SUMMIT REPORT

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INDUSTRY OVERVIEW

POWERFUL FORCES SHAPE VIDEO ECONOMICS

The impact of 5G, evolving telco strategies, online gaming and Android TV.

Aravind Venugopal, VP, Media Partners Asia

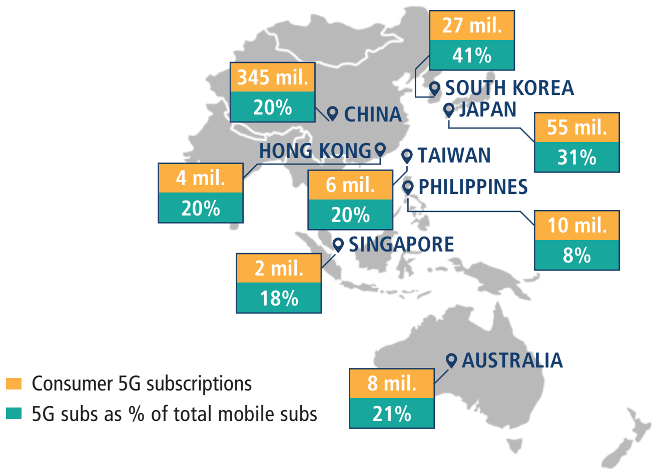
Wide-scale investment and innovation is rerouting revenue and profits across the Asia Pacific video industry, often in unpredictable ways, keeping incumbents and challengers alike on their toes. **Aravind Venugopal, VP, Media Partners Asia**, shone the spotlight on four major drivers poised to reshape industry economics in his opening presentation for APOStech 2018: (1) The advent of 5G, as commercial services start rolling out across much of APAC in 2019; (2) The influence of telcos on how the landscape develops and grows, especially in India and Southeast Asia; (3) The role of gaming, already a US$60 bil.-plus sector in Asia, in emerging digital ecosystems; (4) Google's heightened prominence and sway, as more operators sign up with Android TV.

These four themes, all interconnected, reflect ongoing technological convergence as previously distinct categories and services start to overlap, a trend that will become even more pronounced as seamless connectivity becomes a reality. This impacts broadband economics too. While demand for online video, a familiar concept for anyone who has watched TV, supported 4G rollouts across the region, 5G will likely need a diverse range of applications from both businesses and consumers – including some that have little visibility today – to make commercial sense. The role video plays in this transition emerged as a key talking point at this year's APOStech.

Video remains central in 5G deployments for now with home connectivity via fixed wireless – an alternative and rival to fiber – an early focus for telecoms companies ranging from Verizon in the US, the first telco worldwide to launch a commercial 5G service, to Globe in the Philippines, an APOStech keynote, which plans to start selling fixed wireless services over 5G in 2019. The 5G consumer base will build gradually across APAC to reach 450 mil. subs by 2023, with just over 100 mil. outside China, according to MPA projections Venugopal presented at APOStech. MPA forecasts show the biggest advances in reach taking place in Korea, where 41% of mobile subscriptions will be on 5G by 2023, followed by Japan with 31% penetration, representing a 5G base of 27 mil. and 55 mil. subs respectively. By comparison, the Philippines should have 10 mil. 5G subs by 2023, the same as Australia and Singapore combined, although less prevalent at about 8% of mobile subs, compared with 21% penetration for Australia and 18% for Singapore.

"Not all markets are equally positioned to ramp up when it comes 5G," Venugopal said. "Some markets haven't completed 5G spectrum auctions. Regulators in Thailand, Hong Kong and

CHINA, JAPAN, KOREA TO LEAD 5G DEPLOYMENT
Projected subs and mobile penetration for 5G, 2023



