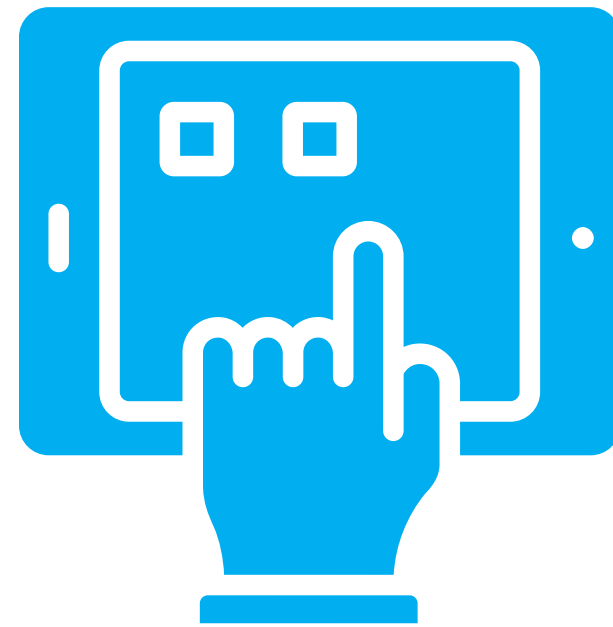


Media Tech Intelligence Briefing:

Streaming & Interactivity

November 2021

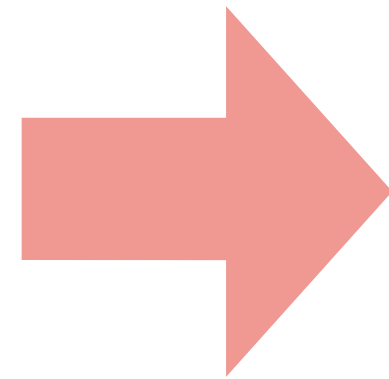


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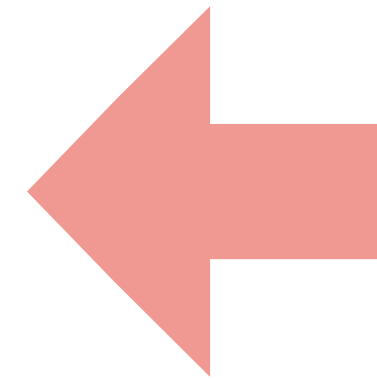
The origins of convergence

IABM research has repeatedly highlighted in 2021 the massive opportunity for media businesses to leverage interactivity in streaming experiences. In October 2021, we published a [Briefing on Content Distribution & Monetization](#) and called attention to the importance of consumer engagement in the sector, singling out interactivity as the key tool to improve this. In the briefing, we argued that the social isolation caused by the pandemic had disrupted demand patterns for interactivity, and that supply had never been in a better shape (see diagram below). Media and technology businesses have continued to invest in interactivity since then, which has led us to re-examine the topic in this Briefing.

