ELISA EDELBERG: Thank you for joining this webinar entitled No Learner Left Behind-- Designing and Delivering Accessible Learning Programs. My name is Elisa Edelberg. I'm from 3Play Media. And I'll be moderating today. And I'm joined by Dr. Maureen Orey, founder and president of Workplace Learning & Performance Group.

And with that, I'll hand it off to Dr. Orey, who has a wonderful presentation prepared for you today.

MAUREEN OREY: Awesome. Thanks so much, Elisa. I appreciate the opportunity to be here this morning-- or this afternoon. And so good morning, good afternoon, good evening, depending what time zone you're in. I am happy to share this information with you. I have presented this at a couple of different conferences-- the Association For Talent Development. And I've written some articles, and so forth, along this content as well.

Let's jump right in. The focus of this is called No Learner Left Behind. Really, it's focused on, how do we design and deliver learning programs that are accessible to all different types of learning needs. The different aspects for designing learning, our outcomes for today's session--

We'll explore how we really create accessible learning programs. What are some concepts? I mean, granted, in 45 minutes, we can't change the world yet. But we will take a look at, how do we create an accessible learning program, whether it's how we look at visuals and activities, and how can we perhaps consider engaging the learners in the environments? And then, also, look at, how do we access learning, or test your system, and integrate perhaps even with your LMS? We'll touch on things from a very high level.

Let's go ahead and move to the next slide. It's titled Inclusion & Synergy. And, as we look at creating an accessible at Section 508 compliant, if you would, learning program, there are three main considerations. One is, how do we design for a variety of learning environments? How do we really plan to accommodate that full range of accessibility needs? And there's a lot of needs people don't always think about, which is why we're exploring this topic today. And then how do we really acknowledge both visible and invisible disabilities?

I think sometimes people fall into the trap of, they think of a person with a disability and they think of obvious physical disabilities, which really the larger percent of individuals have invisible disabilities, anything from a learning disability to a motor coordination issue, to an ambulatory issue, where they are not able to walk or ambulate, as well as others. Those are the three main considerations.

And I've designed a matrix, if you would. And we're actually going to be sharing this matrix with you following the webinar. And I'd like to look at the learning environment in three major categories.

Essentially, we have a face-to-face environment, the traditional classroom environment. And there's certain different types of scenarios or classroom training-- for example, coaching or on-the-job training. Some of those considerations need to be looked at in, how do we really make our content and information accessible in a face-to-face environment?

And then there's an environment like this, where we're online. It's instructor-led, and yet we're live. It's collaborative. We can have the push and pull with questions, and chat, and participation, and polls, and so forth. And there are certain design needs that we have to consider as we design for a webinar. Having the live closed captioning, for example, is something a lot of organizations tend to forget to do. And so that's another topic we'll explore.

And then the third column is really looking at that online what we would call asynchronous learning environment, where it's totally independent of a live instructor. Someone can go in, whether it be a website or an e-learning course, with videos and interaction. Have you considered the design implications for that environment, where there's not someone who can respond to questions as you proceed?

So if you blend those three main learning environments with the four key aspect needs, or access needs, for individuals that we find in our classrooms, there are auditory access needs. Can you hear me? Can you hear me now? Right? Can you hear me well? Are you deaf? Are you 100% deaf? Is your hearing just going bad? Or perhaps it's a cognitive processing issue as well, which is on the chart here.

Then there's visual learning needs about being able to see the content, whether it be colors, structure, and so forth, or simply being able to see the size the font. The physical aspects of access, such as the ambulatory access to the room itself. Or if you're in an online environment, how well do you navigate with the mouse, whether it be physically? Can you use a mouse or not? And then cognitively is where we get into the domain of learning disabilities and cognitive processing difficulties. So those are the four main access needs.

And then we start to put it all together. And what we'll focus on is looking at what I like to call the learning environment and then access matrix. This is the one sheet that we'll be sharing with you after the webinar, where we really start to look at the auditory access, for example, in

all three different environments.

So the first row of this matrix starts to demonstrate what you have to consider when you're face to face, or in a webinar, or in an asynchronous learning environment. And the interesting thing that you start to see is that, sometimes, the different ways we can accommodate can be used in a different variety of methodologies, and different environments.

