'll find me. You don't need to write a note or stress over it, just connect. We can be friends on LinkedIn for sure. I have a blog and newsletter and all of that with plenty of resources, but LinkedIn is probably the easiest spot.
- Jon Krohn: 01:05:10 Well, we'll include all of that in the show notes. Ann, thank you so much for taking the time to be on the program today. It's been an absolute delight. And yeah, I'm looking forward to that even more unmissable episode after today's unmissable episode in the future.
- Ann K. Emery: 01:05:24 Thanks, Jon.
- Jon Krohn: 01:05:31 Well, everyone gained a lot of practical knowledge in today's episode. In it, Ann filled us in on how data storytelling simply involves having a takeaway title instead of a topical one, and using a dark color to specifically highlight the particular data in a chart that you'd like to provide an insight on. She also provided data visualization best practices like removing half of the standard plot ink, using dark colors that are distinguishable to colorblind people, and adding



annotations directly onto a chart to explain key takeaways. She also talked about how interactive dashboards are rarely the best use of a developer's time, nor an executive's time. Instead, static reports like a one to two page PDF can be more effective for communicating data insights and orders of magnitude cheaper. She also talked about how slideshows should generally have more slides with less text per slide indeed, visuals and keywords are all you should have on slides, the rest of your text can go in the speaker notes.

01:06:24 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 Ann's social media profiles, as well as my own social media profiles at [superdatascience.com/637](http://superdatascience.com/637). That's [superdatascience.com/637](http://superdatascience.com/637). If you enjoyed this episode, I'd greatly appreciate it if you left a review on your favorite podcasting app or on the SuperDataScience YouTube channel. And, of course, subscribe if you haven't already. I also encourage you to let me know your thoughts on this episode directly by following me on LinkedIn or Twitter and then tagging me in a post about it. Your feedback is invaluable for helping us shape future episodes of the show. Thanks to my colleagues at Nebula for supporting me while I create content like this SuperDataScience episode for you.

01:07:08 And thanks of course to Ivana, Mario, Natalie, Serg, Sylvia, Zara, and Kirill on the SuperDataScience team for producing another deeply practical episode for us today. For enabling that super team to create this free podcast for you, we are deeply grateful to our sponsors, whom I've hand selected as partners because I expect their products to be genuinely of interest to you. Please consider supporting this free show by checking out our sponsors' links, which you can find in the show notes. And if you yourself are interested in sponsoring an episode, you can



get the details on how by making your way to [jonkrohn.com/podcast](http://jonkrohn.com/podcast). Last but not least, thanks to you for listening all the way to the end of the show. Until next time, my friend, keep on rocking it out there, and I'm looking forward to enjoying another round of the SuperDataScience Podcast with you very soon.