

## EDUCAUSE Digital Signage Community Group

### Transcript of the March 31, 2022 Session

**(Note: The first eight minutes of the session were spent with small talk and letting participants into the Zoom session. One of the participants requested that the transcript be started. Thank you to that person for the wonderful suggestion!)**

**The transcript that follows has been edited as necessary to correct some of the mistakes that were introduced by Zoom. My sincere apologies in advance for any mistakes that I may have missed. ~ Kevin Kelly – Digital Signage Community Group Co-Leader)**

12:09:03 I'm Kevin Kelly and I work at the Institute for Advanced Study in New Jersey, and we're just launching our very first digital signage project. I've been doing lots and lots of vendor testing and narrowed things down to a couple vendors to select from. The goal is to be online in the next month or so. Colby, on the other hand, he's been at this for quite some time. Perhaps Colby can talk about the things that he's been dealing with.

12:09:39 Yeah, so I'm Colby Deitz from Western Carolina University. We're in Western North Carolina. We've actually been using digital signage on our campus for about 12 or 13 years. So quite a while. When we first put in one of our new health sciences buildings, digital signage was part of that project. Like many of you that's where we started at ground zero. So we came in. I was lucky enough to be part of that first project. We built kind of a test bed in our student center.

So our technology commons use that to kind of figure out what it is that we were looking for in the solution and got feedback from lots of different people and kind of work from there, and kind of going forward with it. So yeah, we've been with Navori now for about 10 years or so. And yeah, it's been an interesting kind of process trying to figure out how to do all the governance side of it, trying to figure out you know, creating policies for not only the IT side of it, but for the rest of the campus to use as well. So it's been fun.

12:11:04 Now, we each have different reasons for why digital signage was brought to our campuses. Does anyone want to go on and talk about your particular situation? Perhaps it would be for something more than just simply advertising different things on the campus.

12:11:23 Okay, I won't be shy. We have a new building being built. It should have been built two years ago, but we all know that the pandemic kind of screwed up everything. So the new building that's being built is going to use digital signage outside of the meeting spaces so that people know what meetings are taking place in those spaces at any given time of the day or night. In the School of Math where I actually work, it's similar in that we'll be displaying a list of the events taking place on daily basis, a building directory, and other things. We've been contemplating some sort of an emergency notification system for interacting with the display signs as well. I'm not sure if anyone here is using things like that to automatically pop up for weather alerts versus like on campus sort of activities.

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12:13:23 Brian did you have your hand up?

12:13:33 We came at this kind of backwards. a new building was put up. A performing art center was put up and the architects included digital signage in various places around the building. And so, after it had been built, they came to IT to do it and said, "So what are we doing about this digital signage thing?" And we said, "Give us a minute and we'll come up with something", and so I mean we did come up with something. We use Rise Vision in no small part, because at the time it was free. Now it's just cheap. It was something that was pretty much off the shelf and it's worked fairly well for us. It's become really popular, and it's now expanded so that most departments, I would say, have some sort of a usage of it. Most of it is just like you said, you know announcement of upcoming symposiums or classes, registration information, or when professors have office hours. You know it's all sorts of different things.

12:14:48 Someone said, "Hey, we've got all these digital signs in the architectural drawings. What are you going to do about them?" Don't you love it when they approach IT that way? Well, it keeps my job interesting. Yeah, How about some other folks?

12:15:08 How have you been in a similar circumstances, Brian? Or have you actually had an opportunity to do the planning from the very get-go as opposed to being brought in at the very last second?

12:15:27 So we we've had digital signage. I'm just kind of the second administrator of our digital signage network since we put it up. I want to say in 2006, 2008 somewhere in there. I can't remember if that's when we started it or if that's when I took it over I really can't remember. But we've had it for quite a while, and we use Four Winds Interactive and that's what we started with. We've been happy with them. The main reason we selected them at the time was they had built in wayfinding so you're in one building, or one place you want to find, where another building is. You set up all the X and Y coordinates and points and paths and all that, and then it figures out quickest route to get there. Every other solution we looked at at the time were saying that we can display whatever you build. We were like, "No, no, we don't we don't want to build this. We want to buy this." So we did that.

