GUNSLINGERS UNITE

2018 ONLINE VIDEO INDUSTRY PREDICTIONS:
AN INTRODUCTION

Our editor Eric just asked me to never again use the words "Wild West" to describe our industry. He rolled his eyes and said I've used it too much over the years. Guilty as charged. So, with one hand on my heart and the other raised in the air, I hereby promise not to use that term again or talk about why it applies to streaming video—at least after the end of this article.

I keep saying "Wild West" because we work in a "make it up as you go" industry. And while some companies bounce into the frame and then roll out like tumbleweeds, there's no question that the industry moves forward not by chasing trends but by the hard work of incredibly smart people—"gunslingers" with great ideas. And it happens fast.

I remember at the end of 2016 pitching Eric that I felt HDR would be a really big deal in 2017. As I write this in early December 2017, I just saw streaming industry veteran Ben Waggoner post on social media that Amazon Prime is streaming about 100 shows in HDR10+. That didn't take long! I think the first time HDR turned my head was when Tim Siglin interviewed Streaming Media West 2015 keynoter Corey Smith, who was then with Microsoft's Xbox Live (go2sm.com/corey). Back then Smith said, "I believe that 1080p60 with HDR will actually have a better customer adoption than traditional 4K just because of the lack of content on the market." Our June issue in 2017 carried the cover story "HDR: Blackest Blacks" (go2sm.com/smjune17) and well, here we are, problem solved. I'm scared that my next prediction will be solved before this article even gets published!

The pace of our industry is getting even faster, but we have to be careful to not take steps backwards by overpromising—that's how you wind up on Boot Hill. Second Screen anyone? How many years ago did you see HEVC solutions on an expo floor? I'm not going to say, because it's kind of embarrassing, since it really didn't become a big deal until Apple decided to be the "play out" for HEVC. So yes, we are making up this industry as we go along, and there are lots of ideas being pushed—some reasonable and some a bit far-fetched, but hey, that's trail blazing. My job isn't to tell you what's going to happen next, but if you look closely at what we do here at Streaming Media, the clues are there—we only publish the important stuff. And if you haven't looked at our editorial calendar for this year, well, maybe you should (go2sm.com/edcal). We don't hide it behind forms. I'm happy to go over it with you—shoot me an email, or better yet, call me.

But I digress. Enough about us and enough about the Wild West. My intro to this section is meant to introduce those "gunslingers" who really can tell you what to keep an eye on. Pay attention, because a gun plus three of a kind always beats three of a kind.
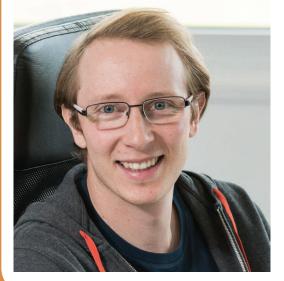
Joel Unickow
VP/Publisher, Streaming Media

EXECUTIVE *predictions*

Containerization is my pick for the biggest disruptor in the video industry for 2018. This year we have seen a steady growth in the adoption of containerized computing across many industries. In 2018 I predict that this trend will gain momentum as video development teams start to exploit the potential cost savings and performance improvements that are available with software based containerized encoding stacks.

This transition will bring a lot of processes away from the cloud and back to on-premise, as architects build hybrid infrastructures using hardware agnostic platforms such as Kubernetes and Docker. These systems will incorporate on-premise hardware and public cloud infrastructures into massively scalable and flexible video delivery infrastructures. This transition will likely be the beginning of the end for dedicated hardware encoders.

Another area of focus in 2018 will be reducing bandwidth and CDN costs. This is an important topic for every content provider, and for that reason optimizing video delivery is already top of mind for most of the software architects in the industry. There are a range of solutions available today which can reduce bandwidth usage, including Multi-Codec Streaming, Per-Scene Adaptation and Per-Title Encoding. All of these will gain in popularity in 2018.

AV1 will be another hot topic in 2018. Early 2018 will see the code freeze and from there we will see a lot of companies incorporating AV1 into their products. I predict that Youtube and Netflix will be first movers and start using the new standard as part of their delivery and others will follow shortly to benefit from the bandwidth savings and/or improved quality to differentiate their service from others.