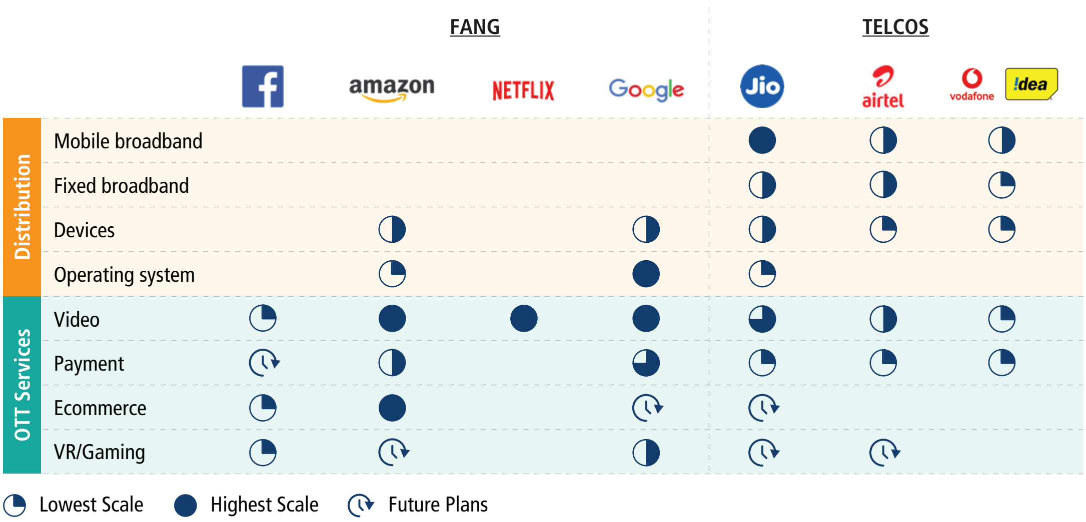
Source: Media Partners Asia

a couple of other markets are still looking at 5G as a conundrum. They need to figure out how to work with satellite operators, telcos and terrestrial broadcasters on where that spectrum sits, how to make sure that spectrum is sold as a decent price. The second issue is that 5G could literally be make or break. It is a very capex-intensive business. If telcos can't make the money from consumers, where will it come from?"

Broadband's open nature represents a step-change for telcos used to running closed networks, prompting an ongoing and often difficult business transition. The future, especially for mobile-first markets, is already playing out in India, where industry evolution has dramatically accelerated following the arrival of disruptive new entrant Reliance Jio, which has spent billions on infrastructure and services – including generous consumer subsidies – to construct its own end-to-end ecosystem. Rivals Airtel and newly merged Vodafone-Idea are scaling up in response. "In India, the telcos are looking at what the Fang companies are doing and seeing if they can take them on in their own markets," Venugopal said. The Fang cohort (Facebook, Amazon, Netflix and Google) represents the world's biggest providers of over-the-top (OTT) services, who are making a fortune by monetizing consumer attention on telco networks. Apple, with its own lucrative services business, is sometimes included too. "Where Fang depends on telcos is for wireless and wireline solutions," Venugopal added. "What Jio, Airtel and Vodafone are also starting to do now is get into the device ecosystem, get into ecommerce, everything that the Fang companies had previously built on. It's not about reach and carrier billing any more. It's much more than that."

One particular area of interest for Asian telcos is online gaming, a major driver of data consumption alongside video in many growth markets. As more people get their hands on a smartphone, the online gaming industry is a major beneficiary, further stoking consumer demand with an increasingly diverse range of mobile offerings from casual games designed for on-the-go distraction to more hardcore options – including esports – that had previously been mainly played on PC. Online gaming is already a US$70-80 bil. business in APAC, mostly from China, Korea and Japan today.

INDIAN TELCOS WELL PLACED TO CHALLENGE FANG DOMINANCE
Comparison of activity across TMT value chain in India

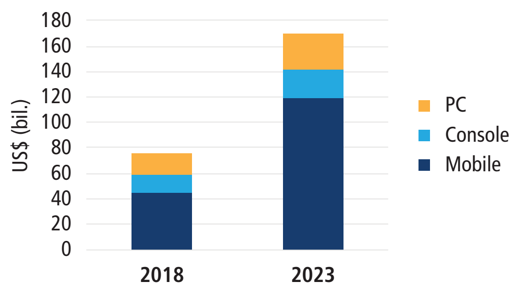


Source: Media Partners Asia

Longer-term, falling prices for dedicated gaming handsets, together with 5G, promises to kickstart a new growth cycle, powered by mobile, Venugopal predicted. Gaming-oriented phones became a lot cheaper this year with the launch of Xiaomi's Black Shark, selling for US$499 in a category where handset prices had ranged from US$699-999. "Anything beyond that, down into the US$200-250 layer, starts to change the way this ecosystem moves," Venugopal said. "We are predicting that the gaming ecosystem is going to take the next big jump once this happens, especially in emerging markets. Some of that could also be driven by 5G and lower latency, by higher bandwidth, by telcos thinking beyond data packs and carrier billing. Could telcos work with a device manufacturer and social media apps to create an entire gaming device and package that says we have you covered end-to-end on our network? People are looking at it and working on it."