And so, whether it be closed captioning, or providing transcripts, or even a script of the session. If it's something that is on a video, for example, can you provide a script, or can you provide live captioning? Some of the methodologies will cross the different learning environments, and some will not.

For example, on this first matrix is, are you going to use a live person, who's going to be doing American sign language? And is American sign language going to be the sign language that's universal for your class? And do you know the needs of the particular learners in the class?

And if we move to the next slide, where the learning environment and access matrix talks about, how do we have visual access? The visual access row demonstrates, again, that they're different. Are we going to have visual, a hard copy and soft copy in a live classroom environment? Have you anticipated that?

So here's an example. I was with a client recently. And there was probably about 40 people. I was facilitating a Train the Trainer session. And one of the individuals comes up during a break and asks-- she says, I can't really see. I forgot my magnifier in the car. And the car is too far away. I can't really read these materials. Can you get me these materials in a larger font, in larger print?

And my main point of contact started stressing out. She's like, I don't know what to do, because it's a very large Fortune 25 company. And she didn't want to not have that content accessible. So she was a little bit freaked out, for lack of a better term, by that.

And I said, oh, it's simple. Because actually, she had designed the handout using PowerPoint. So she had the slides, and she had all of her content in the Notes section. And so I simply went into PowerPoint. I did a Select All, enlarged it to a much larger font, and printed it.

Now, because it was an instructor guide for this particular trainer, it made what was a 10-page handout a 55-page handout. But we were easily able to simply enlarge the font, print it. The

content stayed within the boxes of the instructor guide section. And it was a really simple solution that perhaps not everyone would think about how sometimes simple our solutions can be. It was something as simple as making a larger font.

For example, in this environment, we do have live chat. We have live closed captioning. Yet, sometimes in a webinar environment, that's not as accessible for someone with a visual disability. And can you ensure that the software you're using does have as much access?

Or if not, how do you address that? How can you make that chat available afterwards, for example, and so they could see the whole stream of consciousness that's actually occurring in the learning environment?

For example, one of the considerations for an asynchronous e-learning environment is you can't use terminology such as, click here, because, click here, is not helpful if you can't see where here is. Or you can't design for a drag-and-drop-type activity in a learning environment because if someone cannot use drag-and-drop visually, that content won't be accessible to them.

And screen readers are fantastic. I have a few friends who are blind. And screen readers are fantastic to help provide access to the content. Although, keep in mind that the screen reader starts in the top left corner of the screen and goes down. It goes down almost in a column type of format. It goes to the bottom of the page. And it moves to the right. It goes back up to the top. Reads down to the bottom of the page. And so it will read the content.

But if your content isn't designed with that architecture in mind-- because I don't know about you, when I design content, I might be all over the page. But then you really have to look at, how does that screen reader interface with it, in reference to the architecture of the content on the page itself?

Another consideration-- if we go ahead and click to the next slide, Elisa-- is designing accessible visuals. And here's a picture with someone doing storytelling. This one has children in the environment. And one of the considerations, when we're looking at designing accessible visuals, is, are we providing both the content and the context of the slide?

And sometimes, for example, we want to incorporate emotion by the use of visuals. So this slide has a picture with an older person sitting in a rocking chair, with a hand puppet on her hand. And she is asking the children a question, I believe, because the children have their

hands raised. And that's demonstrating a little more context. And if you can't see that visual, you're missing some of the content.

Let's demonstrate that, and practice that, with Alt Text for pictures. I imagine that you've seen, popping up on your screen, and if you hover over a picture, a description of a picture when you are online on a web page or what have you. And when you consider Alt Text, Alt Text is alternative text that really demonstrates and describes the pictures or the visuals that are being presented.

I'm going to have you put into chat-- and Elisa, if you can perhaps read some of these that come up. I'm going to put up a picture. And I want you to think about, how would you describe this picture in one sentence? Because often, Alt Text only has one picture. If you go ahead and click to the picture, you're seeing a picture of a cat and a dog.

I will say, how would you describe this picture in one sentence in Alt Text? Well, Elisa, if you can kind of monitor that chat there, and see what people say.

ELISA EDELBERG: Yep. Now, I lost it.

MAUREEN OREY: Thank you.

ELISA EDELBERG: So we have a couple of people who-- so we have a couple people commenting what they would say for Alt Text. Someone says, "can a cat rest on the floor?" Someone else says, "cat sleeping on large dog bed." A couple more coming in here. We have, "a calico cat is perched on a dog bed, while the dog lies on the carpeted floor." "Cat resting in dog's bed, while dog is on the floor." "A dog sleeping on the floor while the cat is in the dog's bed right behind the dog."

