

The CTO Perspective: MediaTech's Biggest Technology Priorities

Stan Moote (IAMT) in conversation with Felix Poulin (CBC/Radio-Canada), Mark Chiolis (Mobile TV Group) and Craig Wilson (Avid)

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I'm Stan, CTO, and I've just got a few great people here. We're going to do a CTO panel today. And Mark, do you just want to introduce yourself?

I do. Thank you, Stan, and I appreciate the invite. It's great to be on the panel with everybody. I am Mark Chiolis, the Director of Business Development for Mobile TV Group, and I'm also on the committees for NATAS, and I do some HPA work as well.

That's right. We talk a lot at HPA, and that's good. And Felix?

Yes, so Felix Poulin. I'm with CBC/Radio-Canada. I'm in charge of collaboration with the industry relative to innovation projects. So I'm in that role. I'm also co-chairing the MXL open-source project, the DMF activity within the EBU. I'm involved with the JT-DMF committee. So really focused on those questions of dynamic media facility nowadays.

Right. So we're certainly going to dive into DMF. Absolutely. That's an important topic. And Craig?

Yeah, I'm Craig Wilson. I'm the Principal Enterprise Specialist for Avid, based in the UK. I've been with Avid quite a long time, 19 years. Prior to that, I spent about 20 years as a journalist. So my background and my focus really is on workflow solutions, particularly in the news market.

And we're going to talk a fair bit about that as well. Well, why don't we just dive into that just for a minute, speaking of news? And let's talk about provenance and areas like that. So where does that fit?

I mean, I think for our customers, trust is everything, and I think the trust that they have with their audience is a kind of critical component of who they are and that relationship with the audience itself. And of course, we've seen over the course of a number of years that trust perhaps being eroded. Some of it could be done through political means. You know, we talked a little bit yesterday about what fake news actually means, and in my view, I often think fake news is just news that some people don't like, as opposed to news that's actually fake. It's a slightly different thing.

But I think there is a big issue around trust and provenance, and I think the work of organisations like C2PA and also other, you know, companies like Reality Defender and Factiveverse that are enabling tools to help journalists establish, "Is this accurate? Is this a real image that's not been manipulated in any way?" — is really important. I think there's a bigger question, which is almost like a societal one, which is we can have all these tools that people and the professionals in the industry can utilise, but I do think there is an exercise of public information as much as anything

else to ensure that people look at things critically. They don't just look at something and assume that it is true because someone has put it out. So I think the work of C2PA, which of course has gone on for a number of years now — obviously CBC and Radio-Canada have been part of that, among other organisations — I think is quite significant. And we have tools within our portfolio with Wolftech News where C2PA is embedded within that.

Well, I think the other aspect about C2PA people have to remember: people do take content. They do change it. They do edit it. They do whatever. But you can log into C2PA and say, "This is what's changed." So that's good. Felix, did you want to comment about that?

About C2PA in public? Yeah, I mean, as a public broadcaster, the kind of credibility of the organisation is key, so we need to find ways to cut into the noise, and C2PA is certainly a good track to try to provide tools for our industry to go through that noise and keep our credibility. I think there will be, even more than before, a need for reliable information and credibility. So that's why we are in there.

Well, I look at this a few different ways. Certainly the younger community, you know, they like to see the shorts. You know, they pick up stuff, and even though it just may be a fun thing, they don't realise it's necessarily biased. But when you look at that, maybe the way we deal with some of that is to get more younger people in the community. And with HPA, the YEPs are there, the young people, as well as with SMPTE. Do you want to just talk about that and talk about as well what are you seeing at the show here with young people?

So I also think I agree with both of these, but I also think that we need to do some education of everybody to make sure that they can differentiate what's real and what's not, and, you know, let them make a conscious decision. But yeah, I've been involved with HPA and the YEPs for many years, the Young Entertainment Professionals, and that was started a number of years ago. And each year, they take anywhere between 20 and 30 young entertainment professionals between the ages of, let's say, 18 to 30. And some may have been in the industry, or they may be headed into the industry, and then they put them together with a mentor. They give them the opportunity to go to HPA and SMPTE events, as well as other local events that will help build their reputation, their knowledge, and their, especially their networking in the industry. And I think that's very important, especially in today's environment. We need the young people to come up to replace us and to be the next future stars in the industry.

