Strategic Industry Analysis
March 2018

Produced by IABM
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Introduction

A Special Industry Analysis

This report aims to give users a strategic analysis of the broadcast and media industry, identifying the key trends driving change in the sector ahead of the 2018 NAB Show.

We provide a variety of information, including major trends in broadcast and media, financial indicators and technology adoption trackers to give a comprehensive overview of the state of the industry.

The information analyzed in this report is derived from both quantitative and qualitative research carried out by
The media industry is undergoing unprecedented change as a result of changing viewing habits and technology innovation. Increased competition for content and eyeballs is prompting media companies to go direct-to-consumer, bypassing traditional distribution channels. This has translated into a demand for speed and efficiency when purchasing media technology.

Media companies' transition to software-defined, virtualized and data-driven workflows is exerting pressure on the fragmented supply-side of media technology, which is consolidating as a result of this.

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While media firms were still debating whether content or distribution was king, digital technology completely altered the behavior, expectations and power of consumers, making them the ultimate authority to whom even kings must bend the knee
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Bob Iger, Disney CEO
Media Business Trends

Forces Disrupting the Media Industry

- **Infinite Content**: The entry of new companies to the media industry is pushing up the price of content and distracting eyeballs.

- **Escape Velocity**: The digital chaos created by the proliferation of OTT offerings is requiring media companies to respond more quickly to consumers' expectations.

- **Eat or Be Eaten**: The increasingly competitive environment is prompting media companies to search for scale via consolidation or geographical expansion.
Big technology companies are increasingly spending money on original video content to attract consumers' attention and lure them to their services.

Netflix pledged to spend $8bn in originals in 2018, up from about $6.5bn in 2017. While Amazon did not provide any details on its original content spending, it is expected to spend at least $5bn, or more, on it during 2018. Facebook and Apple both plan to spend $1bn on original content this year.

This is pushing up the price of content, presenting media companies with a difficult choice: increase investment or exit the game.
Infinite Content
Talent is Migrating to Silicon Valley

Big technology companies have been poaching top TV talent for quite some time now. They are hiring top TV executives to boost the quality of the original content portfolio they are investing in.

Apple has been the most active recruiter as it hired top TV executives from Sony Pictures and Channel 4 - these executives were behind ground-breaking series such as "Black Mirror" and "Breaking Bad". Amazon, Netflix and Facebook also recruited top TV executives from broadcasters during 2017.

The recruitment of top TV talent reinforces the threat posed by big tech to the media industry.

<table>
<thead>
<tr>
<th>Name</th>
<th>Company Left</th>
<th>Company Joined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamie Erlicht</td>
<td>Sony Pictures</td>
<td>Apple</td>
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<tr>
<td>Zack Van Amburg</td>
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<tr>
<td>Jay Hunt</td>
<td>Channel 4</td>
<td>Apple</td>
</tr>
<tr>
<td>Jennifer Salke</td>
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<td>Shonda Rhimes</td>
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<td>Ryan Murphy</td>
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<tr>
<td>Mina Lefevre</td>
<td>MTV</td>
<td>Facebook</td>
</tr>
</tbody>
</table>

Source: IABM
Sports Rights Inflation has not Ended

Despite the decline in the value of the English Premier League rights in the recent auction, the bubble has yet to burst.

Sports remain an essential asset for media companies to drive subscription and advertising revenues. Despite a recent decline in viewership, they still attract the kind of audiences that make live sports a unique monetization opportunity for broadcasters.

Big Tech companies such as Amazon, Twitter and Facebook will continue to bid for sports to attract audiences to their services (and use their data). Broadcasters will not give up their crown jewels so easily.
Traditional media companies need to get up to speed. Increased competition for content and eyeballs has prompted them to respond by launching direct-to-consumer services.

HBO, CBS and Showtime have all introduced direct-to-consumer streaming services. Disney decided to pull out its content from Netflix from 2019, launching its own OTT offering.

