

The eLearning Coach Podcast

[ELC085: Generating AI Podcasts for Learning](#)

Connie: Hello, learning people. Welcome to episode 85 of the eLearning Coach Podcast. This is a solo episode. Well, not entirely solo, I've got some artificial intelligence voices with me today. There's a lot of talk about how Google NotebookLM can generate an audio overview of a topic in conversational form using two AI voices you provide or link to the source material. If you are unfamiliar with NotebookLM, it's an artificial intelligence research assistant that you can use to assist with learning. It will synthesize multiple sources of information and generate it in different formats like study guides, FAQs and audio overviews.

In this episode, I thought you might like to hear and react to two short audio overviews generated by NotebookLM. A few cautionary notes. If you plan to use NotebookLM, there may be inaccuracies. I don't know what happens to the content you upload. And Google advises to avoid uploading documents you don't have the applicable rights to. Certainly, check with your workplace, clients and subject matter experts before uploading anything. The first audio overview concerns designing abstract graphics like diagrams and graphs, so that they can be more easily understood. I uploaded a chapter from my book, Visual Language for Designers. Here's the AI-generated deep dive, as they call it.

AI Male Voice: Ever feel like some charts just click, like you get it instantly, but then others you're totally lost? Where's the legend to this thing?

AI Female Voice: It's funny you should say that.

AI Male Voice: It's not just us, right?

AI Female Voice: No, not at all. There's a whole science actually behind how our brains process visuals, especially when it comes to things like diagrams and infographics.

AI Male Voice: Okay, so we're not just design dummies.

AI Female Voice: No.

AI Male Voice: There's something else at play here.

AI Female Voice: Totally. And it's way more than just making things look pretty. Like there's actual cognitive psychology, a little neuroscience even, that goes into making a visual really hit the mark.

AI Male Voice: Okay, so we've got a stack of research here about visual perception and design. Where do we even start? What's the mission for this deep dive?

AI Female Voice: Well, I think the big question is what makes a visual work? What makes us stop and actually absorb the information? And then, how can designers use those brain tricks almost, to make information clearer, maybe even a little more fun to learn?

AI Male Voice: All right, so let's decode those brain tricks. First up, I've heard this before, that our brains process images way faster than text. Is that true?

AI Female Voice: Oh, absolutely. Think about it. If a car slams on its brakes in front of you, your brain is reacting before you've even had time to think, "Danger."

AI Male Voice: Oh, for sure. That's instinct.

AI Female Voice: Exactly.

AI Male Voice: It's like survival mode.

AI Female Voice: We are visual creatures at our core.

AI Male Voice: Makes sense?

AI Female Voice: Yeah.

AI Male Voice: But I'm guessing that speed comes with a trade-off, right?

AI Female Voice: You're absolutely right. Our brains, they love shortcuts. Great for survival. Not always ideal for understanding, say, complex data.

AI Male Voice: Okay, I see where you're going with this.

AI Female Voice: For instance, you know those bubble charts?

AI Male Voice: Oh yeah.

AI Female Voice: We're terrible at the differences in those circle sizes.

AI Male Voice: I always get tricked by those.

AI Female Voice: Right. One company could be twice the size of another, but on the chart, the bubbles barely look different.

AI Male Voice: So, designers, they really need to be aware of how we're visually tricked, especially with data.

AI Female Voice: Huge.

AI Male Voice: It's like those optical illusions that mess with your perspective.

AI Female Voice: Exactly. And here's where it gets even more interesting. Chart junk. All those extra visual elements, some people hate them, think they're distracting, but studies show that detail when it's done well can make us remember the information better.

AI Male Voice: Wait, really? So, it's not always about less is more, stripping it all down?

AI Female Voice: Not at all. Think about those crazy detailed infographics you find in National Geographic, right?

AI Male Voice: Oh yeah, yeah. They're like works of art.

AI Female Voice: They can be overwhelming, but all that detail, it helps us build a mental map of the information. It sticks with us.

AI Male Voice: So, it's more about choosing the right details, the ones that are going to make people actually connect with what they're seeing.

AI Female Voice: Exactly. And that brings us to another biggie. The power of abstraction. Think about airplane safety cards.

AI Male Voice: Oh, okay. Yeah.

AI Female Voice: They're not showing you photos.

AI Male Voice: No simple drawings.

AI Female Voice: Exactly. It gets the point across fast.

AI Male Voice: It's true. You don't want to be studying a detailed photo of how to put on a life vest when you need to act fast.

AI Female Voice: Exactly. Simple line drawings, even if they're a bit abstract, our brains just get them instantly. It's about highlighting the absolute essential information and cutting through all the noise.

AI Male Voice: So, it's that balance, finding that sweet spot between making it clear, but also interesting enough that we want to pay attention.