We do use Rave for emergency management, and we've got that tied in with our digital signs. So it monitors an RSS feed and a specific string of characters. So if that string of characters is not there, all the signs switch to emergency management, emergency notification. If the issue is all clear, it doesn't show any of the alerts. It's automated and checks every 10 seconds I think. It's that's all automated and quick!

You mentioned directory. We have directory built-in. We're pulling all of that from a job out of our Banner system so we save that to a network location and the sign pulls it every morning at 6 A. M. Actually, I'm sorry, it regenerates from Banner every morning at 6 A. M. and our sign pulls it every hour. I think so we can make manual changes if we need it to.

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You mentioned events. A couple of years ago I tried this and tied our signage with events from around campus. So our web team created some XML content for me that they're actually using on the web. But then they created a different view of that for me so they're basically providing me with it for a couple of years. I want to say they're just providing me an RSS Feed. So I've you know, displayed that as needed in our digital signage. I'm also pulling our sports stuff from our sports website. So we have all of our sports teams and who they're playing. I have that in one list on one side and then open events on the other side, and that's completely automatic. I literally haven't touched it in 2, 3, 4 years.

I'm not in charge of content. I do hardware and the software and do upgrades that kind of thing. The actual content is handled by our marketing and marketing and communication. A lot of the sign content is geared towards prospective students. Oh, you know, sometimes I personally think there's an audience confusion as to who the sign is targeted to but it's pretty much targeted to prospective students.

12:19:38 I'll share our experience and we're more similar to Brian's case. We kind of got into this backwards where they were. They were in drawings and kind of left on our laps. But before that it actually used to kind of be very siloed off at our university. So everyone had their own thing, and they had their own platform, whether they were just using Powerpoint or if they were using BrightSign or Magic Info. Everyone just had their own thing. They were responsible for maintaining it, uploading content. We've luckily transitioned more towards a streamline approach where we've been pushing more BrightSign on new installs specifically with our student unions. So with that, you know we kind of do the same thing with the cafes and the menu's ticket prices at our performing arts venues, or even at athletic venues promoting events on campus, QR codes and areas for more resources for more in-depth resources. But one of our most interesting things that we've seen is something our wrestling team started and it is starting to be adopted throughout the rest of the athletic department. They use it to post their workouts and their goals for the day, with just within their rooms and within the weight room, and just common things that everyone should know instead of pushing out alerts through. I forget which platform they used to communicate with each other right now, but they can also put it on the digital signage. Everyone is responsible for their own content but usually university communication has to approve anything that goes on in our larger venues or our more highly traffic areas, such as the student union, or our admissions building. Hearing what Jeff said there that sounds awesome because someone manually has to create a graphic every week with this week in Campbell Athletics, and I'm glad it's not me anymore.

12:21:48 Yeah, our of digital marketing is the one that does the content. So he does create graphics. Most of our content is video content. So they do news stories per se, and they post those, and they do stories about upcoming events. But rather than static graphics, it's a lot of video you know. So we had to build it. I had to build it years ago to where the sign would be always muted. But then you could come up and hit the sound it would unmute. Because people were turning the sound back on people would unplug them to stop the sound. They

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would do everything they could to those signs to shut them up. So we finally figured out how to put a mute in. Because this system, the Four Winds Interactive system will let you mute but it's only for an individual video. So once the next video rolls around it unmutes. So we had to figure out how to mute the computer that it's playing on and have the signage be able to mute and unmute the actual PC. So all sound was muted. That was a tough one,

12:23:17 It looks like we have hands up from Chad and Stephanie. So if somebody wants to start, that would be great. Stephanie, do you want to jump in, or do you want me to go first?

12:23:27 Oh, you can go your hand raised first.

12:23:31 Okay. just wanted to give you that courtesy. My name's Chad I'm with Central Connecticut State University. We've been doing this full-blown digital signage system now for about 2 years. We backed into that out of a home built system. I saw somebody mentioned in the chat that they were doing. I think something they said in Drupal with Chrome sticks. We were doing a system that was actually built by our marketing department, and they were using webcap to do the content, and that that was horrible. It was a really bad experience. If you uploaded content, you erased everything existing that was there. So you had to re-upload any content you wanted to maintain.

