ADA: Real World Results

*Note: transcript lightly edited for clarity.*

**Joel Hagen:** Hello and welcome to the Legrand | AV Podcast, The Download. This month, we're doing a series of episodes on making AV technology ADA compliant. I'm Joel Hagen, your guide through this special series. Thanks for joining me on this journey.

This is the final episode of the four-part series on the Americans with Disabilities Act, or ADA for short. To recap, in part one, we talked about reach ranges, protrusion limits, work surface requirements, and all the stuff physically in a space that AV integrators need to keep within ADA guidelines. In Part 2, we took a wider view of the ADA as a whole and how it informs a better AV design mindset.

Last episode, we covered audio considerations for AV integrators, including assistive listening systems, closed captioning, and how to set up spaces for better communication with everyone in the meeting or classroom. Speaking of meetings and classrooms, in this last episode, we're going to start talking real world results with AV corporate and education spaces.

How can we as AV professionals ensure that the greatest number of people possible can participate in and contribute to all sorts of gatherings? We'll get to the bottom of all of it and even throw in some digital signage to boot. Consider this podcast series a sort of companion piece to Legrand |AV's publication, “ADA in AV, Making AV Technology ADA Compliant.”

The guide is the most comprehensive publication specifically for the AV industry about the ADA that we know of. This podcast and the guide are meant to serve for educational purposes only, not as legal advice. If you're looking for specific guidance or details, you should contact the folks at ada.gov.

Our first guest coming to us straight from the Solutions Engineering Team, where he manages Legrand | AV's elite force of AV experts, is Brian Retzlaff. You may recognize him from the many contributions he's provided for the ADA Guide. Hailing from Florida, but we don't hold that against him, his one line summary on LinkedIn under Legrand |AV is, “Go to person for all things Legrand | AV.” That's about right. He got his start as an educator before moving through AV sales at several places before joining Legrand | AV in 2016. He's here now to talk about education spaces and how AV can help achieve ADA goals and guidelines. Welcome to the podcast, Brian.

**Brian Retzlaff:** Yeah. Great to be here. Good to see y'all.

**Joel Hagen:** Yeah. So. You head the solutions engineering team at Legrand | AV. What is your team tasked with?

**Brian Retzlaff:** The solutions engineering team is primarily, think of us like sales engineering, where we support all of the different sales groups here at Legrand | AV with bill of materials, system designs, we do a lot of training.

We also talk to a lot of customers about their AV needs and turn that into something that they can then use for day-to-day conferencing and collaboration purposes, primarily.

**Joel Hagen:** With all those people that you're talking to, you probably have to be on top of ADA questions that come around. What do you do when you get a tough one?

**Brian Retzlaff:** Yeah, so that's a great question. At its core ADA is all about making accommodations for folks who need some sort of accommodation. And when I come up with a tough question, I usually try to think about the intent of what ADA is trying to do. It's trying to make the world accessible and things accessible for folks who don't have the same abilities that everybody else has, or may have different abilities than everybody else.

And so I look at the core of what is the ask? What is the problem? And I just try to find a solution that helps overcome whatever that solution or whatever that problem presents itself as.

**Joel Hagen:** I feel like designing for accessibility is also has the benefit of improving the experience for everyone in using a space.

**Brian Retzlaff:** Absolutely. The idea behind designing for accessibility is it's not just for, “Oh, Hey, we need to keep this thing four inches off the wall.” It's more along the lines of making… Legrand, our tagline is amazing AV experiences. And we want those experiences to be amazing for everybody, as many people as we can include in those amazing experiences.

And that's really ultimately what we're trying to do is to find the right set of tools to make that experience accessible and, quite honestly, amazing for the folks who need it to be amazing.

**Joel Hagen:** Big question. How has the modern AV landscape affected the way we do education?

**Brian Retzlaff:** It's so interesting. I'm dealing with changes in the education market every year.

It seems like we go through a new fad in education where we have to make AV changes to what they're doing. For so many years, it was all about, “We've got to get an interactive display of some kind in the in the classroom.” And now we look back after having those for over 10 years.

We see how our how are our teachers actually using those interactive displays. There are some incredibly cool things that are happening in education with those interactive displays, but the reality is most teachers are using them as a display. The interactivity just isn't happening for so many teachers for a whole host of reasons. That ties into this ADA discussion in a big way. For so long, to get an interactive display, we had to reduce the size so we could make it affordable. So that we could go up there and we could touch all parts of that display. And so that our students can engage with that interactive display.

We might have to lower that display down so low that it then was unviewable in the back of the room. Well, we're seeing in education, especially in K-12 education, this move away from the need for an interactive display. And we're seeing that image size is becoming more and more of an issue.