Christopher Mueller
CTO | BITMOVIN

A significant competitor to Nielsen will emerge

With $1Bn spent on addressable advertising during 2017, the need for an alternative currency that can measure not only linear, DVR, and OTT, but also addressable advertising has never been more significant. At the same time, the amount of census-based TV data has been exploding, and we expect 2018 to be the inflection point where dollars start shifting from Nielsen to other datasets. In particular, the the combination of Smart TV data and set-top-box data should provide a uniquely powerful dataset that is nationally representative, richer, and more granular than Nielsen.

Netflix will introduce advertising

Netflix has been producing excellent shows and is growing its international footprint but still doesn't have the level of profitability it needs to become sustainable. As other media publishers commit to multiplatform, we expect a lot more streaming-first shows, and this is going to ramp up the pressure on Netflix' subscription fees. As limited advertising in streaming becomes the norm, we think it's inevitable that Netflix will follow suit.

Data providers will go up-market

Most data providers have been providing raw data "data sushi" [https://www.dativa.com/data-sushi/] and as the market evolves, we expect data providers to start building services on top of the data and providing full-service solutions rather than raw data.

Michael Collette
CEO | DATIVA

As expected, we are seeing OTT becoming more the focus for video. It won't be long now until OTT is the main way video content is consumed. Latency is as big an issue as ever, with the 5-15 seconds that is now the generally accepted "best possible" no longer being low enough for many use cases. We'll see new techniques being pioneered to decrease that latency further. Seeing as HLS is still the lowest common denominator for video playback, many of those techniques will focus on working around HLS' inherent latency problems. I do expect mixed-format delivery to become more common as a way to improve experience on various devices, however. Now that iOS has embraced HEVC and most consumer devices can decode it with hardware acceleration, it's likely to gain more traction over H264. That traction will probably be short-lived, as AV1 is almost upon us and is set to be backed by all major players. The way WebRTC is now fully supported by all major browsers is also interesting, and I'm looking forward to seeing it used more for practical applications besides video conferencing.

All in all, the coming years are promising to be quite exciting, and hopefully will be a turning point in the way we view video delivered over the internet - both literally and figuratively speaking! MistServer will of course keep innovating and pushing the boundaries of what is possible, just like we have done in the past.

Jaron Viëtor
CTO & CO-FOUNDER | DDVTECH B.V.

The transition of the global video industry from mostly television to mostly Internet will continue in 2018, which won't surprise anyone. While it's only beginning, we can all now see that this trend is unstoppable. Much less obvious, however, is the lack of readiness throughout the industry. The question for 2018 is how will Internet video perform under the pressure of this growing wave of viewers?

The broadcast video tech stack has been meticulously standardized over 75 years, is well-understood at all working levels (including in the executive suite), is readily interoperable across equipment vendors, programming distributors, and content producers, and works so reliably that the audience almost never notices that it's there. The magic of storytelling rests on this invisible, but rock-solid, foundation.

The same cannot be said of the Internet video tech stack. The Internet itself may be built on a long-standing set of standards – the first RFC was published in 1969 – but Internet video today is based on multiple, competing standards, all of which are very recent, some of which have multiple branches, and none of which are fully followed by every component maker. As anyone who works in Internet video can tell you, the parts don't always fit easily and snugly together. The number of available alternatives is mirrored by the diversity of implementation approaches taken by content distributors and producers as each painstakingly assembles a nearly bespoke solution from the available component parts. And to top it off, it takes many companies working together to deliver an Internet video to a viewer – a hosting or cloud provider, a CDN, the user's access network, and the user's device manufacturer. What could go wrong?

In 2018, we expect to see an increased focus throughout the industry on developing an industrial-grade, Internet video tech stack that rivals today's broadcast tech stack in consistently delivering high quality video experiences to audiences.

This newer wave of internet video technology will be built on extensible software and networking platforms that rely on open APIs to easily interoperate and share data up and down the Internet video workflow. Customers will finally be able to understand not just what happened but why, fine-tune workflows, and provide new levels of self-healing and correction. The end result? Consistently great video viewing experiences for every viewer on every device.