And what have you seen at the show here? I've certainly noticed a lot of younger people.

I have noticed a lot of people. In fact, I was at the SMPTE booth yesterday passing by, and there were about 30 of them all gathered there. So it was great to see them. I've also noticed that on the show floor that they're there. The other thing I've seen — they're not necessarily YEPs, but they're young — the next generation of influencers. I've seen them both at my hotel in between walking and on the show floor. They'll pop up. I'll see a camera come up, and a couple of them will start talking. They'll say where they are, what they're doing. They're in a booth. It's what's exciting, and I don't know whether that's going out live or, you know, they're going to post that immediately. But it's fun to see that.

Yeah. And do you want to just dive in on influencers and where we are and the market sort of levels and where that fits?

Yeah, I mean, I think one of the big challenges, I think, for a lot of the kind of traditional broadcast organisations is the creator economy and the creator community and how they deal with that. And going back to something you said earlier on, you know, Stan, about trying to attract younger people into news, for example, I think one of the things we have to recognise is that different people have different views of what news actually is, and the view that I have of news and the view that my, you know, 29-year-old daughter and my 25-year-old son have of news is perhaps a little bit different. But I also think that what people are looking for is they're looking for a tailored experience on different platforms. So there is the broadcast experience, but there's then the experience on Instagram, or there's the experience on TikTok or the experience on, you know, other platforms.

And I think what's crucial for the bigger broadcast community is having that ability to serve those different communities. And I think we've seen with a number of organisations, you know, the BBC in the UK, for example, have a big focus on TikTok. I think The Washington Post, you know, was one that's leading, you know, people to look at that. I've actually done a podcast with CBC Canada, you know, talking about, you know, their kind of TikTok sort of campaigns as well. So I think broadcast organisations have to do that to bring those audiences in with them. And I completely agree about the number of younger people who are here. You know, on the Avid main stage, we've had presentations from some, you know, major film editors. We've had Andy Jurgensen, the editor of One Battle After Another. We have KPop Demon Hunters. And if you look at the audience that's sitting and watching that, a lot of them are younger people, and that's great to see, because I do agree that we need to have more people coming into the industry, because I also think the more diverse that we are, the more the younger people can come in and influence then the decision-makers who are further up the tree, the better ultimately the kind of material they produce.

So your point is it's not just the industry itself where, you know, it's not just broadcast anymore. It's really diverse.

100%, you know, 100%. I mean, I think we have to recognise that linear remains a significant part of most broadcast operations, either from a commercial perspective, it still drives a lot of revenue, or from a reach perspective for the public service broadcasters, you know, particularly in Europe and, you know, like I said, yourselves at CBC. So I think that's remained significant, but the reality of, particularly from an advertising perspective, is a lot of advertising dollars are going into the other kind of platforms, and that's where individual creators pose a significant challenge, you know? And if you look at some of the, you know, the big creators, they're producing high-quality content. It's not just about, you know, it's not cat videos on YouTube anymore. No, they are producing content that is as polished and as produced as something that would be done through some of the major studios.

So there has to be a recognition that it's not just about the short stuff. It is about them developing and delivering stuff. And I think what we're also beginning to see, particularly in the news market, is a lot of individual content creators, it's about the personality themselves. So I think you're beginning to see some work being done by some of the broadcasters where there's the brand of the broadcaster themselves, but there's then the individual brand of the presenter, and trying to utilise that, I think, is something that could be really powerful to try to address some of the challenges that the creator economy produce.

Yeah. I had interviewed one company, and they were telling me they were big at the fashion industry, and they needed a lot of storage products, and they've lifted that up. And at first, I was a little bit confused, but they were — the fashion industry includes perfume and everything, so they really want to have polished products for that. I want to switch the topic here over, and this does lead into how the studios become more flexible. So, Felix, can you just maybe in a nutshell talk about the dynamic media facility?

