We can be heroes of our time

YOU'D be forgiven for thinking it's all about hard times at the moment – but it's actually a time of great opportunity for AV/IT professionals.

That was one of the main points to come out of the first SCHOMS2020 online conference in August.

Two speakers highlighted the development – AVIXA Senior Staff Instructor Chuck Espinoza and Media and Learning Chief Operational Officer Sally Reynolds.

In a presentation declaring distance learning and working with new platforms to be the 'new mission' (see page 2), Chuck said that AV/IT professionals were the heroes who could help to achieve it.

Sally backed up his comments during a question-and-answer session at the end of the conference (see page 6). "You're where it's happening," she told delegates. "Your time has come."

SCHOMS Chair Mark Dunlop said the executive had been liaising with Media and Learning for a while and are building a partnership "with benefits for us all" (see page 3).

Activities on hold but greater value is on the agenda

SCHOMS had hoped to stage a memorable conference in Edinburgh to mark its 20th anniversary.

But Covid-19 restrictions led to a different landmark – its first online conference.

A new date for gathering in Edinburgh – 24-27 May 2021 – has been pencilled in.

In the meantime, both the bursary scheme and ISE attendance have been put on hold. "We'll bring back bursaries in a revised fashion when the time is appropriate," SCHOMS Chair Mark Dunlop told the AGM.

"It's not viable to plan for ISE 2021. We'll actively plan for 2022."

The executive was also reviewing its sponsorship model. "Not having a conference has had a heavy impact, but we're looking at providing a bigger presence for sponsors on our website and achieving more value out of regular engagement."

Vice-Chair Caroline Pepper talked delegates through plans to renew SCHOMS' Strategic Plan and said a draft for 2024 would be circulated for feedback.

The overall aim of the new plan is to provide strategic direction in the development and support of learning environments, systems, associated technologies and professionals.

• SCHOMS now has105 members including three from overseas and two associates. The latest members are the University of East Anglia, Robert Gordon University, University of Westminster and University College, Dublin.

The Executive Committee is now made up of a full quorum of eight:

Chair – Mark Dunlop, The University of Dundee.

Vice-Chair – Caroline Pepper, Loughborough University.

Treasurer – Jay Pema, University of Cambridge.

Secretary – Chris Gooch, University of Leicester.

Jim Bain, Queen Margaret University.

Adrian Brett, Anglia Ruskin University.

Rob Hyde, University of Bath.

Chris Pearson, Durham University.

Full online conference download at https://www.schoms.ac.uk/schoms-virtual-conference-2/

Equipped to take AV/IT to next level

US-based AVIXA senior staff instructor Chuck Espinoza spoke on the technical and mental challenges to newcomers of all the latest advances in digital communications.

DISTANCE learning and working with new platforms is the modern mission for AV/IT professionals, according to Chuck Espinoza.

"We still have to accomplish the old mission – getting students trained – and they still have to have a good experience," he told SCHOMS2020.

"Making the transition from a live 'in person' class to a virtual environment is going to enable us to keep the lights on.

"This was always coming. We are in the age of video conferencing, of doing things from a distance and online. We can still do business, keep tuition coming in, keep students learning."

Chuck recommended 'making the virtual environment seem like it's an everyday thing' by developing training plans and Standard Operating Procedures for teachers, clients, staff and managers.

Teachers needed help to make the transition from human interaction. "As an instructor, I'm used to feeling the room, reading facial expressions. Online, I don't get the response I'm used to getting from a live room. I have to train myself to just keep going and hope that everybody's listening.

"Teachers need the tools and to be told how to use them and how to adapt to a different way of thinking."

"If our instructors want to do a flipped classroom or video streaming service, how and where are they going to be serviced?"

Staff needed to know about equipment but, most importantly, the networks, latency, connectivity and platforms. "When I go online, I have to know the requirements of a platform, how much it takes to run a good network, how much latency is there on the network.

"Work closer with network staff to gather data and analytics about how the networks are performing."

Chuck said that was one of the biggest help would be to use standardised equipment and software. "If we can get IT

CHUCK took delegates on a tour of his 'studio' – a diesel pick-up truck.

He has no internet in his remote US home deliberately so when he presents or communicates, he drives out and connects by his cell phones.

