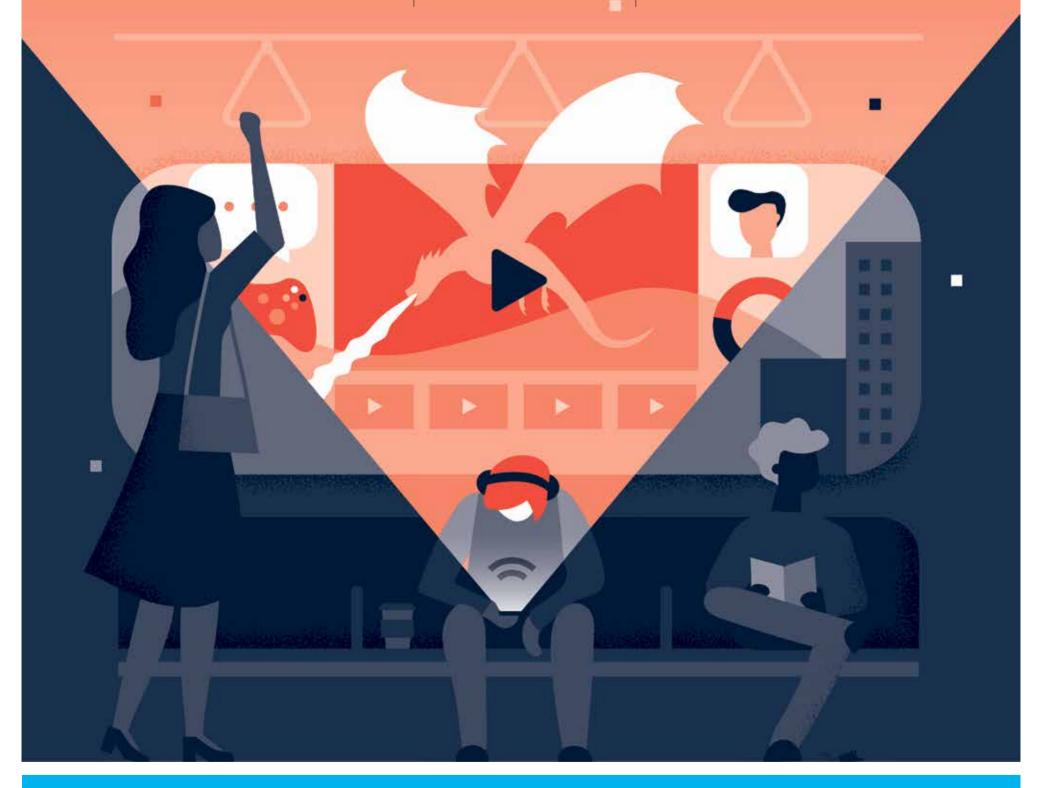
RACONTEUR

FUTURE OF MEDIA & ENTERTAINMENT

03 OTT COMPETITION STEPS UP A GEAR

04 INTERVIEW WITH SIR MARTIN SORRELL

08 INFOGRAPHIC:
GIRLS (NOT) ON FILM





Sports, Entertainment, Live Events: Lawo's IP Solutions get the Thrill across.



We are JIGSAW24

Begin the next evolution of your creative workflow

Get in touch to arrange a hands-on demo of the latest releases, including:

- Avid's S4 and S6 audio consoles.
- Shared storage, including cloud-based solutions.
- Full Avid and Adobe post workflows.
- Dolby Vision and Dolby Atmos.

- IMF packaging and delivery.
- HDR workflows, including DaVinci Resolve and R&S CLIPSTER.
- IP-based and hybrid cloud workflows.
- Remote editing, grading and approvals.

Get your workflow future-ready

Visit: www.Jigsaw24.com/broadcast

FUTURE OF MEDIA & ENTERTAINMENT

Distributed in

THE TIMES







Contributors

Jon Axworthy

Freelance journalist. writing about health, tech, science and the future, his work has been published in T3, Wareable and The Ambient.

Nick Easen

Award-winning journalist and broadcaster, he writes on science, tech, economics and business producing content for BBC World News, CNN and Time magazine.

Olivia Gagan

Journalist covering energy, sustainability and culture for titles including The Times, The New York Times and Time Out London.

Oliver Pickup

Award-winning journalist, he specialises in technology, business and sport, and contributes to a wide range of publications

Ian Burrell

Former assistant editor and media editor of The Independent, and an investigative reporter at The Sunday Times, he writes columns for The Drum and i newspaper.

Samuel Horti

Freelance tech, video games and property journalist, he writes for titles such as IGN. Property Week, PC Gamer, Gamesradar and Techradar.

Magda Ibrahim

Award-winning journalist, she writes for London Evening Standard and specialist media including Campaign, Third Sector and PRWeek.

Raconteur reports

Publishing manager

James Studdert-Kennedy

Associate editor **Peter Archer**

Deputy editor Francesca Cassidy

Benjamin Chiou

Taryn Brickner

Head of production

Justyna O'Connell

Joanna Bird Sara Gelfgren Kellie Jerrard Harry Lewis-Irlam Celina Lucey Colm McDermott Samuele Motta Jack Woolrich

Tim Whitlock

Although this publication is funded through advertising and sponsorship, all editorial is without bias and sponsored features are clearly labelled. For an upcoming schedule, partnership inquiries or feedback, please call +44 (0)20 3877 3800 or

email info@raconteur.net Raconteur is a leading publisher of special-interest content and research. Its publications and articles cover a wide range of topics, including business, finance, sustainability, healthcare, lifestyle and technology. Raconteur special reports are published exclusively in The Times and The Sunday Times as well as online at raconteur.net The information contained in this publication has been obtained from sources the Proprietors believe to be correct. However no legal liability can be accepted for any errors. No part of this publication may be reproduced without the prior consent of the









STREAMING

Is the streaming bubble set to burst?

New players in the over-the-top streaming battle are entering the fray, but with very little differentiating them, the market is in need of further disruption

Ian Burrell

ike mighty armies in the kind of lavishly produced box-set period drama viewers love to binge on, great over-thetop (OTT) services are drawing up their battle lines.

Apple+, Disney+ and BritBox have recently taken the field, manoeuvring for position against rival combatants Amazon Prime, YouTube and Hulu, Netflix already holds the upper ground. Soon, HBO Max and Peacock will belatedly appear on the horizon, like the Prussians at Waterloo.

These streaming wars are real and of historic cultural and economic importance. Billions of dollars are at stake, along with the fate of many of the great names in global entertainment.

For consumers, who will ultimately decide the outcome, the impending fight will be a grand spectacle that promises them the spoils of ever-greater choice of hyper-personalised original content, unimaginable in times before disruptive technology altered the course of visual media.

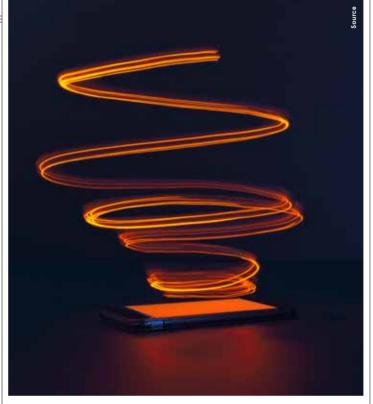
"UK becomes a nation of streamers", declared UK media regulator Ofcom this summer as it reported the number of households signed to OTT services grew from 11.2 million (39 per cent) in 2018 to 13.3 million (47 per cent) in 2019.

Grabyo, the online video production group, found in its annual Global Video Trends report that OTT services now dominate over pay-TV services in the United States, Europe and Australia. It identified Netflix as the global market leader in subscription-based video on demand (SVOD) with 54 per cent market penetration, rising to 61 per cent in mainly Englishspeaking countries.

But Netflix has recently faltered. Its share price fell this year over disappointing subscriber numbers and the perceived threat from newly arriving OTT services, which are pulling their original content from Netflix's platform.

Mark Harrison, managing director of the DPP, an international business network for the media industry, says so much visual media is being created he foresees a "content bubble", comparable to the dot-com bubble generated by wild investment in tech stocks 20 years ago.

"Not many people are actually making any money from this," he points out. "The supply of



content is going up and up and up in response to a demand that is huge but really poorly understood and a funding model that is failing to deliver. There will be a point at which something bursts. The question is what provokes that and what comes next.

OTT services will form alliances to survive. "We may see even more mergers and acquisitions, companies flying into each other, restructures," Mr Harrison predicts.

