



# IMPROVING REVENUES WITH MULTI-CHANNEL DIGITAL DISTRIBUTION ON THE CLOUD



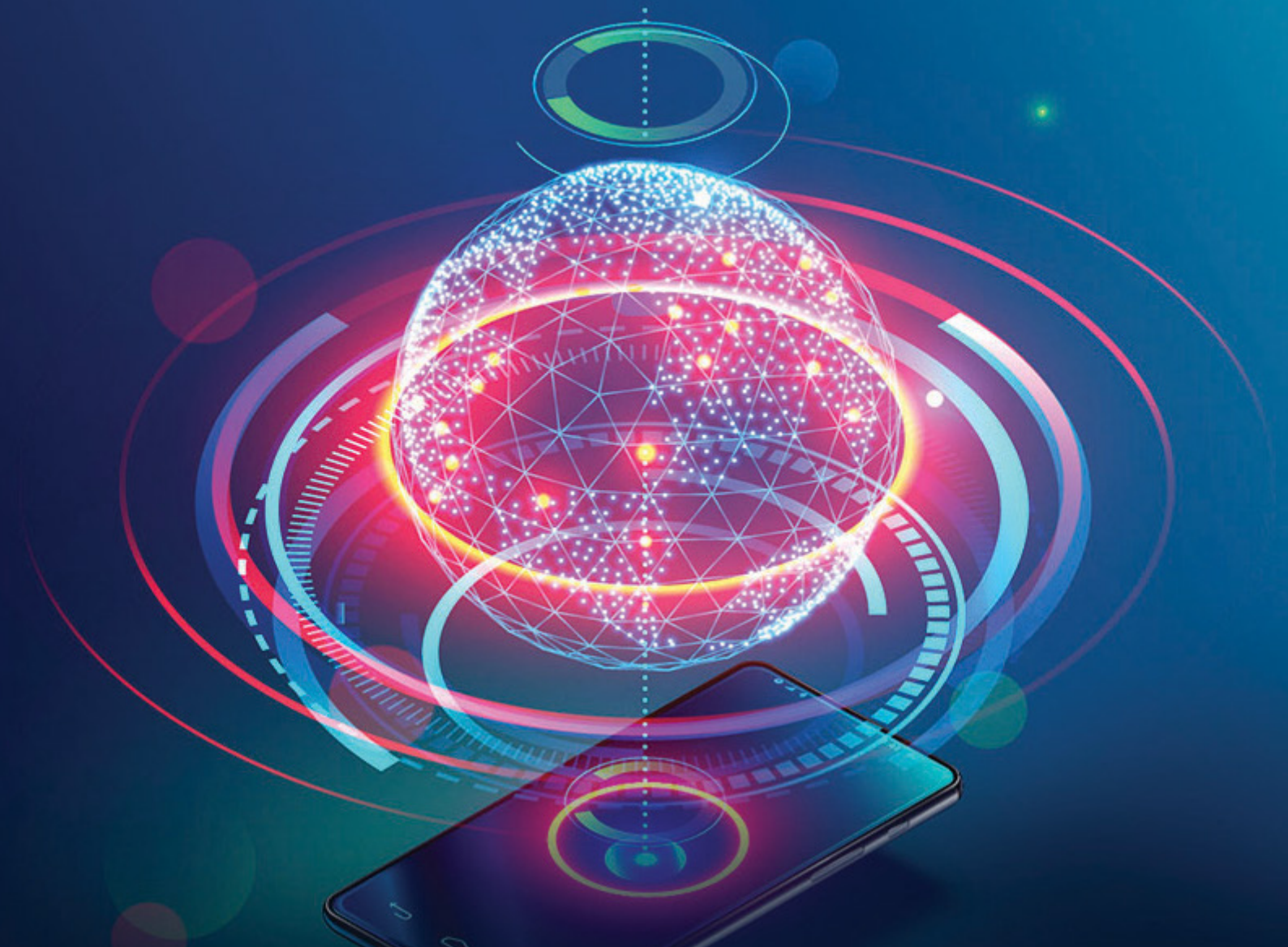
**Skyler Mattson**  
President, WONGDOODY