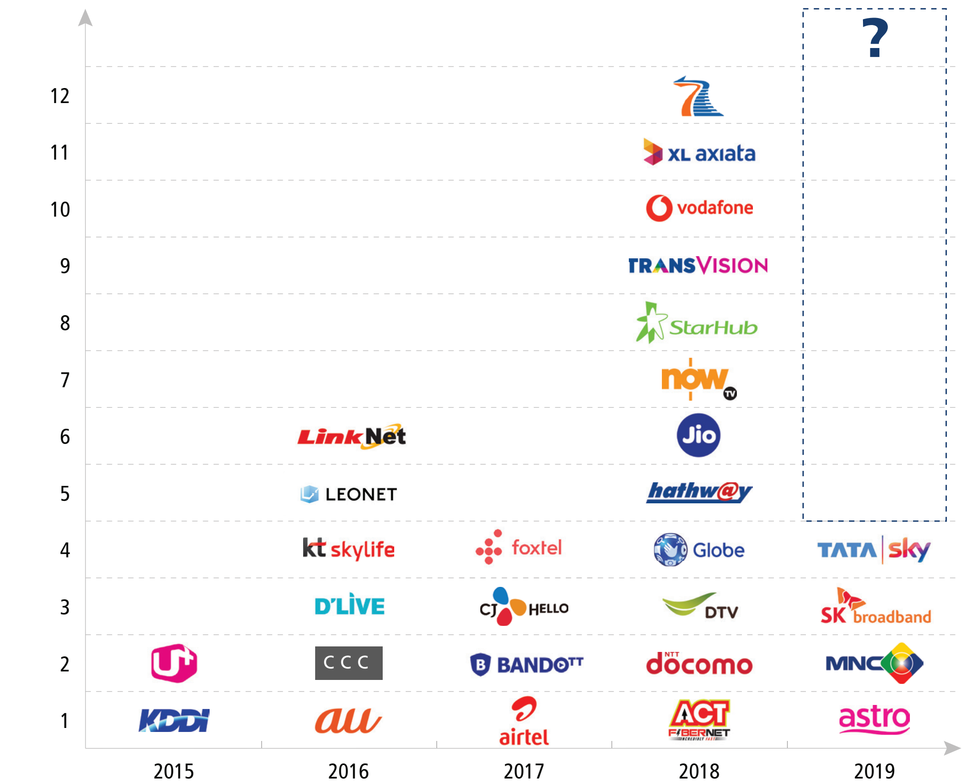
Rapid changes in the entertainment ecosystem also threaten to leave TV distribution platforms behind. That has sparked growing interest in Android TV, a variant of Google's off-the-shelf smartphone software customized for media streaming devices that connect to the big screen such as set-top boxes and smart TVs. Since launch in 2014, Android TV has been gaining traction with 15+ operator deals in APAC including pay-TV incumbents such as Airtel, CJ Hello, Foxtel, Now TV and StarHub. Astro, MNC and SK Broadband are set to come on board in 2019. Android TV is more than an operating system, Venugopal said, providing a beautifully connected ecosystem that distribution platforms can tap into. "There's a wide range of other services that pay-TV operators are looking at," he added. "There's Widevine CAS, Google Cloud, Google Assistant, YouTube, the Google Play store, the advertising pie through AdSense. This changes the way pay-TV operators could do business."

GAMING: MOBILE GROWS ITS SHARE
Revenues by platform, 2018 and 2023



Source: Media Partners Asia

ANDROID TV HAS BEEN GAINING TRACTION IN APAC
New launches by year in Asia Pacific



Source: Media Partners Asia

SOUTHEAST ASIA

LOCAL INCUMBENTS TAKE THE LONG-TERM VIEW

Telco and media majors are laying the foundations for new digital ecosystems.