MAUREEN OREY: Excellent.

ELISA EDELBERG: "This is a cat in a dog bed with a dog laying beside it."

MAUREEN OREY: Absolutely. Cool. Thank you. That's great.

Really, the context of the picture is there's a bit of a power play going on, right? The cat has taken over the dog's bed. And it could be a visual someone uses to demonstrate-- what do

you call it-- passive aggressive power perhaps. Who knows? You could go a lot of different directions with a picture like this. And it's kind of amusing.

And I like to use this picture just because it really does help, I think, demonstrate the importance of a good description for Alt Text. Because I don't know about you. I have seen-- within computers now, we have the technology that a computer can scan, or software can scan, a picture, and they just automatically come up with Alt Text.

So if you've seen Alt Text for pictures or descriptions of pictures, and it's all wrong, generally it's because it's just this computer-automated technology that's just coming up with a descriptions that's not individual humans. And it's really easy to right click on that and change the description. You're not stuck with that description, just so you know. Because sometimes, it's really important to describe it more accurately.

Let's go ahead and hit the next slide, Elisa. The next slide is one more chance to practice. This one is more workplace-related. And if you look at this picture, there's three people in a meeting. I'll just say that. Let's take another stab at, in perhaps one sentence, how would you describe the context of this picture? Go ahead and put it into chat, please.

And once those start popping up, Elisa, go ahead and read me a few of those as well.

ELISA EDELBERG: Yep. Waiting on some responses. So we have someone who says, "corporate power struggle." Someone who says, "who's boss?"

MAUREEN OREY: Yes, it's hard to know who's the boss, right?

ELISA EDELBERG: Another person says, "man caught in the middle of an argument between two people at a conference table." Someone else says, "at a work meeting, one man points into the air, the woman folds her arms, while another man puts his hands to his head, as though he has a headache." Someone else says, "three people are meeting-- two men and a woman. The younger man has his hands on his forehead. His face looks frustrated." Another person says, "a business meeting with two men and one woman who appears not to agree."

MAUREEN OREY: Yeah, that's fine. Great. Great descriptions. And perhaps you can see there is perhaps a fine art to really describing these pictures in a short sentence. And really, you can't have a paragraph that is going to describe the whole context of the picture. It needs to be kind of short and effective, because it gets integrated with the rest of the content with a screen reader. And essentially, what we're wanting to do is provide just that additional context.

And we're going to go ahead and go forward to the next slide, which is a graphic. It's a graphic of a model. This model, in particular, is the Phillips ROI methodology. It's from the ROI Institute.

In this one, there's a lot of content on the slide itself. And know that this is a picture image, right? If it were designed in PowerPoint, each of the boxes would be readable, if it were a text box. I've imported this as a picture now, which means the screen reader is not going to read the text on the picture. And, therefore, it becomes just another picture that needs an Alt Text.

And, in this situation, you might be able to put a graphic image of ROI model, or the ROI methodology, or the Phillips ROI methodology. Because you can't really describe all of the text in the picture itself. This would assume that you have-- perhaps you're writing an article. And each of these boxes in this model is going to be described. Therefore, the graphic image is just to say, hey, here's the graphic image of the ROI methodology, which is then explained later in content-- in an article, or a webinar, or a video, or what have you.

And so those are three kind of different layers of creating accessible content visually, especially when it comes to pictures.

One other consideration when it comes to accessing content visually is videos. What do you do with the content on a video? And so I have a quick question, and put it into chat. Are you familiar with-- how many of you are familiar with audio description of videos? And those of you who are there, how would you describe, what is audio description?

Put that into chat, if you would, if you've ever heard of audio description. Maybe raise your hand if you're familiar with it, so Elisa can see the responses.

And, in many ways, I feel like I'm operating blind myself, because Zoom never did start backed up on my computer. [CHUCKLING] So Elisa, you are my eyes right now. What kind of chat is there about audio description in videos?

ELISA EDELBERG: So we have a couple of people raising their hands, saying that they are familiar with audio description. And a number of people are responding in the chat, that they're familiar with it. Some people have heard of it, but don't really know how to achieve it. Someone else is saying that audio description provides narration of all the visual elements. More people seem to be familiar with audio description.