"I still face the same issues of good sound and good lighting," he said.

" I have very close microphones that don't pick up a lot of engine noise. I have pillows on my lap, underneath the laptop, that minimise shake from the camera and absorb ambient noise.

"I have a ring light set up on my dashboard. I know I must have certain lighting that enhances the virtual experience especially with a virtual background."

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departments to standardise equipment, if we're all using the same headsets, for example, it's going to help us with updates and to diagnose problems quicker."

Chuck said that network training basics – how to log in, how to set up a webcam, how to set up a virtual background – covered what was necessary to pass on to clients.

But when it came to audio and video, information picked up in AV training was invaluable.

"We're the heroes," he said. "They're looking to us."

AV professionals were armed with the tips and tricks to provide a better experience including:

▶ Controlling and diagnosing ambient noise in the environment

▶ Advising on microphones. "A lot of us have headset microphones. Getting the microphone closer to the mouth source is the best thing," he said.

▶ Interfaces for video and audio. "They're getting to be more popular - a lot of interfaces have an all-in-one solution with camera, tracking and microphone. Or is something specific needed like a document camera or a microscope."

▶ Video tips - such as type and positioning of camera. "My Facetime camera is not positioned well, the lighting is not as good as my webcam camera, which has better optics. something I can position, or have a wide-angle camera.

▶ Lighting - he talked delegates through the options of key lighting, back lighting and ring lighting or a lightbar.

▶ Screen sharing - how to run a second monitor for tracking of dotcam or Powerpoint.

▶ Resolution – "4k over a network saturates it. I'd suggest 720, it won't affect Powerpoint, it will scale and look fine."

▶ User/customer experience - including feedback on training and SOPs and how to manage AV staff.

"There are a lot of ways we can enhance the user experience," he said.

// This was always coming. We are in the age of video conferencing, of doing things from a distance and online. We can still do business, keep students learning //

Lowdown on partners in making

Chief Operational Officer Sally Reynolds gave delegates a detailed background to the Media and Learning Association, explaining how it promotes and stimulates media in teaching and learning with a particular interest in HE.

SCHOMS' latest partnership is an international not-for-profit organisation set up in Belgium.

It has 36 organisational members – including Edinburgh Business School – chiefly from the EU, USA and Canada. It has received its first application from China and also welcomes associated sponsoring and networking members.

"We're hoping that SCHOMS will join us as a networking member in the not-too-distant future," Sally said. "The Media and Learning Association shares interests with networking members and help each other as best we can in promoting activities, conferences and events and in

familiarising ourselves with what one another are doing."

Sally said its core activity was to run conferences for members according to different themes of interest. The last face-to-face conference it held in 2019 attracted 300 participants from 22 countries including SCHOMS executive member Jim Bain.

This year's conference, like SCHOMS, went online. A two-day event, it attracted 635 registrations from 53 countries. Plenary panel discussions included Jim Bain and colleagues from Edinburgh.

The association runs an annual awards scheme – the MEDEA Awards – to recognise excellence and use of media to support teaching and learning. The University of Leeds was one of last year's winners.

Its monthly newsletter includes features, articles and reviews on AR and VR in education, AV technologies, professional development and schools.

People are invited to share ideas for collaboration under a project incubator service, with some funding available.

Strategic activities include a survey into universities' readiness for the EC accessibility directive, running a Films for Language learning project and looking into launching a podcast series on using video to support teaching and learning in HE.

It is part of a major initiative on AR/VR with Leiden University and is launching a media literacy webinar series this month in collaboration with the Swedish Media Council.

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Cloud lift for campus conferencing

SCHOMS bursary award winner Adam Chapman described how the University of Essex – where he works in the Learning Environment Technology Service - introduced Cloud-based video conferencing across campus.

"The customer wanted an easy-to-use system that met the need for more flexible working," Adam said. "It also had to match interfaces from applications used before."

The brief specified a single user interface, whether for a mobile or classroom computer, with the flexibility for everyday teaching, meetings or external events. It also had to be able to support forthcoming changes to AV/IT.

Adam's team themselves wanted a system that could scale up and provide more modern tracking and reporting.

They decided on Zoom, which had good audio and video quality and a 'clear roadmap'.