Ernest Cu, President & CEO, Globe Telecom

Telco transformation is an expensive business. Costly network upgrades have become a fact of life for Philippines mobile leader Globe with annual capex set to nudge US$1 bil. this year, pushing the company further from its roots into the heartlands of an emerging digital ecosystem to steer and accelerate ROI. An imminent push into 5G, set to open up a new platform for home entertainment, will only sustain this trend as executives experiment with different levers to lift data revenue across video, music, gaming, payments and lifestyle services. “We still see ourselves as a telco in a way but we don’t always think like one,” said **Ernest Cu, President & CEO, Globe Telecom**. “We have to, because we have significant investments and a board and shareholders to satisfy with steady dividends, profitability and market share gains, but we know that staying a telco means our lives are in danger.” It’s a long-term, capital-intensive strategy, placing bets on new platforms where future growth or revenue opportunities are not always clear. Nonetheless, this approach has allowed internet giants such as Facebook and Google to prosper, prompting ambitious telcos such as Globe to follow suit.

Globe’s capex costs as a ratio of revenue have been climbing for five successive years, with the lion’s share (75%+) devoted to delivering data. That is likely to sustain for the foreseeable future, even with Cu pursuing a cautious approach with 5G, set for commercial launch mid-2019 and initially focused on connecting Filipino homes with fixed mobile broadband as an alternative to fiber. That’s another video delivery platform Cu wants to develop while navigating technical challenges (a smaller footprint with 5G running in the relatively high 3,500 MHz frequency) on the way. Globe has already taken a lead in fixed mobile broadband with a 4.5G prepaid device (using MIMO technology) that consumers can activate at home, a lower-cost plug-and-play model Cu that wants to replicate with 5G. “We

Alvin Sariaatmadja, President Director, Emtek

think that is the future. Given that 96% of people in our mobile segment are on prepaid, how can you have a broadband business that is 100% postpaid?" Cu posed. "For content providers out there, let's figure out how we are going to deliver content to this prepaid base that we are going to have in a few years."

Elsewhere, Globe continues to embed itself deeper in the local digital economy, co-producing local content to widen the appeal of online video while weighing up how to deepen investments in online gaming, a major driver of data usage, after forging ties with ecosystem partners such as Riot, Garena and Mineski. The telco is also placing bets on a variety of other affiliated businesses, including digital payments (Gcash), which has recently started to take off following a joint venture partnership with Alibaba subsidiary Ant Financial, and digital advertising (via AdSpark), which remains sub-scale. "We are trying to figure out what other businesses can flow thought this platform," Cu said. "First SMS voice and data, then content, now fintech. What else is in there?"

In Indonesia meanwhile, domestic media major Emtek, owner of some of the country's most popular free-to-air networks, has also started building its own digital platform via a series of investments spanning messaging and ecommerce as well as digital media. This also includes a recent tie-up with Alibaba-affiliated Ant Financial on a new e-wallet, a fierce battleground but a potential game-changer. Digital payments are unlikely to return a profit for Emtek for at least five years but they can help speed up development of other businesses, strengthening Emtek's still nascent ecosystem overall. "With digital, and we are at the very early stage. The deck will be reshuffled and anyone can conquer any vertical," said **Alvin Sariaatmadja, President Director, Emtek**. "It serves as an opportunity and a threat."

Emtek also has plenty of local IP, thanks to its strong position in free-to-air TV, a key competitive advantage in a country where creative talent remains thin on the ground. Alvin is working with OTT platforms such as Iflix and Netflix as a content supplier and creator but also wants to leverage his access to talent to boost Emtek's own online video service, Vidio.com. That's a tension he will need to manage while ensuring he keeps his production team happy in what promises to be a long journey ahead. "We are just scratching the surface," Alvin said. "The partnership with Alipay opened our eyes to how far behind our market is, and how many light years ahead the Chinese and US tech companies are in terms of capability. Forget about AI. The first thing for us is get the users on our platform."

The current priority is putting down a core foundation, constructing an internal data management platform that can process user behavior across the company's different services. It's an important but necessary first step to steer future business development. "It's a long process,"

Birathon Kasemsri Na Ayudhaya, Chief Content & Media Officer, True

Pratthana Leelapanang, Chief Consumer Business Officer, AIS

Alvin said. “We have about 1,000 engineers across our different platforms now but talent is a key issue. In a lot of cases, we have to outsource to other parts of the world.”