Somebody in my household, for instance, was directly involved with a student who said, “I can't see if you put me that far away from that tiny little display that was in the room. I just can't see it regardless of whether I have my glasses or not. It's not something I can do.”

We're thinking about all of these different accommodations we have to make. And in education, what I'm seeing is the big factor right now is once again, moving toward large displays. A lot of times moving away from the interactive flat panel or away from those smaller flat panels back to a large 100+ diagonal projection screen, because that's what the student in the back of the room can see now.

Now, there's all kinds of other issues around that, but really, when you talk about trends in education, especially in K-12, I'm seeing the need to put in larger displays once again.

**Joel Hagen:** I think along with that, you have the ADA, it's the law, you have to follow it. We know that maybe people find ways to get around it or shortcuts.

But do you think the ADA has grown in prominence and the idea that we have to do this and things are getting relatively cheaper to do it? AV equipment is better at doing more things that make things accessible. In what ways do you think the ADA has helped improve opportunities in education through AV,

**Brian Retzlaff:** One thing that you kind of allude to there. And by the way, one of the major pieces we see with ADA is how far does something stick off the wall? You know, that's the one thing that I address nearly every day. And what we've seen from a technology standpoint is. You know, we used to have projector screens that were really close to the wall.

It really wasn't a concern whether we were off the wall far enough or not. Right. And then we moved over to flat panels. When flat panels started out, they were so big there was no way to keep them within that four inches. Now we're seeing flat panels shrinking in depth. So when we do want to put a flat panel in, we just need to be aware of the depth of that flat panel and the depth of the mount that we're using and try to keep that under four inches.

But there's another key element here, you know, one thing you mentioned in lead up to this question was the idea that are we doing ADA because it's a law? Are we doing it because we're supposed to be doing it? You know, why are we trying to follow these guidelines? And when it, especially when it comes to that four inches off the wall, keep in mind that accommodation is really there for paths of egress.

The main reason that exists is we want to keep people safe when they're trying to exit whatever room they're in. And there are so many places in a room, especially in education, where that's not necessarily a path of egress. The fact that we have to be four inches or less off the wall maybe doesn't apply in every single instance in an educational install.

And so what I would like to challenge our viewers to consider is when they're in that situation, you really think about does this affect the egress. Is this something that if something happens and students need to quickly exit the facility, is this thing going to cause a problem or not?

And that's maybe something that I think we lose sight of. And another thing I think we sometimes lose sight of is we need to make reasonable accommodations. A lot of times it's the right thing to do because we just need to look at what are we trying to accomplish here and are we going to accomplish that in the right way?

And in education, there’s so many different rooms where we can truly accommodate all of those different unique needs that need to be accommodated that we may not need to accommodate all of those unique needs in every room. We need to make a reasonable accommodation for people who need that accommodation.

And if we have 50 rooms in a school, and we make those reasonable accommodations in a certain number of those rooms. Then it's really about scheduling and making sure the people who need those accommodations have access to those accommodations in the rooms where they are. Now, I don't want to minimize some of those other aspects of ADA and egress and some of the things like that, but it really comes down to try to use your best judgment about where things should go and how you should deploy them.

**Joel Hagen:** That brings to mind the advantages of a portable AV solution. Either the display on a cart with a camera, or assistive listening systems that can go with the person who needs that and added to whatever room they're in.

**Brian Retzlaff:** That's a great point. You know, again, we have schools with dozens of rooms and we may have to accommodate certain aspects of a need that somebody has. And we can a lot of times do that through a portable system. Now, from a convenient standpoint, we don't want to have a situation where this portable system needs to follow a student from room to room to room.

But it is very realistic that we have a portable system. We have several of those deployed that coincide with locations where a student meeting accommodation is going to be. And every semester when that schedule changes, we can then take that portable solution and move it to accommodate the schedule of the students who need that accommodation.

That's a great point, Joel. I'm glad you brought that up.

**Joel Hagen:** Yeah in addition to the the larger screens that you talked about a lot of things are changing with active learning pods and lecture capture and other technology advancements that also can be a part of an ADA-compliant system.

How do you see these things working with ADA guidelines?

**Brian Retzlaff:** Yeah. Case in point, we had an internal training at Legrand yesterday that I participated in. And I'm definitely a visual learner. I know that I learn by seeing things, especially way more than I do by hearing them. And what we're noticing is, especially in lecture capture and live two-way video conferencing-based synchronous education, is that a lot of the software tools now do live captioning. I noticed in the session I was in yesterday, I just clicked the button and it started captioning everything that was being said in that meeting, and for me, it was something that I wanted that made my learning a little bit easier during that session yesterday.