Mike Gordon
CEO AND CO-FOUNDER | DLVR

The streaming industry, like any other industry, experiences cycles brought about by technological change causing periodic shifts in the value perceptions. Right now we are experiencing a "lull" in the industry as the impact of cloud delivery takes hold in everyone's psyches. Amazon and Netflix have disrupted the content delivery industry so forcefully that all the other players now are figuring out how to position themselves. Basically everyone else is now playing defense.

What does this mean for the industry? It means that this "lull" will stay with us for the next one to two years as new delivery platforms are being designed. The new competitive platforms will only be funded when the cost of delivery approaches the cost of delivery for Amazon and Netflix.

The following two things have to happen. Cost of bandwidth has to drop. A new "Next Gen" codec also has to be finalized and adopted by the major players. Once these two "upgrades" materialize, then smaller midsize content owners and content aggregators can redesign their go-to-market architectures. And competition can begin on different basis such as product features and product support. I am confident that human intelligence and ever larger market opportunities will drive down the cost of bandwidth. Perhaps government policies will "nudge" the process. We shall see.

The decisions about NextGen codecs are H.265 and AV1. The players are lining up and the public is pushing for a decision. I believe we are very close. Once the decision is made then a new round of boxes and appliances will have to be built. DVEO like others is taking this "lull" as a "re-engineering" period. Being agile, we can move rapidly and stand ready for the next wave!

Laszlo Zoltan
VICE PRESIDENT | DVEO

2018 is the year to step up content protection

Streaming Media recently reported that streaming-specific piracy will equate to losses of $52 billion by 2022. And the last year has seen several high-profile content leaks and huge numbers of viewers consuming programming illegally. At the same time Netflix has announced plans to boost investment in content production and internet-only organizations like Amazon are spending increasingly huge amounts on live sports rights.

All these events are intrinsically linked - brought about by audiences now expecting TV wherever, whenever. So 2018 will see some substantial bolstering of anti-piracy measures.

Watermarking internet-delivered content is one of the key ways content owners can protect programming. Using the latest in delivery technology for streaming media, content owners or distributors can add a unique code to each stream which can be used to track any would-be pirates. Content owners can make unnoticeable changes to pixels, embedding a code directly into streams which is extremely hard for pirates to cover up.

Deploying a self-built content delivery network specifically for TV services can also help protect content. Having eyes on streams all the way through the delivery process is key and broadcasters are increasingly realizing this. By deploying their own TV CDN, they can take complete control of the delivery of their programming because they don't need to relinquish content to a third-party network owner.

With the increased threat of content theft, the coming year will see broadcasters and content distributors taking steps to stop pirates getting their hands on what are becoming increasingly valuable assets.

Johan Bolin
VP PRODUCTS | EDGEWARE

Broadcast and cable networks are increasingly engaging with viewers directly, rather than relying on MVPDs and affiliates to deliver their programming. Netflix, Hulu and Amazon began the trend of bringing high-quality video programming to digital platforms with broad offerings.

In 2018, we will see content owners strengthen their direct viewer relationships with the launch of more subscription-based OTT services.

We also expect the proliferation of OTT bundles to continue. The challenge is finding the right lineup at the right price point. Look for more targeted bundles – all sports, only entertainment, content from specific countries, targeting a demographic audience or harnessing an affinity group.

Targeted bundles won't need to hit the huge subscriber numbers that more broadly focused services require to build strong businesses.

For more information, visit **www.encompass.tv**.

Chris Walters
CEO | ENCOMPASS DIGITAL MEDIA

Emerging technology and the live production workflow

In 2017 we saw live video production begin to transition to the cloud, offering a variety of cost-saving advantages compared to more traditional production workflows. Cloud infrastructure continues to enable users to automate large parts of their video production with automatic uploading of high-volumes of recorded video and seamless transcoding of video assets.

I expect this trend to continue into 2018 where we'll see cloud-based automation applied in new and interesting ways, especially when combined with other emerging technologies. The rise of machine learning, for example, presents many fascinating opportunities to further enhance live video production in the cloud using automation. Machine learning can enable facial blurring for privacy protection, camera tracking as presenters move around the stage, creation of personalized custom video assets, and more. The possibilities are endless.

As machine learning and cloud-based video production continue to evolve, event organizers and AV service providers will be able to produce engaging and professional-quality video assets at increasingly lower costs.

