



VIEW FROM THE TOP

[EXECUTIVES FROM COMPANIES ON
OUR ELITE 2019 STREAMING MEDIA 50 LIST
SHARE THEIR INSIGHTS
FROM ATOP THE INDUSTRY.]



VIEW FROM THE TOP

How to Succeed in the Online Video Space



Joel Unickow,
VP and Publisher,
Streaming Media

I WAS RECENTLY GIVEN A BUSINESS BOOK, *A Sense of Urgency* by John Kotter, but to be honest, I've been too busy to do anything more than skim it. The premise of the book is fairly simple—it talks about overcoming the fear and anger that can paralyze you from acting with a genuine sense of urgency. It discusses why successful organizations become obsolete: complacency. And while the title alone may give some people more anxiety than they

can handle, it really is meant to rekindle the fire in the belly. If you decide that something is urgent and important, it will be.

But the title alone got me thinking about the way our industry has been selling itself—overselling, that is—with a sense of urgency. A good 4 or 5 years ago, everyone was shouting on the NAB floor, “You have to move to HEVC today or you're doomed!” yet it wasn't until Apple adopted it in 2017 that everyone followed. Roll back the clock to 2006 when Google acquired YouTube for \$1.65 billion in stock, and the conventional wisdom was that video was suddenly absolutely crucial for every business, so companies spent millions of dollars without seeing returns. There's a difference between real urgency and false urgency, and it's important to know the difference.

So what is genuinely urgent today? To run a business in the online video space successfully. There is no shortage of companies fading into the night, setting false expectations with poor business models, and no real goalpost other than getting acquired. Those are problems that have plagued our industry since it began.

I don't work in a business building online video, but I've had the pleasure of working intimately with the companies that do. And the companies in this section do it more successfully than the rest—hence their inclusion in the 2019 Streaming Media 50. In this special section, we get up close to the people behind the companies changing the way we are entertained by and communicate with video. Clearly, their vision and urgent drive to move forward is key to their success. If I had to guess, they'd most likely agree with the points made in the book, especially this one, which has always been the focus of the way I've done business: Bring in information from the outside, rather than looking only internally. After all, your customers don't work for your organization. In our industry, the companies that are winning are the ones that are listening to their customers. It's my pleasure to introduce you to the 2019 View From the Top.

@unickow
 @streamingmedia

Amazon Web Services (AWS)



Mike Callahan,
Head of Media
Solutions Marketing,
AWS Elemental

WHETHER AT HOME OR IN THE STADIUM, sports fans today expect deeper insights and more engaging content before, during, and after the game on an increasingly wide variety of mobile devices, apps, and social media. Sports leagues, broadcasters, and over-the-top (OTT) service providers are turning to advanced applications, media workflows, and the rich third-party partner ecosystem in the cloud on AWS to help them innovate faster to meet insatiable consumer demands, and to assure reliable and high-quality experiences.

For example, the Formula One Group (Formula 1), which is moving the vast majority of its infrastructure from on-premises data centers to AWS, uses AWS's machine learning and data analytics services to power F1 Insights technology used to enhance race strategies, data tracking systems, and digital broadcast. This includes a new Pit Strategy statistic that provides real-time information on the position of Formula 1 teams during close racing scenarios. These stats are delivered direct to race broadcasters via the Formula International Feed to augment commentary and provide greater insight, enabling commentators and on-screen pundits to give viewers added analysis of what is happening in the race. Formula 1 has also selected AWS Elemental Media Services to power its video asset workflows, enhancing the viewing experience for its 500 million-plus fans worldwide.

AWS is now the primary cloud computing, machine learning, and artificial intelligence provider of Clippers CourtVision, the live, augmented game-watching platform created by the Los Angeles (L.A.) Clippers and Second Spectrum, the official video tracking technology provider for the NBA. The Clippers and Second Spectrum will use AWS machine learning and data analytics services to advance game analyses and drive new experiences for Clippers CourtVision, which launched to great acclaim at the start of the 2018-19 basketball season and has been billed by experts as the future of sports viewing.

Last fall, the Pac-12 Conference announced that it was going all-in on the world's leading cloud and selecting AWS as its standard for machine learning and media workloads. Pac-12 leverages industry-leading services from AWS for a wide variety of production uses cases, including its website, mobile applications, and live television networks, to transform the collegiate sports experience for its millions of fans. AWS analytics, machine learning, and digital services enable Pac-12 to innovate and develop new cloud-based solutions that can anticipate and exceed fans' media and entertainment needs.

Amazon Web Services (AWS)

1320 SW Broadway, Suite 400
Portland, OR 97201
USA

aws.amazon.com/media-services

@elementaltech

EZDRM, Inc.



