Providing the right blend

WHATEVER name is applied to the style of learning that gained ground during the pandemic – blended, hybrid, hyflex, multi-mode – it was a dominant topic at the SCHOMS22 conference.

Keynote speaker Simon Thomson, Director of the Centre for Innovation in Education at the University of Liverpool, urged professionals to settle on a single name and formalise a framework for it (pages 2/3).

Chris Pearson, Senior Manager, IT Installations, Durham University – in both a presentation and a guided tour – detailed how the concept had been adopted in the development of the £40m Teaching and Learning Centre where SCHOMS22 was hosted (page 7).

Campbell Jamieson, Learning Support Manager, University of Strathclyde, outlined how hybrid

IN his AGM remarks, SCHOMS Chair Mark Dunlop praised Chris Pearson, the Durham University team, members of the executive and everyone in SCHOMS for supporting him and each other over what had not been an easy year. "It's no mean feat to bring back an in-person conference," he said. "We're trying to get to get back to normality and this is a huge step. Everyone has been busy but all of you are still responding and that's what makes this community work. Hopefully we'll continue to grow stronger as a group."

learning was embraced in a £60m refurbishment of the Learning and Teaching Centre at his institution (page 6).

And both Jon Stothard, Head of Service – Teaching Spaces at the University of Leeds, and Jay Ahmed, AV Design Manager at Queen Mary, University of London, shared the different ways their institutions had risen to the hybrid teaching challenge during Covid (pages 4,5).

Jon and Chris Pearson featured in a panel to discuss the implications and future of hybrid teaching alongside

colleagues Samantha Butler of Bangor University, Mohamed Hamed of Belfast University, Nick Pratt of Cranfield University and Stephen Dishon of the University of Edinburgh (pages 4,5).

Discussion host Mark McCallister of the University of Florida also fronted a presentation with Lisa Stephens, University of Buffalo, and Rebecca Frazee, San Diego State University, highlighting FLEXspace – a portal that shares examples and resources for the planning, design, and evaluation of learning spaces (page 9).

SCHOMS22 delegates outside the Durham University's Teaching and Learning Centrre

'We couldn't be here without you'

In his conference welcome, Alan Houston, Pro-Vice-Chancellor (Education), Durham University, described how globalisation, digitisaton and the pandemic had transformed teaching methods – and thanked AV and IT professionals for their invaluable role in delivering change.

UNIVERSITIES were only able to respond as quickly to exceptional changes in online education because of the support of AV and IT professionals, Alan Houston told SCHOMS22.

"We are all in universities that are grounded in the past and that seek to build better educational opportunity for students," he said.

In the case of Durham, Chris Pearson and his team had taken an organisation based around face-to-face instruction, small lectures, discussions and tutorials and suddenly made it possible to use digital platforms like Teams and Zoom.

"We had to come up with new ways of teaching. We've now got lots of flexibility and we have the IT to support that flexibility.

"You are the people who create the interface and the capability for people teaching in classrooms to take full advantage of the tools and resources that come from digital technologies.

"It's that collaboration between people like you, people in classrooms and professionals in pedagogy that's so crucial.

"It has enabled Durham to do well during a very difficult period and I am sure it's what has allowed you and your universities to do so well.

"So let me simply say thank you to all because, honestly, we couldn't be here without you, none of us could succeed without you."

// Pandemic accelerated the digital skills of aademic staff by 10 years. We need to be able to capitalise on that momentum… before we go back too far **//**

Use the AV voice to build frameworks for future

Simon Thomson, currently Director of the Centre for Innovation in Education at the University of Liverpool, drew upon an emerging framework for discussing and developing hybrid/blended education. The SPaM framework is an intersection between three core domains of Subject, Pedagogy and Modality and points to how considerations for one will ultimately impact the others.

WHILE he appreciated the SPaM Framework did not speak directly to AV professionals, Simon Thomson said it aimed to encourage everyone to think more deeply about the design of curriculum, spaces and experiences.

"The technical and AV infrastructure that you support is fundamental in making sure this comes to life," he told delegates. "Otherwise we'll end up back where we were pre-pandemic. There is a strong pull-back that we've got to avoid."

He said that a curriculum framework developed at Liverpool had become a reference point for everyone in the institution – "what our contribution is, how are we enabling it."

As daily enablers of change during the pandemic, AV professionals needed to recognise their worth and use their voice to influence how hybrid education was going to be re-envisioned based on the experiences we'd all had.