In Thailand, telco and pay-TV major True is seeing how it can use the broader network from its parent company CP Group to shore up its own ecosystem of content and services, supported by a company-wide loyalty scheme as well as its digital payments offering TrueMoney. Points collected by buying drinks at True Coffee can be redeemed for TVOD movies for example, connecting online and offline experiences while supplementing e-wallets, noted **Birathon Kasemsri Na Ayudhaya, Chief Content & Media Officer, True**. “It becomes an O2O experience as a solution for content providers to be able to monetize content,” Birathon said. “I think it is a very unique approach, hyper local, which provides us with a point of difference.”

True is also bolstering its content portfolio, setting up a new regional video production hub with Korean entertainment major CJ ENM called True CJ Creations while venturing into games development via a JV with Shanghai-based gaming studio Axion Games, alongside continued investments in broadband, mobile and satellite infrastructure. “It’s part of the overall ecosystem that connects everything together with one ID, one user base across all platforms, which will enable us to understand the consumer better, provide better services,” Birathon said. “Hopefully, True will be the number one top of mind brand across lifestyle. That’s where we are going.”

Thailand is a relatively large but tough telecoms market, where competition has driven down consumer prices for mobile broadband, including popular unlimited packs at capped speeds, while pushing up the cost of spectrum. Consumers are generally well served, dampening upgrades to more expensive services. “The value of the telecoms sector is still very high but it has declined in a sense because of the industry structure while costs are getting higher,” said **Pratthana Leelapanang, Chief Consumer Business Officer, AIS**. “We take a long-term view of growing business in a digital way. We are expanding from mobile to fiber broadband, while we are doing a few things on video, e-money, IOT and the cloud on top of that.”

In March 2018, AIS bolstered its digital payments offering by taking a 33% stake in Rabbit Line Pay alongside existing partners Line, one of Thailand’s most popular chat and video apps, and BTS Group, which operates mass transit railway services in Bangkok. E-money use and adoption is poised for rapid growth in Thailand after the government introduced a series of measures to fast-track uptake, scrapping charges for inter-bank transfers for example while standardizing QR codes. “The banks took a lot of drastic action and preparation, competing and gaining customers, even though there is not much revenue yet,” Pratthana said. “We also think that way. The business model is not that straight forward that you make money from payment. It is an enabler. The one who gets the customers will finally earn in some way, probably the one who gives the best customer experience.”

“You’ve got to assume from day one, you are in investment phase for at least 10 years. That means you are always fund raising, always looking for strategic partners.”

Patrick Grove, Co-Founder & Group CEO, Catcha Group and Chairman, iflix

“In the telco world, the product development cycle is typically three to six months. In the digital world, it’s two weeks. The DNA is very different.”

Mohd Khairil Abdullah, CEO, Axiata Digital

“Media and telecom players are competing against Amazon, Google, Alibaba, Tencent, who have 20 to 30-year outlooks. You’ve got to think about your business very differently.”

Gordon Rubenstein, Managing Partner, Raine Ventures

“The industry is being so restructured we can’t expect it to happen overnight. The traditional players are still very profitable. We shouldn’t get too negative.”

David Goldstein, Senior Advisor, TPG Capital

STREAMING VIDEO

OTT SERVICES PREPARE FOR BUSINESS TRANSFORMATION

Video companies will look very different in the future.

Wenfeng Liu, CTO, iQiyi

Chinese streaming giant iQiyi first started using artificial intelligence in 2014, to help check the copyright status of video that users were uploading to its platform. Today, the company has more than 100 AI projects on the go, accelerating and automating a variety of tasks ranging from budgeting to marketing to customer service. AI's potential is still constrained however, explained **Wenfeng Liu, CTO, iQiyi**. Not only is talent in short supply, a perennial brake on tech ambitions, with universities more focused on long-term developments than current business challenges, but current data networks aren't designed with machine learning in mind, pushing up underlying costs. "I expect that in maybe five years, the data center for AI will appear and dramatically lower the costs," Liu said. "That will be better for us because we have so much data."