Pay-TV Operators such as Dish Network, Verizon and AT&T have launched a number of smaller, lower-cost “skinny bundles” of content packages at a lower price than their traditional offerings. This has created an environment that is increasingly confusing for consumers.
Escape Velocity

Agility

The new environment has required traditional media companies to be more responsive to market changes and consumer expectations.

The need for agility and velocity in operations has translated into a shift in technology spending that we will discuss in more detail later in this report.

The arrival of native streaming companies has created this need as it's changed consumers' expectations forever.

Now consumers expect a continuous delivery of new media content as well as a seamless experience on different devices and platforms. This has required media companies to revolutionize their workflows to increase speed and avoid inefficiencies.

In physics, escape velocity is the minimum speed needed for an object to escape from the gravitational influence of a massive body.

Definition of Escape Velocity

Escape Velocity

Personalization

Speed alone is not enough. Media companies have started investing in personalizing the consumer experience to stand out in a crowded market for content.

Data-driven personalization has made the fortunes of Netflix, which is said to invest about a quarter of a billion dollars in crunching audience data to provide recommendations to viewers. Evidence shows that this reduces churn for media companies.

AI and cloud technology are the tools to analyze and process big data to provide recommendations. This is increasingly accompanied by a plethora of consumer-facing devices, including voice control assistants, that significantly improve the user experience.

In an increasingly crowded market, broadcasters and content providers are not just concerned with the content being produced but also how viewers discover and navigate that content and make sense of it.

Orpheus Warr, C4 CTO
To match the financial firepower, content investment and reach of big tech companies, traditional media companies are both consolidating and expanding geographically.

Disney’s $66bn proposed acquisition (including debt) of Fox follows this trend. With this deal, which includes Fox’s domestic entertainment assets as well as most of its cable networks and international assets, Disney plans to consolidate its position as the world’s largest media company as well as expanding geographically by taking control of both Sky and Star India - if this deal is finalized.

The search for scale is evident by the increase in the number of billion dollar acquisitions. Media companies believe that they are stronger together.

There are three primary strategic priorities fulfilled by this acquisition. It will deliver more content, the production capabilities and talent to produce even more. It will enhance our direct-to-consumer initiatives with platforms, technologies, brands and existing customer relationships to build on. And it will greatly diversify our businesses geographically.

Bob Iger, Disney CEO
Other networks have engaged in consolidation activity in recent years. In 2017, Discovery bought Scripps for $14.6bn, hoping to gain more leverage in fee negotiations with distributors to alleviate the impact of cord-cutting on its revenues. CBS and Viacom have recently revived merger talks after their split in 2006.

In the terrestrial sector, the return of the “UHF discount” triggered a wave of acquisitions, including the $3.9bn proposed acquisition of Tribune Media by Sinclair Broadcast Group.

Pay-TV continues to consolidate, with content and distribution increasingly converging - the acquisition of Time Warner by AT&T has encountered regulatory hurdles.
Eat or Be Eaten

Globalization

Broadcasting has historically been a local business. Technology innovation and the rise of streaming have enabled the expansion of broadcast and media services to global audiences, bringing new challenges for established players.

To support localized content and entertainment experiences, a certain kind of scale is needed. This has caused a rise in cross-border acquisitions as well as an expansion of OTT offerings to new territories.

CBS has unveiled its plans to extend its SVOD service, CBS All Access, to Canada and other international markets by 2018.

There is a huge opportunity for CBS to go direct-to-consumer on a much bigger scale worldwide

Leslie Moonves, CBS CEO
Media Financial Analysis
Media Financial Analysis

Revenues, Profitability, Investment & M&A

Revenues & Profitability

Revenues continue to grow but by a smaller margin. Profitability improves but continues to be hit by the transition to new media offerings.

Investment

Financial CAPEX has slightly declined in recent years although general investment in media technology is growing.