AI Female Voice: Right. And there's actually a bit of history here. Back in the early 1900s, there was this guy, Otto Neurath, who was way ahead of his time. He really got the power of visual language.

AI Male Voice: Okay, Otto, I'm intrigued. What did he do?

AI Female Voice: So, Neurath, he believed that you could communicate really complex ideas with simple, clear visuals, across languages even, didn't matter if you could read or not.

AI Male Voice: Wow. So, he's like the OG visual communicator, making information accessible for everyone.

AI Female Voice: Exactly. And one of the best examples is this chart he did about fabric production in Britain. Just a few simple icons, a timeline, and boom, he shows the whole shift from these small family businesses to huge factories.

AI Male Voice: Wow. So, powerful how just a handful of visuals can tell such a big story. It's not just a bunch of numbers and lines on a page, there's a whole art to it.

AI Female Voice: Exactly. And as technology changes the way we use visuals to communicate, that's evolving too.

AI Male Voice: Okay, so we've talked about static visuals. What about interactive ones? Those are everywhere now.

AI Female Voice: Totally. Interactive graphics, they take it to a whole other level. Instead of just looking at something, you get to play with it. You uncover things you wouldn't see otherwise.

AI Male Voice: So, it's less like, "Here's the information," And more like, "Come on, let's go explore this together."

AI Female Voice: I like that. Think about election maps. You're not just seeing the final result. You can zoom in, go state by state, even county by county. See voting patterns, all that. You become your own data detective.

AI Male Voice: It's like those interactive maps you see online where you can zoom in and explore different layers of information.

AI Female Voice: Exactly. And that level of control, that agency, it really helps us get into the data and understand it better.

AI Male Voice: So, it's not just about making it look pretty, it's about giving me, the user, the tools to actually work with it.

AI Female Voice: Totally. And there's actually a name for that in design. Affordances.

AI Male Voice: Affordances, okay. That sounds technical. What's that mean?

AI Female Voice: So, affordances are basically visual clues that tell us how to interact with something. Like a door handle, whether to push or pull just by looking at it. Same idea with these graphics.

AI Male Voice: Oh, okay. I get it. So, if I'm looking at a chart and there's a button that's a slightly different color, I know I can click on it to, I don't know, filter the data or something.

AI Female Voice: Exactly. Or maybe there's an animation that shows me I can zoom in on a certain area. It's all about making the experience intuitive so you don't even have to think about it.

AI Male Voice: So, it's like learning a visual language, but it's so well-designed you don't even realize you're learning a language.

AI Female Voice: Exactly. And those little design choices, they make a huge difference in whether people actually get what they're looking at.

AI Male Voice: Okay. So, we've talked a bit about those super detailed infographics, the ones that some people call chart junk. Is there ever a time when those extra bells and whistles are actually helpful?

AI Female Voice: That's a great question and it's something designers argue about all the time. Minimalism is great, don't get me wrong, but there's more and more research saying that details, when they're done right, can help us remember things better, understand them better.

AI Male Voice: Really. So, it's not always about making it as stripped down as possible?

AI Female Voice: Sometimes, but think about it, our brains, they love patterns. We're constantly looking for connections, and sometimes those little details, they help us make those connections easier.

AI Male Voice: So, it's like they're giving our brains little hints, little clues to latch onto.

AI Female Voice: Right. Think about a funny little illustration on a chart or a metaphor, it just makes it more memorable. You're more likely to remember it later.

AI Male Voice: So, it's like anything else, it's about balance. Too much and it's overwhelming. Not enough, and it's boring.

AI Female Voice: Exactly. You've got to find that sweet spot where the details are supporting the message, not fighting against it.

AI Male Voice: It's like that saying, too much of a good thing.

AI Female Voice: It can be wonderful.

AI Male Voice: Right. I love that. Okay, I want to talk about National Geographic. Their infographics are always amazing. What are they doing over there?

AI Female Voice: Well, they really understand their audience. People pick up National Geographic because they want to learn something new. Explore.

AI Male Voice: For sure. They've got amazing photography, but they don't shy away from the details.

AI Female Voice: And they've got this incredible team of designers, researchers, storytellers. It's like a perfect storm of art and science.

AI Male Voice: I remember this one interactive piece they did. I think it was about ocean currents.

AI Female Voice: Oh yeah, that was cool.

AI Male Voice: It was mesmerizing. You could see how everything was flowing together.

AI Female Voice: They used real-time data for that and animation. It was beautiful. But also you learn so much just by watching it.

AI Male Voice: It's amazing how they can take something that could be so dry, ocean currents, and make it something that you actually want to sit and stare at for an hour.

AI Female Voice: They're masters at making it accessible, but also really beautiful.

AI Male Voice: It really shows that good design is about so much more than just aesthetics. It's deeper than that.

AI Female Voice: It's about telling a story.