And I can start with our own story at CBC/Radio-Canada, and it has a lot to do with the previous topic of reaching other audience, younger audience and everything. The media ecosystem is complexifying. We need to quickly adapt to it. And on the other end, for now, we have a project to renew our infrastructure in our Toronto broadcast centre, and this will happen over many years. How do we provide our production operation with tools that will enable them to adapt to this quickly changing market? So it's not like before, that we build them studios with fixed purpose, and it will operate for 10, 12 years like that. We need to provide them with something that will be able to evolve over time. So the whole concept of dynamic media facility, and to use software and commodity IT as a means to reach that, is really to have this set of tools that we don't know yet what they will be exactly, and we want to leverage the innovation. We want to leverage the AI. We want to leverage everything that will come up. So fundamentally, it's a vision of flexible facility based on software, based on commodity IT.

Right. And how does MXL fit into this then?

So MXL is actually a teeny part of it, as soon as you go in a software world. So imagine your whole production operation: instead of running on a bunch of different hardware that are tied together with SDI or 2110, you will run those same functions on a cluster of compute. And because they are already on servers, it's not really efficient to go back to the network to stream and to encapsulate all your media, to cut it down into small packets that you need to encapsulate, put an address on it, and everything. It's already there in the memory space of your compute cluster. So MXL is just a way to exchange the media between those different applications from different vendors using the shared memory of the infrastructure.

Yeah. You gave me a really cool diagram. It's up on my LinkedIn, and we had a little interview back last month. Yeah, so if people want to have a look at that, we can get into detail on MXL. So I'm just going to bring up the exciting word here. Let's talk about AI for a while. I will say at the show here, I haven't seen a lot of AI washing.

I think there was a little bit more last year. I think people are now getting into tangible things. But I want to jump down to you just for a minute, Craig. People are confused between Gen AI and agentic AI, and I've seen a lot of people calling agentic AI, which was really Gen AI, or I'm not even going to get into the machine learning versus AI discussion. We can't do that anymore. We just move on. But just tell people the difference between the two.

Yeah, yeah. I'm old enough to remember when people talked about cognitive services before it became AI. But yeah, I mean, the way that I see it, I think, is relatively clear. Gen AI for me is about generating something, okay? Agentic AI is about enabling workflows. So to talk about maybe some differences there, one of the things we've announced at the show is a new partnership with Google, for example, with Avid, where in Media Composer, through our Extensions workflow, I can access Gemini from Google and use that to then generate temp

footage. So say, for example, I'm doing an edit, and I think, "Well, it'd be quite nice to have a temp shot here of a beach." So in the past, what I'd have to do is, you know, maybe contact somebody in the library or go and search myself and try and find something that I could just drop the shot in, and then at some point I'm going to replace that with the actual shot I need.

Whereas what I can do is I can just put a prompt in Gemini directly in Media Composer and say, "Give me 10 seconds of a beach shot with, you know, sunset and things like that." And it will go off and create that as a media file and pop it in a bin, and you can then go off and you can then use that. So that to me is generative AI. It's creating something. I would say as a fundamental piece from Avid, at our heart we are a creative company, and we want to support the creative community. So we very much see AI as an assistant to the actual editor themselves. The editor's still the one... I always think, you know, it's the classic joke about a Formula One car. What's the most important nut in a Formula One car? It's the one behind the steering wheel.

So it's still very much about the person as opposed to the actual AI. In terms of agentic AI, you know, one of the exciting areas I think around that is the use of MCP, where you can basically connect a bunch of services together. And so in a news scenario, for example, you could go in, let's say I cover sport and I want to go and I want to put in a query which says, "Okay, show me all the home runs from the Boston Red Sox," for example. That's fine. And then say, "Okay, I want to find all the home runs from this particular player from the Boston Red Sox that were scored at Fenway Park, and put that in a timeline for me." And the agentic AI can understand those things, connect the dots together, and will go off and will create all of that. So I say generative AI is creating something. Agentic AI is about enabling a workflow.

Right. Go ahead, Mark.

Yeah. I just, I kind of wanted to talk about that. As you said, you know, it's not just a buzzword here this year. It's actually being implemented and used and, you know, people are, you know, profiting from it and utilising it in multiple ways. For my work, both business and personal, I'm using it to help create documents, to check documents, to provide facts, to generate agents to go do some work for me. On the creative side, back in the '80s, I did some music videos. So I've resurrected one of the bands that I worked with and I said, "Hey, how would you guys like to do an AI music video?" And they were like, "We're in." So we're taking one of their songs —

So are you ageing them or are you just...