The adoption of 4K resolution is another interesting trend to keep an eye on as we move into 2018. Many live video producers have wisely invested in 4K technology to "future-proof" their setups. However, 4K has outpaced the technical infrastructure needed to support its widespread use. As encoding horsepower and network bandwidth availability continue to grow in 2018 and beyond, I expect we'll start seeing greater adoption of 4K by both streamers and viewers alike.

360-degree video and VR technology will also be interesting to watch in the coming year. Will these emerging technologies secure their place as valuable live streaming and video production tools? Or will they go the way of the 3D TV? We'll have to wait and see.

Overall, 2018 looks to be an interesting year for live streaming and video production. We're happy to be a part of it.

Mike Sandler
CEO | EPIPHAN VIDEO | EPIPHAN.COM

As we enter 2018, we can see how consumer demand is driving greater choice, better quality and personalization and to remain competitive, content owners, broadcasters and TV service providers are responding to these shifts by enhancing the overall viewing experience.

Consumers have access to more video enabled devices and services than ever before, yet the challenge of content discovery remains a fundamental issue. According to 2017 Ericsson ConsumerLab TV & Media research, the average time spent searching has increased to almost one hour per day, while one in eight consumers believe they will get lost in the vast amount of available content in the future.

The industry must find new ways to simplify the process of content discovery and enable more accurate, relevant and engaging recommendations – yet the personalization opportunity can extend even further. There are multiple commercial and promotional opportunities, enabling service providers to target specific demographics, based on decisions around content type, time of day, user groups, sponsored links and editorial selection.

Another huge challenge will be to meet the demands for more immersive and differentiated experiences; already 4K/UHD TVs are present in close to a quarter of households worldwide. To meet this demand there is a growing need for greater flexibility, superior low latency and the ability to repurpose processing functions cost-effectively.

In 2017 we saw the approval of the SMPTE ST 2110 Professional Media over IP standards. This new suite of standards specifies the carriage, synchronization and description of the spate of elementary essence streams over IP for the purpose of live production, content exchange and primary distribution. This will be a significant development in the drive towards all-IP and its inherent operational efficiencies and cost savings. Adoption will be extremely fast where possible, with the expectation that very soon all software should be cloud native.

As all-IP and agile cloud solutions become table stakes, it's never been more important to foster interoperability and a unified approach to realize this vision. By establishing common standards, the industry can build flexible systems that can scale up and down more easily to meet these market demands.

Mark Russell
CTO & HEAD OF STRATEGY | ERICSSON MEDIA SOLUTIONS

OTT QoE Will Improve in 2018

According to Phenix' Streaming Wars: Sports Report, over 70 percent of viewers who stream live sports expect "bad service," which consists of buffering, latency, poor picture quality and actual loss of service. Approximately two out of these three viewers are reluctant to sign up or resubscribe to sports live streaming platforms in 2018 due to latency issues.

In 2018, Harmonic believes that the latency issues plaguing live streaming, especially for sports events, will be alleviated with the broader adoption of the Common Media Application Format (CMAF) standard. Moreover, OTT service providers will be able to deliver a video quality of experience (QoE) on par, or exceeding, traditional video offerings like cable and satellite. The key to improving QoE without increasing bandwidth is by deploying content-aware compression solutions like Harmonic's EyeQ™ video compression, which reduces the bandwidth for live streaming by up to 50 percent while remaining standards compliant (AVC and HEVC) and boosting QoE.

2018 will also be the year that OTT providers rely heavily on cloud-based video processing and delivery models to distribute geo-targeted content, make ad replacements and provide UHD-HDR in order to increase monetization. With cloud-based SaaS solutions, OTT providers can launch fast and scale their services up and down. Our award-winning cloud-native VOS™ media processing applications and VOS 360 managed service are great examples of the flexibility, scalability and efficiency that can be achieved via the cloud.

Distributing local or regional channels via OTT is going to be another big trend in 2018. Until recently, broadcasters struggled with how to prepare and distribute OTT-ready local broadcast channels to MVPDs. However, cloud-based broadcast affiliate aggregation and distribution solutions from Harmonic are available that allow broadcasters to seamlessly create schedules and manage content rights, ensuring exceptional video quality via the internet and cloud.