AI Male Voice: Yes, and knowing who you're telling it to.

AI Female Voice: You and your audience. That's huge.

AI Male Voice: Okay, so we've covered a ton of ground here. As we're wrapping up our deep dive into visuals, what's the one big takeaway you want to leave people with? When our listeners are out in the world facing down a chart, what should they keep in mind?

AI Female Voice: I think the biggest thing is to remember that communication, even visual communication, it's a two-way street.

AI Male Voice: Okay, explain that. What do you mean?

AI Female Voice: It's not just the designer throwing information at you and you're just passively absorbing it.

AI Male Voice: There's got to be some give and take.

AI Female Voice: Right. The best designs, they meet you halfway. They make you think, they make you curious.

AI Male Voice: So, it's like a conversation almost, between you and the designer.

AI Female Voice: Exactly.

AI Male Voice: You're both working together to make sense of the information.

AI Female Voice: And that means the designer needs to understand how our brains work, how we see things. They're using all these little tricks to guide your eye, make you pay attention to certain things.

AI Male Voice: So, it's almost like a visual language. And the designer is the translator. They're taking something complex and making it understandable.

AI Female Voice: I like that. And when it's done well, you don't even realize how much work is going on behind the scenes. It just clicks.

AI Male Voice: Exactly. This has been so eye-opening. I feel like I'm going to be looking at infographics in a whole new way now.

AI Female Voice: That's great to hear. Because at the end of the day, whether we realize it or not, we're all visual learners. We're surrounded by this stuff.

AI Male Voice: It's true. Charts, graphs, maps, diagrams, it's everywhere you look.

AI Female Voice: And by understanding a little bit about how it all works well, it makes you a smarter consumer of information. But it also, I think gives you the power to create better visuals yourself.

AI Male Voice: Absolutely. It's like anything else, the more you know, the better equipped you are to navigate the world around you.

AI Female Voice: Well, on that note, thanks for joining us for this deep dive into the fascinating world of visual communication. It's been a pleasure picking your brain about all things design.

AI Male Voice: Anytime. This is what I love to talk about.

AI Female Voice: And for our listeners, keep those brains engaged. Keep asking questions and we'll catch you next time for another deep dive.

Connie: I have a lot of reactions to this audio overview, which some people think of as a podcast. It sounds more like AM talk radio in the US to me. Anyway, even though the discussion sounds somewhat fake and misses the mark at times, I do think creating this type of conversation in five minutes or less is an impressive feat. Did you notice at the end, the speakers switched roles? In terms of credibility, the overview was inaccurate. There were misinterpretations of ideas and concepts and there is no mention of a national geographic graphic in the chapter I uploaded, yet Google states that the entire conversation relies only on the source material.

I'd also like to hear more diversity in the voices. I understand that the tool is in the experimental stages and I think the next example is better. Which made me realize that at this point, GoogleLM will create a better audio overview with straightforward content rather than complex or nuanced material.

For the second audio overview, I chose a medical topic that is not particularly well-known. So, I linked two pages on the Cleveland clinic and Mayo Clinic sites about deep vein thrombosis or DVT. It just came to mind because I once made a course for healthcare staff on this topic. I imagine how helpful it could be to listen to an introduction to an unfamiliar subject, for example, on my way to a meeting with subject matter experts. So, at least I have some idea of what they're talking about. An audio overview would be a wonderful time saver and perhaps a painless way to get introduced to a new subject. Here's five minutes of that audio overview. I cut it short because it went on for 15 minutes, and that's enough to get the idea of how NotebookLM would deal with this type of content.

AI Female Voice: Welcome back to the deep dive. Today we're going to put on our detective hats and take a deep dive into the world of deep vein

thrombosis or DVT for short. We've got a stack of medical articles right here, ready to extract all the need-to-know info for yet.

AI Male Voice: Yeah, it's a condition that can be surprisingly common, and a lot of people don't even realize they have it.

AI Female Voice: Right. So, let's start with the basics. What exactly is DVT?

AI Male Voice: Essentially, it's a blood clot that forms in a vein deep inside the body, most often in the legs. And it can be dangerous because if part of that clot breaks off, it can travel to the lungs causing a pulmonary embolism or PE.

AI Female Voice: Okay, so not just a leg issue then, it can become a serious whole body problem. That's why we're doing this deep dive, to understand DVT inside and out.

AI Male Voice: Exactly. And one of the things that makes DVT so tricky is that it can be completely silent with no noticeable symptoms at all.

AI Female Voice: Wait, so you could have a potentially dangerous blood clot forming and not even know it. That's scary.

AI Male Voice: It is, but even when symptoms do appear, they can be easy to miss or dismiss. You might notice some swelling in the leg, maybe some pain or tenderness or a feeling of warmth in the affected area. Sometimes the skin might change color becoming reddish or purplish.