**Demand for
interactivity has
soared**



**Consumer
Interactivity**



**While supply has
never been in a
better shape**

**Social isolation has been driving
increasing demand for interactivity**



**Tech enablers such as AI/ML, 5G/edge,
XR facilitate effective supply**

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The origins of convergence

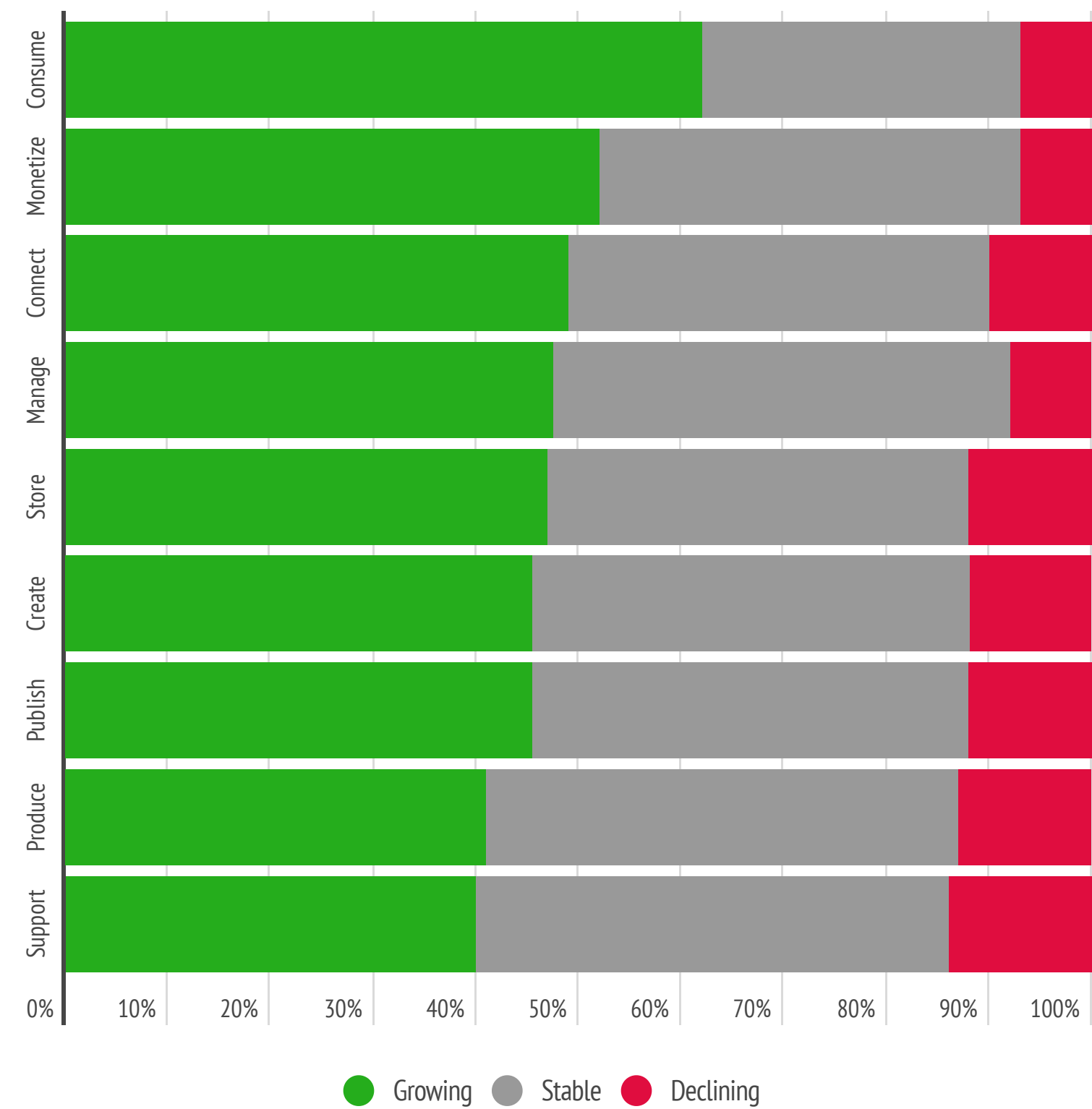
As humans, we crave connections, and the social isolation caused by the pandemic abruptly removed those from our lives. With so much time in our hands, consumption of a variety of entertainment platforms, including television, soared. We used digital as a substitute for physical though we realized soon enough that there was something missing. In most instances, the missing pieces were the interactivity and serendipity of physical encounters. Businesses in different industries realized this and have been doubling down on technology to address these missing pieces since then. This technology blends elements and features from different media sectors, which is why we have been referring to this trend as "media convergence." As an example, we have started seeing sports broadcasters blending gaming, commerce, and betting functionalities in their media experiences after fans were banned from stadiums. In the wider technology industry, the recent emergence of the Metaverse, highlighted by behemoths such as Facebook (now Meta) and Microsoft as the next big thing in tech, might come to represent the ultimate realization of this convergence between different sectors and, most importantly, between physical and digital. As consumers of digital media, we have become more accustomed to navigating media convergence as businesses continue to innovate in this area. In this Briefing, we will focus on what has happened in media and entertainment, and why.