I was tasked in mid-2019 with looking for a new solution. And I bounced between our advancement departments and IT and our communications and marketing areas for a few years, and I looked at about nine different providers, and we sort of had a list of basic things we needed you to be able to do. We needed aes integration (**NOTE: Unsure if "aes integration" is correct or not. This is what Zoom provided.**) We needed single sign-on. We needed the ability to have some moderated form of management, so that you could have a gatekeeper create content. But then another person could approve its posting and we let it on Carousel. We did a proof of concept on it, and mid-proof of concept Covid hit, and literally in June of 2020 I was tasked with building 50 high-flex educational rooms that had to be ready by early July, and then they came to me and said, "Oh, by the way we want to spend your money and get signage up and running. Can you do that?" So we went to our vendor, who was building these 50 high-flexed rooms and said, "Listen, I needed to redirect some extra resources", and we spun up about a 100 digital signs on campus.

We went with Carousel, and we had a full-blown system going, and we disabled our home built system. We are using single sign-on. So I go into an exterior external program called DataPrivilege (<https://www.varonis.com/products/dataprivilege>) and I simply authorize who has access. It gives them a front door right into Carousel which is great. I'm not lobbying for this product to anybody else I'm just saying that we found that their web presence, their mobile presence has been fantastic, and the fact that they're in the cloud you can utilize them anywhere so that's been very important to us. We primarily do general signage around campus and a lot of entry ways, and then I, like a lot of you, have certain building projects. I'd say the last 2 or 3 buildings have come with design signage interior near the academic and

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administrative locations. So we've then outfitted those with BrightSign and we've put them on with general signage content, and as a department want to sort of take those over, we give them real estate in a zone, and we allow them to edit and put their content in. So we're managing this kind of on a hierarchy from campus wide to department level right down to the user base. Our food service provider Sodexo manage all their menu systems through Carousel. They were previously on an isolated Visix installation. So we've tied them in.

Yeah we're using Alertus and it is kind of becoming our centralized alert system. We still have a few handoffs like Whalen has its own system for sirens. Another system handles something else, but Alertus generates I'd say about 80% of our alert messaging to phones, texts, emails, computer desktops. So all I did was go into Carousel and I set up the cap compliance script for Alertus, and we pull right in. So if they want to send out a weather alert, it puts up a blue screen with a weather message on it. We want to send an all clear it puts up a green screen with a message on it. If it's an emergency lockdown situation it's red and if it's a general non-emergency alert, then it just flags a yellow screen. So we've been able to color code them as well. We are waiting on launching EMS integration. EMS Campus is our primary scheduling software. The department that controls that is a little financially challenged right now. They need to buy the plugin for us. But Carousel is now integrated with EMS so we're hoping to do more with room booking and campus event messaging in the near future, as I think Jeff mentioned.

We do some automated content. We pull in the web, we pull in Twitter. We pull in YouTube. Our Marketing Department is the content originator. I'm again the hardware software guy. So I try to stay out of the content editorial base.

I handle the training as well, which I think is important. You have to have some documentation for training. I'm hoping to get out of this group some real guidance on governance. I'm pushing my management to try to start a governance structure for this, and it's falling on deaf ears so I'm sort of the gatekeeper for all of that right now and I'm doing it carefully. But I'd like to have some stronger governance. I've probably looked at some of your websites, because I've been searching a lot of them to see what's out there hoping to steal from the best. My colleague at UConn, who has a massive installation - I mean we're at about a 100 - 150 signs right now - I think he's approaching 800 or 1,000 - he and I meet on a monthly basis to talk through some best practices. He's far ahead of me in terms of what he's doing with room scheduling. But it's nice when you can find some colleagues who are on the same platform, and I'm hoping this group will be able to do it too and we can start sharing some of these ideas.

The last thing I'll say is I'm going to try to start a screens user group this summer and bring it to my campus users so that we can do a micro version of what this group is doing. And again, if our librarian designers have some great things they're figuring out how to do, they could then share it. So I'm great with the hardware and the technical, but I'm also trying to do a lot with the instructional design side of it as well. So on that I'll turn it over to Stephanie.