Eric Armstrong
VICE PRESIDENT, SAAS SOLUTIONS | HARMONIC

Other than an in-person meeting, video is the most vibrant manner of communication that executives can use to convey their message to large, far-flung audiences within their respective organizations. Streaming video is described as an "effective" tool for business communications by more than 90% of executives (Wainhouse Research Q4, 2017). Despite this statistic, the networking of enterprise video often gets scant attention. We think 2018 will be the year that video networking will be front and center in most large organizations.

There are market dynamics that support this proposition:

• Growing list of Enterprise Collaboration tools have announced support and encourage use of live and on demand video including; Microsoft Stream, Skype Meeting Broadcast, Microsoft Teams, Workplace by Facebook, Slack, and HipChat.

• The Death of Adobe Flash Player will accelerate the search for alternatives and the adoption of standards-based video technologies.

• Growing browser support for WebRTC which will enable peer-based technologies, such as Hive Streaming, to stream live video within enterprises without additional hardware or a software client.

We predict these market dynamics will result in 2018 being the year where live video broadcasts become commonplace in the workplace. Impromptu broadcasts from the executive work desk, not enterprise disrupting town halls, will help reduce a significant portion of corporate travel and help foster unity.

Thanks for your interest in my perspective. Best wishes to you all for a happy and prosperous 2018!

Johan Ljungberg
CEO | HIVE STREAMING

Having secured our first Russian customer, what better then to go there and bag some more whilst the iron was hot.

Of course I could have chosen a better date because there was plenty of the fluffy white stuff on the ground, but nothing that a trusty Lada could not plough through. After a few days urban ice surfing, I had a call from Sjoerd asking for some predictions for 2018.

Frankly, I didn't have a clue so it was time to ask the locals if they knew of any soothsayers or general fortune tellers. I was directed to a monastery where this very old chap was introduced. Apparently he was part of the Putin family because he seemed to be called Mr Rasi-Putin or Rasa-Putin or some such other tongue twister.

Although he keep banging on about how he could cure my ailments in the bedroom department, he did predict:

• As attendances fall, expect some cinema chains to eye up the launch of their own VOD solutions

• More content producers starting their own standalone streaming services rather than relying on aggravators like Netflix

• A bun fight between the studios and the Netflixs' of this world as the studios realise how valuable their content is

• More terrestrial channels to follow BBC3 by going online only

• New codecs to better compress 4k video

• More short form content to plicate decreasing attention spans

• Better targeted content derived from online monitoring

• Someone from China to make a $100 million offer for i2i Media

Philip Radley-Smith
OWNER | i2i MEDIA

One prediction that's a safe bet: Online video viewing will increase in 2018, and so will consumer expectations.

Limelight's 2017 State of Online Video report (go2sm.com/stateofov17) showed online viewing increased 34 percent last year to five hours 45 minutes per week. Among Millennials, that number already exceeds seven hours per week. This growth has been led by the increasing number of on-demand video options available to viewers.

However, when it comes to sports and other marquee live events, many consumers prefer to stick with the familiar broadcast television.

Consumers may have once been willing to endure streaming glitches to have the freedom to access whatever they want, whenever they want, but those days are over. Viewers of sports and other high-profile live events don't want to risk the chance of missing the game-winning goal while video rebuffers or learn about big plays on social media from friends who are watching a broadcast feed that's 30 seconds ahead of an online feed.

To provide reliable low-latency live streaming experiences that rival traditional broadcast television, the industry needs an open and scalable technology that's supported on standard web browsers without the use of special plug-ins. Enter WebRTC.

Although WebRTC was originally developed for browser-based real-time communication, its extensible capabilities and native support in all major browsers without the need for additional plug-ins make it uniquely suited to deliver scalable live online video experiences.

With the ability to provide consistent global video delivery with less than one second of latency on any network or device, WebRTC can provide the reliable live experiences viewers have come to expect from broadcast. And WebRTC supports a real-time two-way data channel, which means viewers will be able to get customized player statistics, select camera angles, interact with other fans, and more.

Whether it's watching live sports, online gaming, or live auctions, Limelight will be focused on changing the live online viewing experience in 2018 and beyond.