**Mukaddim Pathan**  
Head of OTT Engineering and Apps, Sling TV DISH Network

**Anand Swaminathan**  
EVP & Global Industry Leader - Communications, Media and Technology, Infosys

**Anant Adya**  
SVP and Business Head - Cloud, Infrastructure & Security Services, Infosys

**Buzz Hays**  
Global Industry Leader - Media & Entertainment, Google Cloud



# RICHER, FASTER CURATION

## CAN HELP STUDIOS MAKE THE MOST FROM THE LOCKDOWN STREAMING BOOM

In addition to the universal disruptions that came with 2020, media and entertainment businesses confronted a unique set of paradoxes:



Audiences are starving for entertainment, but limited in ways they can enjoy it.



Studios and streaming services serve up an abundance of content, but users can only access that content using fragmented, frustrating recommendation systems.



Subscribers have never streamed so much and never had more choice in streaming options, but they don't want to spend more for more choices.

# A SERVICE MUST DELIVER THE PROPER TYPE OF CONTENT, A GOOD USER EXPERIENCE, AND A COST THAT RESONATES WITH THE CUSTOMER

The average US household has a stingy \$21 per month budget for streaming services, according to research from Morningconsult survey. Services that don't differentiate themselves are not going to get a portion of that \$21, said Mukaddim Pathan, head of over-the-top engineering and apps at Sling TV Dish Network.

To win a share, a service must deliver the proper type of content, a good user experience, and a cost that resonates with the customer, he said. Just as the pandemic accelerated technology changes in all realms, the challenge of continuously delivering those three demands will grow. As users consume more and more content, yesterday's state-of-the-art quickly becomes tomorrow's minimum requirements.

Fortunately, the same cloud computing infrastructure that enables viewers to pour hour after hour of content into their eyes and ears gives media companies the tools to keep ahead of those demands. When properly harnessed, cloud systems can go further and serve as a platform to resolve those paradoxes.

**\$21** Average **streaming service** budget for US household per month

\*Research from Morningconsult survey

## A platform to resolve the paradoxes

To be sure, a media cloud platform won't solve the Covid-19 pandemic, but pandemic-related disruptions create an opportunity for media companies across the value chain the opportunity to re-orient their practices and systems to cloud infrastructure, applications and platforms.

Traditionally, production methods and technology has evolved slowly in the media production business in large part because there's never a pause in production activity, said Buzz Hays, media and entertainment industry leader for Google Cloud Platform.

Hollywood's studio model of centralized and integrated production faded in the late 1940s and gave way to a system of many independent contractors collaborating to create entertainment. That decentralization means that media companies spend a great

deal of time and energy moving large amounts of data between those independent groups and keeping tabs on proper versions, Hays said.

Now, with a pandemic-driven production pause and the development of robust cloud infrastructure, applications and platforms, sets the scene for a rapid change

"Cloud is giving us an opportunity to bring the good parts of the early Hollywood studio system back together," Hays said.

Shifting the media value chain into the cloud does require a culture shift and the buy-in of many individuals and companies, he said.