"Zoom reports cover what devices are being used where in the university and help us to find out whether the system meets their needs," Adam said. "The error reporting highlights if any rooms haven't been used for a long time.

"We also wanted to integrate modern API's."

Meeting spaces were set up as Zoom rooms for five to

20 people and were equipped with touch screen TVs – "so no mouse or keyboard could get in the way" – and mounted cameras.

In the teaching spaces, double monitors were provided – one for teaching and one for the Zoom room. "We may move away from this style into a single monitor with iPad functionality," Adam said.

"In conclusion, the new system is easy to use, good quality and gained good feedback.

"Staff training has been very easy. The system runs as a normal application on computers that IT technicians would be able to resolve.

"Zoom proved very flexible and extendable. They allowed streaming to YouTube and Facebook and increased licences so unlimited numbers of webinars could be held."

Adam said the main challenges had been creating enough webinars for academics, getting lecturers to adapt to a new way of working and maintaining interaction between lecturers and students. The team also had to contend with short timescales to introduce the system.

But a key to success was "getting feedback often and getting it out to people. It's very important."

Generating a sustainable future

AETM's Nathan Ashmore spoke on what ICT/AV professionals could do to create sustainable opportunities in the face of growing e-waste and energy efficiency problems.

NATHAN ASHMORE is AV Design Manager within ICT Design and Standards at the University of Sydney. But he told SCHOMS20 his title may as well be E-waste Generator.

"Covid has brought this to light," he said. "I realised I'm responsible for $9m of AV across two buildings, we're building systems and putting equipment everywhere to support users, but once these buildings go live, they're not going to be used in the way intended."

Nathan painted a grim picture of the eco challenges facing not only higher education but also the global population in his presentation '2020 and Beyond: AV's Sustainable Recovery Opportunity.'

"We have 10 years to half emissions and until 2050 to decarbonise civilisation" he said. "It's the most complicated thing to happen in our lifetimes.

"Covid has changed the way we do our jobs significantly but there is hope, there are things we can do as ICT/AV professionals."

▶ **Manage** – Document hardware, maintain products we have, work out how to maintain rooms for longer, bring together what works best.

▶ **Retrain** staff in practises that help with maintaining.

▶ **Repair** – "This is taboo but there are some simple repairs that can be done," Nathan said. "It takes a lot of time. It's hard to find generic repairers you can send all hardware to. This is indicative of our consumer society, it's easier to buy something new than to repair it.

"I'm not saying we shouldn't have spares, hot swaps and be ready to replace but we shouldn't just stick equipment in a storeroom then forget about it. We need to start repairing things straight away. We need to improve those practices."

> **NATHAN was on a mission to test the footprint of energy use at the University of Sydney before coronavirus intervened.**
>
> His studies formed the basis of a presentation to AETM last November.
>
> He discovered that a seminar room used an average of about nine kilowatt hours a day. "A family uses 41. So 4.5 seminar rooms running 24/7 – as most of us run our AV – equates to one family home. I think that's a lot to have running constantly."
>
> He could reduce energy usage by about one-third using a combination of eco mode, AVIXA 2012 energy management standard – "hardcore switch everything off if you're not using it" – and using power controllers to switch off active equipment.
>
> "It's such a small fraction of what we need to be thinking about."

▶ **Redeploy** – hang on to anything you can for spares.

▶ **Return** – "Takeback schemes and returns improve the longevity of product."

▶ **Resell** – "Reselling is important when we are experiencing the economic shocks we are. Right now I'd say give away products that still have a reasonable life to groups that have simpler requirements."

Looking at longer-term needs, Nathan said: "We're looking through the lens of the triple bottom line of economics, environment and social impact. Way too often we only look at economics."

▶ **Reduce consumption** – "Unless we do, everything else is a bit of a band aid. Shared models have got to come out – for example, where more than one faculty can share meeting rooms."

▶ **Employ analytics** – "Stronger business cases have to be made for building rooms, we need to start questioning."

▶ **Demand improvement from vendors** – "AV vendors have excellent teams and they make great products, but they need to improve the durability of products or at least warrant products for longer. It would help us plan better."

▶ **Use software where feasible** – "It's how it's going to have to be in the future."