Olga Kornienko,
COO

SOLVING THE VIDEO INDUSTRY'S PICKPOCKET PROBLEM

A recent report offers a seriously alarming view of how the video industry measures up in protecting itself from revenue loss. Although pessimism related to this topic is not by any means new, it seems the innovators, pioneers and risktakers that form the backbone of this vibrant business are continually under attack from what are essentially pickpockets — those who seek to make money illegitimately from content created and distributed by commercial services.

The report, sponsored in part by the U.S. Chamber of Commerce and highlighted by Streaming Media, attempts to quantify the enormous cost burden to the industry of digital piracy, estimating that global online theft costs the U.S. economy \$29.2 billion in lost revenue every year. Streaming video piracy is seemingly by far the largest part of that, with over 80% of all piracy due to illegal streaming. You can find the link to the full report on our site.

These kinds of huge figures are a stark reminder of the cost of inadequate protection in video service distribution. Security needs to be the priority in planning and at the core of business mechanics for every video service launched. This imperative should be seen for what it is — the critical connection to the management of revenue streams and the enforcement of service business models.

And it is no longer a cost or complexity issue to connect the dots here and keep those pirate hands out of your business's pockets. Simple DRM cloud integrations to mainstream encoder/packager products are now almost routine. Your business is always on the line, and security should no longer be a barrier to business success. And, of course, EZDRM would be happy to help you out with any questions you have on these topics.

Come talk to the experts at EZDRM today:
www.ezdrm.com

EZDRM, Inc.
800 Westchester Ave.
Suite N641
Rye Brook, NY 10753
USA
www.ezdrm.com



Lightcast.com



Andreas Kisslinger,
CEO

SUCCESSFUL OTT PUBLISHING REQUIRES A FUNCTIONAL BUSINESS MODEL

Our industry is stronger than ever and just keeps growing, with new OTT publishers joining the ranks of media companies and organizations daily, who leverage instant media-management and multi-platform publishing across all devices and screens, new and old, large and small.

This brings up a new challenge. While established media corporations and organizations already have a solid business, new content producers and distributors often face typical startup-challenges and early growing pains, ranging from business competency and consultation, or the lack thereof, to sufficient funding for all areas of their new business: content production/acquisition, distribution, marketing and administrative overhead.

While many arrive in the OTT space with decades of experience and a solid team with all of the core competencies on board, others enter the landscape with the dream of rapid cash-flows without a business plan, leading to fast, and lasting, success. Yes, such miracles have happened, but they are far between. In most cases, it does require the basic ingredients of a successful startup recipe, including sufficient funding, the needed competencies, an innovative edge and a professional and realistic business plan.

At Lightcast.com we enjoy working with startups and we are not afraid to take on the projects of new content creators and distributors with an added dimension to our Customer Service: an intuitive, complimentary business consultation process for media startups. Our many well established customers even offer free insights, best-practices, and sometimes offer business patronage to new media startups. It is no sign of weakness for startups to leverage the experience of others and be taken under the wings of an established organization. In some cases, the right consultation and business plan can become the “make or break” point of new OTT publishers. For this year, and upcoming years, I predict that the need for awareness about the importance of a business plan and go-to-market strategy, will continue to grow among new players in the OTT space. And this trend will make our industry even better, stronger and continuously bound for growth.

Lightcast.com
10616 Metromont Parkway
Charlotte, NC 28269
Phone: +1 (704) 910-2434
consulting@lightcast.com
www.lightcast.com



VIEW FROM THE TOP

Mux



Matt McClure,
Co-founder

WHY MUX SEES A HEALTHY COMMUNITY AS THE INDUSTRY'S BIGGEST STRENGTH

When I first started working in the video industry as a developer, it was terrifying. The best resources appeared to be textbooks bigger than any of the ones I'd had in college, and the barrier to entry felt like a

hazing ritual that no one (even the old guard) wanted. After moving to San Francisco I started looking for meetups in the video space and instead found a million JavaScript, Rails, Cobol, and semicolon meetups, so I started SF Video Technology. Soon there was one night a month where I was spending the evening talking and learning from other insanely smart, friendly engineers that were building some of the most impressive video tech in the world.

The people that make up that meetup are special. In some cases we're colleagues, competitors, even dear friends at this point, but as a group we're a human, approachable interface to some of the hardest problems on the internet. Community is important to Mux because we're largely a product of the community.

The founders built Video.js, a hugely successful open-source player, and the SF Video meetup has spawned a conference (Demuxed) and nearly 20 other meetups around the world. These open developer communities started from a small idea, but took on invaluable lives of their own thanks to many smart, enthusiastic people noticing and caring enough to contribute. Now, I hope that a new video developer in San Francisco, Tokyo, or wherever can first learn about what wavelet codecs are (and why they're relegated to the 80s) from an ffmpeg contributor over pizza. Mux wants to continue to do what we can to foster and encourage the video developer community because a strong community allows all of us to grow and learn while building and improving amazing projects and companies.