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The endgame of convergence

According to IABM research, Consume remains the top investment segment in the industry, followed by Monetize. The importance of these two segments has been growing as media companies have moved to direct-to-consumer (DTC) platforms, making them their utmost priority. Media companies' investment in these areas is often linked with improving consumer experiences as well as focusing on revenue-generating activities. The increasing demand for interactivity in 2021 has attracted the attention of several media companies for a variety of reasons, but most importantly because interactivity often leads to better consumer engagement, which in turn leads to better customer retention and advertising rates. We can think of this as acting on Consume to drive Monetize or focusing on consumer experiences to generate more DTC dollars.

Content Supply Chain Investment Outlook



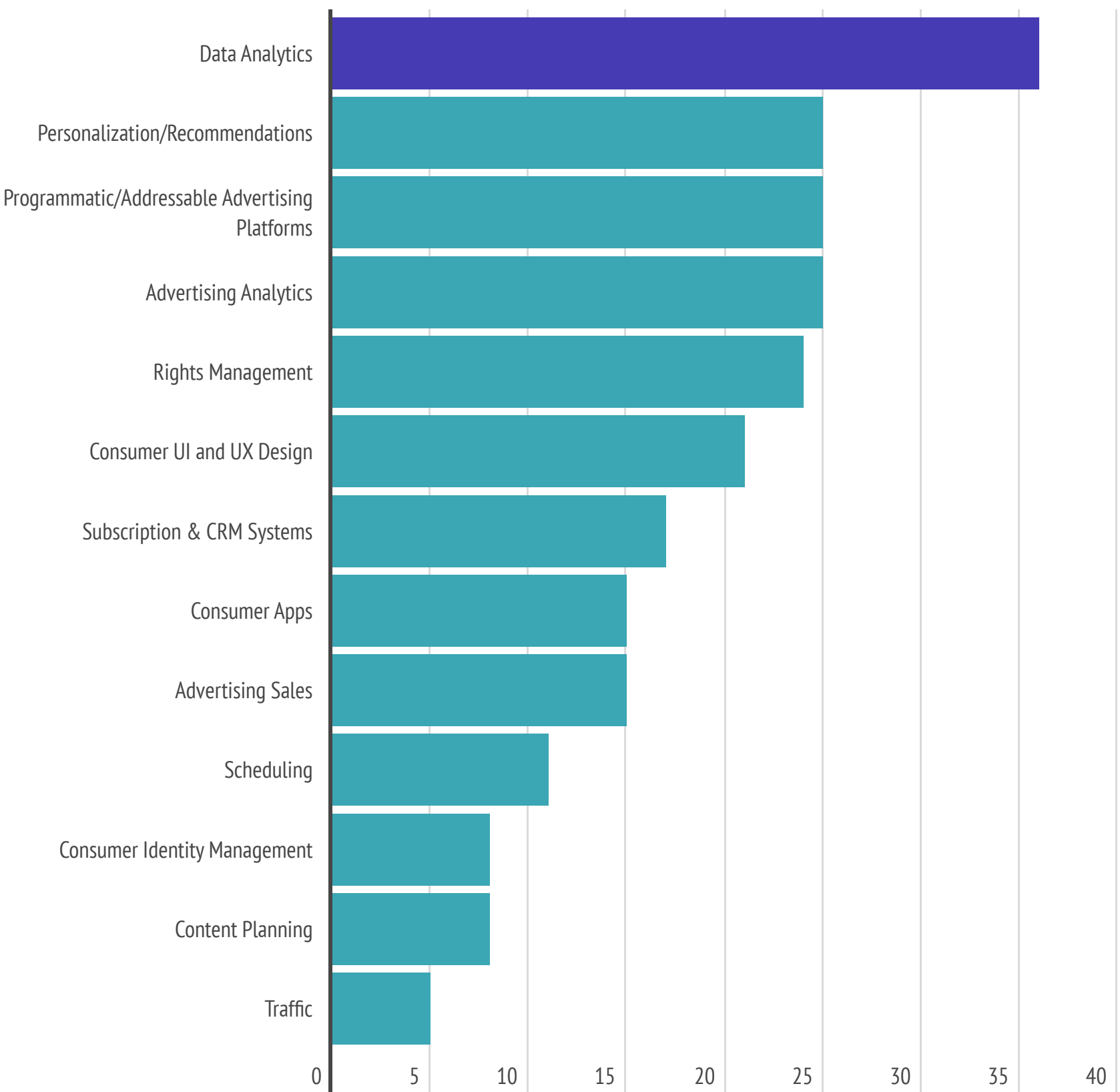
Sources: IABM

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The endgame of convergence

In this sense, the focus on interactivity is consistent with the top investment priorities in the industry, but there's more to this. The top investment area in Monetize and Consume is data analytics, followed by personalization and recommendation systems, programmatic and addressable advertising platforms, and advertising analytics. The prominence of data analytics in this ranking is another important element to consider when analyzing interactivity in media. Interactivity generates granular data on media consumption, and this data can be used to drive personalization as well as commercial efforts. For example, media businesses can give more relevant recommendations based on data, perhaps laying some alternative business models, like betting or e-commerce, on top of that.

Top Investment Areas in Monetize & Consume