Kurt Silverman
SVP - DEVELOPMENT & DELIVERY | LIMELIGHT NETWORKS

While 2018 may prove to be more evolutionary than revolutionary, it looks to be a pivotal year in which long-discussed standards deliver on their promised potential and begin having a significant mainstream impact.

While streaming is ubiquitous for delivering content to consumers, its use within professional content creation workflows has been more limited, as users and equipment vendors awaited the formalization of

new technical standards. With the first standards in the SMPTE ST 2110 suite officially approved in late 2017, professional media will be increasingly transferred over IP throughout the content lifecycle, from acquisition and production to distribution.

Transporting media via IP allows the total system cost to be effectively reduced, enabling more people than ever before to produce professional-grade content, while also increasing workflow flexibility. As further components of the standards suite are released this year, we foresee that products based on ST 2110 will mature and begin widespread deployments.

In terms of streaming media delivery, broadening integration of technologies such as HEVC, 4K and HDR will bring exciting viewing experience improvements to users. More and more CPU, GPU and mobile chips are natively supporting

10-bit HEVC encoding and decoding, laying the foundation for the format to gain further popularity, while Apple's 2017 HEVC support announcement exemplifies its growing mainstream adoption.

Mature HEVC implementations are delivering on its promise of nearly 50% bitrate savings compared with H.264. Conversely, a little increase in bitrate leads to obvious improvements in picture clarity as perceived by viewers, and combines with HDR to deliver more natural, lifelike images. As more consumers experience these benefits first-hand, demand for these formats will further accelerate.

At Magewell, we are excited by these developments, and will continue developing practical products that enable users to embrace and take advantage of these technologies quickly, thoroughly and cost-effectively.

Nick Ma
CEO AND CTO | MAGEWELL ELECTRONICS

2018 GO OTT or GO HOME

While 2017 was an exceptional year for OTT adoption, 2018 is going to witness a faster growth momentum with the smaller broadcasters and publishers streaming their content online. Our aim at Mangomolo over the past few years was to make OTT available for every publisher and broadcaster no matter how big or small through providing them with a full ecosystem that includes an AI Powered OVP Backend Part with the Transcoding Services, Realtime Audience Analytics and Behavioral Statistics, etc... moving into the client side apps for smart devices/tvs or computers and also providing them with a marketing tool that allows them to create short form engaging videos very easily and publish them to social networks and other distribution channels. This has made OTT within the reach of every publisher and in just few weeks and everyone can start making more money starting with the smaller YouTubers that publish viral short form content to bigger broadcasters and networks.

The Focus for 2018 is pushing the bars of innovation and integrating AI into OTT to facilitate the workflow and to better understand audience behavior. Our main implementations of AI include Speech Recognition with On the Fly translation, Topic Extraction to automatically understand what content is about and for automating the meta data process and eventually building topic audience relationships and topic Advertising relationships. Second screen integrations are also increasing which is giving advertisers a more interactive way to engage with captive users. On the AD Serving Perspective we expect more players to adopt SSAI to increase CTRs and Conversion.

Wissam Sabbagh
FOUNDER | MANGOMOLO

Interactive live streaming is definitely a huge trend that will keep rising in the next years. Ultra-low-latency is the main feature of this kind of live streams, as it is necessary to achieve real-time engagement. On the other hand, cloud services are a success and can scale capacity easily, besides adapting to changing viewership.

Together with the death of Flash by 2020, these two concepts bring up a new era for live streaming. Live Streaming applications are more and more mainstream and required to work within any kind of business application as a simple "add-on". Customers do not want to hassle with looking to different vendors, devices, formats, etc. and setting up their own infrastructure.

Therefore, in 2018 we can expect an even higher adoption of cloud-based solutions for live streams, mainly focusing on scalability and ultra-low-latency. Since RTMP will lose power for playout, new technologies must come up to fulfill this gap.

Keeping it in mind, nanocosmos has developed nanoStream Cloud and the unique H5Live technology and player, an end-to-end ultra-low-latency solution that works on any HTML5 browser and mobile device, including Safari on iOS.