One of the keys to this was **terminology. "**Which term is your institution using for a mixture of online and on-campus experiences?" he asked. "Normally it's either blended or hybrid.
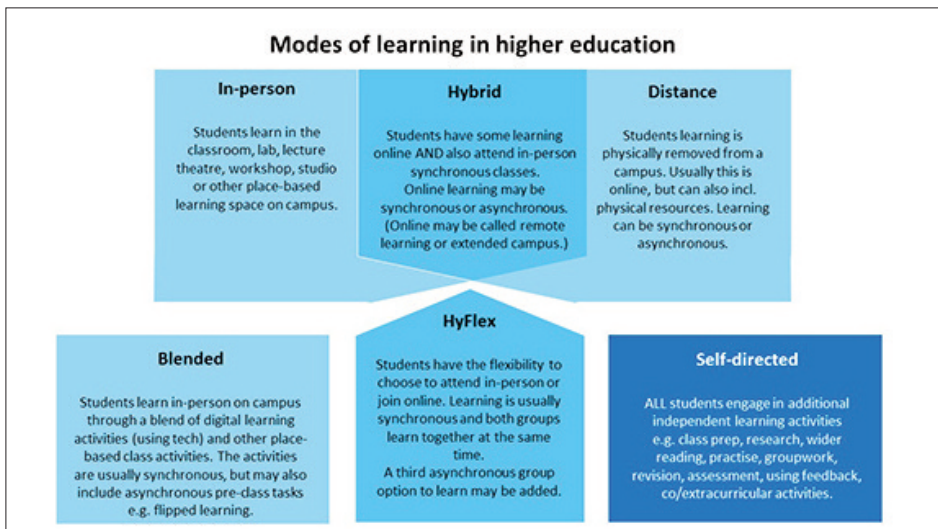
"We use hybrid because I relate that to a hybrid vehicle. For long journeys, the combustion engine is still the prominent choice. In a short urban journey, it will probably switch to the electric motor. But there's a decision-making process."

It was fundamentally important to make sure everyone was talking the same language.

"In the context of supporting and enabling learning environments, it's important to probe why the terms hybrid or blended or dual mode are being used because you need everybody to be on the same page. They might not agree with the definition but they'll be able to understand where it's come from and what it means."

Another main factor was **modality** – how multi-modal experiences should be develop to run together

Simon said that four teaching modes had been identified at Liverpool.

Modes of learning in higher education

In-person	Hybrid	Distance
Students learn in the classroom, lab, lecture theatre, workshop, studio or other place-based learning space on campus.	Students have some learning online AND also attend in-person synchronous classes. Online learning may be synchronous or asynchronous. (Online may be called remote learning or extended campus.)	Students learning is physically removed from a campus. Usually this is online, but can also incl. physical resources. Learning can be synchronous or asynchronous.

HyFlex

Blended	HyFlex	Self-directed
Students learn in-person on campus through a blend of digital learning activities (using tech) and other place-based class activities. The activities are usually synchronous, but may also include asynchronous pre-class tasks e.g. flipped learning.	Students have the flexibility to choose to attend in-person or join online. Learning is usually synchronous and both groups learn together at the same time. A third asynchronous group option to learn may be added.	ALL students engage in additional independent learning activities e.g. class prep, research, wider reading, practise, groupwork, revision, assessment, using feedback, co/extracurricular activities.

Simon recommended these definitions of modes of learning by Sue Beckingham of Edge Hill University, Sheffield. "It sits really well as a model. It connects all the terms we've been talking about and it's a real opportunity for us as a sector to say 'these are the terms we generally agree with.'"

▶ In-person, off-campus – staff and students located in the same physical space at the same time in an off-campus setting. Simon gave the examples of medical schools or field trips

▶ In-person on-campus – staff and students located in the same physical space at the same time in an on-campus setting

▶ Online asynchronous – staff and students submit and access resources at different times in an online space.

▶ Online synchronous – staff and students -located in an online space at the same time.

Teams were asked to design curriculum with teaching modes in mind – "not just what they're going to teach, but also which mode would best suit it."

It was no surprise that in-person on-campus was a preferred mode. "Institutions are based on an on-campus experience. If we're trying to move people into different modes, we already know it's not their environment.

"In supporting others, we need to get an understanding of what multi-modal practice looks and feels like. If somebody is asking you to develop a new learning environment, you might want to ask the extent to which that space needs to be multi-modal, are people going to connect into the space, how are they going to do that, where do we position cameras, what

kind of infrastructure do we need to support it."

Simon said the point was being reached in education where, finally, we didn't have to talk about digital skills.

"The pandemic has accelerated the digital skills development of academic staff by 10 years. We need to be able to capitalise on that **momentum**.

"Why do we have 12 weeks of lectures in a lecture theatre? Is it because we've never had to think about it, we just do it because timetabling tells us, or historically it's what we've done. It's a trigger moment for me around the **value** of certain spaces and experiences.

"All of us need to maintain the momentum, to talk about different types of learning, because I've seen colleagues slowly going back into old habits, saying 'we've planned for weeks of lectures, we're not doing online any more'.

"We've got to keep the momentum going before we go back too far and lose what we call the 'slivers of silver' that have come out of a really dark time."

This meant building value around all teaching modes so that the lecture theatre wasn't the only consideration. "We must understand and articulate where is the value proposition for each modality."

SCHOMS Executive has a new secretary following the decision of Chris Gooch to step down.