▶ **Centralising control** – "It makes the most sense. Remove the master controller from every room that has the lowest reuse value. Moving away from those devices is important."

▶ **High quality hardware standardisation**

▶ **Operationalise costing** – "A vendor owns the product and you pay fee annually to licence, but the vendor has the responsibility to make sure product is working for you. The vendor is then incentivised to improve life of your product."

If you absolutely can't do anything else - recycle.

" Unless we reduce consumption, everything else is a bit of a band aid. Shared models have got to come out – for example, where faculties can share meeting rooms "

Let everybody's emotions show

CCUMC's Willie Franklin spelled out the benefits that emotional intelligence can bring to classroom design.

IT'S not how much AV/IT professionals know that matters, Willie Franklin believes. It's how much we care.

"We serve as beneficial partners in the learning process," he told SCHOMS2020. "What we do is less important than the effect on the people we do it for."

Willie – Senior Technology Specialist at Otterbein University in Westerville, Ohio – was speaking on 'Emotional Intelligence in Classroom Design'.

He defined it as the ability to identify and manage one's own emotions as well as the emotions of others.

"We have a multitude of hearts and minds that are impacted by decisions, it's imperative that we hear their thoughts and end goals.

"In my critical role in classroom design and innovation, I believe in involving stakeholders early in the planning process – deconstructing the space and thinking of everything that's likely to happen. This involves registrar, administrators, planners, IT staff, instructional designers, students, maintenance staff and faculty."

He advised being aware of competing priorities and of challenging dissenting voices to ensure that the end goal was "scripted out by everyone".

"It's all about clear and frequent communication," he said.

Being able to achieve university standards on classroom technology at Otterbein had only came about because of emotional intelligence.

"It allowed us to strategise effectively to get money for budgeting, to buy laser projectors, decrease our energy consumption on campus and manage all our technology infrastructure remotely for cost savings.

"Some of our classrooms are actually not equipped with computers. Instead they have virtual clients, we've pulled some of the hardware out of the classroom while maintaining a high degree of connectivity for people who bring their own mobile device or those who need a device in the classroom.

"Listening to users, we also began to aggressively address issues of zoned lighting.

"We achieved desired outcomes only because time is taken to listen to students and the faculty. It's all about listening and appreciating the emotions and environments of others."

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Better value contracts in the frame

Mark Hayter of the North Eastern Universities Purchasing Consortium (NEUPC) gave details of a new Audio Visual Framework Agreement helping institutions to find the most appropriate suppliers.

Available to members of NEUPC, HEPCW, LUPC and SUPC, the new agreement – which covers the full range of audio visual goods and services – was designed by a Tender Working Party (TWP) of experienced AV technicians, managers and purchasing experts from institutions within the participating consortia membership.

Mark, who is Head of Procurement at Leeds Trinity University, explained how the lots were presented both geographically and according to the size of the contract.

Institutions were able to use their discretion to determine the most appropriate lot and to choose to call competition from multiple lots.

In addition to significant direct price based and price versus market savings, the framework also provided flexible call-off options and access to a range of both regional and SME suppliers.

"The rationale for the collaboration was that member institutions had similar requirements," said Mark. "It was an opportunity to consolidate the benefits to us as a management function and to the supply chain."

A trusted portfolio of suppliers was drawn up responding to demands that the TWP set out on quality, price and assurance of supply.

"We acknowledged there were smaller and regional companies so we created a cluster of regions. As a further encouragement, we split regional lots into contract-sized lots to be worked out on individual contract basis."

Once suitable tenderers were worked out, the working party determined which were going to be the best.

"We did that by working out best value for money based on questions we considered to be the most important to you as customers," Mark explained.

All suppliers were awarded a score and only the highest ten scores were given a regional place.

Full details of the Audio Visual Framework Agreement are available through the Buyers Guide:

www.hecontracts.co.uk/agreements836

"The site holds all of the contracts that the consortia award and is laid out for every level of understanding," Mark said.

What we are learning from 2020

SCHOMS executive members and guest speakers came together for a question and answer session at the end of the online conference. These were some of the questions they fielded from logged-in delegates:

How does panel see the traditional role of AV technician changing as a result of Covid?