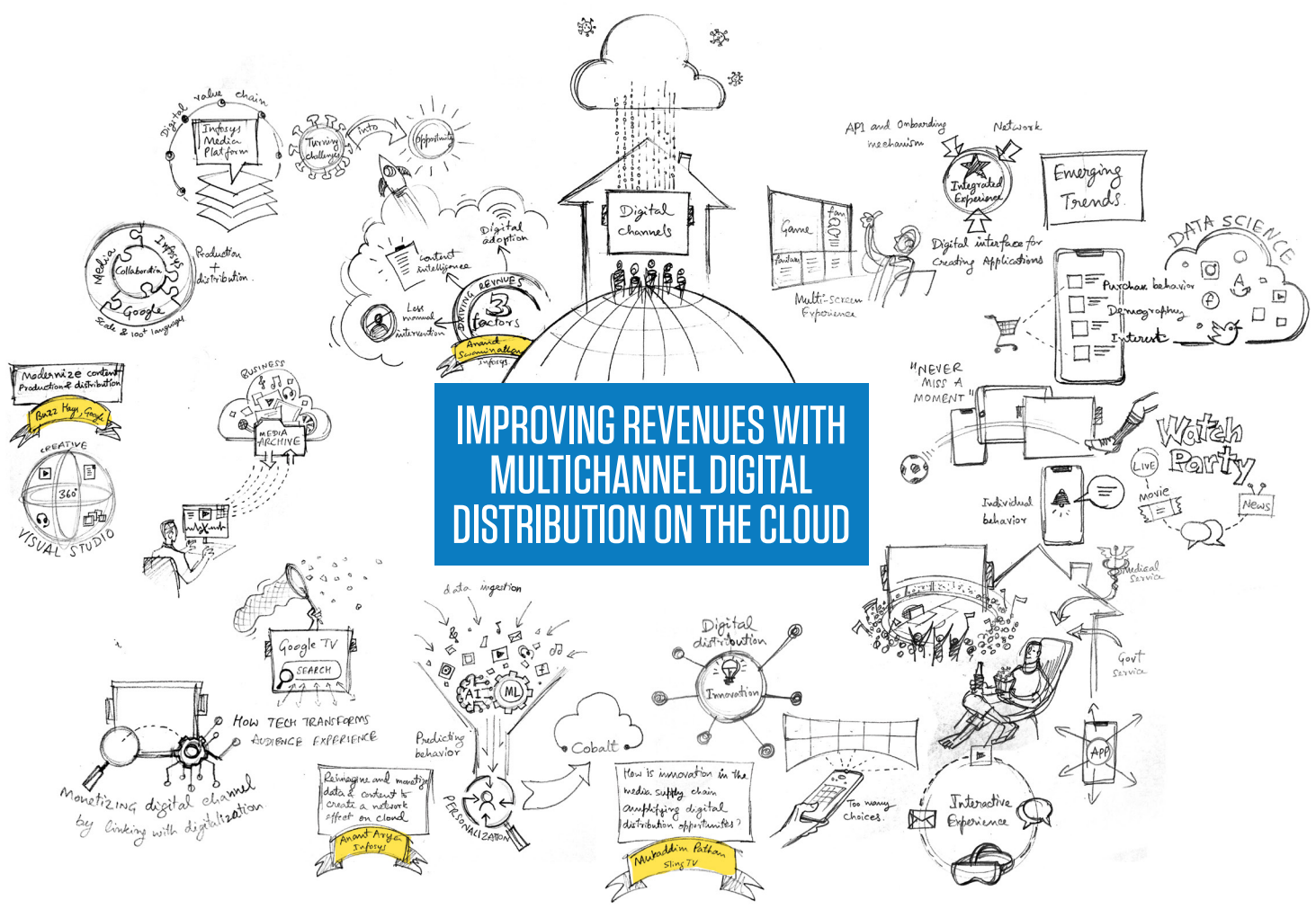
And while virtual studio models had been discussed, they never had been widely embraced, probably because of the constant production activity. But now that people

have been forced into a virtual studio model, they are finding they prefer it, Hays said.



While technology transformation is at the center of this change, Hays said it is important to remember that technology plays a supporting role in the creative industry. "Hopefully, because of COVID, we've created a centralized way of working where people can collaborate and they have a single source of truth of all the data that lives in a secure place in the cloud. But the experience of the creatives who are trying to make thousands of decisions every day on how to tell these stories can't be impeded by progress bars and by wrong files."





# IMPROVING REVENUES WITH MULTICHANNEL DIGITAL DISTRIBUTION ON THE CLOUD



## INFOSYS'

-  ➔ Orchestrating platform
-  ➔ Smart workflow systems

## GOOGLE'S

-  ➔ Artificial intelligence capabilities
-  ➔ Cloud computing

Virtual studio production also creates efficiency benefits for post-production and distribution phases, and can further accelerate the pace for delivery content. This is something Infosys discovered as it worked with Warner Bros. to digitize its production and distribution activities, said Anand Swaminathan, executive vice president and global communications media and technology industry leader.

The platform expanded organically into something that supports the whole value chain, Swaminathan said. That process involved bringing together a number of parties and looking for ways to optimize and automate processes that had previously been heavily manual and replacing the manual steps with with smart workflow-based supply chain transformation..