Content exists in abundance, but audience dissatisfaction remains, he says. When the bubble bursts, the companies who listen to what consumers complain about will be the ones left standing. "People are frustrated that it's so hard to find what they want to watch and, if they were able to watch everything they would like, it would require them to subscribe to a huge number of services." he says.

Two classes of video consumer will emerge. "We are going to see content subscription as an indicator of wealth; if you are affluent, you will subscribe to a huge range," says Mr Harrison. "The subscription 'havenots' will have a lot of content services that are advertising-driven and free to use."

Graham Field, head of programmatic at MediaCom, foresees a surge back of ad-funded "freemium" streaming as the race for quality content inside so-called walled-garden OTT services causes

players to drop out and leads to price inflation. Platforms such as ITV Hub and All4 can already attract "massive" audiences for culturally significant shows, he says.

"A lot of that consumption is happening on mobile; individual viewing of shows that people engage with and like the ad-funded model, provided the quality and value exchange is there," says Mr Field. But he warns such services against over use of hyper-personalised ads, which can cross "a creepy line".

Digital content delivery service Limelight Networks produces an annual State of Online Video report that identified cost as the "primary concern" of UK SVOD subscribers, with 54.6 per cent saying they would cancel a subscription if it became too expensive.

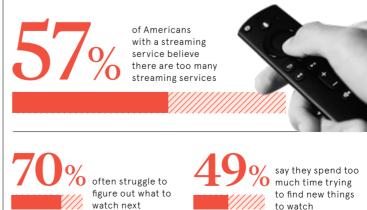
Quality of the streaming itself will also determine who wins when the streaming bubble bursts. Michael Milligan, senior director at Limelight Networks, says "Twentysix per cent will stop watching a video the first time it buffers. The second time, it goes up to above 60 per cent.

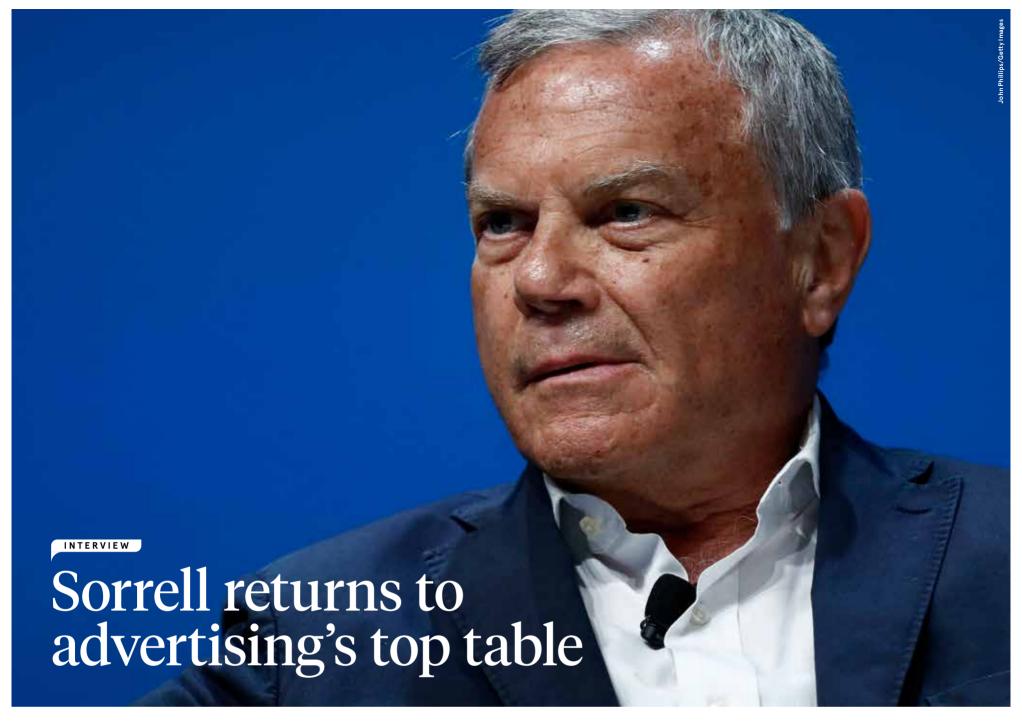
While the arrival of 5G will bring sufficient bandwidth to "make vour mobile device pretty much HD or UHD quality from just about any screen anywhere". OTT services must exploit disruptive tech to reduce delay in delivery of live events, savs Mr Milligan.

"You might get a tweet of something that happened before you have seen it online," he says, "So we are seeing more low-latency live streaming, instead of being delayed 30 to 40 seconds it can be as low as three to four seconds."

Eventually, DPP's Mr Harrison believes, video on demand will fall in line with music and offer consumers all content in one place, like a Spotify or iTunes. "You have global players in this space who have the technology and money to provide aggregated platforms. And you have high-quality content providers that are starting to suffer because they can't get the revenues to support their catalogue," he says.

"I am not saying it will be Apple that does it, but if you look at what they are doing around aggregating news, aggregating music, they have a track record. When iTunes began, it had lots of great music, but not everything; it couldn't get The Beatles on iTunes for ages. It happened because it's what consumers want. Ultimately, consumers get what they want."





Advertising mogul **Sir Martin Sorrell** tells why he didn't call it quits after leaving WPP and shares lessons of digital disruption from his latest venture

Nick Easen

he best-known advertising mogul in the world is on a mission. He's thrown off the WPP mantle, the global ad empire he founded decades ago, and is busy relaunching his career. This time creating a worldwide agency that's laser focused on clicks rather than bricks and dedicated to a smartphone-wielding generation pumped up on social media.

Rising like a digital phoenix from the ashes of the analogue age, this resilient 74 year old deserves more than a modicum of respect. "From a personal point of view, I didn't want to go and play golf," says Sir Martin Sorrell when asked why he didn't call it a day when he left WPP. Instead he's started afresh creating S4 Capital.

Formed last year, his pure-play venture already has an eye-watering market capitalisation of more than \$1

billion and now employs 2,000 people in 26 countries. To date, S4 has an enviable roster of clients including Facebook, Google, Amazon, P&G, Nestlé, Starbucks and Coca-Cola. Certainly, there's a lot the media and entertainment industries can learn from his reinvention.

"Our mission is about developing a new-age, new-era model in a world where digital is dominant. We're trying to produce work that's fit for purpose and fit for modern platforms, whether they are mobile, desktops or iPads," he says.

Right now, every industry talks about digital disruption; in some ways Sir Martin has gone and done it, disrupting himself. He now talks in detail about serving two-second L'Oréal ads to Italian women on Facebook, because on average they spend 1.7 seconds at a time looking at posts. While he is also experimenting with virtual and augmented reality, as well as artificial intelligence.

A far cry from yesteryear when he handled accounts focused on hugely expensive, singular paper and TV ads aimed at mass coverage and consumption. "Today, online is very much about personalisation at scale, for example we worked with Netflix creating content for Narcos, their latest crime series, by producing 1.6 million different potential ad executions. In all we probably used about 60,000 to 70,000 of them intensively," he explains.

"Netflix gave us video material, we inject creative content into it, we then watch what you as a consumer are doing online. If you're on a business news website, we will serve you an advertisement that compares Narcos to a corporation. If you are on a fitness site, we will compare Narcos to a fitness programme."

His digital-only firm worships at the altar of a new holy trinity of firstparty data, content and programmatic, best described as serving ads to the right people, in the right place, at the right time.

"We observe and analyse client data on consumer behaviour; this allows us to generate appropriate digital advertising content, which we then distribute programmatically or algorithmically through digital platforms. This model will become more relevant in 2020," says Sir Martin.

His other mantra is "faster, better, cheaper". This resounds well with a digital market, where a paid social influencer can make or break a brand online at the speed of an Instagram upload. Real-time user data can also judge campaigns as a success or a flop instantly.

"The faster bit is all about agility, and better means a better

understanding of the digital ecosystem. We try and achieve that by having a very good mix of young, enthusiastic and committed people. They aren't particularly agency people; they're people who understand production and creative output, and we have technology nerds," says Sir Martin.

"If I look at our content side, the average age of our people is about 33, and on the media and programmatic side it's 25, so it's a young workforce. They're always trying to learn what's going on with the digital ecosystem, look at new things and experiment. We're continuously trying to find novel ways of dealing with changes in the digital space, globally."

Few long-standing bosses of legacy organisations get to create a new business model from scratch.



Our mission is about developing a new-age, new-era model in a world where digital is dominant

But that's what Sir Martin has done. Interestingly, instead of replicating the sprawling WPP model, S4 has been merging smaller agencies from Brazil to South Korea into a unitary structure.