So I'm not ageing them because they still actually play. But it's the same workflow, only instead of having cameras and lights and things like that, you're creating the scene on a computer. You're approving the scene. You're changing the scene. You're editing the scene. You're bringing everything together. So it's not really a different workflow, it's just different tools to get the result.

Well, I think that's really cool you're giving that a shot because it, you know, it brings stuff back up, makes it more current.

It does, and it's, you know, the lyrics and music material is still relevant.

Yeah. So let's just talk about some of the other changes we're seeing with regards to film versus TV or broadcast or whatever you want to call it. You know, back in the day, when digital cinema — certainly working through SMPTE — that was a real challenge, because the people were not

going to, you know, live with something shot as digital, and we went through all of that other stuff. We all remember all the demos we did and everything else. And it finally settled, and then we ended up with 4K being used everywhere. It didn't matter where you go, or 8K cameras in the process. But what's happening now? Where is that? Because it seems to have switched again.

So that was a very exciting time, because I was there with Thomson and Grass Valley and Technicolor with the Viper camera, along with Dalsa and Sony and some others. And ARRI, and I'll mention that in a minute. But that was a real learning experience and an education to directors, producers, cinematographers, and others to get them to use and understand that digital workflow. And having broadcast people understand digital for the most part, but bringing the film community into that and having them understand that. And the announcement that, in my mind, came totally out of the blue at this show was Thomas Riedel purchasing ARRI. And I think to me, that's great for both companies, because we've done other events as Mobile TV Group where we had the digital cameras, but we had a film crew, and film crews usually communicate with walkie-talkies. And we had a mobile truck there, and we had the, like, wireless intercom, and the film crew was not used to wireless intercom. And they were like, "This is the best thing since sliced bread," you know? And so we had a few other things like that. You know, they got to see cuts immediately. They got to watch things live. And so with, you know, Riedel being very heavily into broadcast and that —

And intercoms, yes.

And intercoms, and ARRI being, you know, very heavy on the film and the lighting side, I think that's a great opportunity in today's environment to bring both film and, you know, broadcast together once again and share tools.

Right. Well, let's just dive deeper into this for a minute, Felix. When the broadcast centre was developed in Toronto, I was heavily involved in that, particularly on the SDI side. But I think it's important because the studios are all on the top floor because we've got subways underneath and everything else. But the elevator, the lift, you can pull a whole truck in. So are you seeing that's going to go away, or where do you think on that?

We're keeping some of that, because obviously there's still a number of productions that are very efficient with those traditional workflows. So a real studio with real control room, control surface, and everything. So we're not removing all of this. It's just that for a lot of the production facility, they are not tied to a specific type of media. They can do radio, TV. They can do podcast. They can do a new format that we don't even know. So for us, it will be that a studio is a space that you can use for whatever you need, and a control room is a room with a number of control surfaces that can be adapted to the kind of production you're going to do today. But it will take time to... The goal is not to replace everything in one day.

This will evolve over many years. There's no rush. The flexibility, we already benefit from it. We just did the Olympics, and we built our own dynamic media facility stack to generate some additional content we could not do, and we would not require an investment of static equipment that will sleep between the Olympics. So we produced some online curling games using dynamic media facility, and we could monetise that content. We could reach an audience, significant audience in Canada. Curling is a —

Is big in Canada. I'm a curler, so it's a big —

Curling is very big here, with the Olympics.

Oh, yeah. It really took off with that. Absolutely, yeah.

Yeah. And we didn't have to spend for equipment that will sleep the rest of the time. It's licence, software licence, and it's something that we then continue to evolve to do other sports and other types of production. So there's room for the big-size production, big talk show, high-audience sports events that require very fast switching and everything, and there's a lot of room also for the flexible part.

Yeah, I think that flexible part is really interesting, and I want to pick up on something you talked about there, about having that kind of burst capacity, you know, to do something. You know, the Olympics, I think, is a great example, where it happens every two years, winter or summer, and in the past, what a lot of people had to do was invest in a kit that they basically needed for a two-week period in the middle of July and then, you know, in the middle of February, and then it remains static the rest of the time. Whereas the kind of flexibility that you've outlined there is absolutely what we are seeing for customers.