“All of this is possible only if you can get rid of the manual interventions in the whole production and distribution value chain. And truly digitize, and that’s where I think there is a big opportunity,” he said.

After completing work with one client, Swaminathan said his team was looking for ways to scale it up. That led to partnering with Google Cloud Platform.

Combining Infosys’ orchestrating platform and smart workflow systems with Google’s artificial intelligence capabilities and cloud computing gives media and entertainment businesses access to an end-to-end virtual studio. On the surface, this allows for frictionless collaboration. On a deeper level, the virtual studio delivers richly detailed metadata and cues that can be leveraged by content creators and media companies to connect audiences with content, better understand audiences, distribute content more quickly and widely, summon relevant advertising experiences, create better content and increase revenue.



## Mining and digitizing archives

In addition to enriching and accelerating current production, a virtual studio system on the cloud can accelerate digitization of media archives. These studios have enormous catalogs, much of it in analog formats. Up until 2020, studios had not been very interested in monetizing those archives because of all their new production, Hays said.

“Companies are now starting to look back in the archives to see, “Is there anything here we can actually monetize,” he said. “The problem is most of that material is not in any condition to be distributed.”

Further studios need to figure out what’s in the catalog, and whether it would have an audience. That’s where artificial intelligence and machine learning can rapidly gather metadata on what’s in the media being digitized. Executives can then work from that automated metadata to determine if there’s

something to distribute. Content suitable for distribution Studios can further enhance the content by leveraging the localization features like such as automated content moderation and multi-lingual subtitling to reach a global audience with a reduced time to market more rapidly.

Hays said a number of media companies are experimenting with digitizing seasons of old TV shows and loading them on streaming services to see if there’s an audience. If there is, they can go back and find more of that to stream.



**“Further studios need to figure out what’s in the catalog, and whether it would have an audience. That’s where artificial intelligence and machine learning can rapidly gather metadata on what’s in the media being digitized. To win a share, a service must deliver the proper type of content, a good user experience, and a cost that resonates with the customer”**



## Overcoming the abundance problem

Even before studios began mining their archives, the proliferation of over-the-top streaming services fueled an explosion in available digital content that has users struggling to find what they might actually want to watch.

“We’re buried in a sea of too many choices,” said Hays, a movie and television producer before joining Google. “Trying to make those choices easy and obvious is part of the challenge. We have to get to this world where the choices are available to people and they can actually see them within a click or two.”

To deliver that level of personalization, media companies must build richer metadata and better curated collections

of digital content. Artificial intelligence and improved machine learning, as described in the archival work can do the heavy lifting of enriching metadata in the production environment. Instead of manually scanning for scene cuts to log commercial insertion points, a virtual studio system can automatically collect that information during the editing process of an episode or film. Also on the production side, AI-driven “time coalescence” can deliver content intelligence and metadata enrichment of scenes and shots with frame-by-frame accuracy. Time coalescence involves the composite indexing of multiple native AI-driven video and audio recognition signals and correlation of their outputs.

Automated systems on the distribution side can continue to add to the metadata trove. Combined, richer production and distribution datapoints can inform audience feedback loops, give production insights and overcome the abundance problem.

Sling TV Dish Network’s Pathan said the company has added to its streaming experience by mimicking a stadium or theater experience through its Watch Party feature. The feature (virtually) brings people together to watch video together, adding a chat interface and build deeper engagement.

He said Sling is looking for ways to bring in content providers and application providers to that experience as well.







## Close collaboration builds richer experience

Richer metadata, collected via artificial intelligence, machine learning and automation is the binding force that will allow media companies to deliver the right content and better experiences to their viewers and listeners.

But that richer metadata and the refined curation it brings can only happen when media and entertainment companies collaborate closely across the full value

chain, from production to distribution and around to user experience.

A virtual studio and cloud-based media platforms enable close collaboration in natural, convenient ways that couldn't be accomplished in on-premises, pre-pandemic, siloed arrangement.



### BINDING FORCE TO THE RIGHT CONTENT AND BETTER EXPERIENCES

- Richer metadata
- Collected via artificial intelligence
- Machine learning
- Automation

For more information, contact [askus@infosys.com](mailto:askus@infosys.com)



© 2020 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.