M&A

According to our in-depth analysis of the demand-side, M&A activity has been high in recent years with media companies pouring over $280bn in acquisitions.
To access the full data, please visit the online version of this report

Source: IABM
Revenues & Profitability

Revenues & Profitability in the Broadcast & Media Industry

By Organization Type

<table>
<thead>
<tr>
<th>Media Networks</th>
<th>Pay-TV Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Profit Growth</td>
</tr>
</tbody>
</table>

By Geography

<table>
<thead>
<tr>
<th>EMEA</th>
<th>Americas</th>
<th>Asia-Pacific</th>
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</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>Profit Growth</td>
<td>Revenue Growth</td>
</tr>
</tbody>
</table>

To access the full data, please visit the online version of this report

Source: IABM
Top media companies' profit margins have slightly declined between 2016 and 2017.

Profit margins continue to be under pressure as revenues move from linear to new media offerings.

However, broadcast and media generally remains a healthy business, as most companies have remained in profit between 2016 and 2017.
Revenues & Profitability

Change in Ad Revenues for Selected Media Companies

Commercial broadcasters remain generally under pressure. Most of the organizations we track suffered a slowdown in advertising revenues between 2016 and 2017, due to the lack of major sporting events and shrinking advertising budgets.

Broadcasters should continue to diversify their revenues in order to be less vulnerable to advertising shifts. Companies like CBS and ITV have done this in recent years.
Investment

Financial CAPEX (% of Revenues) for selected Media Companies, 2015 - 2017

Source: IABM
Media technology investment is still rising but demand is shifting to new products and services.

Media companies’ CAPEX are generally steady or on the decline as shown by our data. Investment is moving towards OPEX as end-users try to make their businesses more flexible and responsive to market changes through the increased virtualization of their infrastructures.
Media technology investment remains focused on enabling a seamless multi-platform delivery.

4K/UHD is #2 although this trend is mostly relevant to the production/post-production sectors.

IP infrastructure has grown in importance during last year with the completion of some major IP projects.

Big data analytics & AI has grown as well.
## M&A

### Major Acquisitions (>$1bn) in the last 4 years

To access the full table, please visit the online version of this report

<table>
<thead>
<tr>
<th>Announced date</th>
<th>Acquiror name</th>
<th>Acquiror Country</th>
<th>Target name</th>
<th>Target Country</th>
<th>Deal status</th>
<th>Deal value (th USD)</th>
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<td>07/04/2014</td>
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<td>26/05/2015</td>
<td>CCH I LLC</td>
<td>US</td>
<td>TIME WARNER CABLE INC.</td>
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<td>14/07/2015</td>
<td>BEIN MEDIA GROUP LLC</td>
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<td>DIGITURK PLATFORM ILETISIM HIZMETLERI AS</td>
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<td>US</td>
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Source: IABM
M&A

Major Acquisitions (Value, >$1bn) in the last 4 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
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<td>2014</td>
<td>74,894,848</td>
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<td>2015</td>
<td>87,617,702</td>
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<tr>
<td>2016</td>
<td>32,641,932</td>
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<tr>
<td>2017</td>
<td>85,348,150</td>
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</tbody>
</table>

To access the full data, please visit the online version of this report

Source: IABM
Buying Trends
The new environment is prompting media companies to prioritize efficient and agile technologies, adopting a supply-chain approach to media tech buying.

The increasing use of IT technologies is requiring media companies to cope with various challenges, including data management and cyber security.

The new challenges of a multi-platform world have driven media companies to increasingly invest in in-house product development.
The need for speed and efficiency in delivering content to multiple platforms has translated into a demand shift in technology spending.

Media executives now often liken their operations to those of a factory to highlight the importance of business considerations when making a product purchase decision.

It's not just about quality (which though remains important) but rather about purchasing products that speed up operations as well as making them more efficient. In the multi-platform world, budgets are stretched, timescales shortened.

Source: IABM
End-users are increasingly adopting a supply-chain approach for handling media content, from production to distribution. This includes a variety of best practices such as the definition of formal organizational processes and the increased reliance on performance indicators and KPIs to evaluate operations.