He says this also reflects the merging of functions within many organisations. In the digitalised world, sales, marketing and IT are increasingly part of a fluid mix. "It's really important inside any client organisation to be able to combine these activities because they all now affect one another and encroach upon one another," Sir Martin explains.

The aim of S4's meteoric scaleup is about competing with heavyweights on a global scale. In December 2018, he bought San Francisco-based programmatic advertising firm MightyHive with a price tag of \$150 million. They use algorithms to buy and sell online advertising space in real time.

And in July this year S4 took over Dutch digital agency MediaMonks for an estimated \$350 million, with Sir Martin outbidding WPP in the process. This was widely viewed as the point when he returned to the top table of the advertising world.

'We don't think the traditional agency model is organised effectively for the needs of today. I wrestled with trying to run one for 33 years or so. Traditional agencies are too vertically organised, too siloed and they continue to be organised in a way that prevents people working together," he stresses

'What clients want is the best people working on their business and they don't care where they come from. So making sure you have a unitary structure, that's not fragmented, that's not vertically driven, but which is horizontally driven is really important."

His company hasn't finished its buying spree. Last month, S4 finalised the \$150-million purchase of Firewood, the largest digital agency in Silicon Valley, which boasts key clients such as Google and Facebook



Traditional agencies are too vertically organised, too siloed and organised in a way that prevents people working together

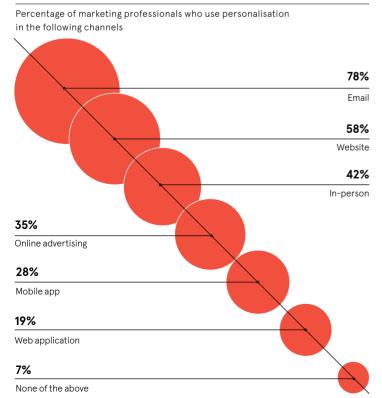
Cosying up to big tech, the "fearsome five" as he calls them if you bolt on Amazon, Alibaba and Tencent, or his "seven sisters" if you add Apple and Microsoft into the mix, is paramount. Why? Because they dominate the digital universe.

"What's surprising is the stability of these big platforms and very few break in. What's really interesting is the growth of ByteDance and its social media app Tiktok; they've hit the big time now. Yet the ecosystem of players isn't changing as rapidly as we would have anticipated," says Sir Martin.

"What also astounds me is we're continuing to see the growth of these platforms at a prodigious rate. In 2020, there may be a softening of global economic growth, but in the process, digital transformation will become even more important because clients will look at their businesses and say they have to get on with it even if it's disruptive. They'll say they might as well do it because things are going to slow down anyway.

All this bodes well for S4, which saw a 54 per cent rise in revenue for the third quarter. Sir Martin has described his nascent company as morphing from a peanut into a coconut and now ripening into a pumpkin. So what is the next edible analogy, come year-end? "We will have to settle on something else." he exclaims. "I don't know what we will find."

EXTENT OF MARKETING PERSONALISATION



Researchscape International/Evergage 2019

Hybrid media puts paid to past consumption models

A hybrid of the best of broadcast and on-demand viewing is fulfilling customers' expectations

here's an explosion of devices entering the media space at present, while the landscape has diversified further through the rise of on demand. Together, these trends continue to veer consumption away from conventional television.

The result of such platform proliferation has been a weakening of the traditional pay-TV model.

Instead, the notion of hybrid has taken over, a blend between traditional and more flexible content, through a sole offering that allows consumers to find more effective ways to attain both standard and on-demand content without paying through the roof for either.

For companies such as Freesat, this trend plays right into its wheelhouse, having already witnessed a host of individual developments, from increased channels, to integrated televisions, to the more recent rise of on demand.

"Now, though, platforms such as Freesat create real value in the hybrid world by bringing together the best of broadcast and on demand, and serving customers content in line with their expectations," explains Freesat managing director Alistair Thom.

"Traditionally, our day job was taking homes away from those using pay-TV providers. That's where a lot of our customer base came and comes from. The reason for this is that consumers don't want to pay for a subscription when so much of the content they crave is free to air.

"However, now, the hybrid offering provides a flexible choice of what to consume for free and what to add on as paid options on a one-off or case-bycase basis, and that notion is exactly what Freesat is about."

REASONS FOR WANTING TO LEAVE PAY-TV

say it's not good value for money

don't use it enough to justify the costs

MTM ScreenThink Wave 4 (Q4 2019)



Indulging global trends

Mr Thom is excited by the prospect of the market moving in line with Freesat's vision, first established more than ten years ago.

The onus now, he adds, is to make the platform as user friendly and conducive to contemporary expectations as possible. With the imminent launch of a new range of set-top boxes. Mr Thom believes Freesat is well placed to deliver on this, both now and in the future.

The new boxes evolve the way that content is surfaced and presented to consumers, the speed and efficiency of finding that content, and of course which content to showcase in a more bespoke fashion. Freesat has worked hard on building its data analysis capabilities to monitor how consumers behave en route to viewing, rather than just what they're viewing.

Mr Thom explains: "To do this, we've inevitably had to increase our own scale and influence, and we now work with more and more international organisations to offer our customers a better service. This includes satellite providers across Europe to harmonise each other's needs from a consumer perspective and through helping other organisations from our own developments, culminating in something of a white label set-top box proposition.

Hybrid: the new people's champion

With improved opportunity for companies such as Freesat has come increased expectation, beyond a requisite differentiation for set-top boxes which used to revolve primarily around pricing.

"It's now more about value for money, rather than just veering away from monthly subscriptions," says Mr Thom. "Customers aren't simply looking for a cheaper option, they're choosing an ever-increasing range of content to access, more flexibility around what they pay to intake that content and, thanks to data strategies such as ours, the promise of a constantly improving platform through which to experience it all."

Freesat now offers more than 180 channels and some of the biggest on-demand services available in the UK. With customer satisfaction levels regularly surpassing 90 per cent, the motivation moving forward is to leverage this position of strength to keep ahead of whatever trend comes next.

Mr Thom concludes: "As we become more vertically integrated amid our business transformation goals and enter more partnerships, we will add greater control to our ability to add new content and broadcasters.

"The result will be a proposition that can compete and thrive in a very dense and demanding marketplace, as well as being a sign of hybrid being people's new de facto choice when it comes to media content."

For more information please visit freesat.co.uk





Cutting through the noise requires creativity and authenticity if brands hope to engage with customers in a meaningful way

Olivia Gagan

f you have a business, how do you communicate its worth to a potential customer? You advertise. You aim to tell a compelling story that explains what your brand is about. Mastering the art of storytelling is a significant challenge in itself, only the ways to do this are now more wide-ranging than ever.

Consumers are no strangers to stories from brands when they are seeking information and entertainment. Indeed, much of the print, radio and television industries have been funded and sustained by advertising since their inception.

The difference now is there are few captive audiences. Bore a viewer and they can flip to another source of entertainment within seconds. From social platforms such as Twitter and TikTok, to YouTube, podcasts and newspapers, brands are facing increasingly tough battles to connect with their audience, hold their attention and gain cultural relevancy.

Simon Cook, managing director the Cannes Lions International Festival of Creativity, has seen thousands of music videos, print ads, YouTube spots and other forms of creative communications compete for the Lions Awards. For 2020, a key theme for the festival content programme is "storytelling at scale".

Considered the world's biggest gathering of the branded communications industry, the festival takes place in the south of France in June every year and awards are handed out for the year's best examples of effective and creative campaigns.

He says the theme was chosen for the coming year "to remind people that it's still about the idea at the end of the day, regardless of the technology or the data supporting it". But it is also about channel proliferation, says Mr Cook.

How can an idea or an advertisement catch the public imagination in a world of multiple media platforms and non-stop access to entertainment? Mr Cook says: "It's about standing up for something you believe in and want to be known for as a brand. If you do that, then your stories are compelling as a result. They then begin to scale in terms of their presence in media and people's mindsets."

Participants listen to a talk on day one of Cannes Lions festival in June

He cites Nike's Dream Crazy 2018 campaign starring American football quarterback Colin Kaepernick as an example of strong storytelling combined with activism and ambition. In the ads, Kaepernick's decision to kneel during pregame playings of the US national anthem in protest at racial injustices was suggested as reflective of the brand's 30-vear-old Just Do It slogan. Nike took a risk in aligning itself with the sportsman's politics, but the ad spot became an international cultural talking point and ultimately the campaign was seen as a major win for the brand.