Adding nanoStream Apps and SDKs, you will find true cross-platform live encoding, while nanoStream WebRTC.live will be the perfect solution for browser-based live streams and webcasts.

nanoStream Cloud lets you go live around the world in 1 second. You only need to get your camera ready, and we do the rest!

Oliver Lietz
CEO | NANOCOSMOS

EXECUTIVE *predictions*

We are currently experiencing a situation where the technology and viewing behaviours are moving faster than many media companies.

The technology shift, with live OTT as a key driver, is the perfect enabler to start developing new creative concepts that will reach a new and more engaged audience.

New challenges can never be solved by old processes. To do what you have always done, is not an option. It's time to stretch our minds. Work together. Think big and think different.

History is full of companies that refused to change and made it into a sport to sleepwalk through decades of rapid change.

In my mind there has never been a more exciting time to be in the media and broadcasting business. Being able to offer technology that brings people together and creates communities, with a shared experience, is a true pleasure. Being able to offer new revenue streams for the media industry, which have struggled for years, is a bonus. These are the questions you need to ask yourself;

- How can we use technology to broaden our audience?
- How can we use technology to increase the audiences' loyalty?
- How can we integrate our digital strategy cross functional in every touch point?
- How can we make more money and attract new partners?

We are convinced that technology will continue to set the scene, transform business models and drive change years to come. It will also challenge the way we think and do business.

Fredrik Tumegård
CEO | NET INSIGHT

As remote workforces, distributed teams, user generated content (UGC) and the use of mobile devices continue to become the norm and not the exception, enterprise video platforms will move from an afterthought in the corporate technology stack to the true communication backbone of the organization. Any company looking to do business globally will need to give strong consideration to both live and on demand video as primary methods of communication—which makes the enterprise video platform a critically important investment not only for internal communication, but for overall revenue growth as well.

What I also see coming for 2018 and 2019 is the carryover of a consumer video trend to the enterprise. On the consumer side there has been a significant movement toward cutting the cord, or walking away from cable or satellite television and subscribing to internet-based streaming services instead. As organizations continue to invest in IT infrastructure, the forward-thinking ones will actively seek technologies that support the creation, editing, storage, tagging and distribution of video by anyone in the organization—essentially "cutting the cord" with legacy or proprietary platforms that offer nothing more than the hosting and viewing of unstructured video content.

Related to this trend will be the increasing importance of "platform extensibility." Enterprises with complex video environments are already recognizing the need to manage a multiplying number of video sources and destinations, as well as the requirement to integrate with third-party collaboration and Unified Communication technologies. A software platform in a corporate environment must have the ability to grow with the organization, and open APIs make video platforms easier for third party developers to add extensions. Without the recognition of extensibility as a key component in an enterprise video platform, organizations have no hope of creating the true "digital workplace" so many of them are seeking.

Vern Hanzlik
PRESIDENT & CEO | QUMU CORPORATION | QUMU.COM

When Streaming Media asked if I wanted to participate in the 2018 executive predictions I answered no. Anything that relates to chance I just run away from. I can never get the coin to flip on the "right" side. When they objected that it was a popular section of their magazine I said to myself: "what? people are going to read about this on top of that". I slept over it and had a vision that night of receiving an academy award. So, I called back and said yes. A couple of things I can also remember from this vision:

- Developers will be the next decision makers: technical complexity has increased over the past few years in the online video industry. Having a team of savvy technical people has no price. They should tell you what to do, because they will be the ones responsible for making your service a great service.

- HLS should continue dominating over DASH. Using DASH could require paying royalties and it is still not available in iOS Safari. With fmp4, HEVC and DRM becoming widely available in HLS most use-cases for streaming should be covered.

- Is a new codec dilemma upon us? HEVC vs. AV1 – HEVC vs. AVC. I will tend towards a yes.

- Who is your average viewer? High mobile usage and emerging economies gaining wide access to the Internet should raise the question of what kind of bandwidth your average viewer can really enjoy ... and what kind of experience you want her/him to have.

Arnaud Leyder
CEO | RADIANT MEDIA PLAYER

The TV Experience in a Multiscreen World

As we enter 2018, Telestream expects consumers to continue looking to social platforms, video sharing websites and OTT platforms as the place to consume much of what was traditional broadcast-type content. The convenience of accessing this content through mobile/hand held devices at the time of their choosing is a large driver for the success of OTT content delivery to viewers.