Chairman Mark Dunlop praised Chris for his valuable commitment and contributions. He is succeeded in the role by Adrian Brett.

Jim Bain has also officially stepped down but is temporarily providing admin support following the departure of Catherine Cadogan.

▶ For the full Executive Committee line-up for 2022-23 go to: www.schoms.ac.uk/pages/executive-committee

Mark told the AGM that a new admin support agency was being engaged to fill 'the gaping hole' left by Catherine.

"We have to go through financial diligence and other matters and we're hoping to get a new office in place over the next few months."

▶ ISE - a fact-finding exercise on venue, hotels and transport had been carried out with a view to offering ISE places again next February "but final plans depended on budgeting", Mark said.

▶ CPD – work was continuing with AVIXA, which had gone through huge changes during the pandemic. Partnerships with other providers were also being explored.

▶ Bursaries and awards – no plans to offer more at the moment.

▶ Membership – SCHOMS had 104 member organisations, the same as last year. "Considering the time we've had with Covid, it's pretty good to retain those numbers," said Adrian Brett.

▶ Finances – treasurer Jay Pema said that money would be set aside to crowdsource development ideas "but we want to make sure all finances are secure before we move to a new organisation."

schoms shorts

'Multi mode' lessons at Leeds

Jon Stothard, Head of Service - Teaching Spaces at the University of Leeds, shared how his team trialled new equipment and evaluated spaces to adopt hybrid teaching during the pandemic.

TASKED with trying out 'multi mode' in every single type of room – and every technology in every room – Jon said the lessons learned were:

▶ Choose a platform – "Collaborate is not suited for Hybrid teaching, Teams or Zoom MTR make things easier."

▶ Certain rooms are better suited to hybrid such as collaboration spaces and medium seminar rooms – "we abandoned the small seminar rooms, they were completely pointless for this kind of exercise."

▶ Build the system from scratch – bolting on to five-year-old equipment is punishing.

▶ Dedicate the space to hybrid.

▶ Book rooms out – "despite lockdown, conferences still took place in these spaces."

▶ Place camera next to screen showing students – "if there's no eye contact, the students feel as if they're not engaging."

Jon said: "I've never had a project like it when it's more about the logistics and operations rather than the technology.

"We redesigned rooms multiple times. Even when the kit was ordered, the logistics became an absolute nightmare to get to Leeds at the right time because of Brexit and customs controls."

In a separate project, Jon added that students are now expecting live streaming as standard. "They don't notice when you've got it, they do notice when you don't."

NP – Nick Pratt, Cranfield University

MH – Mohamed Hamed, Belfast University

SD – Stephen Dishon, University of Edinburgh

Where do we go from here: SCHOMS panel

What are the key considerations for academics in preparing or planning for hybrid technology?

SB: You can't walk in and expect everything to function. Their teaching has to be slightly more thought out than traditional chalk and talk.

JS: There's a whole way of delivering teaching they have to learn such as how to deal with Q&As, chat bars.

MH: Adapt to the new technology. Be willing to attain more skills and attend more training sessions.

SD: Stay engaged and continue to learn because you don't know what the future is for hybrid. It's a cultural change we still have to figure out.

What can we do as support teams to help make hybrid teaching on our campuses more effective?

CP: Stock answer is to simplify systems but the reality is tricky. For example, we reprogrammed panels with a Zoom tab so it automatically dialled in with only a password but it's still something that academics have to learn or have done for them and we don't have the staff to do it for them.

SD: We put in sophisticated systems at the start thinking it covered everything but it was so complicated, we've gone back to a PC and a mike. We put the technology in but universities need to make the decision how they want to do it.

Selected SCHOMS members faced questions on 'The Evolution of Hybrid' from host Mark McCallister of FLEXspace. The questions had grown out of a Teaching and Learning podcast that Mark had been invited to appear on by James Rutherford, Senior Educational Technologist and Project Lead at City, University of London – and also a SCHOMS member

NP: We've lost staff so we don't have enough people to go out and hand-hold. Everything is being done remotely. We need to put in permanent equipment and training when we've estabished which direction universities are going.

MH: We sat down with academics and got a wishlist of their requirements, most of them we couldn't facilitate in the time we had but we explained why and it secured morre 'buy-in' from them. So when it came to using technology in the classroom, a large number attended the training sessions.

JS: We provided sophisticated tracking microphones, cameras with facial tracking, one-to-one training and co-pilots in every room to manage the chat bar and switch the cameras to follow whoever was talking. We threw

JS – Jon Stothard, University of Leeds

CP – Chris Pearson, Durham University

SB – Samantha Butler, University of Bangor

lots of money at it which not many people can afford to do.

SB: We standardised with a microphone and webcam in every room, also a power mike so the lecturer was not constrained by standing at the lectern. We spent an enormous amount of time showing them what to do. It's much more than they've previously had to do and it made them more confident.

When an academic walks into your office and says 'I have a hybrid class tomorrow or next week', what would be your first piece of advice?