Technologies such as the cloud and AI are making it easier for them to revolutionize old paradigms. For example, the cloud is helping them optimize resources and promote collaborative workflows. AI is leading to process automation and it is crunching data on content, audiences and operations to deliver actionable insights.

Therefore, end-users are increasingly looking at how vendors' solutions fit their content supply-chains.
Digital Transformation
Data at the center of everything

The launch of direct-to-consumer offerings and the increased use of IT technology in operations is creating an enormous amount of data end-users need to make sense of in order to keep up with native digital players.

With regards to this, the cloud and AI respectively represent the muscle and the brain to process and analyze large amounts of information. This information (on content, audiences and operations) needs to be stored and analyzed in a consistent way, creating a major challenge for end-users.

Solutions that can help them address this challenge are becoming increasingly popular as they enable them to streamline operations and personalize the consumer experience.
Digital Transformation

The Cyber Threat

IT networking, virtualization and data explosion are increasingly exposing end-users to the cyber threat.

During 2017, cyber criminals continued to hit media companies. According to IABM data, 24% of media companies have experienced an attack in the last three years.

End-users will continue to adopt technology to counter the cyber threat and promote a strong corporate culture on cyber security in order to effectively fend off hackers.

Solutions should therefore adhere to cyber security standards and take into account the protection of content throughout the media supply chain.

Source: IABM
Interoperability & DevOps

Interoperability remains Key

IABM data show that most media technology users still prefer best-of-breed solutions, leaving many doors open for media technology vendors. Their customers are still looking for the dedication, support and flexibility provided by specialist suppliers.

However, 98% of technology users demand interoperable solutions, requiring vendors to adopt an open approach to product interoperability. In fact, end-users, increasingly frustrated with the lack of technology interoperability, are starting to build products by themselves.
According to our data, end-users build on average 37% of the products they need in-house. In recent years, media companies have ramped up investment in recruiting software engineers to build in-house capabilities for software development. According to our data, most end-users plan to increase their investment in software development in the next 12 months.

In doing so, many media companies are looking at microservices to achieve a more flexible and resilient approach to application development. End-users also plan to use microservices to achieve greater interoperability of operations, by gluing together separate technology solutions.
Media Tech Adoption
Media Tech Adoption

Emerging Technology Adoption in Broadcast & Media

- Cloud
- Artificial Intelligence
- IP
- UHD
- VR
- Blockchain
Cloud

Adoption of cloud will continue in 2018

Cloud growth is set to continue during 2018 as media technology users streamline their operations for the multi-platform world. According to IABM data, adoption of the cloud rose significantly between 2014 and 2017 as the technology matured and more end-users espoused its benefits.

By deploying cloud-based services, media companies can dramatically reduce time-to-market for their services – thus increasing revenues - and flexibly adjust resources by moving to consumption-based pricing. They can also enjoy the benefits of increased collaboration in producing content.
Cloud

A variety of deployments

Media companies have so far shown a preference for hybrid and private cloud solutions. Adoption of public cloud has been limited to some specific applications, where the economics of on-demand pricing justified the deployment of public cloud.

The adoption of cloud technology has focused particularly on some media functions such as transcoding and post-production, where it is gradually replacing on-premise infrastructures.

Increased adoption of public cloud will be needed to take advantage of the scalability of this technology.

Source: IABM
The cloud, which has enabled media companies to harvest an increasing amount of data, has also laid a path for Artificial Intelligence (AI) to penetrate the industry.

AI will be a crucial driver of media technology spending in 2018 as companies seek to further automate their operations and build direct relationships with consumers. However, AI is still at an early stage of adoption.

According to IABM data, most technology users plan to deploy AI in content management, distribution and delivery. They will continue to invest in AI during 2018 to become more efficient and better understand their customers, driving loyalty and revenues.
Artificial Intelligence

Automation & Personalization

End-users are using AI to automate routine tasks and gain increased insights into their audiences.