And then the other thing that you talked about that I think is really, really interesting is the fact that this is a progression that's going to take a number of years. You know, one of the things that we — feedback from our customers is they're trying to modernise, but without disruption. You know, I've got my steady stack of what I do, and people know how it works, but I want to take advantage of newer technologies, things like, you know, the dynamic media facility, for example, or something like TAMS, or other areas of work, or cloud or AI. But I'm not going to throw away what I've already got. And equally, I think one thing that's underserved within that kind of discussion is there's also a massive investment being made in the people to understand the technologies and the skillsets that they've built up over time as well.

And I think there's a big recognition — I think change management's a massive issue, we probably won't get into that today — within the industry of trying to help people move forward. And particularly in news, as we talked about a little bit earlier, a lot of news people are fairly resistant to change. You know, they have what they have. They like to wrap their arms around it and trying to move forward as well. So I think it is a long-term process, and I think the people that will be successful, it's about that incremental change, taking advantage of the technologies that make sense, that economically make sense, can help you monetise and, you know, generate and perhaps attract new audiences, and that, I think, is the path forward.

Well, I'm going to pick up on a couple of things. Certainly, you mentioned licensing. Licensing is a big challenge at this point in time because CFOs expect to get numbers because they're used to CapEx, and we're switching that around, and can you license something and understand what it is just for that production? Because as you know, in the production world, people rent stuff just because, you know, they could have paid for it 20 times over, but it doesn't fit in that budget. So with us, we've actually started now a digital software licensing group, and it's a combination of our members, our IAMT members, as well as end users, and we're working on best practices for that. So I think that'll come out. But I do want to pick up another thing on the Olympics here. It was really, really cool, the ski shots and the luge shots with the drones. And I have to say, and when I first looked at that, I was thinking, "That's got to be distracting on that," you know, hearing

them and whatever. And Mark, you've dove in a little bit more into that.

I have dove into that for a couple of reasons, but one of them was that I was out looking for tiny cameras for our mobile units for specific applications. And so I ended up at the Proton booth, and they had a number of these. And I got to talking about that, and they told me that theirs were the cameras on many of the drone platforms. So we got to talking about that, and then they said, "Do you want to see one of the drones?" And I said, "Absolutely." So they walked me over to the Wave Central booth, and there they had the RF transmitters and receivers, as well as the drones that were used in the Olympics. So to see the size and the small weight and the capabilities of those in that very compact package was pretty amazing. So that led to asking the questions about what happened between Beijing, where I'm told that there was absolutely no drones allowed because the athletes didn't want that, you know, kind of distracting them.

But what I was told between then and Italy was that all of the athletes had started training with their own drones. So they would send them up. They would follow them down the hill or wherever they were going, and so they got very, very comfortable with them. So it was not a distraction any longer, and I think you had talked about the fact there were some ways to kind of, you know, tamp down the noise so it didn't distract them.

Right, or distract the audience —

Oh, the audience.

Rather, that's right. There is technology out there where they track the drone noise and put a notch filter in, because we don't want to hear the drones. In the luge, it was closed in, so you could hear them. You didn't hear them so much, obviously, on the jumps and things like that. But you know, that was really cool technology. What'd you think about that?

Yeah, and it's about the user experience at home, the viewer experience. A big thing with Olympics is the emotional charge of watching a sport. There's a tension there and everything. So those kind of spectacular ways of providing — like, every few years, there's a new camera way or a new kind of shot we can do — I think it adds to this kind of emotional experience for the viewer.

It does. It really is a cool trend. Speaking of trends, we do put together our technology and trends roadmap here all the time, where we break things and put them on the adoption curve.

Great practice. Documented that.

Oh, thank you. Well, you work on it too, so. You specifically worked on the immersive side. So we're talking about different market areas, but do you want to talk a little bit more about immersive and where we are? Like, we're in Vegas here. We have the Sphere. Cosm is fantastic.