But as we see the advances in software really catching up to the needs that we have to take care of when you talk about lecture capture, we do want to have it captioned. When we have that synchronous distance learning, we want to have live captions happening. And there's so many software platforms right now that will do that live captioning.

So that's just one example of the way that AV technology is keeping pace with and actually improving the experience for so many students. I believe that from a hardware standpoint, we're getting better microphone technology so that we can hear things better. We're getting better camera technology, so you can actually see. If you're one of the people who benefits from watching how my lips move versus what you hear from me, the camera technology will allow you to see that better. All of these technologies are kind of all molding together. To improve that accessibility standpoint, and it's just kind of happening because things are just getting better by default.

**Joel Hagen:** Yeah, I'm going to throw some tough questions at you. You ready? Okay, schools like the one I grew up in and my parents taught in, I graduated with 55 students. When you have that rural area, few students, they have to make compromises when it comes to technology, budgeting and planning.

How can they stretch budget dollars to incorporate modern learning theories about how we best learn and how AV technology can support that?

**Brian Retzlaff:** It's not just the small schools and the small districts that have to learn how to stretch the dollars. That is an ongoing issue across so many different schools that it's something that we need to consider more globally.

So that’s the first thing. I think it's not just a small, limited problem. I think it's a problem we face throughout our entire educational system. And we had this huge boon of technology dollars during the COVID pandemic that really allowed us to reprioritize.

One thing that schools can absolutely do is look at those foundational elements that a company like Legrand puts together and see which of those are truly universal. So as we need to make changes in the future, is this universal platform going to manage that change that we're making?

You know we can invest in some nice electronic technology today that maybe is going to be out of favor in four or five years. But is the support system holding that technology still going to be relevant four or five years from now? Can we reuse that? Maybe it's a matter of spending a little bit more on that infrastructure so that you have the ability to support the things that are coming up in the future. One thing I like to mention when it comes to infrastructure is things like cabling. There's this big push to be wireless, and I get that it's so convenient to be wireless, but at some point in time that wireless connectivity has to hit a wire, right? We need to think about that as we're designing around technology needs. Where should we run wires versus where should we count on wireless? And a lot of times that investment in the right kind of wire today means that in the future, we will also be able to stretch that budget even further because we put in the correct connectivity right now. I guess what I'm saying is it really comes down to making sure all the infrastructure that you put in today is not just for today's technology. Make sure that you're ready to move forward into the next step, even though we don't know what that next step is going to be.

**Joel Hagen:** Stretching budgets by looking at the long view rather than what are we doing this year?

**Brian Retzlaff:** Exactly. And what that means is you may not have enough to equip every single classroom this year, but you equip the classrooms you can equip the right way this year, and then you do a few more next year, and then the repeating cycle becomes so much easier in the long term because you have the infrastructure in place.

**Joel Hagen:** All right. Now the new tough one. How do tech managers or decision makers in education make sure they're adding technology that fits within ADA guidelines? Or if it doesn't, should they just go with an all-or-nothing point of view? If I can't add everything that would make it an ADA-compliant space, should I just not do anything?

**Brian Retzlaff:** You're not going to be allowed to do nothing. You're going to have to do something. And again, everything at the core of ADA is about reasonable accommodations. We see that, we hear that, and we need to do what's reasonable. And given the previous question about budgets, where we know that we have to stretch, it is absolutely imperative that you think through where can we make some reasonable accommodations now to make sure that we are accommodating the largest number of folks that we can accommodate.

And by the way, I'm not always a fan of equipping every single room with the latest and greatest technologies that are prone for accommodating every student that's out there. We just need to make sure we look at our student population, try to predict what we're going to need, and make sure we have enough of those reasonable accommodations in place that we cover those needs.

Do what you can with the limited resources you have, but target those few classrooms where you know you may need to do a much larger screen because you have somebody with visual acuity issues, where you may have to include that better assistive listening system because you know you've got a student who's going to need it, and then grow those systems as those students grow through your school process.

**Joel Hagen:** Speaking of growing, we're in a new era where students might have to join class remotely on the regular. It's a function of the pandemic, but also because of that, we have the technology to make it possible to join remotely when needed. How does that figure into an AV design for education? How do we make sure that ADA guidelines are also followed when adding remote capabilities to a space.