In terms of workflows, the main areas of applications of the technology are content management and distribution.

In content management, end-users are deploying AI to automate manual tasks such as metadata tagging, image recognition and speech-to-text transcription.

In distribution, AI is used to automate content repackaging and personalize the consumer experience through recommendations and flexible UIs.
Artificial Intelligence

Most AI Applications are in Content Management

By applying AI to metadata tagging, end-users can both increase the level of detail of their metadata and decrease the number of errors and inconsistencies associated with this process, thus boosting monetization opportunities for their content archives.

“Although we have an entire archive that goes back to the 1930s, we can’t actually find anything efficiently. If you can’t find anything, you can’t sell it, and you can’t make money. So this [AI] is big for us”

Chris Witmayer, Director Of Broadcast, Post Production & New Media Technology, NASCAR Media Group

<table>
<thead>
<tr>
<th>Year</th>
<th>End-User</th>
<th>Use Case</th>
<th>Application to Content Management</th>
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<tbody>
<tr>
<td>2017</td>
<td>US Open</td>
<td>Automated Highlights Production</td>
<td></td>
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<tr>
<td>2016</td>
<td>Disney</td>
<td>Automated Camera Operators</td>
<td></td>
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<tr>
<td>2016</td>
<td>Cumulus Radio</td>
<td>Metadata Extraction and Tagging</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>Fox Sports Brasil</td>
<td>Metadata Extraction and Tagging</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>iHeart Media</td>
<td>Metadata Extraction and Tagging</td>
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<tr>
<td>2017</td>
<td>Yle</td>
<td>Metadata Extraction and Tagging</td>
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<td>2016</td>
<td>Sky</td>
<td>EPG Automation</td>
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<td>2017</td>
<td>Turner</td>
<td>Ad Analytics</td>
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<tr>
<td>2016</td>
<td>M6 Group</td>
<td>Targeted Advertising</td>
<td></td>
</tr>
</tbody>
</table>

Source: IABM
With the finalization of ST 2110 and the upcoming availability of an open solution for IP interoperability, we expect more growth in the adoption of IP technologies at broadcast organizations.

This has been slower than forecast due to interoperability issues. IP adoption remains at an early stage, particularly in live production environments.

ST 2110 Parts 10, 20, 21 and 30 were all published in December 2017 – these represent the core elements of the suite. SMPTE plans to release the standard in its entirety in early 2018. This should provide some momentum for IP adoption in the broadcast and media industry.

On December 8, SMPTE finally published their IP standards. And that’s a big deal because now customers can move forward with open systems and do so confidently and not have to worry about selecting vendors or hardware that doesn’t comply with the standard. So we think that’s an important development. It’s certainly going to be helpful moving into 2018. We had our strongest quarter ever in IP-based product revenues in the fourth quarter was over $5 million and it was to 36 different customers.

John Stroup, Belden CEO

Source: IABM
Adoption is still at an early stage

Despite the benefits of moving operations from SDI to IP, adoption has been limited to a minority of broadcast organizations and outside broadcast providers.

Adoption has so far focused on less complex use cases such as non-live production. In live production, IP has been adopted by large broadcast end-users such as RTL and NBC's Telemundo.

In these use cases, early adopters have had to proactively alleviate some of the technology's existing deficiencies to adapt it to broadcast requirements.
Media technology users see IP as an enabler for achieving more operational efficiency and agility. A look at projects involving the transition from SDI to IP shows some common use cases in the deployment of this technology:

- **Asset Centralization**: centralization of various companies’ assets in a single location increases efficiencies through synergies.
- **Remote production**: remote production avoids the need to send expensive crews/equipment on-site.
- **Virtualization**: virtualization of certain media functions achieves increased agility and efficiency.
- **UHD production**: UHD production using IP avoids the need to move to 12G SDI or Quad 3G SDI.
UHD

IP and events may revive spending in 2018

Aside from some specific use cases adoption has been slower than predicted so far. From a geographical perspective, European end-users have been more likely to launch UHD offerings compared to their North American counterparts. However, UHD has generally remained a niche market for Pay-TV operators.