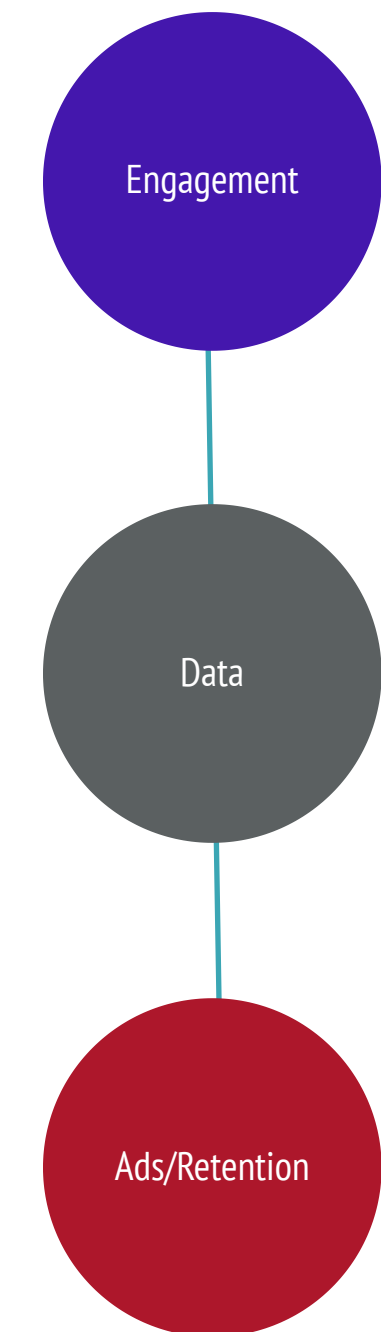
Sources: IABM

Streaming & Interactivity

FuboTV case study

One of the first signs of this interplay between interactivity, consumer experiences, and monetization was FuboTV acquiring Vigtory, a sports betting and interactive gaming platform, in January 2021. FuboTV's CEO David Gandler said of the acquisition: *"We believe online sports wagering is a highly complementary business to our sports-first live TV streaming platform. We believe there is a real flywheel opportunity with streaming video content and interactivity. We not only expect sports wagering to become a new line of business and source of revenue, but we also expect that it will increase user engagement on FuboTV resulting in higher ad monetization, better subscriber retention, and reduced subscriber acquisition costs."* This quote well highlights this interplay and why interactivity is not only nice to have. At the Needham & Co. Technology & Media Conference in May 2021, he also made a comment on the importance of data: *"We are very focused on our ability to manage our data and to analyze and leverage that data in ways that will allow us to find new opportunities... Adding wagering, I'm looking for things we can sell that can add \$10 to \$15 to \$20 of monthly revenue per customer."*

A virtuous cycle



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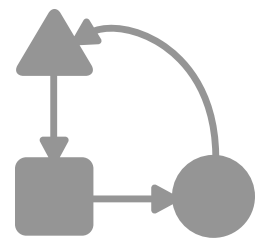
FuboTV case study

Coming back to the first quote, we can see that FuboTV sees betting both as a new line of business and as complementary to its core subscription and advertising models. Therefore, the interplay between data and interactivity not only augments existing business models via data and consumer engagement but also, potentially, creates new revenue streams, by adding new elements in the streaming equation. The latter benefit achieves revenue differentiation, a key objective in a volatile market such as streaming.