Over time, artificial intelligence promises to transform how businesses are run by augmenting and integrating huge data sets. For now however, AI's commercial applications cater to discrete areas, helping increase productivity as businesses become larger and more complex. In China's capital-intensive online video market, AI can smooth the production process by enhancing existing data sources, analyzing social media to help evaluate IP or TV and film performances to supplement iQiyi's actor database for example. Chinese dramas can have up to 150 scripted roles, Liu pointed out, which usually have to be filled by lesser-known actors to stay within budget. At the same time, AI boosts capabilities in a range of other areas, from turning around short clips and customized marketing materials to contextual ad delivery and adaptive video playback. "After we utilize AI in one area, other areas will also require the same technology," Liu said. "It is getting more efficient. We don't have so many people on AI but we have more and more production teams utilizing AI everywhere."

At the same time, databanks are growing exponentially. Streaming media companies need to manage and mine these effectively to stay in the race, especially as video become bundled with other digital services. "In five years' time, we will have 10,000 times more data than today,"

Zhuoran Zhuang, VP, Alibaba Group, COO & CTO, Youku

said **Zhuoran Zhuang, VP, Alibaba Group, COO & CTO, Youku**. Video major Youku has been run as part of Alibaba's digital empire since 2016. "Only by then will we be able to declare, we are in the age of big data," Zhuang added. "We are only at day one of this big data journey."

Alibaba's data warehouse is adding another petabyte (about 1 mil. GB) of different kinds of data every day, heightening the need to organize and process this information as efficiently as possible. Alibaba's core technical architecture combined with its volume of structured data provides a competitive edge in dealing with these challenges, Zhuang predicts, helping speed up machine learning. "AI is fundamentally changing the way we conduct business and redefining the value we provide to the users but the power doesn't only lie at the application level," he said. "We also need to improve our underlying infrastructure, we need to improve the technology that helps makes everything possible."

By contrast, the broadband landscape in India is at an earlier stage of development but nonetheless still evolving rapidly thanks to renewed competition and investment between telco majors Airtel, Jio and Vodafone Idea. China is both a source of ideas as well as talent for ambitious online video services, testing the limits of their business as high-speed broadband reaches more people. Star India's streaming arm Hotstar was able to deliver this year's IPL to more than 10 mil. concurrent users for example, and is ready for 20 mil. next time, working with Akamai for additional server capacity while dialing down streaming quality as needed internally to manage surges in traffic. At the same time, executives are testing what else might work on OTT beyond traditional viewing, adding a live quiz and custom-made cricket emojis to this year's IPL coverage. "We found engagement rates go up dramatically when we launched social elements and gamification elements with IPL," said **Varun Narang, EVP, Head of Product, Design & Engineering, Hotstar**. "We plan to put it on steroids, make it way more interactive. The opportunity for us is just to experiment. The future of TV, the way folks are going to be watching TV a decade down the road, that hasn't been invented yet. As long as we have a strong tech foundation and can rapidly experiment, we can see what sticks. If it sticks, we pour fuel on the fire and then make it big."

Hotstar's engineers are developing and optimizing core products around advertising, subscriptions and streaming to take advantage of India's soaring video consumption, driven by dramatic falls in data prices, while navigating bandwidth bottlenecks and costs. Resources need to be managed carefully as the company works on more diverse services, especially as it forays beyond video. That has made talent a boardroom priority, reviewing the recruitment funnel every Monday morning. "To the extent that we can attract the top 1%, and inspire them to do the very best of the work of their lives here and now, then everything downstream that everybody cares about, millions of users and massive engagement, is hot knives through butter," Narang said. "If we don't do this part, which is attracting and inspiring, then everything downstream is pulling teeth."

Varun Narang, EVP, Head of Product, Design & Engineering, Hotstar

EVOLVING PRODUCT PRIORITIES FOR NETFLIX

Netflix, already the world's biggest SVOD platform, continues to cast the net for subscribers ever wider, keen to leverage its scale in anticipation of heightened competition from the likes of Disney, Amazon and AT&T. This year Netflix inked its first dual-play and triple-play distribution deals, announcing tie-ups with Comcast in the US and KDDI in Japan. These partnerships open up fresh possibilities for collaboration beyond an initial focus on device and billing integration. "Our next level of evolution is all about bundles, and exploring new innovative ideas and products with our partners," said **Ajay Arora, Director, Product Innovation, Netflix**. "By bundling with operators, we're able to attract a new demographic that we weren't able to attract before."