**Brian Retzlaff:** I alluded to it a little bit earlier, but the reality is so much of the software that we currently use to support remote learning has a lot of it built in: the ability to live caption, the ability to capture clear and distinct audio, the ability to see the details. There's so much you get by looking at the facial expressions that you see on my face as an instructor, those nonverbal clues, those are all things that we're going to really focus in on when we're thinking about remote students. And then really another key element, and this has just come to my attention over the last month or so, is that there are so very many classrooms right now that are equipped for remote learning. But as soon as students were all able to come back to school, teachers were like, “Oh, thank goodness. I don't have to do that anymore.” And they have these cameras and these microphones in their classrooms that just aren't getting used well. There's a mindset to it too, where we have to let our teachers explore a little bit more how to potentially use those technologies that are in their classrooms to aid those remote students.

The case in point is this teacher I was talking to has every ability because of the pandemic. Her classroom is totally equipped with microphones and cameras and recording and streaming and everything the teacher needs for a student who missed class today to remotely watch that class.

The teacher is just so far away from wanting to do that, that the teacher doesn't even consider it. So we really need to look from an administrative standpoint and from a teacher motivation standpoint and from teacher training. Can we help those teachers? Re-enable all of that equipment that they have in their classroom to keep students engaged when they can't be in school today.

**Joel Hagen:** What's an easy miss when it comes to making a space better for people with disabilities? It may not be a system that's against the guidelines, but having it would make the whole system a lot better.

**Brian Retzlaff:** I'm gonna go against the grain here. Okay. This is just a reality. We need to move back to large projection screens in classrooms.

We need to move away from flat panels, and we need to move back into at least one… Now, mind you, a lot of classrooms now have two displays, but one of those displays needs to be an appropriately sized projection screen. Kudos to those schools who can put in the huge, most incredible, large led displays that are out there.

But the reality is those aren't cost-effective, and a projector is. I know there's going to be so many people who are going to push back and say, “well, no projectors have all these problems. They're not bright enough. There's not enough contrast. We have to change the lamp and we have to change the filters and all that kind of stuff.”

Guess what? The most current projector technology fixes all that. They don't have lamps anymore that need to be changed. They barely need any maintenance if any maintenance. And they are so bright, and they have such great contrast ratios, when coupled with an appropriate screen surface, that we can give students the view that they need.

And the reason I focus in on that one element is because you almost universally see teachers using a presentation display in their classrooms. Almost universally K through 20, they are using some sort of presentation display and those are grossly undersized. So that is probably the biggest miss we have right now.

We were so interested in getting rid of those pesky projectors, five, six years ago that we really kind of missed the boat on image size.

**Joel Hagen:** In education nowadays, there are so many different types of spaces when it comes to size, the goal of that space, the content presented, level of interactivity, not display interactivity, but the back and forth between students and instructors are all around, how can AV professionals be sure they're meeting each space's educational mission while they're also accommodating the ADA considerations?

**Brian Retzlaff:** Well, we need to look at each space and its purpose from the get go. That's key to AV design is understanding what is the purpose of this space?

How is it going to be used? And from that point, it's a lot easier to make those decisions and maintain the ADA requirements for that space. Case in point, we know we're going to have some large spaces where we're going to have to fit lots and lots of students for different purposes, right?

With those typically, we can raise things up above the 84 inches or 82 inches. I can't remember what that number is, but we can raise it above that minimum threshold to maintain our egress pathways. We can do things like make sure that we have a portable assistive listening system. Make sure that it's properly equipped with the right number of receiving devices and the right number of microphones for how that room's going to be used.

These are all things that, again, once we determine what we're going to do in this space, then it makes it a lot easier for an AV designer to come in and make sure that we're filling all of those ADA gaps that we may have.

**Joel Hagen:** Are you seeing more, uh, use of what previously may have been an ADA specific solution as more of a baseline level for using technology in class?

I'm thinking, show my age, I remember in school people would just bash captions. “I don't want to have to read a movie or whatever,” but I feel like these days the default mode is to have the captions on.

**Brian Retzlaff:** I think you're absolutely right and what's really interesting is I've watched that develop in my own 16-year-old child. Back when my child was so young that they didn't read, I would turn on captions because like I said, I'm a visual person.

I like to have the captions running across the bottom of the image. Fast forward 14, 15 years, and now that same student has the captions on primarily because that same person refuses to watch content that has been dubbed with a different language. They want to watch it in the original language that it's presented in, and they want to see captions of English below. And that is so pop culture right now.

I was shocked at how ingrained that is in the younger folks that are in school right now, that they want to see those captions. They're getting so used to the idea of watching foreign language material that then is captioned in English. That's a great case in point, how are we taking things that before we didn't want to have and we're turning it on? I think another version of that, that we're seeing is, as I mentioned, this return to projection. The idea that we just didn't like projection five years ago, and now we're kind of returning to something that seems a little bit less. That it was not attractive at one point in time. And now it's like, this is a great solution again. And so that's the other thing I really want to highlight there is a return to projection.