Business objectives of media convergence



Augmenting Revenues



Diversifying Revenues

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FuboTV case study

In the second half of 2021, FuboTV acted on its strategy for interactivity as it integrated free games into its streaming platform and, more recently, launched Fubo Sportsbook, a betting service. In the Q3 2021 earnings call, David Gandler said: *"We've been very focused on free-to-play games... We've run a bunch of tests on our CONMEBOL games, and we've seen engagement increase by anywhere between 30% and 40%... And if they're engaging more, as you know, that impacts your advertising sales, and also your attention. So the more that we can get people to stay on the platform, the better."* FuboTV has recently disclosed engagement figures to stress their impact on its commercials. In the Q3 2021 earnings call, FuboTV also announced two acquisitions. Analysts' attention was particularly drawn by the acquisition of Molotov, a French live streaming business that boasts nearly 4m monthly active users in its local market, as it signaled an international expansion. While David Gandler acknowledged the importance of their global ambitions, he highlighted the key role of technology, and technology talent, as a driver behind the acquisition: *"Molotov has a very, very strong team of 100 plus [engineers]... And so there's an alignment of technology and infrastructure, tooling, and also obviously, the operational model... And that should really improve development velocity."* Although this leads us a bit off-topic, it makes us understand the importance of technology talent and velocity in the streaming world.

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FuboTV case study

The other acquisition made by FuboTV brings us right back to the interplay between data and interactivity in streaming. David Gandler said about this: *"We are thrilled to announce the acquisition of Edisn.ai. Edisn.ai is an AI-powered computer vision platform with patent-pending video recognition technologies based in Bangalore, India. With Edisn.ai, we will be able to create new experiences that integrate interactivity and data directly within our live TV feeds, pushing the boundaries of innovation even further. The acquisition also expands our data science and engineering organization globally."* Note the additional remark on engineering talent as before, when justifying the other acquisition. He also said: *"I also wouldn't overlook the Edisn.ai transaction because it is transformational. I don't think people really understand how transformational computer vision really is. You can track players...extract metadata from live, real-time video, and really leverage that across advertising, across product sales, across everything that we do."* Again, it is really about extracting data from video in real-time to drive experiences and monetization. Also, this again makes us appreciate the importance of technology and innovation in today's streaming landscape. This is not an isolated phenomenon as other media businesses, in sports and other media sectors, have been doubling down on technology, data, and interactivity.

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Other live sports initiatives, and the e-commerce element

Other sports organizations that have recently invested in interactivity include Sinclair and Fox, who have been working on gamification and betting. More recently, in November 2021, DAZN announced the launch of a new innovation hub, DAZN X. The company said: *"DAZN X was born out of DAZN Group's acquisition of video streaming innovation company TEXEL... This acquisition will fast-track DAZN's ability to take the fan experience to the next level. DAZN X will focus on developing interactive and engaging content layers for fans as part of DAZN's sports streaming service. DAZN subscribers will soon be able to talk, share, shop, and play with their friends and communities while live streaming premium sports content."* This is in line with what we have been arguing thus far, with the addition of the "shop" element that could represent an additional revenue stream, akin to betting in FuboTV's case. Other broadcasters have started exploring e-commerce for revenue differentiation. For example, NBCU announced in November 2021 that it would launch a live show on Instagram allowing users *"to buy clothing, home decor and other products featured in the program."* Social media platforms such as TikTok, Snap, and Meta have all announced plans to enable commerce in live streams, sometimes relying on immersive technologies such as VR and AR to allow consumers to try items virtually; while Meta plans on immersive are well-known, Snap has been experimenting with AR for this use case.

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Not just live

It is important to note that while media convergence is first invading live sectors in media, it is starting to affect non-live as well. Netflix hired former Facebook and EA executive Mike Verdu as VP of game development in July 2021. While this move aims to develop a gaming offering as part of Netflix's subscription packages, the company may also rely on gamification to drive other elements of its platform, like content and user experience, as it did with the movie Bandersnatch in 2018. Netflix announced the launch of a range of new games with a blog post in November 2021 - these games are initially available only on Android mobile devices. These games are included in the Netflix subscription and aim to strengthen the branding of the streamer's content, but also act as a complementary tool to improve consumer engagement and retention at a time when developed streaming markets are saturating.