I can talk a little bit about immersive. On one of the HPA panels this year, at the Tech Retreat back in February, we had Cosm on there. We had Sphere on there, and that seems to be one of the big directions that is being monetised in today's world. The Sphere really started to, you know, take off from a revenue standpoint when they put Wizard of Oz on there. Obviously, yeah, I think this week they had Phish there. No Doubt is coming in a couple of weeks. U2's been there. The Eagles have been there. So you're not just getting a concert, you're getting an

experience. And the same thing with Cosm and other venues like that. They've got speciality cameras and huge screens that draw you in and really put you in the middle of the action. And unlike, you know, VR and AR — I've demoed the Apple Vision Pro, which is phenomenal, but it's a little heavy on my head, but the content is great. But somewhere like Cosm, you can experience this, and you can experience it with people, so it becomes a true experience in an environment where, you know, you're able to cheer and to root for people. And —

Just to add to that, I mean, I've been lucky enough to be to the Sphere here, not for The Wizard of Oz, but for another show. But one of the most extraordinary experiences I've had is ABBA Voyage in London. So I've been a couple of times to that, and the first time I went with my wife, they were about four songs in, and my wife said to me, "It's real people, isn't it? And they're just, like, photoshopping the images on." I'm like, "It's a flat screen." It is an extraordinary thing. It's a live band, but it's an absolutely extraordinary experience. You know, it's a purpose-built theatre and things like that. And so I do think experiences like that — because, you know, my wife came away from it going, "Why isn't every band doing this?" Because, you know, this could give you a revenue stream for the rest of your days. Even if you were to break up, you still have all of this that's going on. So, you know, these kind of things are really amazing.

Yeah, they certainly are impressive, and I think the other thing they had at HPA was they talked about The Matrix being there and showing it at Cosm. And I think it was the whole experience. You know, they're selling the drinks with a — when he puts his hand out, "Do you want this pill or that pill?" And the colours and the steak dinner he's having. They're selling the steak dinner. And they had lines of Mr. Anderson when you walk in. You know, so it is a full experience. And I think it — so we look at this and, you know, we talked about constantly, you know, people putting their phones up this way, that way. Where are we? And I've just given up on that. You know, on the plane down here, someone was watching a movie this way. Why they didn't turn it this way, I don't know. But you can't convince people of that.

But sometimes you have to go with the flow. I was at a concert a couple weeks back, and, you know, I grew up with this. I found myself doing this on a couple of video records, thinking, "Okay, you know, if you can't beat them, join them."

But fortunately, on that you can rotate it after. Fair enough. But I don't know where we're going to end up on that. But, you know, when we get into the AI technology, there are quite a few — I won't say quite a few. There are a few really niche people now that are using AI to turn things into vertical 16-by-9 and understanding the content, so it's not just cut out. And you're doing some of this stuff as well in the editing process.

Yeah. I mean, I think a lot of it is about great content. You know, I think that's what's always won. Storytelling.

Yeah, absolutely. You know, and that applies whatever platform you're on or wherever you're watching it, you know, nine-by-16 or square or whatever it is. And I still think that's the fundamental — the fundamental of all of the things that we do, whether it's news or sport, and, you know, talking about the Olympics as an emotional experience, it is that. You know, it's that one time every couple of years where people who are not particularly interested in a particular sport suddenly are interested in it. And I think the broadcasters do a great job of telling the individuals' stories, and that's really what it's all about. So I think ultimately it's about great

storytelling, whatever you're doing, and I think that's ultimately what wins.

Right. So how do we get some of our traditional broadcast vendors thinking about all these other market areas? We've certainly found a lot of them are, from our member point of view, in other areas, but some are just fixed in.

Yeah. I mean, I think we already have customers who are not broadcasters. You know, we have customers who are creating media for internal purposes or, you know, perhaps for commercial purposes. And I think there's a general phrase now which is, you know, every company is potentially a media company. You know, if you're a large pharmaceutical company or if you're a large bank, for example, you know, you probably want to be creating content that you can, you know, you would send a message out to all of your staff and —

If you're not already.

As well. Yeah, exactly. So I think that is an opportunity for vendors like ourselves and others to begin to address that kind of market. I think one thing that's interesting — I think I remember a number of years ago having a discussion with a newspaper publisher, and of course the last thing that they wanted was any physical infrastructure. You know, so taking advantage of cloud technologies, I think, is something that is really interesting for these types of organisations. And also having things available as SaaS provides a different kind of, you know, model that they might want to take advantage of as well. And I think you'll just continue to see that, you know, over the course of the next few years, of expansion into non-traditional broadcast markets.