Mux

1182 Market St.
Suite 425
San Francisco, CA 94102
USA
mux.com



Red5 Pro



Chris Allen,
CEO and
Technical
Co-founder

ACHIEVING MILLISECONDS TO MILLIONS

Low latency has now become the number one concern with live streaming. While others in our industry talk about reducing latency to 3 to 5 seconds, we don't think that's good enough. Truly interactive live video needs realtime responsiveness, which is why Red5 Pro measures latency in milliseconds.

Most importantly, these realtime video streams have been proven in the real world. In fact, we recently ran a test from Streaming Media East achieving round trip, glass-to-glass latency from NYC to Paris in 180 milliseconds.

While achieving best in class, award-winning latency is one thing, getting it to scale to millions of viewers is quite another task. One of the biggest innovations our team at Red5 Pro has achieved, is the ability to scale WebRTC on cloud or private networks.

As a WebRTC based, hosting agnostic solution, our customers are no longer stuck with high latency, CDN-based, HTTP delivery. The reason that Limelight Networks, Sony, The New York Times, Nokia, and Google trust us for sub-second latency video streaming is very straightforward: we deliver on our promises.

I'm very excited about the future of live streaming and where it's heading. Our customers are pushing the boundaries of what's possible with everything from live drone streaming, 360° cameras, live auctions, eSports, and more. These use cases are just the beginning, and I predict that in 2020 we will start to see some of the most interesting uses of live interactive content ever seen. If you are looking to differentiate your live streaming product, you'll need realtime latency so reach out to us or simply sign-up and download our 30-day trial.

Red5 Pro

500 Amory Street
Suite 2
Jamaica Plain, MA 02130
USA
red5pro.com



SSIMWAVE



Dr. Abdul Rehman,
CEO

QUALITY HAS A NUMBER. TUNE IT IN.

At SSIMWAVE we provide viewer-centric technology that works like a big tuning knob, allowing each business to adjust for their exact needs and audiences – whether improving content quality levels delivered to viewers, optimizing data rates to fit

CDN budgets or even evaluating tech stack or vendor operations at any part of the workflow.

There is no longer one broadcast delivery standard. Each business is unique and we enable our customers to adjust for the exact balance they've determined for success. Some companies think providing the best quality is what's important. Other companies can only do this for selected content, like live sports; we help them pick and choose quality levels for specific devices and content types.

The same technology allows us to look at client workflows from source to the point the viewer sees it at HDMI-out, meaning we can understand if a particular part of the tech stack is degrading delivery or creating latency. This is vital: things only get worse each time content is manipulated, so without flagging and fixing things, the end result will send users quickly clicking elsewhere.

Our Emmy Award winning algorithm has the ability to precisely identify what quality is acceptable to viewers on a per genre, per device basis across different resolutions, frame rates, and devices at scale. The results:

- Wow customers by providing premium quality to high value content.
- Make delivery affordable by lowering data rate on long tail content.
- Improve your bottom line by eliminating excessive data costs.
- Pre-empt likely points of failure with workflow monitoring.

Viewers have shown a huge appetite for content diversity and success in delivering in the direct-to-consumer environment means being able to find that perfect balance which keeps viewers tuning in and your business running profitably.

SSIMWAVE

310-375 Hagey Blvd.
Waterloo, ON N2L 6R5
Canada
www.ssimwave.com



Telestream



Scott Puopolo,
CEO

A STRATEGIC FOCUS ON QUALITY

In July, the integration of Tektronix's video test, monitoring, and quality assurance solutions for the broadcast and digital media markets into Telestream was completed. Our intention is to continue to invest in and market its entire integrated

product portfolio of both companies, focusing each technology on customer applications they are best suited to.

Engineering teams from Telestream and Tektronix Video are working to leverage the combined intellectual property in search of the most efficient and effective customer solutions. In particular, the engineering teams plan on integrating Telestream's iVMS ASM management systems across all of its relevant video monitoring product portfolio. These systems allow operators to correlate all the alarms within a network in a single management platform, enabling rapid pinpointing of issues and resolution of faults. The integration of iVMS ASM with Tektronix Sentry probes is a key bridging technology between the two product groups and significantly enhances Sentry's application potential.

In addition, Tektronix Video's waveform monitoring portfolio and Aurora file-based quality control (QC) are critical capabilities aligned with Telestream quality management story.

One of the pillars of Telestream's corporate strategy has been to combine businesses that extend our ability to positively impact the Quality of Service and Quality of Experience elements of customer operations. Tektronix Video is just such an entity. However, it is not just about product complementarity. Combining Tektronix Video with Telestream brings more extensive sales reach and a very strong presence in additional countries and markets, as well as extensive channel relationships through which we can sell our entire portfolio.