In 2018, end-users may revive their spending on UHD programming in preparation for some major sporting events such as the FIFA World Cup. Some broadcasters such as NBC have already committed to increase their UHD coverage for these events. According to IABM data, increased adoption of IP-based workflows is likely to drive more UHD investment too.
UHD is very important for the production and post-production sectors. For these sectors, UHD has various technical benefits, including content future-proofing. UHD is therefore more established in production than in delivery.
Better Pixels > More Pixels

Most media companies prefer combining UHD enhancements such as HDR with HD rather than launching 4K or 4K + enhancements offerings. They are more interested in better pixels rather than more pixels.

HDR remains by far the most preferred enhancement by end-users. HDR is considered a more viable option compared to 4K as it is more noticeable to viewers on smaller screens and it is cheaper to deploy using existing infrastructures.

However, the existence of several competing standards such as Dolby Vision and HDR10+ in the TV set market remains a constraint to adoption.
VR

Not a Priority

VR is not a priority for end-users. Cost premiums of professional VR equipment remain too high. Moreover, producing content in VR remains challenging from a creative perspective.

End-users are also worried about the slow adoption of consumer VR equipment and the characteristics of the VR experience.

Recent price cuts for high-end consumer VR equipment such as the Oculus Rift have demonstrated how adoption has been slower than anticipated. The VR experience is also radically different from the television experience: the former is isolated and active while the latter is shared and passive.
Most VR deployments have focused on live sports, where the technology could represent an alternative to the real live event experience.

Most of these deployments have enabled viewers to watch the event from different vantage points and to visualize sports statistics in an interactive fashion.

In Fox's broadcast of the CONCACAF Gold Cup, viewers were also able to communicate with each other during the games through their virtual avatars.

<table>
<thead>
<tr>
<th>End-User</th>
<th>Year</th>
<th>Deployment</th>
<th>Genre</th>
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<tbody>
<tr>
<td>Fox</td>
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<td>VR broadcast of various sporting events</td>
<td>Sports</td>
</tr>
<tr>
<td>NBC</td>
<td>2016</td>
<td>VR broadcast of 85 hours of Rio Summer Games</td>
<td>Sports</td>
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<td>BT</td>
<td>2017</td>
<td>VR broadcast of UEFA Champions League Final</td>
<td>Sports</td>
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<td>NBA Digital</td>
<td>2017</td>
<td>VR broadcast of one game a week</td>
<td>Sports</td>
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<td>2017</td>
<td>Social VR broadcast of CONCACAF</td>
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<td>PGA Tour</td>
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<td>VR broadcast of The Players 2017</td>
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<td>Deutsche Telekom</td>
<td>2017</td>
<td>VR broadcast of live concert</td>
<td>Music</td>
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<td>WWE</td>
<td>2018</td>
<td>VR broadcast of WWE highlights</td>
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<tr>
<td>NBC</td>
<td>2018</td>
<td>VR broadcast of 50 hours of PyeongChang Winter Games</td>
<td>Sports</td>
</tr>
</tbody>
</table>

Source: IABM
**VR**

**Monetization is Key**

Most VR deployments have not been monetized so far. One of the few exceptions to this has been the partnership between NBA Digital and NextVR to deliver one game a week in VR. This has been charged to consumers through a subscription model.