AI Female Voice: So, if you see any of those signs it's straight to the doctor, right? No waiting to see if it goes away on its own.

AI Male Voice: Absolutely. Early diagnosis is key when it comes to DVT.

AI Female Voice: Got it. Now, what causes these blood clots to form in the first place?

AI Male Voice: Well, there are two main triggers. The first is damage to a vein, which can happen after surgery or an injury.

AI Female Voice: That makes sense. If the veins damage, it could disrupt blood flow.

AI Male Voice: Right. And the second trigger is inflammation often caused by an infection. This inflammation can damage the vein and also make the blood more likely to clot.

AI Female Voice: So, it's not just about the physical damage to the vein, but also about changes in the blood itself.

AI Male Voice: Exactly. Now these are the direct triggers, but there are a lot of other things that can increase your risk of developing DVT.

AI Female Voice: Like what? Fill us in.

AI Male Voice: Well, age is a big one. The risk of DVT goes up as we get older, especially after age 60.

AI Female Voice: Okay, so age is a factor. What else?

AI Male Voice: Inactivity is another major risk factor. If you're sitting for long periods, like on a long flight or car ride, it can slow down blood flow in your legs and increase the risk of clotting.

AI Female Voice: Ah, the dreaded economy class syndrome. I've heard about that.

AI Male Voice: Yes, it's a real concern. And speaking of travel, pregnancy also increases the risk of DVT because of the increased pressure on the veins in the legs and pelvis. This risk actually lasts for several weeks after childbirth too.

AI Female Voice: Wow. So, many things to consider. What about medications? Can those affect DVT risk?

AI Male Voice: Definitely some medications like birth control pills and hormone replacement therapy can alter the body's clotting mechanisms and increase the risk.

AI Female Voice: Makes sense. Anything else in the lifestyle department that we should be aware of?

AI Male Voice: Being overweight or obese can increase your risk because the added pressure on the veins. And smoking damages blood vessels and affects clotting. Making it a double whammy when it comes to DVT risk.

AI Female Voice: So, many risk factors. It's starting to feel like a minefield out there.

AI Male Voice: Well, it's important to be aware of these risks, but don't panic. It doesn't mean everyone with these risk factors will automatically develop DVT.

AI Female Voice: Right. It's about understanding your individual risk profile. Now, before we move on to diagnosis and treatment, you mentioned earlier that there are also some underlying medical conditions that can increase DVT risk.

AI Male Voice: That's right. Conditions like cancer, heart failure and inflammatory bowel disease can all contribute to an increased risk of DVT.

AI Female Voice: And you mentioned genetics playing a role too, right?

AI Male Voice: Yes. There are some inherited clotting disorders like Factor V Leiden that make a person's blood more prone to clotting. If you have a family history of DVT or other clotting disorders, it's worth bringing it up with your doctor.

AI Female Voice: Okay. So, family history is definitely something to be aware of. Now, all of that is fascinating, but let's say someone suspects, they might have DVT based on the symptoms we discussed earlier. How is it actually diagnosed?

AI Male Voice: The gold standard for diagnosing DVT is a test called a duplex venous ultrasound.

AI Female Voice: Sounds fancy. What is that exactly?

AI Male Voice: It's actually a very simple and painless procedure. It uses sound waves to create images of the blood flow in the veins, allowing doctors to see if there are any blockages or clots.

AI Female Voice: So, it's like a sonogram for your veins?

AI Male Voice: Exactly. It's a non-invasive way to get a clear picture of what's going on inside those deep veins.

AI Female Voice: That's reassuring. So, ultrasound is the main diagnostic tool, but are there any other tests that might be used?

AI Male Voice: Sometimes depending on the situation, other imaging tests like venography, MRI or CT scans might be ordered.

AI Female Voice: Okay. So, a variety of imaging techniques can be used to get a definitive diagnosis. What about blood tests? Do those play a role?

AI Male Voice: Yes. Blood tests might be ordered if there's a suspicion of genetic clotting disorder.

AI Female Voice: So, if someone has a strong family history of DVT, blood tests could help uncover any underlying genetic factors.

AI Male Voice: Exactly. And blood tests can also be helpful in ruling out other conditions that might be causing similar symptoms.

AI Female Voice: It sounds like a comprehensive approach is needed to get to the bottom of DVT.

AI Male Voice: It is. And the good news is, once DVT is diagnosed, there are effective treatments available.

AI Female Voice: That's a relief to hear. So, let's talk about those treatments.

Connie: I think this type of overview would be helpful before working with knowledgeable people when you don't know a thing about the topic. I know for many of us the ability of AI to synthesize information rapidly is astounding and the conversational tone is a little unnerving. What are your thoughts? You can comment and download a transcript of this episode at thelearningcoach.com/podcast/85. That's the number 85. Take care. Leave your comments and I'll talk to you next time.

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