SB: Present a lecture as normal and then go onto the discussion. You wouldn't have the discursive element so much in a traditional lecture so don't try it in the hybrid environment.

JS: Have the confidence to insist remote students put their cameras on and engage with the class.

NP: Find out what room they're in and go and take a look at it. They've got to teach within the limits of the room and their own skill sets. Better to give a simple lecture and use the technology well than to over expand.

What is going to be the future of hybrid education – a flash in the pan, occasionally used or part of our delivery now and forever?

CP: I suspect it will change from institution to institution. My best guess is that Durham will move away from any hybrid lectures. We may see more online courses incorporating some time spent in Durham. I do think hybrid meetings will continue, though.

SD: It will depend upon an institution's aspirations and campus locations. At Edinburgh we were very

much hybrid for a year and then the phrase 'the campus is the centre of gravity' started to come back. There are business cases for hybrid but from an undergraduate point of view, I think Edinburgh will be back to purely physical teaching as soon as it can.

NP: Our Business School has a lot of exec MBAs coming in from companies. Instead of two weeks at a time, it might go down to a week and combined with blended learning. Why are large blue chip companies going to pay for people to come to us from around the world rather than us deliver it to them?

MH: It will rely on number factors. We welcome a lot of international students and they want the on-campus experience, that's what they pay for. Home students too, when it was feasible for them to come back, they did in numbers. Lecture capture seems to satisfy those who are unable to be on campus.

JS: At the start of the pandemic, hybrid teaching enabled international students and lots of postgraduates on flexible learning to keep in touch. Because we've got classrooms where cameras can cover everyone and microphones can hear everyone, we can have remote lecturers. It's not just about the students being hybrid. We're committed to it.

SB: Hybrid is definitely going to stay in some way, shape or form at Bangor. There are always going to be international students who can't quite get there, our nursing courses are split across two campuses 80 miles apart, so for us the future is enhancing our lecture spaces to support and allow hybrid teaching to continue.

DESPITE the challenges of different disciplines all wanting their own requirements in the same rooms, Jay felt a lot of positives came out of his project.

It was nominated for a CISA transformation award "and we found that different departments were able to work together, especially Estates. We also had good support from the senior executive team."

A main challenge was having to maintain three different platforms– Blackboard Collaborate, MS Teams and Zoom.

"Instead of having one solution we offered three different options which was turned into three different levels," Jay said.

Conversion work did not start on rooms until June/July. "Our lecturers weren't too keen on coming back, we'd provided them with good AV for doing it from home. When they ran the user system in the room they felt quite scared, the technology got too much for them."

He counted these among the lessons learned:
▶ Capture end user requirements early.
▶ Plan in additional time for handover of new systems to operation team.
▶ Factor in time for thorough testing and system tweaking – "this can be challenging due to current lead times for delivery of kit."
▶ Avoid making a late decision to go ahead. It may be better not to go ahead than to rush.

5

Templates for a better all-round experience

Campbell Jamieson (right), Learning Support Manager, and Bruce Rodger, Head of IT Infrastructure, fully embraced the theme of hybrid teaching - by giving a hybrid presentation. Their story of how they delivered a £60m refurbishment of the Learning and Teaching Centre at the University of Strathclyde was told personally by Campbell to conference delegates in Durham and remotely by Bruce via a link to its 400-seater lecture theatre.

TEMPLATES held the key to delivering an enhanced user experience during development work at the University of Strathclyde.

Campbell told SCHOMS22 how four individual templates were designed for each size of room – small rooms, seminar rooms, meeting spaces and lecture theatres.

The template information included not only the design but also the layouts of the rooms and services involved in them – "where we needed to put power and network points, how much space we needed, how many tubes, how many Cat5 cables, full cable schedules, full heights for where we're going to put screens, the timber behind the wall so we can make sure the screen doesn't fall off the wall. All these things give Estates the ability to build a room with minimum interference from us."

Campbell said it made it so much easier to achieve the same user experience and functionality across campus.

"I want an academic to walk into a lecture theatre in the new Teaching and Learning Centre, press 'on', the

FEATURES of the Learning and Teaching building at the University of Strathclyde include:
- ▶ **a 400-seat lecture theatre with a sky wall divider**
- ▶ **break-out rooms for social learning**
- ▶ **tutorial rooms**
- ▶ **more than 50 small meeting and group work spaces able to beam content from group desks to main screen and vice-versa**
- ▶ **rooms with high definition, wide-angle intelligent cameras that can pick up whoever is talking, even if they're not directly in front of the screen**
- ▶ **LCD panels on trolleys – which can turn almost any space into a collaborative working space**
- ▶ **lecture theatres with high definition screens and the ability to beam out audio and video to every other room in the building**

systems come up and he can present. Then go to another building half a mile away, take the same presentation, plug it into the same location on the lectern, press 'on' and up it comes. That is maximising the time that we're using and the student experience."

The templates also provided simple installation guidelines for AV integrators.