SD: One thing that excites me about AV is that our executives will want to improve our spaces. At this minute, we're all on mike. Back in our boardrooms and meeting rooms, we're going to be off mike with a pot in the middle of the table or a conference bar on the wall. Suddenly, when we ask for money for acoustics, we might be listened to!

SR: Your time has come, guys. Now's the time to push for increase in salary! You're where it's happening.

NA: Most concerned about the effects of hybrid teaching. It needs an extra person to manage the call, manage the chat. AV techs will need to be there hand-holding.

What are the long-term impacts on the industry from Covid?

RH: If you need to convert some of your rooms, there is very little inter-operability between manufacturers. If you want your kit to work with someone else's, there's no hope. We will go into the software end and say 'we'll just go round you'. For a lot of manufacturers, that's a big concern.

JB: I can see long-term impacts to do with integrators. A lot of them have been furloughed and are not doing very much.

MD: It's pushing us more down a software-based route and making us think about doing things 'quick and easy'. It's also about sustainability. What we buy now, what is its use now and post-Covid? Can we get long-term value back?

CE: We're seeing a big switch of skill sets. The live events industry has taken it really hard – everyone involved in sound, video, riggers, promoters, it even goes for hotels and conference spaces. These people are getting retrained to do classroom and enterprise support. I see live events coming back but without audiences, groups doing some kind of distance presentation. A lot of skills are going to be involved – for the live events community, the software platform is going to be the consul. If you're good on a Yamaha or Midas consul, you'll have to be good on Zoom, Teams and Webex. We're looking at how we can enhance online experiences.

What's the best thing that has happened because of Covid?

JB: We were told to buy whatever kit we needed to make things happen. I've not had anything knocked back, although anything over £10k has required a business case for Covid and post-Covid.
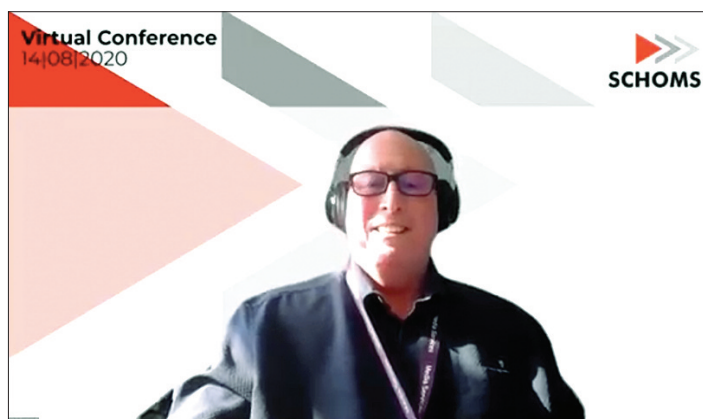
Executive member Jim Bain (above) hosted the question-and-answer session. Key to those taking part:
NA – Nathan Ashmore; CE – Chuck Espinoza
SR – Sally Reynolds; JB – Jim Bain
MD – Mark Dunlop; WF – Willie Franklin
RH – Rob Hyde; CP – Caroline Pepper
SD – Scott Doyle (president of AETM)

MD: Video conferencing, the understanding that you don't have to travel up and down the country. It's changed a lot of the way we work and got rid of the argument that we need any hardware video conferencing at all. Also the speed we've been able to do things with no objections.

SR: The willingness to share. We've seen an awful lot of sharing in terms of how well to do things. However, while a lot happened quickly, some happened badly as well. There are a lot of bad practices out there. Bashing out a few videos seemed good enough in an emergency but it's not good enough going forward. We're in this for a couple of years and we're going to have to do it well otherwise all the promises we've made about technology and media won't be valid.

Is Teams or Zoom suitable for teaching, or should we be looking more at X20, Barco virtual classrooms?

NA: I've heard of teaching on Teams using 365 bundles with everyone communicating through OneNote. People seem to have taken to Zoom with very little training. Both Teams and Zoom are suitable remote teaching tools.

SD: In Australia and NZ, Zoom suddenly became just a video platform in some people's minds. Teams was a collaboration platform and didn't have much functionality on the video side. Microsoft have been rolling out video releases and at the back end they've got a full collaboration platform with file-sharing, chat-sharing, all the different parts that integrate with LMS. So when we talk Teams and Zoom, we're talking two different product sets now.