Telestream

848 Gold Flat Road
Nevada City, CA 95959
USA
www.telestream.net





VIEW FROM THE TOP

Tulix



Dr. George
Bokuchava,
CEO

IN THE LAST YEAR WE HAVE SEEN OUR UPWARD TRAJECTORY CONTINUE as the streaming revolution shows no signs of slowing down. We are starting to see developing areas of the world implementing streaming technologies and strategies, and this area has been a key part of our growth. The gap in the digital divide is getting smaller as high speed internet access start to reach

every corner of the world.

On a technical front we achieved a number of significant milestones, including; the design and implementation of a 4K HDR live workflow for a leading sports broadcaster, and the successful launch of 8K playout to our service range.

Looking at the overall streaming market, we are starting to see streaming service providers splitting in to two distinct groups. On one side we are seeing service providers whom are typically focusing on the faith, beginner, and amateur broadcast markets. These groups of broadcasters tend to have fewer demands and compliance requirements when it comes elements such as SLAs, encoding, and latency — and more than often just need a simple, fast to turnaround, and inexpensive solution.

On the other side we are seeing service providers whom are focusing on a segment of the broadcast market that requires an outstanding delivery mechanism on the ingest side. Requirements such as; direct fiber, forward-error-correction systems, and multiple protocol support (including fragmented MP4 — which is required for 4K HDR, systems supporting SCTE 224, and proprietary protocols for displaying appropriate content based on device type, location, date and time, or any other criteria).

Tulix has a very unique approach for both markets, with distinct business units focusing on either side, but all elements housed within the same complex infrastructure. This allows us to utilize all features for either side of the market when needed.

Tulix

1002 Hemphill Ave. NW
Atlanta, GA 30318
USA
www.tulix.com



Verizon Media



Ariff Sidi,
Chief Product
Officer

ONE OF THE CHALLENGES continuing to face media and entertainment businesses is delivering personalized experiences with relevant advertising inserted seamlessly. While the industry is seeing an explosion of OTT products built for the “subscription economy”, there will continue to be ad-supported streaming products for a long time to come. Paying with time and attention exists on the same

spectrum as paying with money, and this flexibility in monetization provides content publishers more options to deliver products at a variety of price points that will appeal to the broadest cross-section of consumers.

Consumers, on average, see around 4,000 advertisements a day. The constant bombardment of ads has naturally led to consumers tuning them out while simultaneously making it more challenging for advertisers to deliver their message. However, the promise of unicast delivery (i.e. streaming) over broadcast has always been the opportunity to target advertising to individuals and households. So, with ad-supported monetization still being a key consideration for publishers, it is in the publisher’s best interest to adopt highly personalized advertising to maximize their business outcomes; provide a better, more relevant experience for consumers; and provide a more effective channel for advertisers. Research from Epsilon found that 80% of consumers are more likely to make purchases resulting from personalized advertising.

Technologies like Smartplay, which is core to our Media Platform, are purpose-built to enable these outcomes. Streams are “sessioned” for each consumer; knowledge of device, geographic location, content preferences, viewing context, and, often, demographics are available (with compliance to privacy regulations); and ads are “stitched” into underlying streams seamlessly for a TV-like experience. Whether content is delivered live, linear or VOD, this 1-to-1 connection to each viewer provides the foundation for a great experience with improved monetization - which benefits all parties in the ecosystem.

Verizon Media

13031 W. Jefferson Blvd.
Suite 900
Los Angeles, CA 90094
USA
<https://vd.ms/50SM2019>



VIEW FROM THE TOP



AMAZON WEB SERVICES (AWS)
1320 SW Broadway, Suite 400
Portland, OR 97201
USA
aws.amazon.com/media-services



EZDRM, INC.
800 Westchester Ave., Suite N641
Rye Brook, NY 10753
USA
www.ezdrm.com



LIGHTCAST.COM
10616 Metromont Parkway
Charlotte, NC 28269
USA
www.lightcast.com



MUX
1182 Market St., Suite 425
San Francisco, CA 94102
USA
mux.com



RED5 PRO
500 Amory Street, Suite 2
Jamaica Plain, MA 02130
USA
red5pro.com



SSIMWAVE
310-375 Hagey Blvd.
Waterloo, ON N2L 6R5
Canada
www.ssimwave.com



TELESTREAM
848 Gold Flat Road
Nevada City, CA 95959
USA
www.telestream.net



TULIX
1002 Hemphill Ave. NW
Atlanta, GA 30318
USA
www.tulix.com



VERIZON MEDIA
13031 W. Jefferson Blvd., Suite 900
Los Angeles, CA 90094
USA
<https://vd.ms/50SM2019>