MAUREEN OREY: Great. Excellent. Thank you. Essentially, yes. What audio description. is, is a voice narration of what's going on in a video-- whats' going on visually. So for example, many movies or videos will start with a scene. And what you're seeing on the screen provides context for the rest of the entire movie.

Well, if you imagine that someone can't see that, they lose kind of the setup of the content, or the movie, or the video itself. And audio description is a tool that's been emerging over the last five to 10 years to really help provide additional context for people who need better visual access, whether it be movies or training videos. A friend of mine even does audio description for live theater. And it provides access to more context.

And before I move on to the next section, I'm going to put it out there. What are some questions that have arisen so far? Any questions or comments that I can respond to, in reference to designing content for the three learning environments, and then the four learning needs? We have one more learning need we're going to get to. But go ahead. Submit your questions so far.

ELISA EDELBERG: So we have a couple questions. Can everyone hear me? So we have a couple of questions coming in. Someone is asking, "Is it true that screen readers can only read 125 words?"

MAUREEN OREY: That depends on the screen reader. The technology is changing so rapidly that there's a lot of-- I guess the answer is it depends, right? Because it depends which program they're reading from. Is it reading from PowerPoint? Or is it reading from a website? Is it reading a Word document? And so then it depends on the program itself that you are utilizing, your screen reader.

I'm hesitating, because I'm trying to think of, when would you only be able to have 125 words, for example, on a slide. That's a lot of words on a slide. But in a e-learning environment, you can have more content on a slide. And so that's something you need to double check with the actual screen reader software you are using. Because there's a number of different screen readers out there. And they vary. That's a great question.

ELISA EDELBERG: Great. Someone else is asking, "Can you share an example of an image, or a time, when you maybe wouldn't need to provide Alt Texts?"

MAUREEN OREY: Yes. And this is, I think, debated right now. Because as, again, the technology changes and so forth, is there something that would not be relevant? For example, a company logo. Let's say

you have your company logo on every single slide. You're not going to read that. Like, for example, I have my logo on the slides, I'm not referencing the logo every time I'm on that slide. And it wouldn't be read. Because it would interrupt the learning content if we were having to read that logo every single time.

And so that would be a good example of when you might not need to have that screen reader read that content. Because it's not relevant to the content itself.

ELISA EDELBERG: Thanks. And another question that we have is, "How do you screen readers handle formatting? So for example, if you use bold fonts, does the screen reader identify that in any way?"

MAUREEN OREY: Yes. Yeah. The screen reader can identify it as bold, or italics, or what have you. And, in order to create that separation-- so for example, thinking about your content and your architecture, are you going to do section changes so it knows what a header is versus is it just going to read all that content almost-- I guess the analogy I have is, is it monotone, right?

If it doesn't call out section headings, or bold, or italics, it's almost as if someone is just reading a story monotone without any particular differentiation. So screen readers can identify section breaks and headers, so that there's, again, more context to that content. Great question.

ELISA EDELBERG: And another question that we have here is, "How about screen readers in SCORM modules? Do they work?"

MAUREEN OREY: With what kind of modules? I'm sorry. I couldn't understand that.

ELISA EDELBERG: S-C-O-R-M.

MAUREEN OREY: Oh, SCORM. Yes. Yeah. Well, originally, the modules have to be designed to be SCORM compliant, right? And then, when you're designing those modules-- I want to make sure I'm understanding this question correctly-- the original design of the content needs to be assessable. And then it's SCORM compliant, so it's across different platforms and, therefore, that readability, that accessibility, should transfer.

I was hoping I got--

ELISA Great [? piece. ?]

EDELBERG:

MAUREEN OREY: Good. All right. Let's go ahead. And we'll move forward and answer a few more questions at the end as well.

The next slide, Elisa, is the learning environment matrix with that physical access component. When we look at being able to make sure that our learning environments are accessible physically-- and originally, people think, oh, it's face-to-face in a learning environment. Is it wheelchair accessible? That's only one type of physical access.

Of course, we need to have physical access, such as ramps, and so forth. But what if someone simply has a mobility issues. For example, they can't sit for long periods of time, or they use a cane? Are we creating activities-- for example, there's one program where I literally have a relay race in the classroom environment.