"There's nothing worse than opening up the door of a lectern and finding a barrage of cables everywhere with nothing labelled. So the templates provide standardised

cable schedules. Every cable is numbered the same way. Go to one lectern and your DHMI cable to your laptop might be numbered 1001. Go to another room, it's 1001, and another. . . imagine the time that cuts down. It makes life simple and easy."

Campbell said he hoped the adaptation of the templates would bring together all the services to understand how teaching and courses were delivered both on and off campus.

"The templates make it easy for us to build spaces quickly and effectively with minimum impact from the AV team. It lets us get on with the core job, which is looking after teaching.

"Students don't like it when the academics don't know what to do. We want the academic to look good in front of his students, in front of his clients. The academics are our clients and the students are the academic's clients. We all want to make that experience really good."

WIDE-RANGING and impressive skillset of the modern AV professional was highlighted by Bruce Rodger as he explained the history and development of Strathclyde's city centre site in Glasgow.

He said that far from their traditional image of being hidden away at the back of rooms, they brought intimate knowledge of video and projection, digital and analogue audio, networking of AV over IP, networked control systems and programming and on top of that, demonstrated design, development and fault-finding skills. "More importantly, they need to have people skills. They are the public face of the service. They are not hiding behind a helpdesk," he said.

Numbers tell story of award-winning Centre

A day before conducting delegates on a behind-the-scenes tour of the £40m Teaching and Learning Centre at Durham University, Chris Pearson, Senior Manager, IT Installations, gave an insight into the planning, the scale of the project, the challenges faced - and what he would do differently if tasked with a big development again.

CHRIS PEARSON revealed the numbers behind working on the Teaching and Learning Centre project for three-and-a-half years:

▶ 2,500 emails about the project alone

▶ 25 hours of training provided for about 150 people as the building was about to be launched

▶ 49 networks, 84 exit points and 1,270 AV assets installed – 650 of them networked

▶ 122 encoders and 151 decoders installed – "the whole building is AV over IP. Every input in the teaching spaces is encoded separately and every output has a decoder behind it."

▶ The AV for the building – which won Education Project of the Year at the AV Technology Awards – cost just over £1.5m.

The centre was designed as a space not only where teaching took place but also as a hub of activity where people would come in and stay for the day.

It holds a 500-seat lecture theatre, the largest number of PC classrooms on campus and a range of touchdown spaces, bookable group rooms and flat-floor Technology Enhanced Active Learning (TEAL) rooms.

"These were the first TEAL rooms we'd done, people didn't really know what they wanted," Chris said.

"One of the great things we did was to tour five or six universities, to see their buildings. We went with architects, academics and representatives from the library and catering, all with completely different views of what we were looking for and came away with a whole load of ideas about what we would or wouldn't do."

He made sure that the infrastructure was put in place to retro-fit as and when demand was needed.

Asked what he would have done differently, Chris questioned the idea of 'maximum flexibility'.

"Do we really need every input encoded? I think that's an honest question we should ask ourselves next time we build. As a tech, I think it's super cool that I can do everything I want but the reality is we do the same things day in, day out, most of the time. I think I would do a hybrid version of that which would include pre-switching."

The university had decided that the group work displays as originally envisaged were not used or required. "For teaching, they don't need a group to gather round and plug in a laptop, they want groups to discuss and feed back. If we did another room like this we would just use repeater screens. I would add in USB switching."

And he would no longer provide goose neck mikes. "I don't want to encourage people to stand behind a lectern."

Chris added that the video conferencing systems were not what was needed anymore and he would have pushed back harder on whiteboards in the lecture theatre. "Maths colleagues did an experiment with students, nearly all said write on the visualiser, I can see it, it's captured so I can come back to it, it's just a better experience."

❝ Every input in the teaching spaces is encoded separately and every output has a decoder behind it ❞

Flagship lives up to name as Catalyst

Simon Birkett, Digital Campus Manager, explained how simplicity was the watchword behind Staffordshire University's bold state-of-the-art Catalyst building.

THERE'S a reason Staffordshire University's flagship building is called Catalyst – "I think we've broken a few rules," Simon said.

"As an industry, or as AV/IT teams, we're prone to complicating things. A lot of our thinking was to simplify everything."

The three-storey building boasts open space teaching and learning, an exhibition and performance area and is open to the community. The top floor is a mixture of pedagogic research and a hotdesk space shared by administrative, academic staff and the executive.

"It's a totally wireless, bring your own device building," Simon said. "There's no back-up, no wires, you have to make sure you've got a device and software that's capable of handling it. We've put all sorts of training programmes, stops and measures to ensure that."

The technology and space was designed to provide a good quality audio and visual experience. Staff were becoming specialists in helping people use the technology and get the best out of the building.

"As everything sits in the Cloud, we can pop in through the camera and remotely manage, it's a very efficient way of doing it.

"We wanted to enable people to do things differently and the data that's coming out is incredible. We can see the diversification of spaces, how many visitors, guests and employees we've had and also see the most used floors and most common connected devices."

