The Roundtable Panel included:

ED BENGOA director of post production, ITN

JAI CAVE technical operations director, Envy Post

ZEB CHADFIELD chief vision officer, The Finish Line

LEE DANSKIN chief technology officer, Escape Technology

JASON JENNER commercial director, Escape Technology

TODD KEPLARSKI managing director, scripted, Picture Shop (UK)

DAVID KLAFKOWSKI chief executive officer & founder, Racoon

MARK MALTBY chief technology officer & co-founder, The Look

TOM MITCHELL technical director, Mission

JULIAN NELSON head of post production & co-founder, Residence Pictures

JESS NOTTAGE technical director, Clear Cut Pictures

DANIEL SASSEN chief technology officer, Envy Post Production

OLLY STROUS chief technology officer, Zinc Media

RICHARD WARBURTON chief marketing officer, Symply

NICK WARBURTON chief technology officer, Symply

RUPERT WATSON director of alliances & channels, emea, LucidLink

POST MODERN

How does post react to the IT revolution?

There is a technology revolution that shows no signs of slowing down across all industries, mixing the portability and processing of data within the cloud with new AI driven services and automation.

If the streamer or broadcaster manages the camera files from capture and provides all the technical support with the storage, compute and applications sitting together and with creatives dialling into the project remotely, what role does the post house have? (Camera to cloud workflows are already here and JPEG XS enables remote picture finishing without the data leaving the cloud.) A post house typically manages the technical project alongside creative services. Or will creative artists be working independently as freelance contributors remote from one another and the project?

Would such a centralised technology-driven approach resolve the technology bottlenecks that inevitably come up and ignore the role that local support teams play? Do creatives continue to come together for a shared endeavour? Or will the apparently conflicting need for the streamers, broadcasters and production companies to achieve better economies, efficiencies and security be better served in the cloud?

Televisual invited a panel including some of the brightest leaders in some of the biggest post houses to hear their thoughts on how post would evolve over the coming years. They were joined by leading vendor and reseller technologists for dinner at Groucho's on the 26th June.

Escape Technology

Escape are technology partners for innovators and content creators. We work with leading vendors like HP, NVIDIA, and Autodesk, Escape enhances and builds pipeline infrastructure for post houses, architects, game developers, automotive designers, and commercials agencies throughout the UK and Europe.

For over 15 years we've been at the heart of creativity. By coupling our industry leading knowledge with key manufacturer partnerships we're able to offer not only the best advice, but the technology to back it up. Whether you need a new workstation, centralised storage, or even cloud render we're there when it counts.

escape-technology.com

LucidLink

LucidLink empowers creative professionals to work seamlessly from anywhere by rapidly enhancing collaboration and offering teams fast access to files and the creative apps they love. The cloud-based solution connects remote teams to project files of any size and type instantly, and is designed to support workflows from video and audio to graphic design and more.

LucidLink offers a familiar and flexible format, similar to a local drive, so creatives can maintain their workflow uninterrupted.

lucidlink.com

SYMPLY

Symply design and engineer storage solutions for M&E creators. From the initial stages of data ingest during production, to post and VFX, and through to delivery, archive, and future monetization, Symply offers an inclusive range of disk, tape, and cloud storage. Commodity products include award-winning direct-attached shuttle RAID systems and the world's most comprehensive range of standalone LTO systems, while transportable appliances can support collaborative workflows or provide an S3-native private cloud on-location. And infinitely scalable on-premises private cloud, and fully cost-predictable public cloud storage solutions meet the needs of facilities and content owners.

gosymply.com

STROUS Adapt or die has been my mantra for many years. Sometimes adapting isn't enough, take yellow pages for example. I look at Black Cabs protesting Uber and think hey, private hire has been around for a long time. Uber has just made it incredibly accessible. We all want simpler lives but at a price point.

Post is the same. For the last 8 years I've been championing using automation for repetitive tasks instead of people. This was never to make a load of people redundant. It offered a better, faster service to productions, a lower cost base we could pass on and most importantly allowed intelligent people to do more intelligent tasks.

The same for me holds true with AI - can we shortcut some processes to benefit the production? Could automated blurring on blue light shows shave hours off the online and save a tedious job? Could text based editing help producers sync pull in a way never seen before? Can we put that time saving back on screen to create even greater work at the same cost?

Post houses will continue to offer best in class creative and technical talent nurturing projects from start to finish. While those using facilities may not be spending as much time physically in suites favouring remote, the bricks and mortar remain indispensable collaboration spaces and the comfort blanket that experienced post facilities offer isn't going anywhere quickly.