Simon Cook

Managing director of Cannes Lions



Wyclef Jean
President of the 2020 Cannes Lions
Entertainment Lions for Music jury

Brands should therefore be prepared to nail their political and social colours to the mast. "A few years ago, it was much more acceptable to have a brand plugged in to a cause when it felt like a bit of an add-on," says Mr Cook. "Whereas now, whatever you're standing for has to be really closely linked to your values and your brand and strategy. I think consumers connect with that more readily because they see it as being much more authentic."

Authenticity, the sense that something or someone is real, original, genuine, true to their word, is a quality that carries significant cultural and emotional capital. If a brand or personality appears to have it, then they win trust from consumers. The opposite, appearing to be fake, insincere, derivative, is what brands must avoid at all costs.

Rapper, musician and chief strategy officer Wyclef Jean will serve as president on the 2020 Cannes Lions Entertainment Lions for Music prize jury. He says brands can gain authenticity as storytellers by hiring creative talent who are highly regarded within their respective fields, whether that be in social media, sports, music or art, for example, and then allowing them the freedom to shape the brand's marketing output on their own native platforms.

"Brands should really be plugging in to where art is, to what social media entrepreneurs are doing. If you look at the analytics, the social

media [of creatives] is beating the hell out of the brands," he says. "Some of these kids already have millions of views on social media. So by the time brands come to them, they have to catch up to what they're doing. The power now is literally falling in the hands of the creatives."

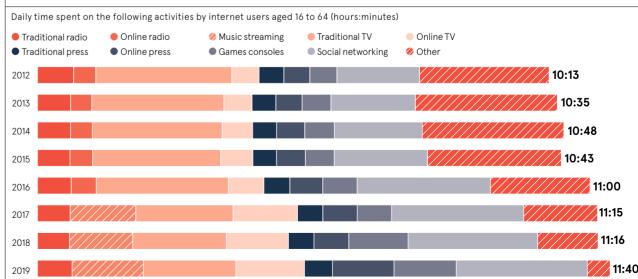
Artists and creatives will not necessarily baulk at the idea of being associated with a corporation or business, as long as brands let them be authentic to what they're already doing. "Anything that's fake; consumers can smell it in three seconds. Everything has to be authentic. People have to feel it. It has to be real," he says.

Creating something original means brands can add something new and valuable to an already cluttered, noisy cultural discourse. When making advertising and entertainment, companies should ask themselves: "Are you providing content that adds to the conversation? Or are you just throwing content into the conversation? They are two different things," says Mr Jean.

Mr Cook emphasises that brands in 2020 must learn how to tell a good story. "It has to embody everything that you're about and now also has to embody your position on how you deal with the world. There's a lot of things at play here, which makes it all the more complicated. But storytelling is still the most effective way to engage with consumers on a human level," he concludes.

WARC Data/GlobalWebIndex 2019

TOTAL MEDIA CONSUMPTION



'How many services will consumers sign up for and what are they willing to spend a month on their video fix?'

ith rising costs and direct-to-consumer models for streaming media services, the video world is about to get disrupted, again.

By last count, there are now more than 500 live and on-demand streaming services globally, delivering every type of content imaginable to any connected device with a screen. From subscription-based on-demand services such as Netflix and Amazon, to free ad-supported services like Tubi and Pluto, as well as live pay-TV lineups from Sling TV and Hulu, consumers have more choice than ever when it comes to video content.

Companies such as Amazon, Disney, Netflix, Facebook, Apple, AT&T, Google and others are all vying for our eyeballs and the limited amount of time we can all spend consuming content each day. With billions of dollars at stake, these companies are betting big on the future of going direct-to-consumer and bypassing traditional distribution platforms.

The pay-TV market has been in a state of disruption for the past few years thanks to all the options viewers now have to watch video on their terms, away from the home, not connected to a cable system. With many of these content services now with tens of millions of subscribers, the streaming media market is about to evolve again, causing confusion for consumers.

Many of these services started out pitching one main value proposition: their prices were cheap. But now, with nearly every major streaming service having raised their pricing, including some that raised it twice in a 12-month period, consumers are going to have to really decide what content they must have and what they can afford to live without.

AT&T, which includes Turner, Warner Brothers and HBO, will soon be going direct-to-consumer with HBO Max, a new offering coming out in 2020. Disney launched their Disney+ service in November, as did Apple with Apple TV+, and other new services are

also coming to market next year. Add in the current services by both established providers and smaller competitors, and the video world is getting extremely fragmented.

Consumers have more choice than ever, but each service has to be purchased separately and content that used to be available on certain platforms, for instance Disney content on Netflix, is now being removed. Consumers are finding it harder to figure out which shows are on which platforms, for what period of time and at which price point.

For all the talk of these streaming services allowing consumers to move away from the cable pay-TV bundle, the fact is that streaming is now the new pay-TV bundle. Consumers can't pick and choose which live channels they want to pay for, they have to sign up for packages of bundled content. You can't use one platform to sign up and pay for Amazon and Netflix, you have to sign up across multiple platforms.

This influx of so many services for original content, sports, news, TV shows and movies begs the question, how many services will consumers sign up for and what are they willing to spend a month on their video fix? s

An entire industry of professionals relies on streaming and online video services for their livelihood. This is an exciting time for all of us to share what's working, what we need to change and what consumers want when it comes to video.

Dan Rayburn

Conference chairman NAB Streaming Summit

NAB Streaming Summit is a bi-yearly event that takes place in Las Vegas each April and in New York each October. Companies such as Amazon, Google, Hulu, Netflix, NBC and others come together to discuss how to capitalise on direct-to-consumer offerings and share their expertise on how they are monetising their video libraries and building brand relationships with their customers.

Embracing agility to stay ahead of media disruption

The shift from linear to on-demand viewing is fundamentally disrupting the media and entertainment ecosystem

s consumers continue to embrace innovative technologies that enable them to watch content whenever and wherever they wish, conventional business models are under pressure to adapt.

From production to distribution, discovery and monetisation, the entire media value chain is undergoing unprecedented change. Increasing demand for high-quality content on a range of platforms is adding strain to content creators and distributors, that need to be able to satisfy the needs of every screen, anytime, everywhere, in any language or any market.

Irruption of wearable mini-screens and self-driving cars will only increase such demand, so how can content creators succeed in this fiercely competitive environment?

"Due to the explosion of content and the ways of watching it, a new kind of battlefield is emerging in the media and entertainment landscape: how do you make your content discovered and chosen by your viewer? To fulfil audience requirements there is a need to produce more and better content adapted to their micro-needs," says Kevin Savina, director of product strategy at Dalet, a leading provider of solutions and services for media organisations and content professionals.

This new landscape is enabling content creators and owners to reach their viewers directly without the need for distributors, at the same time as broadcast companies join forces to create more compelling offers to attract and retain viewers. It is clear that, as the industry transforms, a focus on a meticulous video-on-demand "search and recommend" user experience is essential to capture subscribers' attention, keeping them interested and engaged.

By making use of artificial intelligence and machine-learning, content creators

10hrs 58mins of screen time a day in total for 18 to

54 year olds in the United States

Smith Geiger 20

80%

of smart TVs are connected to the internet, up 35 per cent in the past five years

State of the Broadcast Industry, Ooyala 2019



are able to leverage data that augments the value of their assets, making their operations more efficient and reducing the time staff members spend on repetitive manual tasks. This frees them up to focus on higher-value creative work.

Dalet offers a unique media asset management and orchestrated content supply chain platform providing well-integrated, end-to-end editorial and back-office workflows, smart feedback loops and comprehensive metadata management.

"All the tools to support an intelligent media factory, including the storage and referencing of media assets and their deep metadata description, powerful orchestration specialised for media operations, and editorial tools to create, edit and package content, are provided by Dalet," says Bea Alonso, Dalet's director of product marketing.

By embracing the benefits of video content to attract followers, consumers or subscribers, firms in industries such as retail, banking and manufacturing can stay one step ahead of less agile businesses. Deploying an intelligent media factory, which keeps the marginal cost of adding a new workflow, distribution channel or content type very low, plays a central role in this journey.

"With nearly 30 years of expertise working with media companies, Dalet has been involved in several digital revolutions. Add to this the ability to support the changing needs of the industry through SaaS [software-as-a-service] and subscription models, configurable back-end platforms, poly-cloud

support and open APIs [application programming interfaces]. Few media management providers can state the same," says Mr Savina.

In the past, powerful video creation and distribution tools were predominantly used by major media organisations, studios and broadcasters. But media management solutions are now being utilised by countless businesses, in a diverse array of sectors, which are seeing the value of video content.