There have been times where I've had to make accommodations, because the person couldn't physically run-- even 10 feet. That's as far as that race went. And there were ways that we still included them in the activity, and made it relevant and meaningful, because he used a cane and couldn't ambulate very quickly. And so we accommodated the activity itself in the learning environment.

And so we have to be careful to never assume that they can't participate. How can we accommodate? And sometimes, we have to be agile enough to accommodate right there on the spot. But that's the physical access in a face-to-face environment.

And then we have the physical access in the online environments, whether it be instructor-led or asynchronous. I think one of the benefits of instructor-led training is we do have that ability to be agile and adapt. And, in this environment, for example, having Elisa as a co-facilitator resource, who can handle perhaps any tech challenges. She's probably been dealing with tech challenges I'm not even aware of, in order to make sure that the environment is available physically in the online environment.

And then, also, in that asynchronous environment, it gets more challenging. Again, the drag-and-drops for people with physical access issues. I think of some colleagues of mine. And I used to do career coaching and job placement for students with disabilities at a local university here for a number of years. And I had individuals, who had multiple sclerosis. And other people had issues from a particular injury, where they had paralysis in their primary arm. They

were right-handed, and they were paralyzed on the right side of their body, and so they had to relearn how to use their left hand. Or they were born with cerebral palsy, and they didn't have as much control of their arms. And so using a mouse in that environment, being able to have them use a keyboard, for example-- a lot of blind individuals also will use the keyboard.

And what's interesting, when we look at designing with physical access in mind, and what you might have noticed in some of the content on the matrix, is what we change for one access need often will meet another access need. So for example, on the right-hand column, which says Online-Asynchronous, consider enabling both keystroke and mouse-enabled content, because blind individuals will use keystrokes and not mouses-- mice? I don't know. And so will someone with cerebral palsy, for example. It might be easier for them to interface with keys as opposed to a mouse, which takes more physical control.

So those are some interesting considerations, is what you change in your design can meet more than one particular need.

And the last row of the matrix is the cognitive access, meaning some people have cognitive processing challenges. In fact, one of my kids recently got diagnosed with a learning disability. And it has caused her not only challenges in the learning environment, but it's caused anxiety and stress for her.

And some individuals have had highly challenging learning environments as children, and then they come in to, say, the cooperative learning environment, and they might have some anxiety around that. And it's important that both the psychological and literally the cognitive processing are considered.

And being flexible, being nonjudgmental, if someone asks for a little more time on an exam. That is a reasonable accommodation in the learning environment. Sometimes, someone wants-- they don't process well visually, because of dyslexia or some other similar diagnosis. But if someone reads something to them, they will get it, as opposed to reading it themselves. Or vise versa, that they can't communicate in writing, but they can communicate verbally.

And so understanding that, in each of these different environments, allowing extra time; providing a hard copy of worksheets so someone can really take some time and think about it, being able to have directions, both auditorily as well as visually, is really important to provide access in that cognitive area.

And yet, because it's all invisible, we aren't going to know. People don't walk around with a name tag-- hi I'm Maureen, and I have this. Right? We will not know that they're having any challenges until they don't perform well, or until they tell us, and they ask for accommodations. And so this one can be particularly challenging, and a bit tricky, in order to make sure that we are respectful and nonjudgmental.

Here's an example of this. I used to be the director of training for the Scaffold Industry Association a number of years ago. And we had employers that had to provide OSHA-required scaffold training for the safety of the scaffold workers. And there was one company that said, we're having a lot of people fail the test. We know they can build scaffold. They've been building scaffolding for 15 years. But every year, every other year, they have to take this exam to keep they're Competent Person Card from OSHA, which is required for them to perform their job. But people were failing the exam.

And so, as we explored this in more detail, we discovered a few possible challenges. It could be that, well, they have a high percentage of employees who were Spanish-speaking. And so we made the exam available in Spanish. OK. Well, that's good. Maybe it was a language issue perhaps.

Well, no. They still failed the exam. Was it that it was a bad translation? Was it the issue is that they cannot read? Was it a literacy issue? Was it language? Perhaps. Was it literacy? Perhaps. Or was there also a learning disability? So there could have been a number of different things impacting their performance.

And until we really drilled down and identified cognitively what was going on-- or it could have been all of the above. They don't read English. They don't read, period. And they have a learning disability. And how do we accommodate that individual?