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**Major VR Deployments**

<table>
<thead>
<tr>
<th>End-User</th>
<th>Year</th>
<th>Deployment</th>
<th>Monetized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fox</td>
<td>2016</td>
<td>VR broadcast of various sporting events</td>
<td></td>
</tr>
<tr>
<td>NBC</td>
<td>2016</td>
<td>VR broadcast of 85 hours of Rio Summer Games</td>
<td></td>
</tr>
<tr>
<td>BT</td>
<td>2017</td>
<td>VR broadcast of UEFA Champions League Final</td>
<td></td>
</tr>
<tr>
<td>NBA Digital</td>
<td>2017</td>
<td>VR broadcast of one game a week</td>
<td>✓</td>
</tr>
<tr>
<td>Fox</td>
<td>2017</td>
<td>Social VR broadcast of CONCACAF</td>
<td></td>
</tr>
<tr>
<td>ESPN</td>
<td>2017</td>
<td>VR broadcast of X Games</td>
<td></td>
</tr>
<tr>
<td>MLB</td>
<td>2017</td>
<td>VR broadcast of one game a week</td>
<td></td>
</tr>
<tr>
<td>PGA Tour</td>
<td>2017</td>
<td>VR broadcast of The Players 2017</td>
<td></td>
</tr>
<tr>
<td>Deutsche Telekom</td>
<td>2017</td>
<td>VR broadcast of live concert</td>
<td></td>
</tr>
<tr>
<td>WWE</td>
<td>2018</td>
<td>VR broadcast of WWE highlights</td>
<td></td>
</tr>
<tr>
<td>NBC</td>
<td>2018</td>
<td>VR broadcast of 50 hours of PyeongChang Winter Games</td>
<td></td>
</tr>
</tbody>
</table>
Blockchain

Early Adopters

Blockchain, the technology behind cryptocurrencies, can be defined as a digital, immutable and decentralized ledger that chronologically records transactions in near real-time.

Some media companies have already invested in this technology although blockchain can be considered as a truly emerging trend in this sector.

Investment by media companies has so far mostly focused on the possible applications of the technology in advertising.

Other popular use cases of blockchain include conditional access, rights management and content monetization.

% of companies that have adopted the blockchain

Source: IABM
Blockchain

Possible Applications

In an advertising setting, blockchain technology is seen as an enabler of trust within a private network of advertising buyers and sellers, allowing them to share their data together and boost advertising monetization through more effective targeting.

The tracking nature of blockchain is another characteristic that has attracted interest in the media industry. For example, blockchain technology can be used by content owners as an anti-piracy tool – in a similar way to forensic watermarking technology.

Blockchain can also be used to reward viewers (with cryptocurrency) if they watch advertising to boost ad monetization.
**Blockchain**

**An advertising use case**

Comcast Advanced Advertising Group announced in 2017 that it would allow ad buyers to make purchases for its linear and digital inventory on a new platform powered by blockchain technology. Comcast’s initiative was joined by other major media companies such as NBCUniversal, Disney, Altice USA, Channel 4, Cox Communications, Mediaset Italia and TFI Group.

The platform, named “Blockchain Insights Platform”, is set to launch in 2018 and consists of using the blockchain to pool the partners’ data in an anonymous way. More specifically, advertisers should be able to use a varied amount of information - including both the media companies’ and their own – without giving up their customer data to a third party.

If you think about what a blockchain is, it’s how can you do a transaction where you trust the transaction, without having to trust the counterparty or the other people involved and without requiring some giant central system of record.

Marcien Jenckes, Advertising President, Comcast Cable
Supply Trends
Supply Trends

Trends on the Supply-Side of Media Technology

Virtualization

The move to the cloud and software-defined networking is introducing new business models in the media technology industry

Commoditization

The increasing use of generic IT technology in end-users' infrastructures is leading to a deflation in selling prices which bites into margins

Consolidation

The fragmented supply-side is struggling to make returns on the many investments made in recent years, which is leading to consolidation
Virtualization

Flexibility Required

As media technology users virtualize their infrastructures, media technology suppliers are required to move to new business models that hinge on the flexible provision of resources.

These models rely on a radically different financial balance that prioritizes Opex over Capex – smaller, monthly (or daily) cashflows rather than larger upfront payments. This transition often entails an initial revenue slowdown that may be difficult to implement (or accept) at some organizations. From a cultural perspective, skills also need to adapt to this change as new methods of product development increasingly demand a blend of broadcast and IT skills.