From sporting organisations such as the National Rugby League, Arsenal Football Club and Germany's Bundesliga, to leading brands such as Audi, the ability to offer an extremely rich video engagement experience to fans is becoming increasingly important.

"As viewers drive the video revolution, both content creators and tech providers need to respond fast. Companies are now fully aware that the best way to engage consumers is through multimedia content and Dalet is well positioned to guide leading organisations to make the most of this shift." Ms Alonso concludes.

Increase your content opportunities and maximise the value of your assets at dalet.com



GIRLS NOTOTION ON FILMING

Sadly it is a truism that gender inequality is still rife across the movie business. The number of female leads in film and TV has risen over the past decade, but the proportion of total characters that are women has barely changed, and things are little better behind the scenes. When female-led movies are proven to make more money than those that are not, it begs the question, will the status quo ever change?

LITTLE PROGRESS FOR FEMALE REPRESENTATION Study of the top 100 fictional films at the US box office for each year 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Female characters Female leads/ co-leads Action/adventure characters, female characters, female Comedy characters, female Films with genderbalanced casts* Characters aged 40 and older who are female Female characters in sexy attire Female directors 0 Female composers

FEMALE REPRESENTATION BY FILM STUDIO

*A gender-balanced movie is defined as having a cast that is 45 to 54.9 per cent female

Film distribution companies behind the top 100 fictional films at the US box office for each year between 2007 and 2018; percentage of films distributed with a female lead or co-lead



^Female characters who were depicted in sexually revealing clothing

USC Annenberg Inclusion Initiative 2019

THE FINANCIAL CASE FOR MORE WOMEN IN FILM Global average box office revenues at each budget level (\$m)

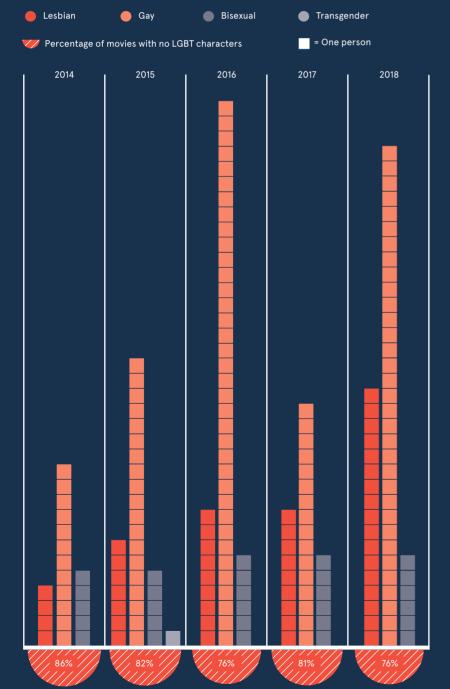


*Films that pass the Bechdel test are those during which two female characters have at conversation about something other than a man

Creative Artists Agency/shift7 2018

LGBT REPRESENTATION AMONG 4,387 SPEAKING CHARACTERS

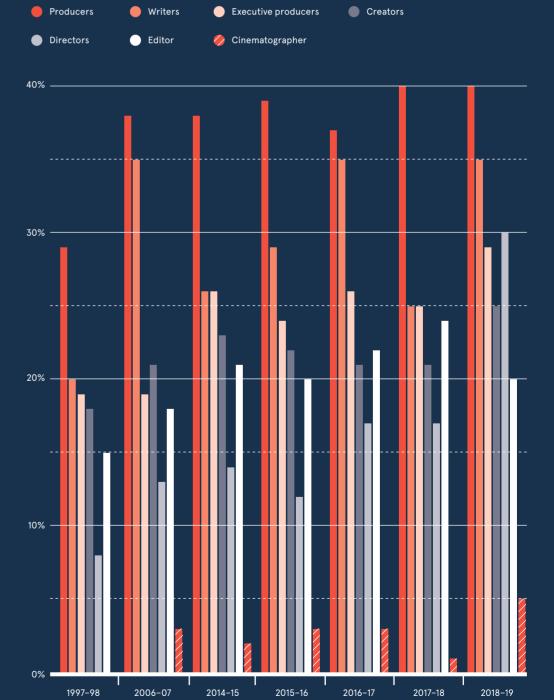
Number of characters from the top 100 fictional films at the US box office for each year, where their sexuality or gender was depicted





BEHIND-THE-SCENES TV REPRESENTATION

Female representation by role on US broadcast network programmes



Center for the Study of Women in Television and Film 2019

From emotive storytelling to interaction and humour, the factors driving consumers to video advertising are also pulling in the business-to-business sector

Magda Ibrahim

horter ads, 24-hour stories, shoppable and vertical formats: these are just some of the trends that have been keeping eyes focused on video ads this year.

With global forecasts predicting 82 per cent of all online traffic across consumer and business will be video by 2022, video advertising is the place to be, whether it's through a mobile phone, tablet, gaming console or even smart TV.

Latest stats from the Interactive Advertising Bureau show ad spend in digital video accelerating, with marketers reporting budgets increasing by a quarter since last year.

Exciting innovation abounds, from interactive ads such as Oreo's Forbidden City-themed campaign, to Whiskas' campaign around its Kat Institute of Technology video series, boosted by six-second bumpers. Meanwhile, many brands are capitalising on influencers' role in building their brand story and captivating audiences.

Ian Whittle, innovation officer at AMV BBDO, says consumer trends translate into business-to-business (B2B) video marketing because "they are borne out of human behavioural truths".

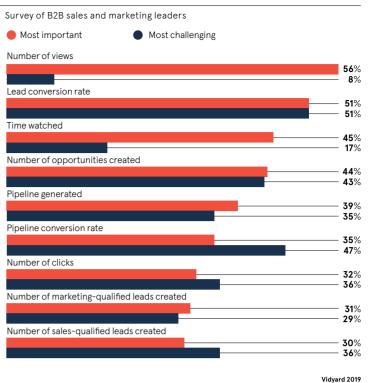
"Using techniques around emotive storytelling, shock, humour, creating curiosity, offering help, information, and through using interactivity, be that clickable hotspots, ecommerce, 360, polls, stickers, interesting formats or even branching through a series of content: creative choices make video advertising more effective," he points out.

But while the techniques and technology are out there, there is still a lag for many B2B enterprises. Patrick Collister, creative director at Ad-Lib and former creative lead at Google's think tank the Zoo, believes: "B2B is still stuck ten years behind consumer video."

"But you are still trying to interest and attract people, and the power of video to do that is infinitely greater than the written word," he emphasises. That's not to say there isn't innovation taking place. Shell used video to promote lower CO2 emission energy sources through its Great Travel Hack series of mini episodes following competing teams travelling across America. The series clocked up hundreds of millions of views on YouTube and last month launched a second series focused on Europe.

Multinational software company SAP focused on creating a strong brand narrative through its The Best Run campaign, featuring actor Clive Owen and stories of SAP customers using its tech. SAP global chief marketing officer Alicia Tillman explains: "While traditional marketing is still a big focus, digital media, including video, is a priority as consumer attitudes shift.

MOST IMPORTANT METRICS WHEN IT COMES TO B2B VIDEO



"We developed sixty, thirty, fifteen and six-second videos out of our Clive Owen TV ad, running targeted campaigns across Facebook, Instagram, LinkedIn and Twitter, as well as news sites such as CNN, Bloomberg, NYTimes, CNBC and WSJ. We also ran a connected TV plan in the US, which drove exposure to a younger audience and cord-cutters who use services like Hulu and Amazon Fire TV."

Ms Tillman adds that the results taught SAP to think harder about its audience and where to reach them.

As we become evermore connected to our mobile devices, the distinction between consumer and B2B ads needs to be erased. For Group M digital managing partner Jenny Kirby, this translates to key consumer trends for 2020 of vlogging and live-streaming.

"Both represent an opportunity for B2B marketers," she says. "Video features heavily in the path to purchase for B2B buyers, and the accessibility of vlogs and live-streamed events will play an important role in marketing strategies."

The use of influencers to establish connection and engagement is an important element of this, with new social platforms helping to reach people. One of the latest social media platforms, TikTok, has this year launched ad content among its 15-second

videos, showcasing a new opportunity for forward-thinking brands that want to reach new audiences.

Jennifer Quigley-Jones, chief executive of agency Digital Voices, says B2B enterprises can tap into the world of influencer marketing, but it is important to "find your niche audience and which creators they trust".

"Partnering with YouTube creators that have access to deeply engaged, authentic, niche communities, where you can tell viewers about your product with the sound on, opens up influencer marketing to hosts of new industries," she explains.