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12:30:11 Hi I'm Stephanie and I'm from Brown University and digital signage is just one of the things that I somehow inherited and deal with. Unfortunately, I think it was probably about 7 or 8 years ago we had a selection process where we chose a digital signage system for the school. I wasn't actually involved in that process. It was chosen and then it was handed over to me, and they chose AxisTV by Visix, which maybe it's improved but our users were like, found it really unintuitive and hard to use, and the vendor we were working with to support it was like, not very expensive, not very responsive. The whole system seemed like those individual players were so expensive and then, after the 3-year warranty was up and they started breaking people were saying, "You want me to pay what to replace this player, you know that was our initial budget I didn't know I'd have to do that." So it was obvious to me people were getting more and more disgruntled with it. They were just like, give this player to someone else I don't want it anymore. I don't want to deal with this.

So we knew we had to make a change so I did a little innovation project, and we got the Drupal code from the University of Iowa (<https://its.uiowa.edu/digitalsignage>). You can actually see all of their signs online and their other documentation in their system. Their code was using is written for Drupal 7, so it's sort of like on its way out. So we're going to figure out what to do next but I think I'm heavily looking towards if I'm able to writing something ourselves. Like, maybe in React (**NOTE: This might be worth a look if you are looking to deploy something using React - <https://github.com/henrik-leppa/hfl-signage-player>**), or something because it's been like life changing that basically all that people were doing with the signs was putting images on it. Occasionally videos. They weren't using any fancy features you know. It wasn't like anything we could not do with a responsive web page.

So basically now all of our signs when you make a sign it's just a web page and IT and you choose a layout. You can put widgets on it. You could move it around. You could do funky things, and then our hardware is Chrome boxes, which cost us \$250. We wanted to use sticks but they're like they don't make them anymore. So unfortunately the boxes need to be mounted so that's an additional cost. But still it's so much cheaper like \$3,000 to just do the sign part before not the TV. And now it's like \$400 you know. It's huge and we've had such an uptick in adoption. People seem to find the system easy enough to use. I think it could be improved, but, like in general, it's they find it easier to use, and since we replaced the 50 signs we had on campus, and since then we've installed just in the last couple of months we've installed like 25 more because people have heard about it being so cheap and easy to install. It's so flexible and the Chrome boxes actually are not all configured exactly the same. And we handle the redirection on the website. So all of them hit the same URL and the URL tells them Oh, it gets their serial number from the header, and then tells them which sign to display. So if somebody has an issue with a Chrome box if they need an extra sign, it takes like 2 seconds to set it up. It's so fast, and if the power goes out it just boots right up. It boots up in seconds. That is displaying the sign so it's been really successful for us, and it saved us like tens of thousands of dollars. So I kind of worked out with everything being shut down for Covid because nobody was thinking about their digital signs. So we just went and replaced them all,

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and then said, "Surprise. we have a new system,." Everyone forgot how to use the old one. Anyways. it is good timing. So it's kind of an odd story but that's it.

12:33:42 It's a perfect story.

12:33:50 So thank you for sharing Ryan. I just wanted to go back because a lot of people went farther with it. And so there's some things I didn't put in that might be of interest. We use our emergency system. We just use Alertus on this campus. And so all the machines just have Alertus on them and part of that system. So it just flops over, and it kind of kicks Rise Vision out and puts up the Alertus thing there. Our hardware we used. We started out using Chrome boxes. We're now using the little Intel sticks, and they come with just enough hardware to run Windows 10 pretty effectively, they've got an Ethernet Jack, a wi-fi to USB and room for an SD card. And we just plug them in. Sometimes we have a barrel connection to plug them into the machine through a little extender. They're about \$250 each, and, you know, Rise Vision just runs. Rise Vision is essentially a web product and so people just want on the web, and it sets up pages and feeds them out. We are totally decentralized, but basically the departments divisions, whatever you want to call them buy the hardware, I set it up to use Rise Vision, plug it in when they when they first start out. I usually do like an hour training for people. And then all the content is made, and down at that level. So I mean the content varies widely in quality. Some of them are just static images. Some of them are video and tickers and all this other stuff. It just depends on what people feel they need. So the back end of Rise Vision, especially for, like higher executive functions, is not great. But the content creation is I tell people basically if they remember like 1990's PowerPoint they're pretty much there and you know so that's pretty much sums it up. We're at like 400 signs currently maybe 500, something in that area. I don't have to keep track of it, because it's all property of the various departments, and everything from like little 3 and 4 person departments up to the library.