And to continue on that, I think the two key words that I've seen here at the show this year are AI and enterprise and creator. So it's three. And with the creator economy, I've seen more and more of them here at the show, as I said earlier. But I think the other one, as you just mentioned, was enterprise. And the people doing enterprise today are sometimes building bigger studios than broadcast facilities, and the material that they're cranking out, either for their own or other things, rival the best that is out there today. And I think we're going to continue to see more and more of that. And I think that today's vendors just need to do a little tweaking or a little more searching to find those customers and to get them the equipment, the tools, the requirements that they need, and they want to do that, but they're employing a lot of the same people and a lot of the same techniques.

I am hearing this from the SIs that are members. A lot of their business now is doing studios, and I have to say one of the biggest studios that I had a chance to look at, again, is a company that sells product. You know, it has nothing to do — and they need to have a whole broadcast studio, and it was just incredible seeing that. And that ties directly into our name change.

Yeah. So Stan, you and I had a chat yesterday. So we're currently sitting in this, your very nice podcast studio in your lounge at NAB. But I'm a person who hates to be late for anything. So the Avid booth is not that far away from here, but on Sunday I thought, "I'll take a walk up, just to make sure I know where I'm going." So as I came up the stairs, of course I'm looking for all the IABM branding, because I had the number of the office, the room that we're in. And I wander along, and all of a sudden it was like, "Okay, this must be it." And I went and Googled it, and of course I then saw, you know, the thing about your name change. But I do think, you know, the name change is reflective of the nature of the industry. You know, it is not just about broadcast, it is wider than anything else. And thankfully I found it, and we've had a very nice, you know,

chat today.

Yeah. Well, I'm glad you did find it, otherwise we'd be looking at that. And how does SaaS fit into DMF?

So interestingly, another way of saying DMF is a cloud-fit architecture. We avoid the name cloud in particular in the title of this just because this is a bit agnostic to the infrastructure. So a software environment — the holy grail is that we have a set of technology, a stack of technology that we can run in the cloud, on-prem. And part of it is your own infrastructure, your own stack in the cloud, but part of it is also integration with SaaS. And there's certainly — especially, we use a lot of SaaS product, actually. They are popping up every day, and they can do very targeted, powerful things. So it's a continuum again, but the goal is to try to align on what we try to do with it. So the attempt — you were talking about how do you work with the industry to bring the vendors into those new ways, into those different type of content. When we did the EBU DMF reference architecture, that was the goal, was to try to communicate that vision and to bring, to align, and to open up discussions with the industry. So we don't mention the word cloud or SaaS —

Well, I don't like to use the word cloud on its own. I think that's a problem, because back in the day it was an internet cloud. You had to have it on your booth, you had to have a cloud, right? Just like you have to have AI on your booth now. So you call it cloud services and then be specific. It may be cloud storage, maybe, you know, that sort of thing. But, you know —

And cloud architecture that essentially you can run on-prem if it makes sense economically.

Yeah. So let's just talk — you've had a chance to walk around the show. People want to hear about some cool stuff.

I have. And I think the first one was the drone technology with the very tiny cameras and the tiny RF packs that they were doing with that. The other one — I actually went out and asked our VP of technology and our EVP of engineering and operations what they had seen, because they're out there really digging into that, you know, to continue building the mobile units. The one that they really liked was Evertz has a new liquid-cooled router that gives you a lot more capability in smaller frames, and still it's able to keep that, you know, nice and cool, which is an issue when you've got the chips operating at very high temperatures. So those are the two that really struck me. This one's not a technology, but it gets back to the Olympics that we were talking about. I was over at the Apantac booth, and they have an Olympic torch there. So if you want to go have your picture taken with the Olympic torch, go see —

Well, Thomas Tang and his son are — they're athletes, so yeah.

They are athletes, and I believe Thomas is an ex-Olympic athlete, and I believe his son is a current Olympic athlete, so...

That's kind of fun.

Ask them to light the torch.

We'll light the torch and do that. Felix, how about you?