What's in store for space design

DELEGATES were invited by Malcolm Murray to reflect on 'IKEA, PCWorld or classroom?' when it came to learning space design in the wake of the pandemic.

The Teaching and Learning Centre at Durham resembled IKEA in that it had a lot of chairs. "But why do we have lots of different seats in the upstairs rooms and all identical chairs in the conference room," he asked.

"It's thinking about how space shapes what people do. At least we have spaces that are interesting and make you think about where to sit and how to work. There are lots of options."

Malcolm said that lecture spaces 20 or 30 years ago were largely blackboards and rows of chairs. "Now we've got a Starship Enterprise control panel and distractions all around the room. Are you looking at the screens or the presenter? Some screens face away from the presenter, suddenly the presenter is fighting for your attention."

There was a challenge about coming back to university after remote working – were people happier at home or in campus spaces?

"It's true for lecturing staff as well as students," he said. "At home, everything's set-up the way I left it. I can come in at the last minute, lay all my stuff out, press 'play' or 'record' or 'start Zoom', it just works, it's on my wifi so I don't have any trouble connecting.

"Why are we spending all this money fitting out rooms to a standard that is probably lower than the standard I have at home. That's the challenge we're all going to

Malcolm Murray, Head of Digital Learning, Durham Centre for Academic Development, explored the design challenges as staff and students return to campus after the forced pivot to remote learning.

face – the way we're going to teach in the future."

Malcolm outlined some steps Durham had taken to facilitate hybrid teaching. "One of the technical solutions was Owls. This is about bringing the class to the student – it's a 'push' technology.

"It was no surprise that this did not result in engaging spaces because we're taking a room that was never designed for hybrid teaching and retro-fitting equipment.

"The cabling was decided for different reasons. And the person at the end of Owl does not have any control. The device might switch to someone other than the speaker for whatever reason."

An experiment with a D3 robot – "like a Segway with an iPad stuck on it" – had also been carried out. "It's controlled from an app and the remote learner is in control of it. They can join the class, decide which table to sit at, who they want to talk to, where they want to look. It has full audio/video. If you've got small numbers of people, it's about how to bring them in in a way they can interact."

Becoming immersed in new age of interaction

Theo Penty, Head of Educational Business Development EMEA & North America at Igloo Vision, explained how immersive technologies – from hardware and content to spaces – are used in a range of faculties, including Nottingham Trent University where he has linked up with SCHOMS executive committee member Graeme Bagley.

IMMERSIVE technologies are novel and exciting and can enrich learning environments, Theo Penty told SCHOMS22.

"There's a lot of anecdotal evidence that students feel like they're learning something special from the content and that there's better retention of what's being learned."

Content could be created easily. "Schools can hire headsets with pre-loaded content and students can do 3D programme planning from virtual and meta-style environments."

Theo walked delegates through his immersive world of trackers, sensors, head-mounted displays, formal projection rooms and AV panels. "For us it doesn't matter because we work with space and display technology."

Graeme Bagley said that Nottingham Trent looked at immersive for Clinical Skills, enabling paramedic students to experience a real-world environment as much as possible without being put at risk. "Students loved it to the point that when it came to a new-build this year, we made sure they had a room fit for purpose with Igloo and the building contractor.

"Users drop what they film into the system. They can skew, restore, stretch, wrap around the room to have the focus in the required position, all controlled from an iPad."

A 'room within a room' was also being built for Heritage & Architectural where people could walk in and interact with historical and heritage scenarios visualised by researchers.

Resources for planning, design and evaluation of learning spaces

Facilities at Durham University's Teaching and Learning Centre came under scrutiny of a different kind when FLEXspace executive director Lisa Stephens, associate director Rebecca Frazee and core team member Mark McCallister ran a learning spaces workshop.

DELEGATES were asked how they would rate the first floor teaching room in which the conference was being held – using the LSRS tool.

Mark McCallister described the LSRS as a quantitative method for understanding the different types of attributes of a learning space.

"It's a useful method for looking through your entire inventory of learning spaces and identifying priorities on your campus – which spaces may need more attention, more design, more upgrades," said Mark, who is the Director of Academic Technology at the University of Florida.

Details were categorised under:

▶ Environmental quality – such as visual connection to nature, interior visibility (do columns intrude in rooms) lighting, air conditioning or heating and acoustics.

▶ Layout and furnishings – including the amount of furniture, seating density and comfort and access to informal learning spaces

▶ Technology and tools – such as power outlets, network capability, visual display and AV interfaces,

▶ Inclusion – physical, cognitive and cultural. "It's an important topic for discussion," Mark said. "Making sure people can use the learning space regardless of abilities,are there any distractions that will affect learning, is there anything that may be offputting to someone of a different

ABOVE LEFT: Lisa Stephens
ABOVE: Mark McCallister
LEFT: Rebecca Frazee being introduced by Caroline Pepper as she joins the workshop from San Diego

The Flexible Learning Environments Exchange initiative (FLEXspace) and the Learning Space Rating System (LSRS) are two Open Educational Resources (OER) tools drawn up to help with planning new or renovated learning spaces.

culture. Anything we can do better to make sure a student feels at home regardless of where they come from."