The critical thing, says Bill Swanson, Europe, Middle East and Africa vice president for Telaria, is to focus on making it a more engaging and richer experience for users. He adds that CTV (connected TV) or internet connected smart TV is virgin territory and could prove a rich opportunity for video ads, including those from B2B enterprises.

Experts agree that applying data to the creative process and using it in the planning stages is a win, whether in consumer or B2B video ads.

There may still be some way to go for companies with their B2B video marketing, but as AMV BBDO's Mr Whittle concludes: "The best enterprises are recognising the importance of creativity in gaining a competitive advantage."

Pushing the boundaries

When New York-based business Squarespace launched 15 years ago, the idea of a software company creating unique and engaging business-to-business video ads was something of a dream.

Yet partnerships with big names, including Idris Elba, John Malkovich and Keanu Reeves propelled the company, which provides software for website building and hosting, into the public consciousness.

In its campaign *Make It Real*, launched at the end of September, Squarespace worked with examples of real-life customers embarking on a journey to build unique businesses.

Comprising three video ads, the campaign spotlights ways a website can make a company "real", through its Garage film following an entrepreneur creating his dream auto shop, to Restaurant, which shows how a website can influence the style of a business. Squarespace chief creative officer David Lee explains: "The films are meant

to inspire and demonstrate the idea process, using magical realism to take the metaphor of building a website into the real world.

"People have access to the exact same tools that some of our highprofile customers use, so we wanted to tell a more democratic story for this campaign.

"Simultaneously, our OOH (outof-home) and social campaign complemented the films with real-life local customers in New York, Chicago, Toronto and London."

Managing the explosion in global video

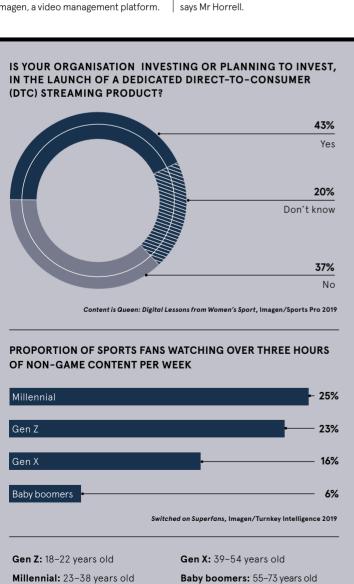
As video creation smashes all records, its efficient management is now essential

very minute, of every hour, of every day, of every week, billions of gigabytes of online video are streamed around the globe. According to Cisco, in the next two years video-on-demand traffic will nearly double, that's equivalent to ten billion DVDs a month uploaded and streamed on the internet. Video now represents 60 per cent of global data and the implications of its growth are difficult to overstate

"Anyone can produce high-quality video content easily, cheaply and quickly using their smartphone and share it instantly with others around the globe. It's utterly ubiquitous. In the last decade there's been an explosion of video and it looks set to continue unabated," explains Charlie Horrell, chief executive of Imagen, a video management platform.

This exponential rise in video content isn't just coming from user-generated content, known as UGC, from globalised, smartphone-wielding general public, pumped up on social media. Professional media broadcasters, including entertainment, movie and sports providers, are also producing a lot more content and at a much higher resolution. Then there's the rise of the corporate studio.

"Every organisation is now producing streaming content with their own mes saging, whether it's explainer or staff training videos, promotional or informative content. You no longer need to be an expert. Today, any non-professional broadcast organisation can produce quality video with little capital outlay, which you couldn't do a few years ago,"





"It's not just commercial outfits that are at it either, but charities, governments, education, healthcare and religious groups as well. They're all producing huge volumes of video. Most of the content people consume now is video. Viewing habits are also changing. Consumers expect immediate shortform, on-demand content anywhere and everywhere, as well as on every type of device and platform imaginable.

The direct-to-consumer (DTC) market is going great guns. No longer are consumers going to broadcasters that hold and pay for rights, they're going direct to organisations which produce the content, especially in sports and entertainment. This is also true of museums and tourism attractions. Every economic sector has examples of DTC content.

In fact, almost half of sports industry executives polled by Imagen said they're investing or planning to invest in the launch of a DTC streaming product in the near future. As faster home and mobile internet rolls out, and ultra-high-definition capable devices become more videly available, the expectation that video content will be delivered immedi-

Mr Horrell says: "One gauge of this is the growth of our business. Pretty much every metric we have is twice as big now as this time last year; this includes staff numbers, clients and turnover. We have had an exponential growth in the number of people talking to us." Also, late last year, Imagen secured £6.5 million in series-B funding.

Managing the sheer volume of expanding video assets is becoming an increasing challenge. This comes at a time when organisations are realising how important online visual content is for their success. Keeping it stored on a physical server in a basement somewhere creates not only security and safety concerns. but it is also very hard to distribute to an end-viewer efficiently. At the same time,



Video is only valuable if you can store, find, view, distribute and manage it easily

> serving data-heavy media assets clogs up corporate networks and bandwidth. Luckily, cloud storage is becoming more affordable and smarter over time.

> "The fact is people need to increasingly access these valuable videos. Organisations need to work with them, realise their potential, effectively control them and treat them like the assets they really are," says Mr Horrell, whose company works with the BBC, ATP Media (Association of Tennis Professionals), IMG, Reuters, LADbible and Endemol Shine, managing their video assets, as well as preserving archives from the Imperial War Museums, the British Library and the BFI (British Film Institute).

> Imagen also manages 20,000 hours of content from BP with varied footage ranging from Persian oilfields in the 1920s to chief executive interviews and shareholder meetings. In addition, the London and New York-based company is the central depository for the English Premier League, holding 5,000 games, every one since 1992, in high-definition video, ready to serve them up in any format globally.

"All these organisations want to manage media assets effortlessly. But they don't want to own the hardware or software. Video is only valuable if you can store. find, view, distribute and manage it easily. Our secret sauce is that we do one fairly narrow thing very well: intelligent video asset management," says Mr Horrell.

"We do the heavy lifting for clients, managing petabytes of data. This is only possible using the digital muscle of cloud computing. Powerful search and meta-tagging features are crucial, enabling people to locate content far more quickly than they would be able to do with traditional media library platforms. Speech to text and machine-learning also enable intelligent searches."

The global market for video is on a specific trajectory and that's up. Research by Imagen on more than 1.800 North American sports fans is a good indication of things to come. Younger generations were four times more likely to be heavy consumers of non-game sports content than baby boomers and four out of five consume content on their mobile device while simultaneously watching live games.

"The direction of travel is that the younger you are, the more you expect to see video. With younger people, if it doesn't exist on video, it doesn't exist full stop. Looking to the future, it's on a one-way curve of explosion. And organisations are increasingly realising that video asset management is therefore a very necessary, if not an essential, tool going forwards," says Mr Horrell.

"This is also a genuine worldwide phenomenon that needs a global solution. It doesn't matter whether you are in São Paulo or San Francisco, London or Lisbon, it makes no difference, everyone wants video; it's language agnostic, it's universal. The rate of growth is scary and organisations need to be prepared.

For more information please visit www.imagen.io



CONNECTIVITY

Reinventing the fan experience

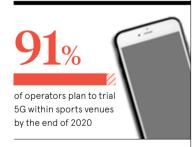
From live-streaming video, mixedreality experiences and real-time access to information, 5G is set to revolutionise the fan experience in and outside the venue

Jon Axworthy

he fifth generation of wireless technology is coming and for most people the first time they will experience it is at a sports stadium. This is according to the latest research from software specialists Amdocs, which reveals that more than a third of network operators are planning a commercial 5G technology launch to correspond with major sporting events; 91 per cent of operators plan to trial 5G within sports venues by the end of 2020.

This means in the very near future, when your team's number nine is brought down on the edge of the penalty area, you're more likely to be watching a review of the tackle in real time, slow motion and from different angles on your smartphone than watching the ref.

At the moment, the sports stadium is one of the most frustrating arenas within which we use our phones as congested bandwidth and high latency means that even sending a simple text can be problematic for sports fans



claim that upcoming major sports events, such as the 2020 Olympics and European Championship, are influencing their 5G roll-out timelines

plan to use mixed reality technologies to offer richer viewing experiences to fans, both at sports stadiums and watching at home

However, that's all about to change with 5G technology because, according to Matt Stagg, director of mobile strategy at BT Sport: "5G will provide the vast amount of bandwidth fans need to consume and share whatever content they like. 5G gives you much more capacity per hertz of spectrum, making it more cost effective for operators to provide capacity in a challenging place like a stadium.'