**Joel Hagen:** Let's jump to digital signage and education, kind of a mix of two applications, especially in higher ed, signage with wayfinding, emergency alerts, branding, uh, so on.

What should we be aware of when it comes to ADA and digital signage?

**Brian Retzlaff:** That is an excellent question, and there are some very specific details here. By the way Legrand has published a new PDF that lists out a lot of those details. So I'm probably not going to cover those in detail right now, but make sure you reference our new ADA guidebook that's available from Legrand | AV. Things to consider are if it is a touch-enabled device, we need to think about reach. We need to think about how high the touchable content is so that somebody who is in a wheelchair has the accessibility to touch the different elements of the interactive display. We need to think about whether we're putting these signs in egress. You know, that's the kind of the number one thing we talk about when it comes to ADA compliance in AV, is that egress, that four inches. And how can we manage that four inches? We're not going to be able to do it in every instance. So how do we overcome that? We put something underneath the display so that it does then accommodate the pathway and the obstruction that we're trying to overcome.

We need to think about things like, is there knee space? I was at an institution down in Miami a couple weeks ago, and they did a wonderful job of laying out these, out in this walkway breeze area, where they made sure that there were plenty of panels across, and they made sure that at least one of those panels had the ability for somebody to approach it in a space where they would have room for their knees to fall underneath there.

These are all considerations that we need to think about. We take advantage of the idea that we need to have emergency alerts built in, and these emergency alerts have to be more than just an audible alert. They need to be both audible and visual so that we can accommodate as many folks as possible when there's an emergency situation.

We need to have them put at an appropriate height so people see them. There's all of these different accommodations. Again, we lay out all of these in that ADA guidebook. As a general rule, just put yourself in the shoes of somebody who might need to use that content and try to decide what is the best thing you can do to make that content accessible to somebody else.

**Joel Hagen:** Looking forward, what do you see coming down the road for education, AV and the ADA software advancements? Go wild.

**Brian Retzlaff:** Displays are getting thinner, no doubt about it. As soon as I say and we publish that we should all be moving to projection, we're just a short period away from where that projection is going to be a direct view LED solution of some kind where that's going to be affordable and large enough. Hopefully it's going to be green enough to deploy. That's also another thing that, it's not ADA, but we do need to also consider how much electricity we're using moving forward. I believe direct view LED is going to make a big presence, especially in higher ed over the next five years and potentially down into K-12 education over the next 10 years.

So as much as I say I'm a big proponent of projection, maybe that will still be a big element of what we do 10 years from now, but maybe not. I think from an ADA standpoint, we're seeing active legislation where these video conferencing platforms are potentially going to be required to provide live captioning.

Now whether that legislation goes through or not, well, time will tell, right? I think that all of that will find its way down into educational technology. We have so many students using online textbooks where, you know, they don't carry around textbooks anymore. They carry around a laptop.

And so we're going to see lots of additional ways to make that just a bit more compatible for students who need it, the ability for them to plug in a headset so we can read to them the ability for them to get larger screen laptops so that they can have a better visual acuity for the things that are on the screen. All of these things are coming to a head right now, and I believe that when we look into the future for ADA compliance, there's two things we're really focused in on.

Can the student hear what's being said, and can the student see what's being presented? And we're doing pretty good at resolving those things, or at least we know how to resolve those things now. But I believe that if we give kids permission to bring their phones into class, I believe that that's going to be the next big inclusive thing that we're going to be able to provide to our students. If we can find a way that they can just be productive on their phones during class and we can then send them so much great content directly to the device that they're so in tune with and that they already have the accommodations for that they probably need, we just got to figure out how to keep them off of the things that they're not supposed to be doing and keep them on the things they're supposed to be doing.

I think that's also going to be another big advancement to help us improve the accessibility for all of our students.

**Joel Hagen:** That's a huge, big picture of integrating their own personal devices that may be set up for accommodating what they need to get that experience, I guess.

**Brian Retzlaff:** Well, my iPhone has the ability to directly plug into my hearing aid, right?

And if I'm a person who needs that, if I have my phone here, then I don't really need the accommodation in the rest of the room because my phone has the microphone that can hear the teacher and then can amplify it into my ear and can do a better job at it than probably the in-room system is going to do.

But the problem is right now, kids are not allowed to use their personal devices in school without some sort of special accommodation. So, I say that, and I know there are some places, but most of the students I'm aware of are not allowed to use their personal devices.