Delegates were asked to give marks to the conference room under each category.

Lisa Stephens, Assistant Dean and Education and Senior Strategist at the University of Buffalo and State University of New York, explained how the LSRS linked to FLEXspace under a new process called the FLEXspace Learning spaces Integrated Planning Pathway (FLIPP).

She said to regard LSRS as a way to measure the potential of learning in a particular environment whereas FLEXspace – an online resource

enabling users at institutions worldwide to share examples and resources for the planning, design, and evaluation of learning spaces – had the rich attributes and details and photos to ideate from.

"We now have over 6,000 users from 76 countries - 1400 unique institutions," she said.

"The FLIPP process aims to bring together all stakeholders who would like to have a say in campus planning – AV/IT integrators, planners, architects, researchers and support staff – to understand and empathise their respective roles.

"You've already experienced part of the FLIPP process today."

Rebecca Frazee, who is a faculty member in the Learning Design and Technology program at San Diego State University, took delegates on a virtual tour of all the FLEXspace website features from ideas boards and galleries to instituion pages and uploads of planning guides, reseearch and evaluation.

9

> **" The FLIPP process aims to bring together all stakeholders who would like to have a say in campus planning to understand and empathise their respective roles "**

Follow the latest on new-look website

ARE you checking in to the new-look SCHOMS website?

It's been designed to become more of a focal point as SCHOMS moves towards greater partnership with suppliers and manufacturers.

Chair Mark Dunlop said offering a website presence was one of the moves away from the previous sponsorship model. "We're distributing information that we get from them, trying to work together more proactively so they receive extra value for the 12-month period that they're supporting us," he told conference.

"This year we have 30 featured partners and we are working to develop more."

Secretary Adrian Brett had updated pages and Mark urged delegates to look at the content and case studies.

▶ The website also features regular news updates on SCHOMS and its members – such as feedback from the discussion on procurement held at the Durham conference.

Exhibition partners joined delegates for the session facilitated by Leighann Carlton, IT & Telecoms, Audio Visual and Library Services Category Manager at the University of Leicester.

She posed questions about current frameworks and how users saw the future regarding supply, prices, skills, resource and planning. Read about her findings at: www.schoms.ac.uk/articles/schoms22procurement

Leighann Carlton (right) joins the procurement discussions with SCHOMS members and exhibition partners.

▶ There's also a report on how SCHOMS was represented at the 2022 Media & Learning Conference in Belgium by James Rutherford, Senior Educational Technologist and Project Lead in Learning Enhancement and Development (LEaD) at City, University of London.

James was also invited to sit as a panel member on a discussion about hybrid teaching. He said: "The networking was good, like SCHOMS but a broader audience, and it was reassuring to hear how people in different countries were all going through the same issues as us." www.schoms.ac.uk/articles/MediaLearning2022

10

SCHOMS again played host to the UK's large supplier exhibition with an HE focus.

Companies set up exhibition stands on the second floor of the Teaching and Learning Centre, giving delegates the chance to discuss developments, products and requirements.

AVIXA pop up to reinforce close links

LINKS between SCHOMS and AV trade association AVIXA were reinforced by a day of training before the Durham conference and a pop-up presence during the partner exhibition.

Two training sessions were held at the Radisson Blue Hotel as conference week got underway.

Chuck Espinoza, AVIXA Staff Instructor, led a session on 'Designing for User Experience' – giving attendees an insight into UX research – and Antony Price, Senior Applications Engineer, Video & Control, HARMAN, presented an 'Introduction to Network Standards to AV Professionals'.

Feedback from both sessions was very positive, according to Sarah Carless, Account Manager UK & Ireland at AVIXA, who hosted the pop-up stand during the exhibition.

She said that most conversations during the pop-up were based on the CTS (Certified Technology Specialist) Test.

"Attendees who have not yet gained this certification were keen on attending a CTS Prep class which AVIXA is looking to run. This three-day class would be purely for SCHOMS members at a chosen university," she said.

Sarah also took the opportunity of highlighting AVIXA's new XCHANGE hub – a place where providers can share their skills and showcase their work and where technology buyers can find AV providers, based on their project needs.

"The Xchange is a unique community for the AV industry where members can connect, gain and share insights and expertise," she said.

More details can be found at Xchange.avixa.org

To see how SCHOMS members can make the most of their free AVIXA membership, go to: www.schoms.ac.uk/pages/56-avixa-membership

From time to time we ask 'first-time' delegates for their impressions of our annual get-together. RICHARD GATT of the University of Malta took time out from Għadira Bay in Mellieħa to answer our questions. . .

my first SCHOMS conference

Why did you attend SCHOMS22?
As a last minute replacement, although I had been eyeing and waiting for an opportunity to attend a SCHOMS conference for quite some time.