KLAFKOWSKI From a distance, facilities will look much the same, although they will take up less physical real estate. They will focus on the mastering and delivery of the finished product. The physical location of the hardware for these processes will be cloud-like and provided by a combination of self-provision and external



Residence worked on The Gallows Pole



The Finish Line worked on Getaway Driver

vendors. They will also still provide spaces for editorial creative (offline suites) but the engine that runs this will be delivered by third parties, in a cloud-like fashion.

Solving how creators maintain meaningful collaboration in what is clearly becoming an increasingly disparate world is key. That's what our new platform, Tanooki is here to do - a single, agnostic, unifying application layer, to keep track of the edit, all the ancillary applications and the remote teams a modern production requires.

CHADFIELD A quick look at the stagnation of rates in post over the last couple of decades shows that the traditional post-production model has been broken for a long time. Not for a lack of creative or technical talent or wonderful facilities that are great creative hubs, but because of financial decisions at the top which trickle down through the production and post processes.

If there is a financial incentive to keep costs the same or push rates down, then technological innovations to enable the work to be done will always be taken, whether they are morally right or not. The decisions are made from necessity rather than desire; if rates don't at least keep up with inflation, then what are you to do? Sometimes you find unexpected benefits to a leaner process but more often the lower rates just lead to talent exploitation and cut corners.

My choice to run a distributed and embedded post business was a way to sidestep that. If the rates can't pay for the product to be made in the way it has been traditionally done, then the manufacturing process needs to change. The talent remains the key component, and investing all we can in looking after and developing current and emerging talent is all that matters to me. The talent does the creative work; everything else is purely superficial. You can't stop progress.

MITCHELL Netflix are working on tools like content hub, they're encrypting data on AWS at the moment to store stuff. The streamers have got big development teams. They ultimately want to control the workflow, but they're a long way away from doing that. It's OK in the UK or USA, but the problem the studios have is that if you go to somewhere like Europe, you might get one or two companies up to speed but once you got one or two big films in a territory, you're stuck with the B, C and D teams. The workflow starts to struggle and causes problems. And what they're looking for is a way of saying, 'do you know what, we want all our shows to be archived properly in IMF and in ACES, and we want to build that as a standard. If we build our own tools for you to then submit your masters, we can archive it and organise it.'

They first start by asking you to work in



Zinc worked on Putin Vs The West

a standard way with the documentations, and then by replacing parts of the process with SaaS tools. If in the future we were able to build a post company in the Cloud, we can have SaaS tools that can perfect the workflow. How long would it be before the creatives - who are a big part of the post house attraction - set up their own office in an Airbnb work style, and then start off their own post production company?

A lot of work can be done remotely, although on the flip side, if you're mastering a theatrical production, you want to work on a project within a theatrical environment. If you're listening to an audio mix, you want to listen to it in a proper room.

CAVE The facility of the future will continue to offer complete flexibility, allowing clients to work how they want, where they want. Automation will improve efficiency of background tasks and AI will assist the creative process; from making assets easier to find to making sync pulls and, for some genres, rough cuts.

Using a combination of on-prem and cloud in a hybrid fashion will become the norm, but we will stop referring to it as cloud and will just concentrate on the services that different providers offer. Facilities exist not because of tech, but because of great creative and project management teams, who will be as essential to the process in the future as they are now.

NELSON At its core a post house is centered around its people. It is a unique space, a hub where creativity can thrive. It is about giving the stakeholders the freedom to review whenever and wherever they like. It is our job to create an environment that allows artists and creatives to perform their best work in the most collaborative and flexible way possible. Our best work is done when we work together.

AI and ML will only get more sophisticated in assisting artists with their tasks, at whatever stage it is used it will still need a specialist to finesse and refine the results according to client expectations.

MALTBY When we were planning the migration of our finishing systems to a remote data centre, it was critical that the user experience remained identical to what they were accustomed to with the equipment on premise. Latency of any sort would have quickly seen the project abandoned.

Our goal, as we move to a future that includes IaaS and SaaS solutions, remains the same, and we have worked hard to homogenise the user experience between technology in our data centre and that in the cloud. This ability to scale is something that the streamers we supply to have been actively encouraging.