**Joel Hagen:** We talked a lot about the ADA and educational technology today. Do you have any last thoughts?

**Brian Retzlaff:** You know, when it comes to education and ADA compliance, basically my last thought goes along with one of the first thoughts I presented. And that is the purpose of it is to put yourself in the shoes of somebody who is not like you. And, uh, think through their eyes and ears, think through their own ability to navigate.

And as long as you're making decisions with that empathy involved, you're going to be making the right decisions.

**Joel Hagen:** Awesome. It's all about empathy, I think. Yeah. Thank you very much for joining the podcast, Brian.

**Brian Retzlaff:** Yeah, I appreciate it, Joel. It's been great.

**Joel Hagen:** Okay, let's pivot to another big area of the ADA requirements in the corporate world. ADA guidelines focus on assembly areas, conference rooms, and anywhere people might gather for presentations and interactions supported by audiovisual technology. How can AV professionals use best practices to optimize spaces that move the needle at the end of the day? Someone out there just got a bingo on their corporate lingo card. My guest to help touch base by getting all hands on deck to tackle this issue rather than putting it in the parking lot, double bingo, is David Albright, Senior Business Development Manager for Hybrid Collaboration and Learning at Legrand | AV.

He's his own deep bench of experience with beginnings in mechanical design and engineering. He joined Chief in 2013 as product manager for workstation solutions, which grew into his current role across Legrand | AV brands to support hybrid collaboration through product roadmap, input, partnership development, and just plain being an evangelist for a new era of conferencing.

Welcome to the podcast, David.

**David Albright:** Joel, thanks for having me. Good to be here.

**Joel Hagen:** All right. I think more than most people at Legrand | AV, your role has had a direct tie to working with solutions that accommodate the needs of different people. I'm thinking dynamic monitor arms, keyboard trays, easier access to power and charging.

A lot of solutions you've worked on here are literally creating a customizable space for any sort of desk work. So how do you yourself see the link between that and ADA guidelines?

**David Albright:** I think the tie-in is really centered around the ethos of universal design, which is really, I think the backdrop of where a lot of the ADA guidelines come from.

It's really this ethos that the best space is designed to universally accommodate all the size, age, ability, et cetera. And so that's the common thread, the glue that brings a lot of the products that I've spent a lot of time working with for Legrand | AV. Together with the applications, whether it be the desktop or the meeting space, and the tie-in to the importance of ADA as part of our design process.

**Joel Hagen:** Thinking about the corporate space and how the pandemic was sort of a great equalizer with everyone joining work remotely from spaces they created to accommodate their individual needs and how that has really highlighted some of the weaknesses the previous way we did offices, what have we learned?

**David Albright:** Yeah, as we all struggled to varying degrees through the pandemic and figured out how to effectively and productively work from home or from wherever, and then as we came back into these mostly legacy workspaces that weren't designed to support all of this stuff.

We identified a lot of these inequities that make for a less-than-desirable experience. It creates a lack of a level playing field for those who are able to be in the office versus those who might be hybrid or fully remote. So there's this new opportunity to rethink not only the physical space, but how that physical space connects to those that aren't in the room.

And there's a whole element of universal design that then you can consider that impacts not just those people in the room and their experience with the space, but those that have to connect into it and the experience they have. And how can I even more holistically design that in that physical environment to support everybody joining that meeting from anywhere?

**Joel Hagen:** It occurs to me, do you think that part of the pandemic and the aftermath as we're coming back has just put some sort of steroids on the empathy process and how we look at offices and to better hit that universal design that would accommodate everyone?

**David Albright:** I definitely think for employers as they're looking at how to bring people back to the office and make it not a mandate, but make the workplace, make the office a place that is a better experience than working from home for the purposes of the office. And it's pushing all of us to think harder about why is the office important to our business? What are the demands we have for that space? What is its meaning and purpose, and how can I then better design it and invest in it going forward to ideally meet that purpose, that intent, to support our people, to support their work on their connection, to build relationships, to build trust, to be that that cultural glue? All of that matters a whole lot more when, whether it's a hybrid model, or you've got more people working remotely, it's all the more important now than it was a couple years ago.

**Joel Hagen:** So thinking of all those drivers you just talked about, how does that fit in with the need for better conferencing rooms and how that aligns with ADA compliance goals?