What were your expectations?
High – mainly due to the positive reviews I had received from a previous work colleague who had been a delegate. I am now able to relate to his opinion.

What did you enjoy most?
There were a number of highlights, all of which were significantly enjoyable. However, it is the people who make the conference so I can say the most enjoyable aspect was the people factor. It felt good to finally return to normality with face-to-face meetings, reconnect with a number of peers from past experiences and make new connections whilst being able to put faces to names.

What was the most surprising element?
The city of Durham takes the prize here. Although I had carried out some quick research prior to coming over, I had never imagined it to be so quaint, tranquil and steeped in history. Nor had I pictured myself experiencing dusk at 23:30 and dawn at 03:30 for that matter!

What was the most valuable element?
Undoubtedly, the wealth of experience brought to the table and eagerly shared by all attendees whatever their designation - be they delegates, presenters, suppliers and organisers alike. I think that this is probably the most enticing reason to attend the conference.

The least valuable element?
If I were to nit pick I'd settle for the panel discussion on day two. I am by no means attempting to detract from or put into contention the panellists' knowledge and expertise. It is simply that I had already encountered the same information during discussions held both at SCHOMS and other conferences and webinars over the previous months.

What was the key message that you came away with?
That the amount of planning, preparation and work my LSTS Team colleagues and I carry out on a daily basis at the University of Malta is indeed on a par and in line with the standards of a good number of UK Higher Education Institutions. It was also rather reassuring to see and hear that we were not alone with a number of struggles encountered over the past two years and that we took similar approaches to solving the issues at hand. I am positive that we are on the right track as far as teaching technologies are concerned and we should have just the right balance going forward.

Skill set progress wins approval

SCHOMS members share everyday good news stories

DELEGATES burst into applause at one of the developments revealed during an informal 'Chewin' the Fat' information-sharing session.

Chair Mark Dunlop - who initiated the group chat concept at a previous conference - had given delegates the brief to discuss anything they felt was different or impressive about their universities.

"Everybody in the room has done or witnessed something excellent that we want to be shared," he said.

The applause came in response to details of a project at **Nottingham Trent University** from Stuart Loughran, Resource Manager, and Graeme Bagley, Teaching Space Designer and Product Owner.

Stuart explained that moves to give technicians greater progression prospects and become more harmonised and flexible in their roles across campuses had won the backing not only of HR but also of trade unions.

The aim was to 'cross-skill' to remove imbalances in AV and IT support. Eight members of their 30-strong staff, four from each discipline, were being promoted to 'best of the best' senior roles and tasked to pass down their skills to colleagues. "If they don't succeed, they come back down again and others are given the chance," said Stuart.

Graeme added: "AV and IT are now working together to form a better structure. Technicians weren't happy just sitting in roles. We have four spread-out campuses, we want to move technicians to wherever the demand requires it."

In a separate slot, Graeme also told delegates about intricate steps he'd taken with VLE integration teams to set up Teams meetings for teachers.

▶ Versatile booths are the perfect fit

Caroline Pepper, Senior Space Manager & Doctoral Researcher at the **University of Birmingham,** revealed how a spatial requirement for vision tracking labs in Educational Psychology was solved by the introduction of a furniture solution – self-contained booths. "I know that the building is going to be turned upside down because of DDA building requirements which will impact on office space and capacity, but the furniture solution is both space and resource efficient. It is being used for informal learning as well as research applications and the academics are happy. It's been really useful. I know when we start moving everyone around in a year or so these furniture solutions can be moved as well."

▶ Seamless switch to hybrid learning

Ben Taylor, Head of AV, explained how his team has been distributing laptops and single-cable USB connections to all staff at **Edinburgh Napier University** as part of a programme of room developments to switch to hybrid learning. "During the pandemic, we started moving from desktop-centric organisation to mobile so we set out to provide the right facilities for people bringing devices in." Rooms were upgraded with compatible cameras and audio. "It's really simple and does everything people want it to do. We'll probably do away with desktops."

▶ Overcoming all the snags

Jonny Dye, Senior Technical Analyst (Audio Visual) in the Computing and Information Services at **Durham University** gave further insights into some of the challenges faced in preparing the Teaching and Learning Centre. "There was a lot of snagging and the new SBSI system was a bit inconsistent, some units failed early on, but we ironed it out," he said. "It was finished just before Covid hit and wasn't fully kitted out for hybrid teaching but overall it was a great project."

▶ Intelligent retro-fit delivers

Lisa Stephens described how a retro-fit of AI in the School of Engineering at the **University of Buffalo** helped international students in particular to keep in touch with learning. "As an old broadcast engineer, I never thought that AI could rival a board operator but much to my surprise, it did everything promised of it." The full details of the set-up - involving stacked cameras on either side of the room and bi-amp microphones - can be found on the FLEXspace website under Davies 101 at Buffalo.

12