"Because large transactions are moving to a subscription model, we are narrowing and lowering our annual revenue guidance at this point, but improving bottom-line expectations that include achieving a return to profitability in the second half of the year."

Ed Terino, SeaChange CEO
Virtualization

New Business Models

The transition to software (including the cloud) is well underway, though hardware remains the primary source of revenues for most suppliers. This is demonstrated by our data on revenue outlook, which shows a changing composition of revenue sources with a significant shift towards software revenues.

Media technology suppliers are moving their offerings to subscription and on-demand pricing as a result of this shift in buyers' demand.

Source: IABM
Commoditization
IT is Becoming more Pervasive

The move to virtualized infrastructures is making it possible for end-users to increasingly use generic IT equipment instead of bespoke broadcast technology.

This has left the media technology industry vulnerable to the entry of large IT companies, whose equipment is becoming more pervasive in media technology infrastructures.

According to IABM research, end-users spend on average 48% of their total Capex budget on traditional broadcast technology Vs. the 58% they used to spend in 2014.

The increased competition from IT is driving a decline in selling prices.
The decline in selling prices is evident from our data. The financial effect of product price deflation is forcing vendors to raise sales volumes to preserve current margins.
Consolidation
Low Returns Drive M&A Activity

Media technology has historically been a high-margin, bespoke industry where revenues were driven by large scale customer deployments such as those needed to transition operations to digital or HDTV.

The virtualization of infrastructures coupled with the commoditization of equipment are changing this paradigm, exerting financial pressure on media technology suppliers. The amount of investment made by media technology suppliers in recent years has not been matched by adequate returns. In fact, industry fragmentation has made it difficult for them to monetize investment. There are over 3000 companies in the media technology market, making competition intense.

"To operate globally, you need to generate the amount of revenue that gives you the scale from an R&D point of view"

John Stroup, Belden CEO
Consolidation

A Recent Deal

Industry fragmentation, coupled with increased consolidation on the demand-side, is a driver of consolidation on the supply-side. These forces have translated into decreased technology spending due to synergies and into a reduction of returns on R&D investment due to excessive competition.

The recent announced merger between two major players in the IP technology arena - Grass Valley and SAM - reflects this trend. By acquiring a direct competitor in the segment of IP technologies, Grass Valley is boosting its market share in a sector that it deems ripe for growth as well as gaining access to new territories. More acquisitions may follow in 2018 as other players look to eliminate competition.
Media Tech Financial Analysis
Revenues, Profitability, Investment & Stocks

Revenues & Profitability

- Revenues continue to grow but by a smaller margin.
- Profitability continues to be hit by the transition to new business models.

Investment

- Investment has slowed recently although the media technology industry continues to invest heavily in R&D.

Stock Analysis

- According to our in-depth analysis of the supply-side, stock markets are rewarding companies that have implemented business model transitions.
The percentage of companies in profit has been relatively steady in the past years despite some turnover - a greater number of companies moving from loss to profit and from profit to loss.

However, with profits declining, most companies that are currently in profit are seeing them declining.

Some of the forces described before are behind this decline in profitability, which is affecting companies of all sizes.
Investment in R&D slowed down in the second half of 2017. Spending on R&D had been growing over a number of years, with suppliers increasing their investment in R&D to support new product launches and accommodate the changing requirements of their customers.

Companies are trying to reap rewards from the investments they have already made and are looking at becoming more efficient and improving their margins.
The focus of R&D investment is IP technology and cloud/virtualization. The third most important focus is UHD technology.

Looking at this data from an organization type perspective shows that IP technology remains the most important technology for hardware suppliers while software suppliers are by far more interested in the potential of the cloud. Software vendors also rank both “advanced analytics/AI/machine learning” and IP as their second and third most important technologies.
On average, most public vendors have improved their stock performance between 2016 and 2017.

Financial markets are rewarding companies that have implemented successful business model transitions and native digital technology companies such as streaming service providers.
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