Of course, my focus was a lot on DMF and MXL. I was very pleased to see the uptake — product announcements, demonstrations, interest from a lot of vendors to play in that field. I'm always looking also at what it will bring us, where it will bring us. And on the AI topic, I think now we start to see a number of tools that are really getting interesting. For us, as a public broadcaster, we have very high ethical norms to respect in terms of using AI in production. So usually we will — or always want a human on the way. So the assistance that AI can bring to accelerate, to improve, to help doing the job, and this is what I saw in a good number of applications that will really help the editorial teams to do their work, but leaving them the last word and the main word in terms of content.

Well, one thing that excited me — and I did interview a lot of members for their interviews. And when we got into that, a lot of them were very clear that as we're using AI, the LLM is yours. You know, and that's a big problem, is having public LLMs. And they really push that point. So that again comes down to the security aspect, as one of the things that came up on our roadmap group call was concerns: if an AI agent picks up all the passwords, what's it going to do? So again, you know, we can have a whole topic on security with this and where that fits. So I just want to bring things to a close here. I didn't ask you what you saw on the show floor, because you're glued to the booth. Where do you see things going within the industry and the whole MediaTech world at this point?

Yeah, I mean, I think what people are looking at from an end user perspective is they're actually looking for simplicity that hides the complexity behind it. You know, we care about the complexity and how things bolt together and how things stick together. But I think from a user experience, I think what people are looking for are powerful tools that enable them to do incredible things. And they're professional tools, they have to be learned. But I do think there's a general desire to have, I think, some of our customers talk about a single pane of glass experience where, you know, web-based tools that enable you to do, you know, kind of amazing things. So I think we'll continue to see more of that. I think from the AI perspective, I think what people are looking for is AI that actually delivers practical benefits. And so hopefully we see more of that as well.

Yeah, I did find one thing. One thing we do put on the roadmap is we put things on the technology adoption curve. And I was chatting with someone that does green screen stuff. They've been doing it for 30 years. Obviously, they were way ahead. And he says, "It's all commodity." And I said, "Well, we don't want to just say it's commodity because, you know, you do cool stuff." So what it is though is he does the cool stuff with AI because his green screen engines now pull out things and change things for him. So that's really cool. So where do you see us heading?

So on the mobile unit OB van front, I see us continuing to move in the direction of higher resolutions, HDR, faster workflows, but tools and techniques that allow us to work from anywhere. Since COVID, we kind of split things apart because when you have a mobile unit and you have 20 people in there, that was an issue. So people separated out, and we had already proven that technology that you could have a mainframe in one place and a surface in another, and a person operating that. And so we're doing more and more of that and, you know, probably 50% of our events have either a graphic system or a mainframe or a server or a person not on site, even though the mobile units are there, the mainframes are there, or the mainframes are

somewhere else. I think we're going to continue to see more and more of that, and I think we're also going to see things spin up using, you know, COTS equipment with dedicated software and licensing to be able to utilise your hardware in different ways.

Yeah. And that's one of the changes we did in the roadmap this year as well. We used to have remote production, but now it's just everywhere. It's just general. It's not special anymore.

And my key word would be enterprise. You know, I think that's the — live sports, live entertainment and enterprise I think are the growth areas and, you know, of course, the creator economy.

Right. Well, I'll let you close this up, Felix. As a public broadcaster, where do you see things going?

In the immediate, I think one of the main differences between what we're living now, with the evolution with flexibility and agility, business agility that we need, than before is we used to go in step, you know, analogue to digital and then SD to HD or SDI to IP. Now we kind of open the door to a continuous evolution of the industry and the way we produce content. So this will be a challenge, because that's a mindset shift. But this will open up many possibilities. So I think we will need to work a lot as an industry and walk through that. And I cannot really imagine all the possibilities it will bring. But certainly bringing us that flexibility that we need in the immediate, and everything else will come with it. But yeah, let's work together on these things.

Well, you hit the key word. It's flexibility and scale, scalability. Those are the main terms that are going to take us into the future because when we get into the business tech side, it has to be dynamic. It has to change so quickly.

Yeah. And then how do we manage that extra complexity? So that's what I was —

Because we're getting to the point now where you have less technical issues, right? To put a channel on air used to take six months and multiple racks. Now, you know, you can spin it up. So it's great. Anyway, great chatting with you guys. I love having all the different opinions from different aspects of the industry. Thank you for joining us today.

Thank you so much.

Thank you so much, Stan. It's been great.