> "A lot of features coming out of this region have been beneficial around the world."
>
> **Ajay Arora**, Director, Product Innovation, Netflix

More recently, the company also started testing a lower price point that could diversify the customer base even further, launching a mobile-only tier limited to a single stream in SD in a handful of markets, including Malaysia in Asia, after APOStech. Such moves should keep Netflix's in-house developers busy.

Asia's rising importance to company growth has already resulted in new features such as content downloads and frame-by-frame encoding that are now gaining traction worldwide, prompting Netflix's engineering team to rethink its remit and approach. Netflix's app is also being rebuilt from the ground up to run on high latency networks with slower response times, another impediment alongside low bandwidth that can obstruct data flows.

At the same time, Netflix's developers are doubling down on existing initiatives that are already driving uptake and viewing. This includes working out how predictive analytics can enable smart downloads, anticipating what someone wants to watch so it can be automatically downloaded onto their phone. Another priority is squeezing out even more gains from video encoding that can already deliver a video stream at 200kbps. "You will see more announcements from us around progress we make on video encodes because we think it's so critical to this region," Arora said.

The spark for many of these ideas came from Asia, gleaned from consumer insights, data analysis or suggestions from distribution partners. Promising theses are tested around the world, before being rolled out in specific markets if successful. Downloads are most used in Asia, but the feature is also popular in Latin America for example, while encodes are also widely used in emerging markets in Europe, the Middle East and Africa. "Many of the challenges we've tried to fix here have been applied globally," Arora remarked. "A lot of the evolution and new features coming out of this region have been beneficial for Netflix consumers around the world."

"We play a critical role in the evolution of this industry. We are constantly trying to figure out how we can take costs out of our infrastructure."

Parimal Pandya, VP, Media Division, Asia Pacific & Japan, Akamai

"We are integrated with as many partners as possible to ensure we understand business models as they develop, and as the value proposition changes."

Mike Kerr, MD, Asia, BeIn

"We spend a lot of time on the customer proposition. It's had a halo effect on our B2B business. We've partnered with B2B customers in a different way."

John Kotsaftis, EVP, Digital, Fox Networks Groups Asia

"There are a lot of business models. Right now, the name of the game is finding the right combination of those business models."

Michael Fleshman, CTO, Hooq

From left
Simon Davis, CEO, Mighty Bear
David Ng, Founder & CEO, GoGame
Elmar Fischer, Director, Denuvo by Irdeto

GAMING AND ESPORTS

MOBILE GAMES TAKE OVER

Developers vie for survival in an increasingly crowded jungle.

The arrival of the iPhone in 2008 supercharged a gaming market that had previously been limited to consoles, home computers and arcade machines. Today, mobile games account for more than 50% of global gaming revenues after a decade of double-digit annual growth. Mobile games are set to take an even bigger share of the pie in the future, but monetization methods must evolve as the base expands. "Most of the next billion handphone users are coming from this part of the world – emerging markets – and most of them would be sub-50 to 100-dollar phones, so content needs to be developed in a way that it caters to that part of the market," said **David Ng, Founder & CEO, GoGame**, a Sega-owned mobile game developer. "The simple secret of making money in gaming is to make them play, to make them stay, to make them pay and to make them pay more."

Succeeding in a crowded app marketplace remains difficult, however. Marketing costs are high, while ad exchanges used to drive games installs are open to fraud, helping fuel the growth of targeted marketing platforms such as Facebook. At the same time, the overwhelming majority of people playing mobile games do so without paying. Even after someone installs a game, publishers still have to persuade them to keep returning, although those that do are increasingly willing to spend more. "A few years ago, the rule was 40-20-10," said **Simon Davis, CEO, Mighty Bear**, a game studio comprising ex-staffers of King.com, developer of the Candy Crush franchise. "If you retained 40% or more of your players after one day, 20% after seven days and 10% after thirty days, that was considered solid," Davis added. "Recently, it's more like 30-15-7. Retention rates are going down, but spend per user is going up. Our retention is decent but spend is higher than we anticipated."

As the industry increasingly shifts away from premium games, software protection providers are also adjusting to the times. Where anti-piracy is the focus for premium titles, typically single-player game franchises sold in box sets for consoles and PCs, anti-cheat software is key for products that rely on in-game monetization. "Publishers don't bring out a franchise every year," said **Elmar Fischer, Director, Denuvo by Irdeto**. "They just let one game run for two to three years, so other products become more important. It's a shift into the direction of anti-cheat, which actually helps with the longevity of the game and keeps it friendly and fair for everyone."