12:37:00 Yeah, I'll jump in again since Brian took a second take. I failed to mention that something I'm exploring now, and being brought into, is we have a limited amount of external signage on campus. Unfortunately, it's parse between 2 vendors. We have a decade old or more than a decade old electronics LED system running off of their Venus 1500 software, which is sitting on a local VM, which is kind of horrific, because the software is I think 6 years out of support, and the hardware is even longer than that. So that being said, we've been asked to look into updating it. And then we have 2 large signs that are running Cirrus LED with ScreenHub, which used to be their name, which again is a cloud based system running the front facing LED boards. I'm more interested in trying to upgrade the Daktronics right now. Carousel has been able to successfully switch over the university's external signage to their platform. So what we're hypothetically going to do is, look at putting a new modernized LED panel system in that will be more agnostic than the old electronics, which is very proprietary. Have it hand off to just an HDMI probably hang a BrightSign player in the enclosure out on the campus. Then within Carousel I can just create a zone that's sized correctly to that and then I'll bring in external signage to the single CMS. The goal is not to have 3 CMS is running 3 different signage systems on campus. I don't know how many of you are dealing with anything outside of your

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buildings, but I'd love to hear any input on that, as well. You know, we're exploring Unilumin LED, Nanolumens LED, or electronic products but again, I want to stay agnostic on the hardware, and I want to be able to tie it into my current cloud vendor, which is Carousel. So if anybody has any thoughts on that it'd be great to share in this group, if not today, maybe in the future.

12:39:15 Yeah, I want to piggyback off of what Chad just to mention there. Please make good use of the digital signage community board through Connect. It's a great tool for lots of information sharing or just asking questions. You never know when you're able to answer someone else's question, or when you have the same question that a bunch of other people have. So try to make good use of that tool

12:40:02 So Chad, just so I understand, when you're talking about your external displays, you're talking about things that are out outside, able to handle all different types of weather conditions. Is that accurate, or did I misunderstand?

12:40:12 Yeah, no, you're correct. So these would be the direct LED type boards that you see that have you know the pixel pitch LEDs set up on them. They're usually one foot by one foot snap panel that you take out as pieces, and they run off a controller, and we have various sizes. We have some full color, what I would call larger. They are 4 to 5 feet wide with maybe 3 feet tall. Run an external exterior or the campus internal to the campus. We have more single strip, single color I like to call them kind of your date and temperature. You can put very limited information on them. and then below them there are large final printed campus maps. So for people who come on the campus, they can kind of walk up and do that grid thing where they look at, where they are, and figure out where buildings are. The dream would be just rip out that whole physical map and put in a large LED panel and digitize the map, so we don't have to print new updates, But I've only been asked to investigate this because I know it's going to be fairly costly to do these newer panels. However, I've stressed to management the urgency that it's a very visible and exposed system, and when it goes down it's not going to be pleasant. We had a sort of a quadrant go out on a sign that's right off a highway exit as you enter our campus, and for a few weeks I was being hit pretty hard by management, saying, "What are you going to do about this?" And I was just sort of inheriting it. So I reached out to Cirrus LED because it happened to be their system, and learned that we were still one year remaining in our warranty. So the regional rep was passing through from Maine into Connecticut. He stopped by. He tested the panel. He proved it was wrong. He got verbal approval, pulled one off of his truck, snapped it in, and got us running again. But to have your highway exit that dumps to your campus, have a piece of its signage black on, you know a quarter of a screen was not the most pleasant thing, and you heard about it from management. So my kickback to them was we to bulletproof this a little more. We need to modernize it or you need to expect us to throw a black garbage bag over it when it stops working because I won't have the ability to buy some of that old electronics hardware. But it's all weather resistant it's in enclosures built by a local vendor that builds large scale signs for corporate companies and buildings. You know, they do everything from baseball stadiums to academic and corporate buildings. and they built



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the enclosures. They included the original electronics, and from the front, I can unscrew these using Allen wrench tools, pop the panels out, and I can do some maintenance on them.