In Europe, it's Barcelona fans who will be among the first to reap the rewards of this next generation data rate as the Camp Nou will soon become the first football stadium in Europe with 5G internal coverage. The 5G service will be rolled out as part of Espai Barça, a project that will renovate the club's 61-year-old stadium.

However, rather than the 5G technology simply allowing those fans to use their phones without any latency issues, it will open up new spectator experiences and ways for the Barcelona faithful to become even more involved in the game.

The faster speeds enabled by the 5G service mean video flows from wireless 360-degree cameras located around the stadium can be uploaded at speeds of up to 200 megabits per second, so fans will be able to gain access to instant replays from multiple angles through a dedicated app on their smartphone.

"5G finally unlocks the full potential of immersive reality," says Mr Stagg. "The high bandwidth and low latency will enable the fan to be the curator of their own experience. This can range from graphical overlays and holographic replays to alternate

This means that at the Camp Nou, it will be possible to see how fast Messi is running towards the goal in real time. Or how fierce Griezmann's last shot on target was.

Nearly two thirds of the world's largest network operators plan to harness 5G to introduce virtual reality (VR) or augmented reality (AR) at sporting events, according to the Amdocs research. VR is already being trialled and experimented with at stadiums in America and there are currently some quirky applications where teams are partnering with mobile operators to turn venues into 5G playgrounds for their fans.

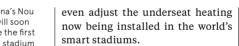
This season the Dallas Cowboys have been using their newly installed 5G network at AT&T stadium to offer fans an AR experience whereby they can use a 5G smartphone to choose their five favourite players who duly arrive on screen to have their picture taken with the subject in the middle. Cowboys fans can also look through their smartphone to see 36ft AR holograms of players looming over the stadium.

However, these are just headline-grabbing stunts compared to the real practical applications that are on the way and are set to revolutionise the stadium experience.

"In the future, with the development of edge computing, we will have the capability to provide content without the data even leaving the stadium," says Mr Stagg. This will reduce the latency exponentially and, in conjunction with the extra capacity, allow the fan to choose and view different camera angles in real time as the game is happening, putting them in control of their match experience."

Using a dedicated app, sports fans going to an event will be able to benefit from a wealth of realtime information on the best way to upgrade tickets, pay for parking, get to their allocated seats, order food and drink, buy merchandise, and

Barcelona's Nou Camp will soon become the first football stadium in Europe with 5G internal coverage



"AR will also help with accessibility issues that people can face, such as finding your seat in an 80,000-seater stadium," Mr Stagg adds.

5G technology will even enhance the functionality of existing technologies, such as social media, as companies respond in real time to a hassled dad's tweet about his child's dropped hot dog, with stadium services able to deliver a fresh one directly to the correct seat and clean up the mess before anyone has time to get upset.

It's not just ticketed spectators who will benefit from 5G technology, as it's also going to have a huge impact on armchair fans too.

"The younger demographic of sports fans are adopting innovative streaming at a higher rate than other generations, paving the way for the future of media," says Lior Friedman, vice president of global partnerships and strategy at Amdocs Media.

"According to a recent US-focused consumer survey we conducted, over three in four respondents aged 18 to 24 have live streamed a sporting event."

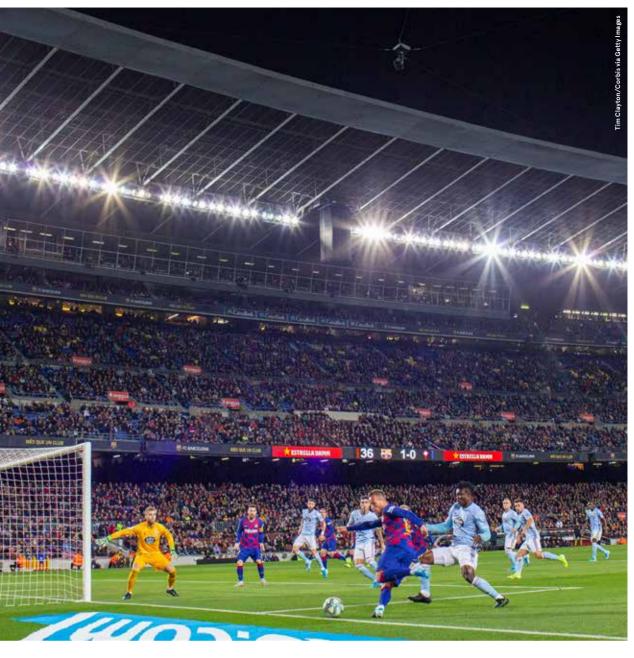
The increased bandwidth and speed that 5G offers, combined with the lowered latency, brings sports streaming into its own and makes it possible to watch in real time.

Kings² the Sacramento \$500-million Golden 1 Center. the basketball franchise is using their partnership with 5G operator Verizon to bring the thrill of sitting courtside to fans sitting on the sofa at home. Currently, fans are able to view the game in a 5G lounge, where they can strap on a connected VR headset and watch in real time from a 360-degree camera positioned right next to the action on the scorer's table.

Eventually, the Kings plan to make this experience available to fans who don't have a ticket, but do have a 5G connection.

And remember those 360-degree cameras dotted around Camp Nou? They will also allow Barcelona fans who aren't at the stadium to experience the thrill of watching their heroes by connecting to a VR app and donning a pair of VR glasses. Mobile operator Telefónica will broadcast the game to them so they can watch the match from La Llotja restaurant, for example, with the best view of the stadium, closer to the action, next to the goal or even alongside the team dugouts.

This is no vision of the future as the necessary edge computing and 5G technology is already available and, according to Amdocs, 70 per cent of operators are keen to launch in line with upcoming major sports events, such as the 2020 Olympics and UEFA European Championship. So no matter where you're sitting, you'll be guaranteed the best seat in the house.



ESPORTS

Harnessing the true potential of esports

The esports market has exploded in recent years and could offer advertisers unrivalled opportunities to get closer to the action

Oliver Pickup

t's not tricky to understand why Chris Beer, a senior trends analyst at GlobalWebIndex, posits that 2019 is the year esports has come of age.

In late-1997, Tom "Gollum" Dawson triumphed in FRAG (Foremost Roundup of Advanced Gamers), reckoned to be the world's first official gaming tournament, and won \$1,000 (£770) in gaming merchandise.

Twenty-two years later, in August, Kyle "Bugha" Giersdorf, 16, succeeded in the first Fortnite World Cup and took home \$3 million (£2.4 million). The teenager was catapulted to fame overnight and even invited on The Tonight Show Starring Jimmy Fallon.

There are plenty of other signs besides that esports is now swimming in the mainstream. Indeed, The Washington Post is hiring specialist reporters, Danish prime minister Lars Løkke Rasmussen has established an esports strategy and, the surest indication, esports has featured on The Simpsons. Twelve months ago GlobalWebIndex included esports as one of the big trends to watch in 2019.

"It has grown impressively throughout the year," says Mr Beer. "Our research shows that this time last year 16 per cent of the global population watched esports online; now that figure is 24 per cent. We've seen an uptick in most regions around the world, but it's Asia-Pacific that continues to be the core market; over a third of people (34 per cent) watch esports there, compared to 21 per

Little surprise that advertisers have sought to generate value from esports' growing popularity. Anheuser-Busch has filed a trademark request to become "official beer of esports". Similarly bookmakers are eyeing the opportunity to offer a new market.

Advent of 5G will only drive further growth, says Lior Friedman, vice president of global partnerships and strategy at Amdocs Media, a provider of software and services to communications companies.

"Viewing metrics, prize money and sponsorship are all increasing substantially year on year," he says "and esports is being considered for entry into the Olympics as a new

discipline for Paris 2024. Our recent research found that nearly all operators (97 per cent) plan to support esports in the 5G era."

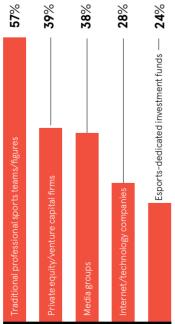
How can advertisers capitalise? "While there is huge potential for advertising in esports, brands need to understand how to engage with the sector," says Gavin Poole, chief executive of Here East, a media complex located in the Olympic Park in

"Esports fans value an authentic experience and will not react well if large companies simply bombard the community with logos and placement.