**David Albright:** As we as employers and users seek to better understand and communicate the purpose of the office and provide value in it to our people, the goal of these meeting spaces in particular is about connecting people that aren't just in that physical environment, but those that are anywhere joining that meeting from anywhere. Ultimately from a universal design standpoint, making that space, idealizing that space to best accommodate all. So then bringing in ADA as we think about how these spaces might need to evolve, how they might need to be more flexible, more nimble, and we might pivot the room to provide more display real estate to present content and people on a larger format, ultrawide display as an example. The ADA requirements for that installation, that AV installation change, but so do a bunch of other dynamics with that AV installation that impact the universal accessibility of that space to all. And so I think it all ties together a lot more closely than it did before. I hope that for our industry, we're not just checking a box to meet ADA compliance, but it's providing us the opportunity to think bigger and think more holistically about accessibility of that space even more broadly than just the requirements that the ADA guidelines place on that space.

**Joel Hagen:** The collaborative technologies you mentioned, ultrawide screens and other room reorientations. What else including that is popping up, and how do we make sure that they are ADA compliant?

**David Albright:** Yeah, these new ultrawide displays, oftentimes they're larger, obviously. They're bigger. They're heavier. Many times they're interactive in nature. It puts new demands on the space.

We're also then rethinking what wall makes the most sense in that room for that content to be displayed on? In a lot of cases, we're thinking of pivoting the room 90 degrees so that that that display is on the long wall of the room rather than the shorter end wall, which more frequently might be deemed a path of travel.

So that comes with its own considerations for far off the wall. Does that display extend? What height is that display for employees in wheelchairs and for those that are seven feet tall? How do we accommodate for all? How do we design for all? How do we make that space universally accessible for all in the room?

Things like credenzas under that display become important considerations. Or other solutions that support that depth of installation and that accessibility of that interactive content. Height adjustable displays become increasingly of interest there as well. And then beyond that, from a more universal design standpoint, what else might we consider that creates a more dynamic and accessible space for everybody, not just the people in the room? You think about lighting and acoustics and the importance of those in the meeting, the connected meeting experience for those trying to join that room and be present and be engaged. Those things matter a lot more to their experience. So all of that I think is new and different and an opportunity for us as an AV industry to help educate customers. I think another thing that probably is underrepresented there is the power and data connectivity side of that space. A lot of cases, you're needing to run power and data from some technology on the wall, in the ceiling, into the table.

What is that path? When solutions like Connectrac floor raceway are great for making for an ADA-compliant space in that regard. All of that, I think, thinking holistically about ADA in the room and more universal design for those that aren't in the room is where I'm hopeful that more and more in our industry are taking into account.

**Joel Hagen:** I think another big movement in the last few years is the growth of diversity and inclusion initiatives. Do you think focusing on making the office more ADA friendly has a wider impact on creating a welcoming environment overall?

**David Albright:** Absolutely. The whole ethos of universal design, of ADA, is about creating better, more universal spaces that provide better, more universal experiences.

The whole intention to that is to create more comfortable, welcoming environments for all. And I think as we look at a world where people are working hybrid or remote more frequently, we need to design our offices to be adaptive to that. To better accommodate and be more welcoming to those who aren't in the office on that given day.

And so all of that plays a part in making those employees feel welcomed. And as employers try to attract the best talent, regardless of where they live, that's increasingly important to success. Building out our spaces to be welcoming and empowering to remote hybrid employees is critical to our long-term vision of how we work. Hopefully, this lifts all parties involved.

**Joel Hagen:** Another tricky aspect of designing for office spaces is rooms may be used for multiple purposes on any given day. How do you incorporate that use flexibility within an ADA framework?

**David Albright:** Yeah. Designing for flexibility while making sure that that space is ADA compliant can be a challenge. Something as simple as how I'm running power and data in the room – a fixed environment can be a challenge, let alone an environment where we want to deploy tables on wheels that are more nimble and flexible.

I think of a typical training room as a great example of that kind of space that is oftentimes pivoted into different uses throughout the day or the week. What considerations then can we make from a design standpoint to support and enable that ADA compliance of that space? Jumping back to the earlier comment, solutions like Connectrac are critical to success in deploying those more flexible environments. Providing safe and ADA-compliant power and data in the room that can flex and pivot to the needs the layout of the space as that changes is super important. And then deploying other solutions, mobile carts and stands, freestanding solutions that are wheelchair user accessible that might be dynamically or electrically height adjustable. All of that is increasingly important as we think about ADA-compliant design, universally accessible design. And I think it ultimately creates better, more nimble, agile workspaces that I think people appreciate.

**Joel Hagen:** Talking about agile and nimble, I'm going to challenge you. Can you describe some impressive real-world applications of using ADA design to create a better meeting experience for everyone?

