

## Evolution in media supply chain:

### Adapting to post-COVID content production and distribution

The media and entertainment industry is one of the most frequently disrupted industries, with content consumption expected to persistently rise fueled by cross-industry innovations like autonomous vehicles, seamless one-click shopping, digital assistance, virtual reality, 5G adoption, and more. Media companies are under constant pressure to evolve and become more efficient. [The latest trends](#) are forcing traditional studios to invest in their supply chain to produce and deliver content to consumption platforms in constantly changing formats. This added investment behind the next evolution of the supply chain is increasingly important as churn rates for paid streaming services remain high, especially among younger generations. Younger generations are also prone to move among streaming services, with about 38% of US millennials cancelling and resubscribing to streaming services within 12 months. A key driver of this mobility is availability of the content they want to watch.

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Figure 1

**Younger generations are also prone to cancelling and then resubscribing**

Cancels and then renews paid streaming video service within the last 12 months (percentage consumers)

	Generation Z	Millennials	Generation X	Boomers + Matures
US <b>25%</b>	35	38	28	7
Brazil <b>33%</b>	42	39	31	21
UK <b>23%</b>	44	33	23	6
Germany <b>19%</b>	38	34	16	6
Japan <b>12%</b>	24	20	11	4

Notes: N (All US consumers)=2,000; (All Brazil consumers) = 1,000; (All UK consumers) = 1,002; (All Germany consumers) = 1,002; (All Japan consumers) = 1,000.  
Source: Digital media trends, 16th edition (March 2022)

**\*Note: [Click here.](#)**

The amount of content produced is growing year over year and shows no signs of slowing down. The world of increased consumer power and hyper-personalization requires content in the right form, to the right device, and at the right time, unlike traditional distribution to theaters and broadcast networks. This increase in consumer power requires the ability to create content faster and manage it in a well-organized structure with the option to make it available quickly as needed. Studios can turn to large cloud solutions in improving the media supply chain.

Cloud studios are a way of operating that helps creative talent ramp up quickly and easily collaborate in a secure fashion. In a post COVID world, the ability to have continuous content production is significantly more important. Cloud studio solutions are specifically targeted towards media and entertainment companies to conduct creative collaboration. These solutions can be entirely cloud-based or a hybrid extension to a company's current creative production capabilities.

Figure 2

**Consumers are faced with many entertainment demands**

Percentage of respondents who:

**Use social media**



**Subscribe to a paid video streaming service**



**Are frequent or occasional gamers**



Source: Deloitte Media Trends Survey 2021

Produced content is brought to life through collaboration among many teams across different geographies. From production to distribution, there are several steps that involve global talent. The pandemic forced us to work remotely, and the remote work trend is largely here to stay. Modern produced content has a varying magnitude of visual effects, localization (e.g., closed captioning), and multi-language audio dubbing. With the adoption of virtual production, creative visual effects collaboration is often happening before production even begins, throughout production, and during post-production. Studios engage with specialized talent and vendors distributed geographically with tasks performed on individual workstations, which can present delays and security risks.

New, original content is one of the most important means of subscriber retention. It's very important studios ensure that content production is always on track and on time. In the current model, it's difficult to pinpoint any risks around task completion in a timely manner and difficult to scale teams because there's typically a ramp-up time involved with adding creators to ongoing content production activity. Studios are actively evaluating the media supply chain to improve transparency and efficiency to ensure quality, on-time content production that leverages modern technologies.

Figure 3

### **A dance between cost, content, and ad-tolerance**

Top reasons consumers would subscribe to a brand-new paid streaming video service

## COST

**The subscription cost was low enough**

46%

**It offered a free trial or discounted rate**

28%

## CONTENT

**To watch a broad range of content**

35%

**To watch content related to my interests not available anywhere else**

33%

**To watch new, original content produced by the streaming video service**

32%

**To watch previously released content not available anywhere else**

24%

**To watch live sports content**

15%

Source: Digital media trends, 15th edition.