12:43:16 Yes, you don't want to be in a situation where your signage isn't working and then you're pointed to as the cause of it not working. Sometimes our administrations are a little tight with their wallets and expect everything under the sun to work. So, Chad, you're doing a great job with that.

12:43:32 Thank you.

12:43:40 It's 12:43. I wanted to focus a little bit on what the goals or how this group could benefit each of us in a better way. I know earlier, not to pick on Chad, Chad expressed interest in guidance on governance. Just recently Chad also mentioned about external displays. What are some other things that the folks here are interested in to sort of get out of this group? As Colby and I were formulating a plan for moving forward with this group, we did speak quite a bit about governance, policies, and sort of making best practices or recommendations that the digital signage folks could do to at least make recommendations to their administrations and their colleagues. So it would be great to hear some other ideas, so that we can sort of plan accordingly as we go through the upcoming months of these lunchtime sessions. What we find in our own individual environments may not necessarily be relevant in everyone else's environment, but at least sort of a guideline. What are some of the recommendations that we put out for individual displays, or if they're external displays, what are the key things that we need to be aware of?

I believe Jeff, Brian, Charles and Chad also previously mentioned who is responsible for the content creation. I don't know if everyone here is from the IT side of things or on the marketing communication side of things. If it's a blend of everybody that would be helpful. I recall that accessibility came up in a previous message to the group. That was definitely a point of interest for us. It's not enough these days to just have braille for example, showing what the room number is. Having a display actually talk to somebody, or having a mechanism where they could plug into something to have it play back. The actual angle that you're displaying the screen is also really important, particularly for folks that are in wheelchairs. That's something that we've discovered height wise as well. Where the digital sign sits outside of a meeting space. Is it on the door handle side? Is it on the inside of the door? These are all really critically important things that we didn't realize.

12:47:19 Yeah, I'll just chime in on what she said we were talking about it in the chat that was actually one of the parameters that a vendor had to meet in order for us to consider them was the accessibility piece and in Carousel's case they provide they basically parse all your content into an accessible web page that's easily addressed and then we can place that somewhere on our website so that people can then go there with a reader and get that information. So we're pretty hands off with it the only manual designation you have to do is when you're in creating

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your specific bulletin. There is a toggle that defaults to show on accessibility site. However, you can turn that off if for some reason it doesn't need to be.

The only reason I do that now is I have a training site that doesn't necessarily need to be public facing. So I use it in training sessions I just have all of my bulletins turned to don't display on the accessibility site, because it's never going to be seen in a public place anyways where somebody needs that and as you've mentioned Kevin we do accommodate the tilt angles. You know we do a 68 inch standard sight line. Viewing angle we tilt off of a fusion. We follow all the Osha recommendations from our Facilities Department to maintain, you know, 4 inches off a wall and space off of a door entry or window. So, yeah, those are very important things, and I'd encourage you all to, if you haven't done it, you got to become friends with your facilities folks, because, unlike me, they know those rules, and I depend on them to give me a green light and a thumbs up. I split it 3 ways. IT site checks the data, facilities site checks the location, power and accept physical accessibility and I have to handle the rest and that's basically how we carve it up.

12:49:21 All right, it's almost 12:50. Does this time work for everybody?

12:49:50 We will post the transcript of today's conversation if that's okay with everybody. We'll also post the information that was in the chat. What we envisioned doing was taking the list of all the vendors that were put in the chat and making that list available to anybody that's in the community who's looking at other vendors, or considering other vendors, they can at least see who the other folks are using. We're going to follow up with another survey. This is going to focus on trying to just get some more information that we can share with the community to see like what the other folks are doing. This one is going to focus on things like how many signs are in your space, is your signage solution on premises or in the cloud? How many displays are there? What are your average sizes are using a wire wireless connection? What is your annual budget?

12:52:08 Okay. So I see some people saying lunchtime is good. I'm glad that that's working for people, and I see people have to leave.

12:52:17 Being mindful to everyone's time, if no one else has anything they have to bring up, I will say, thank you on behalf of Colby and myself for joining us today. We will send a message once everything is posted, and then you can go back and read through the transcript. Please also look for the survey, coming out sometime early next week.

12:52:45 All right. Everyone enjoy the rest of your day. Have a great Friday and a better weekend!

Zoom session adjourned.