**David Albright:** We just did an install actually at Microsoft headquarters in Redmond, Washington, where one of the two rooms was really centered around highlighting the accessibility of the 85-inch Microsoft Surface Hub interactive display and how it can be used as a team's room portal, which is a new innovation from Microsoft that they're very excited about. Rightfully so.

With that, it really took a look at how do we make that display accessible to the various employees around Microsoft's office. It was mounted on an electrically height-adjustable Chief stand that would support anybody and everybody using that display in its fully interactive modes. The space had a variety of seating and table solutions to meet the needs of anybody, age, size, ability that would want to work in that space.

So it was a really cool, flexible, and accessible environment that highlighted the latest technology, as well as thoughts on universal, connected workspaces

**Joel Hagen:** If you're interested in hearing more about that, you can check out legrandav.com where we have a case study and a blog about that whole project.

My last official question, what are some of your top go-to solutions for business applications that make it easy to be in line with ADA guidance?

**David Albright:** I've mentioned a number, starting with the endpoint technologies in this space, the displays, screens, cameras, solutions that support, ADA-compliant installation of those in the room, on the wall, in the ceiling, et cetera. All are super important. So selecting low profile display mounts that help keep that display within the four-inch off the wall guidelines, or otherwise looking at low profile credenzas or other solutions that help enable a compliance that of that installation. Height-adjustable solutions that help us particularly where you're deploying interactive technologies. Height-adjustable solutions are critical to ADA compliance in the space as well.

Connectivity pathway kind of things where you're running power and data from the wall to the table. Products like Connectrac or OFR from Wiremold being valuable solutions that support managing those cables in a safe and accessible manner are really of value to support ADA compliance.

The other thing is the tables. Tables and furniture in the room need to be designed to accommodate wheelchair users and those of various sizes and statures. Making sure you're picking commercial furniture that is designed with those elements in mind is important. Picking some furniture off Wayfair or Amazon, you're not necessarily guaranteed that those manufacturers are thinking about that commercial accessible installation. Coming to amanufacturer like Legrand that understands these dynamics and prioritizes making sure we're designing for ADA compliance to the space is important.

**Joel Hagen:** I would say, yeah, AV furniture is more likely to meet that ADA goal because it's built with the thought in mind that there are going to be wires coming through it, there's going to be a control factor involved, most likely maybe power. And yeah, furniture off online isn’t cut it, right?

**David Albright:** And then it's also designed to then more broadly, as we talk about universal accessibility, accommodate the right sight lines for the camera system in the room, that we're picking the right surface materials to provide light reflectivity to enhance on-camera presence.

All of these other things that help further the accessibility of this space beyond ADA, or just additional benefits you get from coming to a manufacturer like Legrand, ensuring that you're getting products that that meet and exceed the ADA guidelines and more broadly support our broader interest in a universally accessible space.

**Joel Hagen:** Awesome. I feel like my brain is about to blow up, but I want to ask you, do you have any last thoughts?

**David Albright:** I think I would challenge our community of listeners to take ADA as super important, but I think it can be a gateway into a broader understanding of universal holistic design, and the benefits it can bring to our end users, and we can all think bigger.

And I think we can all use ADA as a basis of critical design to support accessibility of our spaces. But then beyond that, there's a much larger field of opportunity for us to think bigger about not just the people in the room, but those connecting remotely and bringing that mindset and keeping the priorities of those people in mind as well as we think about the broader experience of that meeting space.

It's a fun time as the world is trying to better understand how we bring people back and better enable the performance of the workplace. Great time to be having these conversations with our industry, with end users that are struggling with some of these dynamics.

**Joel Hagen:** Yeah. Well, thank you so much for your time, David. This is incredibly insightful and it's always good to have you on the podcast.

**David Albright:** Hey, Joel, thanks so much for having me. Appreciate being here. Look forward to the next time.

**Joel Hagen:** Well, that's a wrap on our ADA series. I hope you liked it and got some useful information for your AV journey. I'd like to thank Brian Retzlaff and David Albright for hopping on to provide some great real-world applications. Although the podcast special series is over, we've got many resources available at Legrandav.com, including our ADA guide for AV, blogs, diagrams, and lots more. Be on the lookout for a free training course as well. Thanks for listening.

This podcast series is intended to be used for educational purposes only. The intent is to serve as a guide to ADA regulations pertaining to the installation and usage of audio visual technology.

However, none of it shall be construed as legal advice, nor should you rely on this content without obtaining your own project-specific verification. Those seeking additional details or legally accurate definitions of the ADA's audio visual technology requirements should contact ADA.gov.

The download is a product of Legrand | AV. Written and hosted by Joel Hagen. Editing provided by Beth K. Gibbs of Lift Podcasting. Have a great ADA day, okay?