In response, old-school interstitial advertising business models will make a comeback, particularly over social media. Ad blocking technology will lose out as advertisers, wishing to guarantee revenue, push to "bake-in" ads for online content. This will be a temporary measure, though, as the infrastructure to target consumers more precisely will still be in its infancy. Looking even farther ahead – 2019 and beyond – we'll start to see sophisticated micro-targeting and micro-segmentation on a large scale, tied to the specific users/profiles. We expect to see more organizations position themselves to best deliver these capabilities for advertisers while not overtly annoying consumers.

At the same time, it's going to become increasingly clear that cord-cutting isn't an answer for consumers wanting to save money. As people compare the price of cable TV bundles to the price of a video-capable internet subscription, combined with a collection of satisfyingly content-rich, individual plans from even just a few companies like Sling TV, Netflix, Amazon, and Hulu, the savings will evaporate. Significant investment in original content for OTT platforms will likely see many consumers paying a premium.

As streaming continues its march towards parity with linear television, consumers will demand a quality of streaming experience and convenience that exceeds what linear TV is able to provide. There will be no shortage of opportunities for organizations who are well-positioned to meet those demands, and Telestream is working hard to perfect the necessary tools.

Shawn Carnahan
CTO | TELESTREAM

Open by default

My prediction for 2018 is that an overwhelming number of companies will be transitioning to open tech. Within ten years, I expect all significantly complex and successful back-end technology to be open source. It is already hard to name a market where open source doesn't either have the most momentum, or outright dominates it – be it mobile operating systems, cloud orchestration, browsers or transcoding software. A lot of money is still being made in these domains, but mostly by companies providing complementary services around a core that is open source. Not a single new successful proprietary database has been released in over a decade, while open variants are flourishing.

Many companies that traditionally kept technology close to their chest, are now betting on open source: Microsoft Edge has an open source engine at its core, Windows 10 embeds Linux as does Azure, and Oracle is acquiring open solutions to complement their proprietary offering. We will also soon see a new open codec called AV1, which is royalty-free and backed by Amazon, Google, Microsoft and Mozilla. Our own cloud encoding scale-up Transloadit will be among the firsts to support it.

Looking at our own company, the advantages of going "open by default" are clear to see. We have been able to decimate expenses in R&D, Marketing and Recruitment, while simultaneously improving product quality and attracting more customers and talent alike.

Whenever we create new software, it's open source – and some of these releases have even become industry standards. tus.io and uppy.io, for instance, are already changing how the world does file uploading. Each of these therefore not only serves as a compelling onramp to our commercial offering, they provide greater value by being free for anyone to use. If there is one thing science teaches us, it is that sharing accomplishments for others to build upon leads to evolutionary progress at revolutionary speed.

Kevin van Zonneveld
CO-FOUNDER | TRANSLOADIT

Growth found in the online video industry has been very prominent but has yet to become increasingly disruptive. 2018, I believe will be the first year we will start to see drastic change within the Broadcast Industry and between major MVPD's. More, specifically we will see further change in consumer behavior towards viewership, which will begin to tip the scale in favor of streaming providers much like Tulix.

Tulix and other streaming providers will have greater opportunity to change viewers' understanding and awareness of streaming, which hopefully will show a more evident change in streaming viewership. As content creation, content consumption and mobility grow so will streaming in relation to delivery, quality of experience and ease of use. In theory this will put broadcasters/ MVPDs in danger.

However, unlike Uber redefining the Taxi Industry, streaming will only reshape the Broadcast Industry as MVPDs deploy their own streaming platforms. This is where I predict seeing a clear definition starting to form within the Streaming industry. We will begin to see a rise of professional streaming services with the focus of collaborating with MVPDs to improve streaming viewership, vs. OTT providers competing more directly with MVPDs.

Part of Tulix's role in 2018, will take shape in improving streaming viewership through delivery to improve quality of experience. In my 20+ years of experience in streaming and streaming technologies I have come to see that longevity in this industry can only be achieved by ensuring high quality streams. As Tulix plans to make a leave a lasting impression, you can also expect Tulix to be experimenting further with delivery to keep up with industry demands.

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