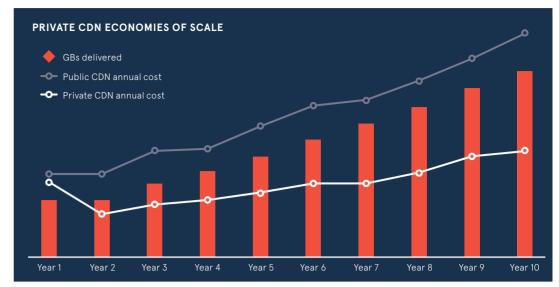
"Instead, brands need to consider how they can enhance the esports experience, not detract from it. The most successful brands, such as Redbull, Gillette and Mercedes-Benz, have taken a targeted approach, focusing on specific games and their particular audiences, as opposed to an umbrella marketing campaign that would alienate players and viewers alike."

EXPORTS EXCITEMENT

Esports industry professionals were asked which of the following are likely to increase investments in esports over the near term



Foley & Lardner 2018



Private content delivery networks are the future

The ongoing growth of video consumed over the top (OTT) is straining existing content delivery networks (CDN) models, creating performance and profitability problems for the largest OTT operators. Private CDNs provide the solution

roadcasters that have traditionally used satellite and terrestrial-based distribution are moving towards broadband and streaming content directly to customers over the internet, known as over the top or OTT.

"We are heading in the direction where OTT is not going to be the alternative path to the consumer, it will be the main path," says Paul Martin, vice president of marketing and business development at Vecima Networks, a global leader in content delivery and storage solutions.

"We're talking about significantly higher levels of video being passed across broadband and mobile networks. Those networks have to scale for both performance and price. Private content delivery networks (CDNs) are the way forward."

From a performance perspective, the architecture of existing CDN services make it difficult to overcome the internet's natural bottlenecks to deliver great performance for large live TV audiences.

"The ever-expanding consumption of OTT video content, at ever-higher

Finding the right

commercial and

technical partner

for creating a private

many of the challenges

CDN can take away

that OTT operators

and obstacles

can encounter

quality levels, will continually intensify the challenge of ensuring consumers get the best viewing experience possible," says Mr Martin.

Media companies clearly don't want viewer experience issues with their valuable content that creates a revenue risk. Avoiding congestion is a fundamental benefit of a private CDN.

"Many of the larger OTT operators have observed that if other major internet events, like a new video or gaming release, are taking place at the same time as their largest events, then their own streams can be disrupted. The simple fact is that shared platforms can become uncontrollably congested and viewer experience suffers. The biggest operators don't risk this," says Mr Martin.

Leading OTT services such as Netflix and Amazon have already deployed private CDNs to benefit from deep visibility of their customers' experience and to avoid congestion from shared CDN platforms.

Critically, the private CDN model has enabled them to deploy video cache solutions inside an internet service provider (ISP) network, removing the issue of traffic congestion and enhancing the relationship between the content provider and ISP in delivering service to their shared consumer customers.

While the majority of video traffic is being delivered for video on demand, or VOD, the really high spikes of peak traffic are driven by live events. The best solution to deal with these short-term traffic demands is to stay on private CDNs for both cost and performance.

"The live audience is the most valuable audience and the most challenging service to deliver. Having the best infrastructure ready for live events is business critical. Not only can a private CDN overcome the perpetual network congestion points, but it can also be the most cost-effective long-term platform," says Mr Martin.

For the C-suite, the private CDN model changes the financial dynamics of video distribution. "OTT operators are trying to make their services more profitable and private CDNs enable significant economies of scale," says Mr Martin. "Most large OTT operators are focused on a single country, due to content rights and the location of their audience. This makes private CDN deployment highly cost effective."

Finding the right commercial and technical partner for creating a private CDN can take away many of the challenges and obstacles that OTT operators can encounter. Vecima offer award-winning CDN solutions and lead the market for density in video cache solutions. This enables new economies of scale that OTT operators need to survive and thrive in such a complex media and entertainment ecosystem.

While there is a tendency to look to cloud services for scale for content origination, for the CDN layer that must grow as audiences grow, there remain fundamental network design issues which will continually impact OTT operators using shared CDN services. To achieve the best performance, large OTT firms would benefit from having a private CDN.

"We provide the scalable commercial-grade CDN platforms that OTT operators need to avoid the internet's congestion, gain significant financial economies of scale and deliver even better service to their customers," Mr Martin concludes.

For more information please visit www.vecima.com/resources





Developers are under pressure to create more realistic experiences for gamers, but whether they should tackle social issues such as racism, sexism and mental health remains a contentious issue

Samuel Horti

s the number of people playing video games grows, so does the appetite to create more immersive games. Blockbusting games not only look more realistic, but increasingly aim to make the player feel part of the virtual world, whether through technology, such as cutting-edge graphics and virtual reality headsets, or through a believable setting. But this immersion raises questions about what constitutes responsible video gaming.

Historically, games have lagged behind books, films and TV in exploring social issues and telling stories from under-represented perspectives. But with a wider audience than ever before, do developers have a growing responsibility to explore real-life struggles, such as racism, sexism or mental illness?

Developers agree that more discussion of societal issues can only be a good thing. For example, Emily Mitchell, whose game Fractured Mind draws on her own experiences living with anxiety, says more discussion of mental health would remove stigma from mental illness and help those who suffer in silence.

But developers disagree about the extent of their responsibilities to tackle difficult topics.

Football Manager developer Sports Interactive supports charities, such as Kick it Out and War Child, and footballers in the video game can come out as gay. Studio director Miles Jacobson says he's pleased more and more games focus on perspectives of under-represented groups, but when asked about the possibility of exploring some of those perspectives in Football Manager, such as a black player who is racially abused, he pushes back.

"We're not going to put racist abuse in the game, because for one it would change our age rating and secondly we don't believe it has a place in society," he says, adding it's not his place to make political statements. No gamemaker has a responsibility to talk about societal issues; it's for them to decide what their games are about, Mr Jacobson insists.

Meghan Dennis, lead for the Women in Games project, takes a different stance to responsible video gaming. As audiences grow, developers have a responsibility to "produce something that looks at

the world through an ethical lens", she says. For example, the industry needs a step-change in the way it portrays women. Typically, female characters are "relegated to the background, to be used as impetus for why the male protagonist has to get revenge". If the main character is female, she's never simply strong; she's nearly always "damaged" in some way, says Dr Dennis.

Once the industry is more mature in the way it portrays women, she sees scope to explore complex issues, such as the gender pay gap or the way women are treated in the workplace. "It doesn't require us to make games that are specifically about the gender pay gap, but it could be in these games," she says.

Independent developer Rami Ismail is optimistic about changing attitudes in the industry. He says developers at both large and small companies care about representation of minority groups and are keen for their games to touch as many people as possible.

He would like to see the experiences of ethnic minorities represented in more detail, but like Dr Dennis argues it doesn't have to be a game's focus. "I'm very hopeful that kind of representation will exist in the future, not as explicit as 'this is a game about an Arab

guy living in the Netherlands', like me. It's more 'here's how it feels to be eyed suspiciously in a space'. I think that's way more interesting and I think we'll see a lot more of that," says Mr Ismail. All are in agreement that now is a

All are in agreement that now is a better time than ever to talk about societal issues in games. White Paper Games, for example, has made Ether One, a game about dementia, and The Occupation, which takes place after a terrorist attack that leads to the deportation of immigrants and mass surveillance.

Pete Bottomley, White Paper Games' co-founder, agrees with Mr Jacobsen that developers don't have a responsibility to tackle societal issues. "There's a time and place for different experiences", he says, adding that improving technology could encourage more studios to do so, however.

Mr Bottomley points to Google Stadia, a new service that allows players to stream games, rather than download them. "If you create games on a much smaller, faster scale, you could pursue single character arcs and shorter stories," he says. "That would really open up the conversation for different explorations of particular viewpoints."

There will inevitably be barriers to progress. Dr Dennis says recruiting women, in particular women from ethnic minorities, remains a struggle. Likewise, some companies require a culture shift for minority groups to reach decision-making positions, she says.

Mr Ismail says developers' biggest responsibility is not to ensure diversity in games, that's a given, but to protect developers from minority groups and the backlash of sections of the gaming audience, who dislike the idea of politics in games.

This shouldn't deter studios, but they should know they're in for a fight. "The pushback on these games being political shows such things aren't normal yet and for that reason are worth fighting for," he concludes.

STATE OF ONLINE GAMING IN 2019

Based on a nine-country study of online gamers

7:07

average time (hours:minutes) spent gaming a week in 2019, up from 5:58 in 2018

1:22

average duration playing one game consecutively

10%

of gamers say they have spent more than ten hours consecutively playing video games at least once

53%

say they have missed sleep due to gaming

Limelight Networks 2019

66

The pushback on these games being political shows such things aren't normal yet



The media industry's only business network

We bring customers and suppliers together to solve problems and create opportunities

JOIN US

thedpp.com/join





