Top Trends from IBC 2017

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At this year's IBC, Google took over the spot in Hall 14 that in the past was home to OVP QuickPlay; Facebook came to the show, on the heels of its announcement of its intention to spend a boatload of money on content. IBM — with Watson at its core — made its first appearance at the show, promising deep data for content.

Notice a trend? Streaming content was the bread and butter of this year's party in Amsterdam, topped with a big dollop of data.

Live continued to gain momentum and quickly is becoming table stakes for OTT providers and content owners. Case in point: OTT pay-per-view sales pushed the gate for the boxing match between Floyd Mayweather and Conor McGregor to record levels around the globe. A variety of tech players, meanwhile, leaked plans to land high-stakes deals for rights to a variety of live sporting events.

Increasingly obvious is the desire of content owners to create direct-to-consumer (D2C) OTT services, not as a hedge against eroding profits from traditional delivery, but as a central pillar to next-gen strategies that look to gain maximum value from their crown jewels: original content.

A year ago, one focus at IBC was improving user experience through better user interfaces. At this year's event the talk of remotes and better discovery through re-imagined grids and guides took a back seat to the increasing sophistication of voice-activated personal assistants. Yes, we're far more likely to talk to our TV in the future than to scroll through screens of content manually.

Also making waves at IBC was interactive advertising. L.A.-based Promethean, for example, had a slick exhibit at the Akamai booth that showed how easy it's become to drop content into a live event — like a football game — without wreaking havoc with viewers. Halftime only a few minutes away? How about a Papa John's ad popping up in the corner of the screen instead of yet another pause in play – and potential viewer churn — with a phone number to the franchise nearest you so you can order without taking your eyes off the game? That interactivity also could play host to fantasy stats, pre- and post-game statistical breakdowns, highlights from the game, as well as highlights and stats from other games, placed anywhere on the screen and away from the action.

With layers of competition for viewer attention on multiple channels, isn't it better to work to keep eyes on your product? And, as more and more broadcasters are discovering, selling brands on traditional advertising is getting more difficult; viewing choices continue to multiply, further fragmenting audiences.

During the past two years, there also has been a lot of talk about M&A and the potential for contraction among technology vendors. That wasn't much of a topic this year as more companies looked toward partner integrations, a far simpler way to provide complex solutions without having to worry about platform fit, culture fit or, worse, a bad fit.

Microsoft, IBM, AWS, Akamai, Imagine Communications, Cisco and other major infrastructure providers instead said at this year's event that they would look to expand their businesses by making it easier for partners to utilize their various "special sauces." Need help expanding your machine learning or artificial intelligence leverage? Microsoft offered Azure and IBM Watson as options. Partner exhibits multiplied at this year's IBC, setting a new tone from past years.

But at the core of this year's IBC was the understanding among broadcasters — finally — that going over-the-top isn't simply an option to reach cord nevers, shavers and cutters, it's the future of the broadcasting industry.

At this year's NAB Show in Las Vegas, CBS was lauded from the main stage for its forward-looking D2C strategy that was positioning it as a next-gen broadcaster; its All Access over-the-top play already has 2 million subscribers with expectations that it could quickly increase to 4 million. The reception fellow broadcasters gave CBS was a stark contrast to the one former FCC Chair Tom Wheeler received the previous year when he was met with silence when he suggested broadcasters would be wise to embrace OTT rather than fight it.

What a difference a year makes.

IBC saw a similar change this year as broadcasters, operators and studios all seemed to embrace — albeit tentatively in some cases — over-the-top technology and strategies and the changing market.

ADJUSTING TO CONSUMERS' GROWING POWER

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In many ways, what we're seeing is more of an adjustment to a changing audience, or at least a tacit acknowledgement that change really is happening. IBC 2017 was a far cry from the positions most in the industry took just a few years ago, with many top analysts saying cord cutting was a figment of the media's imagination and cord nevers? Well, they eventually would tire of hunting for content online and buy into traditional pay TV.

Instead, panelists, speakers and executives in private meetings all seemed more cognizant, even comfortable of the industry disruptions that were taking place, of the gradual shift of consumers back into the driver's seat they occupied in the early days of television before unwieldy bundles of pay-TV channels.

As Brian Sullivan, President and Chief Operating Officer of 21st Century Fox's Digital Consumer Group said: "The disruption... started with a model where the consumer always had the power. We're on the way back to that model. This is more natural in the industry."

As streaming has become mainstream — roughly two-thirds of U.S. TV households have at least one subscription video on-demand service, most often Netflix — broadcasters here have begun to simplify their own models.

Fox, Sullivan said, has boiled 17 networks down to five. But, he added, "consumers still have to go to multiple places to get content." Its nascent Fox Now platform offers a re-aggregation of all of the broadcaster's content, something that is becoming more critical to content owners with multiple channels. And, although he was reluctant to say it specifically, Fox Now likely will be a major part of the company's strategy once it rolls out as a true D2C play.

"Eventually everybody is going to have direct-to-consumer in the marketplace," Sullivan said, as broadcasters look to find a new balance with consumers. Fox Now, he points out, helps Fox position itself for everything it wants to do in the future.