NOTTAGE You need the interpreters, which is where we come in. We are the skilled people within the post production house and are the translators to the creative team that are not necessarily as technical. Not everyone understands that. Some people do, but I think with post, we're just talking about the technical workplace, I think it's more than that as well. It's a physical place that people can go to, and I don't think it becomes a faceless interaction. We're in a transition period which hasn't yet run its course. But it is notable how people came back to work on prem.

Post-production businesses will inevitably downsize their physical footprint in response to the growing trend towards remote working. This contraction will primarily affect offline editing rooms, as there will still be demand for controlled environments such as audio dubbing theatres and colour grading suites. While offline editing suites enable in-person collaboration, the model is likely to shift towards booking rooms on an as-needed basis for occasional days, rather than reserving them for the entire editing period.

SASSEN The future of post production will look comfortingly familiar for our clients and creatives. It will still be all about working with exceptional people, training the next generation, providing the services our clients need and all in beautifully designed facilities, with the best technology allowing us to create the best possible content with local and remote teams. However, for post facilities to survive and thrive, underneath this frictionless layer of services will be an incredible amount of technological change at all layers of the infrastructure. Along with this, efficiencies will have to be found through the use of hybrid cloud, automation, ML and AI.

BENGOA The challenge for a post house delivering post for a variety of content creators



Mission worked on the Covenant

and genres, is to remain as agile as possible, to be able to adapt as you go. Keeping the transformation of your business continuous is key to success.

For a facility like ours, delivering post for such different types of content, workflow and platforms is a challenge. We are always identifying areas where we can apply automation and orchestration of common denominators within our workflows where we can utilise the same technology.

There are so many different types of post production with different imperatives. You cannot compare sport's highlight packages, where AI and ML will play a huge role - and already are playing a huge role! - to high end drama or features, or 'mainstream' content.

The (Soho) post house of the future will be a mixture of specialist post such as high-end finishing, or end to end post, from capture on the field, to delivery. This is a model tried and tested by several post houses. A post house now, and in the future, is a place where you look for the technical expertise and the know how to help you deliver your creative vision. Where the technology sits doesn't really matter, and we will see a constant increase of cloud base and off-prem workflows.

KEPLARSKI For us it's already a hybrid model. Will it be more hybrid? And will the balance go more and more towards a centralisation in storage, on the remote creative? We have remote creative between New York, LA and London. We can have creative both sides of the pond, wherever that wants to be. We've been working on this for years. And that will continue to grow.

It's also the relationship with a director or a DP when they come into you. They're shooting something, they're testing something. It's how you set up that project to succeed. What lenses are they using, what frame rates are they using, what are they looking at through the lens and how do they want to achieve that? If you have a DP who uses 20 odd different cameras, how do you get that down into one standardised place, remotely driven?

WARBURTON The 'new normal' suggested during the pandemic hasn't really materialised. Both the talent within the post community and their clientele has been keen to get back into facilities and collaborate in person. Afterall, if I were a DoP and the conveyance to the audience of my craft – and therefore my reputation – is undeniably tied to the job of the colourist, I would very much like to be in-situ with that person.

Technology allows us to be remote and to disperse talent and processes to great effect, but it is a choice today, so it should be treated as such. Adoption of the right technology is what's important. What you continue to put on-premises, in to remote 'offices', or production



ITN Post worked on Michael Palin: Into Iraq



Envy worked on The Piano

locations is so important, even if adopting public cloud services. Cloud isn't a mystical technology, it's just someone else's tin sold to you as a service. Greater implementation of private cloud is going to be important, to balance operations and reduce the risk of putting all your eggs in one basket.

JENNER When the cloud gets talked about in the commoditization of the centralisation of technology, it's always positioned as if everything will move to the cloud. I just think the cloud will end up being another supplier. Another technology platform in a mix of lots of other technology platforms.

DANSKIN It also depends what kind of business you are. Take the example of let's say, three guys that break out of a large, established post house, and want to start their own thing. With no trading history, raising funds can be difficult. For them, a service model is perfect. But for others? It's about use case. For example, rendering in the cloud is often the right way to go, because that cost model makes sense for most jobs.

JENNER Everything that's been said here today is about the value of the creativity. Automation is immediately attractive. We're in a transition which is not completed, in so far as the cloud is relatively new. Everybody's getting carried away with it. And what people are now finding is, it can be expensive for certain things, while making sense for others.

WATSON Going back to the question of what post might become, there's another generation coming up who are simply doing their own thing with media in the cloud. I recently met the YouTuber, Mr Beast, whose viewing figures dwarf even the biggest hits on Netflix. They don't have a support infrastructure and are simply learning as they go.