Streaming & Interactivity

The impact on technology

In our Briefing on Content Distribution & Monetization, we also argued that media technology business models were becoming more aligned with media businesses' revenue-generating activities, citing Harmonic as an example of this. We also reported a quote from Edward McGowan, Akamai's CFO, who said about the relationship between CDN technology revenues and consumer engagement in June 2021: *"There's not a direct correlation [of business success] to the number of subscribers per se. Think of it more of like the gym membership. We might have 5,000 people show up at the gym, but only 2,000 go on a regular basis. We make more money off of people that go on a regular basis... So the greater the adoption, the longer engagement times, that's generally beneficial for the CDN providers."* We argued that if consumer engagement was also driving technology revenues in Opex-based models, and not just media business models, there was an important alignment between customer and supplier success in this area. Suppliers operating in this part of the industry may therefore be incentivized to develop interactive solutions for their customers. And it is not just about distributing content, but also about the content itself. In fact, this trend is driving and may continue to drive spending on content creation and production technology to generate interactive experiences, as we have reported in our Content Chain Trends report - Vimeo acquired Wirewax at the time of the writing.

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The impact on technology

As a final example of the impact of this trend on technology, Brightcove announced its acquisition of HapYak, an interactive technology, in October 2021. The company acquired the technology from Newsela, an instructional content platform. In the press release, the company said: *"With the integration of the HapYak technology, Brightcove users can quickly and easily incorporate interactivity into virtually any video, including clickable hotspots, quizzes, shopping cart purchases, personalization, choose-your-own-adventure paths, and a variety of calls to action (e.g., buy now, subscribe, download). The technology will also enable marketers, HR, corporate training departments, and sales teams to track viewer actions and sentiment and to personalize customer journeys in entirely new ways."* Brightcove bought this technology from a player operating in the education sector - this really speaks loudly about technology convergence - to boost its interactive solutions in an effort to follow customer demand. Brightcove is also targeting adjacent markets with this, consistent with the pervasive democratization of media technology. In its Special Call with investors in October 2021, Brightcove's Chief Data Officer, Patrick Wagstrom, also hinted at their data analytics strategy: *"It's getting to the point now where this information can be used to create rich experiences around advertising. So clickable media, shoppable media, for example, where if you see something in a program, you might want to be able to click on it."*

Streaming & Interactivity

The role of blockchain in commerce and the metaverse

In our Briefing on Content Distribution & Monetization, we also talked about the role of blockchain in enabling these interactive, shoppable experiences. This is founded on the potential of non-fungible tokens (NFTs) - interested readers will be able to have a look at our upcoming Blockchain report to find out more about NFTs. Michelle Munson, founder and CEO of Eluvio, recently explained to IBC 365 why NFTs can act as catalysts for increasing engagement: *"If I'm a fan of a TV show the game of collecting tokens can excite me to be part of the whole experience over the duration of a season. If I collect this token with the first episode toward a goal that is integrated into the storyline I will watch every episode in that season and I might also become a superfan to influence others online. This is a clear-cut example of tokens driving fan engagement through gamification."* Our objective here is not to analyze NFTs in-depth but rather highlight that some of the objectives of these initiatives are in line with what we have been discussing so far about media convergence. Coming back to the Metaverse, Meta's CEO Mark Zuckerberg mentioned commerce when providing a business case for the investment in the company's Q3 2021 earnings call: *"If you're in the metaverse every day, then you'll need digital clothes and digital tools and different experiences. Our goal is to help the metaverse reach 1 billion people and hundreds of billions of dollars of digital commerce a day."* He also mentioned that their Metaverse would support NFTs.

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Conclusion

This Briefing has shed some light on the interactive initiatives in the media and entertainment industry, positioning them as part of a wider trend in the technology sector. In our upcoming BaM Live!™ IBC Special Edition focused on *Evolving Media Economics*, we will examine these topics in some content tracks of the day (including "*Digital Economics: From Ad Tech to Churn Management*" and "*Vision for Future Media Business Models: Blockchain, Commerce & Content Marketplaces*"). We look forward to seeing you all there - whether "there" is Amsterdam or our BaMZone™ digital platform!