Because what the challenge was is, they said-- they being the owner of the company-- this is my best scaffold worker. I can't fire him because he's not passing the exam. How can we accommodate him? And the interesting challenge is that, in the construction environment, there is no weakness, right? It's, hey, you don't pass? You're a failure. Well, there's a number of issues that perhaps could be explored, which I kind of would help them work through, those particular challenges.

And until we really look at cognitively what might be going on in their performance on particularly an exam-- it's not until we start to peel away the layers of the onion that we find out

what the real causes of the performance challenges are.

Let's go and move forward to the Testing and Auditing Your Program, and some considerations for you as you look at, if you're designing all of this content, how can we make sure it works as we intend it to? Because I have heard from so many instructional designers and learning professionals that, I designed this. I thought it was going to be great. I did what everyone said I should do. And then we test it, and it didn't work well. And we have someone who's blind go through the e-learning modules, and it's in the wrong order. It's not reading it right. And so how can you go through and test, whether it be a website or a learning program, and audit to make sure it's working effectively?

And here's the challenge-- there is loads of tools. And 3Play Media, I'm sure, can help you with some of this as well in designing good content, making the content accessible perhaps. How do we evaluate it? There's a number of automated evaluation tools. And this is just simply a screenshot from section508.gov, which is a US government website with loads and loads of information about automated evaluation tools.

But similar to the automated Alt Text that we have seen poorly done, you can't always assume that the automated tools are going to capture everything. Because at the end of the day, real people have to involve themselves with this content-- real people with real access needs. And how can we make sure that we're covering all of our bases effectively?

Those are some tools. I'd encourage you to reach out to Elisa. And perhaps, she can make some recommendations as well.

So our final slide is-- as we wrap up and open up for additional questions-- is we start to put it all together. It says, here's our learning environment and access to learning, and here's our matrix. It's another very sexy title for this matrix, but that is what I've got so far.

And we will make this a one-sheet PDF available to you, which really puts it all together-- the three columns of the three different learning environments with the four rows of access needs from the auditory, the visual, the physical, the cognitive access. And then, in the face-to-face environment, the online instructor-led environment, and the online asynchronous environment. I'm happy to share this with you following the webinar.

And so the next step's for you. I'll open it up to questions. What can we do with this? Where do you go forward? What direction? What considerations do you have, and questions do you

have, in reference to being able to design more accessible learning programs?

Elisa, what kind of questions might be popping up now?

ELISA EDELBERG: Yep. So we have a couple of questions still coming in. And I want to encourage everyone to continue asking questions. We have someone asking, "Is it the case that audio descriptions are not necessary, if the audio of the video conveys all of the information? So for example, a lecture video, where the instructor describes graphical information that may be displayed."

MAUREEN OREY: Then, yes. In that context, if the instruction-- I'm envisioning perhaps technical training, where an instructor is describing a graphic or a methodology that, by the nature of the lecture or the verbal content itself, it describes the content. Then, there is no other context.

So that would be the thing-- without being able to see it, that would be the one thing to consider. Is there anything that's missing? And either the instructor added that in their lecture format or their description of it. But yeah, it could be that the instructor themselves adds all of the content, and the context, that's needed in that situation.

ELISA EDELBERG: Great. We have another question. Someone is asking, "Do you have suggestions for when publisher material isn't compliant?" So they said one of the things that they struggle with is, although they attempt to make their LMS material be compliant, a lot of the material that they're getting from publishers is not compliant.

MAUREEN OREY: From publishers, or a publisher of the software tool?

ELISA EDELBERG: For example, with instructor resources, such as PowerPoints and other things like that.

MAUREEN OREY: Right. Yeah. There are two options-- probably more than two. But the first two that come to mind is-- one is, you push it back to the designer, and tell them to verify that their content is accessible. Have them do the testing. Have them do some redesign, put in Alt Texts, make sure that the infrastructure in, for example, PowerPoint builds makes sense for the content and the reading.

You can push it back to the instructors and link to some information about designing accessible learning content. Or you can redesign it, or verify it. Because at the end of the day, whoever is publishing it to the public, or your clients, or your students, it's up to you. It's on you to make sure that that content is accessible.

I guess I'm hesitating, because I'm thinking of a client we designed an e-learning program for. And they told us later, oh, by the way, this needs to be accessible. And it took another three to six months for our project team to go back and make sure it was accessible. This was probably about six or seven years ago.