There are three key challenges along the media supply chain, which already existed pre-pandemic but continue to present roadblocks:

**1. Ability to track content along every step of the media supply chain**

Creative content is being produced for virtual production, postproduction, marketing, and ultimately distribution. Throughout the process, it's crucial to track not only the progress of the content, but also the quality. Doing so can minimize delays and costs.

**2. Ability to securely share and manage content worked on by global talents—including external vendors—with minimal custodial risks**

The cost of leaked content is expensive. Investigation and remediation costs are present beyond the brand, as well as sales risks. With content passing through so many creators, it's important to ensure secure content sharing.

**3. Organizing content and metadata in the right structure**

Content production undergoes a heavy evaluation process to test different content types. Even beyond distribution, modern content continues to live in the form of experiences among fans and on streaming platforms. Studios need to continuously market content in different venues, requiring the ability to surface and reuse different formats of content easily, which can reduce both the risk and costs of rework.

Traditionally, studios sequentially delivered content to fewer channels. Today, studios need to create different content formats and delivered to more channels—often simultaneously. These challenges are more accentuated with COVID-19, where creative talent per location went from a few creators to sometimes just one.

Throughout the pandemic, content production was among the worst hit areas. At the same time, average household streaming subscriptions increased. Challenges around keeping content engaging were not only felt in large studios making films and television shows, but also among daily cable TV shows. Cloud-based production was a concept explored even before the pandemic as to address some of the manual activities along the media supply chain. During the pandemic, it became very apparent that cloud-based production was crucial. In the postpandemic era, talent will likely continue to be distributed more than ever. With the pandemic subsiding in the US, production of content is normalizing, but the traditional challenges along the media supply chain are more accentuated than before.

Cloud providers are taking the lead in offering cloud studios that enable global creative collaboration in content production, thus improving the adaptability of the media supply chain to meet future needs. Remote workstations for global talent can provide the ability to collaborate safely, seamlessly, and securely on the cloud. These workstations can provide a significant positive impact on the media supply chain. The ability to leverage cloud-based render farms or hybrid render farms can provide a significant level of scalability, which can encourage content producers to consider cloud studios for future productions.

Traditionally, media companies used cloud solutions to manage content storage and delivery. There's been some low-fidelity creative collaboration recently, especially around creative content review, feedback, and approval. The pandemic forced media companies to rethink how content can be created virtually. One of the largest efforts in producing content is visual effects and localization. Cloud solutions that securely perform these activities can significantly improve remote collaboration in content creation, minimize custodial risk, and standardize content storage.

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Here are some of key benefits of cloud studio in the media supply chain:

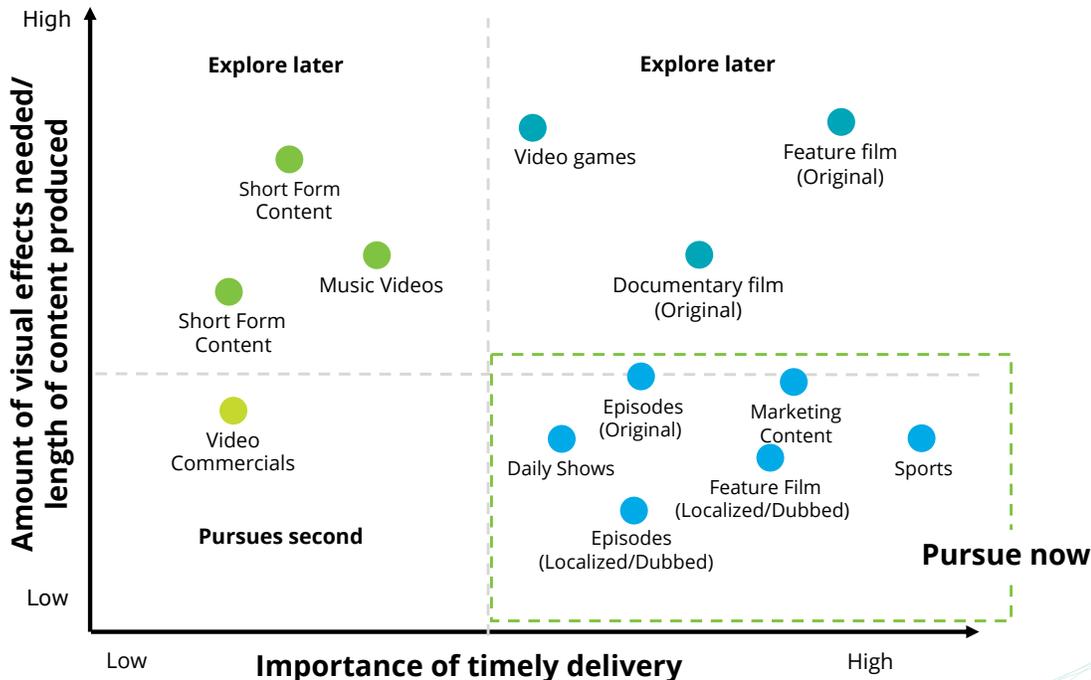
1. **Real time view of content production:** A real-time view provides the ability to track the progress of content during pre-production, production, and postproduction visual effects across multiple creators and vendors.
2. **Secure sharing of creative content:** Secure sharing on the cloud can minimize the work done on individual workstations, especially since more workstations are connecting to home and public wireless internet<sup>1</sup>. In the remote work environment, there's an increased risk of data breaches.
3. **Creative continuity:** Continuity can mitigate human risk. In the event of impediments, content is readily available on the cloud for other team members to continue the work instead of starting from scratch.
4. **Increased audit and assurance security:** With added security comes minimal custodial risks. As advanced safety and security measures in place, technology upgrades are easier to deploy on virtual workstations.
5. **Accurate metadata:** More accurate tagging can ensure content hierarchy is well established for future reference. This includes main production content (virtual sets content, production content including extra scenes, alternate endings) and associated marketing content.

While cloud studio is applicable to full scale content production, it provides the most benefit in small-scale content collaborations as a starting point before it can be used for large-scale content production that heavily depends on tailored production lifecycles adopted by the studio.

Most new technology adoptions start small to first demonstrate business benefits. To adopt cloud-based studios, we anticipate media companies requiring highly distributed collaboration with minimal visual effect needs. As cloud infrastructure, computing speeds, and 5G network mature, we anticipate wider adoption of cloud workstations and creative collaboration, even in large-scale, animated feature films. Still, this is at least several years away.

Figure 4

**Different media sub-sector’s relevancy to adopt cloud studio capabilities**



Immediate application of cloud studios will be in post-production marketing and distribution planning and operations where the importance of timely delivery is key as there are minimal visual effects needed.

The nature of creative studio activities (e.g., post-production effects) involve trusting distributed talent, even outside of the production studio. Enabling this global talent on a secure cloud studio solution can help media companies to protect the content and ensure the timely, high-quality delivery.