"It gives us better data on what people are consuming and what they want to consume," he said, adding that data is "critical" to future business.

Currently, Sullivan said, "Big Silicon Valley companies are far ahead of the broadcast industry in knowing how to use that data." That's because tech companies understand the massive value of metadata and how to use it gain insights on businesses.

The growing power of consumers in an environment where content has always been king has in years past been a sticking point for the media industry, where the might of a massive subscriber base and the ability to deliver that content with "five nines" quality was seen as more important than customer satisfaction — where the pay-TV industry has routinely scored lower than airlines or government bureaucracy in surveys.

But the erosion of those subscriber bases, the increasing reliability of OTT delivery and the traction SVOD services have gained with consumers is changing all of that. Adding to the evolution is the deployment of Internet-based TV services like SlingTV, DirecTV Now, PlayStation Vue, YouTube TV, Hulu et al. Those next-gen SVOD services, offering vast content libraries as well as live channels, once were seen as potentially cannibalizing business from traditional industry players. Now, they're increasingly seen as the next step in a process that is far from finished.

Currently, they're offering re-aggregated content, a revised look at bundling. Metadata, user data, and artificial intelligence (AI) all will play a vital role in future industry generations.

METADATA, MACHINE LEARNING, AI AND THE FUTURE OF WORKFLOW, CONTENT AND DISCOVERY

> "The more direct access you have to an audience, the more data you can collect on them. You can create more personalized advertising, personalized content. It will help reduce churn rate."
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> **— Niko Waesche Global Head of Customer and Audience Activation at research company Gfk**

Put three media industry execs on a panel, ask them about AI and machine learning and you're likely to feel like you're at three separate discussions, all of them germane to media but equally disparate. The unifying precept? Data, the most precious thing the industry has right now.

"Data is power," said Marcelo Lebre, VP of engineering at Unbabel.

Tata Consultancy Services recently reported that 80% of executives across 13 industries already are investing in some form of AI, but noted that by 2020 that number will increase to 100%. It's estimated that investments by media, entertainment and information services will nearly triple in the next three years.

Rich metadata is the fuel that feeds AI and machine learning. It's the basis for being able to better engage consumers by collecting their likes and dislikes, their predilection to pause and rerun comedy punchlines or movie scenes featuring Ryan Gosling, to establish a line between news about a topic and video and audio related to the same topic, preparing a list of content you're likely to want to watch.

Metadata can also be used to help develop and automate workflows that are used in production and distribution of assets.

"We're always looking at how we can use data to better bring our stories to our audiences, to improve workflow," said Dave Bevan, senior broadcast systems developer with the BBC's News Labs. "AI, for us, is actually machine learning."

The "beeb" is using machine learning (ML) to help it develop its own speech-to-text (STT) capabilities, facial recognition abilities and, most critically, to do it faster.

But ML — just like normal learning for humans — can be hard and is extremely sensitive to the "teacher."

"ML is like a child," Bevan said. "Teach them bad things, they will behave in a bad way."

The BBC also is using ML for content discovery, taking news articles it publishes and — using aggressively curated tagging — establishing ties to related opinion articles, podcasts and incoming content.

"Tagging is critical," Bevan said. "For our own and incoming content."

Machine learning and AI are still considered uncharted territory; but it's a map that a huge array of companies at IBC were trying to stake a claim on.

"Companies have begun to integrate (AI and ML)," said Kip Schauer, Google Cloud global head of media & entertainment. "Things like shot or scene detection will be able to create quick edits at sports events to be pushed to social media. That's where I see machine learning creating new experiences for us — allowing more content to be distributed to more people."

AI will help with content discovery, predicting user behavior, reducing churn and even creating content. But as Netflix Chief Content Officer Ted Sarandos so famously said, even though the company uses data to help it plan new content, it still requires significant human intuition to pick a winner.

The computing power needed to effect AI increasingly is at hand — literally. Apple's newest iPhones have enough processing power under the hood to handle AI in the device itself, rather than relying on the cloud, which will drastically reduce processing time.

"It will change everything," said Oisin Lunny, chief evangelist at OpenMarket.

"We're seeing an exponential growth in content creation," said Lebre, whose company specializes in transcribing and translating content at the same time, producing multilingual subtitling using machine learnings curated by human interactions. The AI produces the initial translation, while another part of the AI assesses the quality of the translation before being shipped to a community of human bilinguals who improve the final product. It is, said Lebre, the basis of a virtuous loop to improve.

"Think of it as an Ironman suit around any bi-lingual to produce professional translation," he said.

"Workflow" was a constant topic during AI, metadata and ML conversations and panels at IBC. How will those tools affect production workflows? It's an area that has vast potential.

"One of the deficiencies we see at the moment is if we're editing video, we generally think about three tracks of content; we have our video track, we have our sound track and we have our time code track," noted Bevan. "I think we should be thinking about all of the metadata tracks we have as well."