And it was a huge challenge. But the client put it back to us-- not that they made it clear. And so this will be an important lesson, is make sure it's clear ahead of time. Here's the expectation-- not only are you going to design this content or give this content that's published to us, we need to make sure it's accessible. And if it's not, you can't use it. Right? Push back to them.

We had to go back to redesign for, like, an extra six months on this project, which cost us dearly, and made us make about $0.10 an hour at the end of the program, I think. I hope that answered the question.

ELISA EDELBERG: Yeah, thank you. Another question we have is somebody says, "We had an issue with Cahoot being used in the classroom. And the student was hard-of-hearing and low-vision. Are there any other options for this teaching tool?"

MAUREEN OREY: I love Cahoot. And I've actually used it in learning environments as well. And I'm trying to think of-- OK, hard-of-hearing and low-vision. That makes it really incredibly challenging to make content interactive visually and auditorily.

And part of it might be reaching out ahead of time and, kind of like I said in a previous question, make sure that your designers know that the content has to be designed to be accessible. But the flip side of that is reaching out to the learner to say, how can you-- what tools-- I guess the cool thing is they get around every day without us, and access content in a way that they're comfortable. And so, for example, we'd have to ask the student, what tools do you use to access content every day? Right?

And be aware of whether it's screen readers or other software that they would use in order to be able to access content. Sometimes, it's knowing what they're using, and how can we best integrate with those tools, educating ourselves on all of those different tools that people use to access learning. And don't be afraid to ask. Don't assume. Don't be afraid to ask.

And the thing that comes up-- and it's not quite the same scenario. But I remember one of my students said-- and he was in a motorized wheelchair. And he was hired for an engineering

job. And they were really excited, because they'd never hired someone in a wheelchair before. And they were really trying to make things accessible, and great, and fun, and so forth. And what they did is they had gone out and bought a desk that's on hydraulics. I think the desk was about $5,000.

And the guy comes into the work environment. And he's like, wow, that is the best desk I've ever seen. That's so cool. And they said, yeah, we wanted to make sure that you could put it in the place that you needed it. And we bought you the best desk we could-- $5,000 on hydraulics so you could change the different levels in it.

And the guy who was hired in his wheelchair, as he's sitting there, says, you know what I'd do? I'd just go to Home Depot and get some two-by-fours and put them under the table of the desk to lift it up a few inches. That's usually all I need.

But the point of the story would be to ask the individual what is it they need, and how can we make things more accessible. Because, for example, in Cahoot, they use their phone. Yes, it's colored, and it's visual, and dense. That's particularly challenging.

But I don't know if that helps. But really, at the end of the day, go back and figure out what tools this participant is learning, and then what design tools we can use that might integrate well with that.

Long answer. Perhaps we have time for maybe one or two more questions.

ELISA EDELBERG: Yep. We have time for just another quick question here. Someone is asking, "How can we make online courses more accessible for the deaf, and is there any sign language tool out there?"

MAUREEN OREY: Well, we're seeing-- we have, of course, the live closed captioning. And that's the live learning environment, as opposed to the asynchronous.

There are so many cool things coming out. And here's an interesting perspective. Look at Microsoft, and some of the tools that they're coming up with. Satya Nadella is the CEO of Microsoft, and he has a son with a very significant disability, which has inspired Satya to make sure that the technology that they're designing is accessible as well. And I think they're leading the way.

Apple has so many great tools, and it's a very dynamic environment. I can't think of one off the

top of my head right at the moment. But look to some of those industry leaders, because it's a dynamic environment that's constantly changing. And it's almost hard to keep up with how much cool stuff is being designed. And in many ways-- and it is for many of you on this program itself-- is, do you have people in your life, or you yourself have a disability? And it inspires you to go find answers.

I guess that's my thought, is consider what else is out there, and do some of the research. Because it's a dynamic environment.

So I want to thank you for your participation. You had great questions. I wish you the happiest of holidays. And the final quote on the last slide has my favorite quote, which says, "A mind once expanded by a new idea never returns to its original dimensions."

I hope this webinar has inspired you, and perhaps motivated you, and perhaps change your mind a bit on how to make your programs, and your content more accessible to all of your learners, so that no learner is left behind. Thanks, Elisa, and 3Play Media, for the opportunity to participate today.