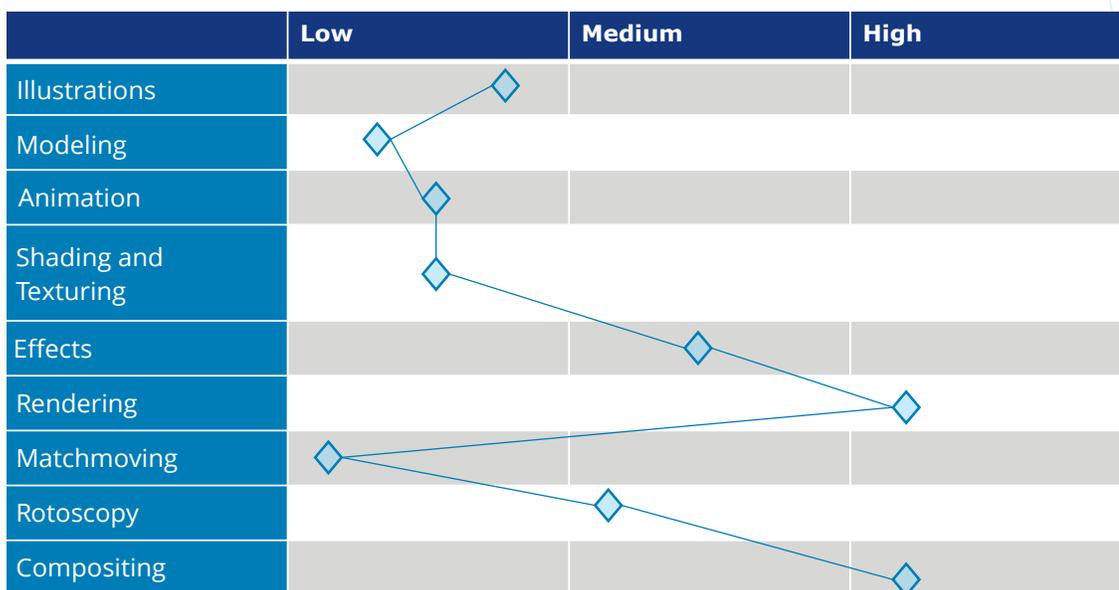
The most valuable area of benefit will be in areas like virtual production. The nature of preparing virtual production content requires distributed talent capturing and sharing content with central or distributed visual effects teams. In turn, the effects teams can prepare content for secure review by central or distributed production teams. The distributed nature of this virtual production activity reduces time spent uploading and downloading content, so more time can be spent iterating on the content to ensure production continuity. With access to high-speed internet becoming more common, adoption of cloud studios for virtual production seems to be a great fit.

There are two key challenges to note with adoption of cloud studios beyond the availability of high-speed internet:

- 1. Unique and complex content production processes:** Hyperscaled cloud providers traditionally offer solutions to automate standardized processes within a given industry. Given the unique and complex content production processes, there's a need for significant customization of cloud studios in order for media companies to operate smoothly. Industry-wide emphasis on supply chain efficiency and profitability from subscription platforms can drive standardization of processes and technologies in the content production lifecycle. Simultaneously, cloud hyperscalers are becoming more comfortable with supporting unique processes within their ecosystem to capture broader market share. This convergence will lend itself to adoption of cloud studios with hyperscale operating models.
- 2. Availability of different visual effects solutions within cloud studios:** A key enabler for creative talent to adopt cloud studio is minimizing change in their environment. Today, there are different studios using different visual effects software solutions at each of the following steps: modeling, animation, shading and texturing, effects, rendering, matchmaking, rotoscoping, and compositing.

Figure 5

**Cloud studio maturity by studio functions**



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Some of the commonly used software solutions still aren't available cloud compatible, requiring some effort from studios and content producers to setup the required software over cloud and stand up remote workstations for creative talent. With cloud adoption among media and entertainment companies accelerating and broader availability of visualization capabilities, cloud studio adoption will continue to grow and pave the way for securely produced content.

Even if a media and entertainment company isn't looking to collaborate over cloud immediately, it's important to start exploring proof of concept options for widespread adoption in the near term. With virtual production and sets growing in popularity, making a case for cloud studio adoption can yield valuable business benefits. Adoption of technology solutions that provide transparency and efficiency along the media supply chain is key for studios to meet ever-changing consumer needs.

**If you're interested in starting or continuing your cloud journey to achieve new levels of efficiency along the digital media supply chain, give us a shout.**

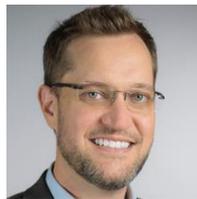
## Endnotes

1. <https://www2.deloitte.com/ch/en/pages/risk/articles/impact-covid-cybersecurity.html>

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