Another point of concern was keeping metadata consistent as content moves from one place to another. Machine learning, for example, can introduce STT to create key frames, but how will the richness of that metadata fare as it moves through media asset management systems and from one place to another? How do we prevent that richness from being lost and, in fact, build upon it as it touches other assets?

"Metadata is a key thing the industry has to tackle," said Bevan.

Lebre expects that very soon metadata driven ML and AI will significantly reduce workloads in the industry from day to day, handling STT, multiple language subtitling and facial recognition seamlessly with little human interaction.

Bevan, meanwhile, said the BBC already is exploring whether AI can produce a programming schedule for one of the broadcaster's online channels, something that can be an arduous chore for a human programmer.

But daily workflows and production assistance is only a part of the future Lebre expects. He sees AI as playing an even bigger role: "Eventually, going forward, it will come to a place where content is created for a single individual based on their personal likes, dislikes, experiences… Content will be produced to our custom desires."

AI and ML also have a big role in advertising, said Niko Waesche, Global Head of Customer and Audience Activation at research company Gfk. "We're not just talking programmatic anymore, we're talking about consumer activation, reaching the right people at the right time."

"Advertisers like Heineken want to reach people at the time they are most likely to buy a beer."

Most industry pundits agree that media companies will be more successful if they do two things right — produce great content and create great data, something that has been bedrock for next-gen Internet channels like Netflix, Amazon and Alibaba.

"You have to engage with audiences wherever they are," said Waesche. "The more direct access you have to an audience, the more data you can collect on them. You can create more personalized advertising, personalized content. It will help reduce churn rate."

ARE VIRTUAL AND AUGMENTED REALITIES FOR REAL?

"AR and VR will be part of (sports broadcasting). We're experimenting with it. Producers are still working to create a content presentation model. We see it as an evolution… it always is."

— John Honeycutt, CTO of Discovery Communications

If you had the opportunity to place yourself — at least virtually — into a scene from Netflix's big hit, *House of Cards*, would you take it? Would it make your experience better? Would it make the show better? Increase your sense of reality, of immersion in the show?

Poet Samuel Taylor Coleridge said drama was based on the "willing suspension of disbelief for the moment." Would dropping yourself into *House of Cards* allow you to enjoy the show as much? Or, would it disrupt your suspension of disbelief?

That's just one question created by the fledgling technology of Virtual Reality (VR) and one that came up in a number of conversations and presentations during IBC.

But, is it too early to really talk about VR? Is it, possibly, the next 3D? A promising technology that piqued curiosity but fell by the wayside as content couldn't keep up and consumers found wearing clunky glasses annoying, uncomfortable and, in some cases sickening?

At IBC, the jury was decidedly non-committal, believing that true, immersive VR still was some ways off, with most agreeing that, from a professional standpoint — outside of gaming — true VR was still in its early stages.

As Kip Schauer, Google's head of media and entertainment said, "It's a novelty right now," adding that although VR 180 is being used a bit, in terms of VR 360, where you drop into an environment and can't see the "working side" of a soundstage, the cameras and folks behind the scenes, "there's nothing there yet."

And that, he said, is limiting its adoption. "When there's true VR 360, that's when it will become interesting… when people will start to implement it."

Chuck Correll, Sr. Manager, Field Development for interconnection specialist Equinix, noted that researcher IDC projects the AR and VR ecosystem to increase to $215 billion by 2021 from just $11.4 billion today with headset sales set to increase tenfold to 100 million units.

"VR and AR are a huge part of the future in media and entertainment and other industries," he said, adding that neither can look like actual reality without high-performance, low-latency connections.

Adrian Drury, Technology Strategy and Insight Director at Liberty Global, said he believes VR faces a similar challenge to adoption as did 3D… the need to wear an item to experience it.

“Our audiences aren’t going to suddenly watch Coronation Street on a VR headset,” said Drury. “In the gaming market — yes, but even in sports it’s challenging because putting a headset on makes it a more isolated experience.”

Where VR is in the early-adopter phase, Augmented Reality (AR) is seeing faster uptake by broadcasters, especially in sports.

Many executives remain somewhat skeptical of VR, seeing it as “the next 3D,” a technology that requires a lot of special equipment in return for a lot of headaches.

“AR is a lot easier,” said Balan Nair, Executive Vice President & Chief Technology Officer at Liberty Global. “It will be mainstream. VR is a lot tougher.”

Simon Fell, director of technology and innovation at the European Broadcasting Union, said EBU members are eagerly experimenting with AR, which is seen as more exciting because it’s easier and can go to lighter devices, especially smartphones like the newest generation of Apple’s iPhone.

Compared to VR, AR is also relatively inexpensive and has been around the broadcasting industry — in some form — since the 1990s.

John Honeycutt, CTO of Discovery Communications which won the European rights to broadcast the Olympics, sees AR and VR as a natural for sports, noting that it’s a place he believes consumers want to be and, thus, where Discovery needs to be with content.

“AR and VR will be part of that,” he said. “We’re experimenting with it. Producers are still working to create a content presentation model. We see it as an evolution… it always is.”