Meanwhile, cloud-based gaming services such as Google's Project Stream will make it easier

From left
Paras Sharma, SVP & GM, Southeast Asia, Head of Digital Media, Asia, Viacom International Media Networks
Terence Ting, Founder & CEO, Team Flash
Oleg Botenko, Founder & CEO, VY Esports
Norihisa Wada, Executive Adviser, Kayac
Chris Tran, Regional Manager, Riot Games

to play games on entry-level handsets, which will drive future increases in smartphone penetration. Project Stream enables people on Google Chrome to play titles that would have otherwise been too taxing on devices with basic specs. Similar platforms have been announced by other players, such as Microsoft's Project xCloud and Electronic Arts' Project Atlas.

THE RISE OF ESPORTS

At the same time, esports has grown rapidly as a major spectator sport, complete with international competitions, million-dollar leagues and a burgeoning audience that may soon rival mainstream sports. As a relatively new phenomenon however, monetization is less established. "Is esports really here to stay?" asked **Oleg Botenko, Founder & CEO, VY Esports**, a company Botenko started in 2017 to help brands, media companies and publishers navigate this emerging space. "The idea is to build an IMG of esports, a WPP of esports," he explained. "Our universe is constantly expanding because there are more and more events operators, teams, publishers coming out with new games, fans and distribution platforms. Trying to figure it out is not easy, especially if you're a brand or an investor."

> "Our universe is constantly expanding with more events, teams, publishers, fans and platforms."
>
> **Oleg Botenko**, VY Esports

Some game publishers have taken a lead by launching esports titles and supporting leagues, giving potential backers a clearer idea of where to come in. In 2016, Blizzard launched Overwatch for example, a multiplayer first-person shooter, along with the Overwatch League. In 2018, the league sold 12 franchise slots at ~US$20 mil. each, with eight slots for 2019 already gone for more than US$30 mil. "It's a publisher saying we'll figure it out in our own way, we don't need anyone to come in from the outside or the community to develop anything," Botenko said. "We'll build a league where you can have a team, you can have a franchise in your city and that team will get into the pot from all the dollars made. Whatever the monetization, you as a team owner will be able to share in that cash flow."

Regional nuances also come into play when investing in esports teams and managing players. "There's no proven methodology out there," said **Terence Ting, Founder & CEO, Team Flash**, which runs five teams across Southeast Asia. "It's really about knowing your market well. The way you approach team management in Vietnam will be very different from Thailand or Indonesia. What is more interesting is some markets being dominated by one title over the other. You wouldn't see Indonesia for example doing well in both Arena of Valor and Mobile Legends esports. It will usually be one over the other. That's the fight we see going on right now."

Esports is gaining acceptance, including a role in this year's Asian Games in Jakarta, although it has been ruled out of the upcoming 2020 Tokyo Olympics. "Since it's not allowed at the Tokyo Olympics, the Japanese government is thinking of providing games adjacent to that as an exhibition, and the Asian games will probably stay with it," said **Norihisa Wada, Executive Adviser, Kayac**, a Japanese mobile gaming company. Kayac also owns Japan's largest esports organizer Well Played. At the same time, publishers are also looking to media rights as a revenue driver, with Facebook stepping up as a platform alongside incumbents such as Twitch and YouTube. "As these kinds of conversations evolve, we see not only opportunities for us as a developer but also other partners," said **Chris Tran, Regional Manager, Riot Games**, the company behind League of Legends. "We work very closely with telcos like Globe, because gaming is one of those mainstream things that nobody acknowledges as mainstream. It is a matter of just changing the way you look at how society is moving."

Riot Games partnered with MTV to launch Hyperplay, an esports and music festival staged in August in Singapore. The event featured the first-ever League of Legends Asean tournament with national teams from all ten member states. Event highlights were featured in a 60-minute special on MTV Asia a few weeks later. **Paras Sharma, SVP & GM, Southeast Asia, Head of Digital Media, Asia, Viacom International Media Networks** said: "Working with Riot was a way to bring in what we call the MTV audience – which may not be directly playing the games but are affected by the pop culture element of it – and how we can bring that to broadcasting, livestreaming and traditional platforms, and extending that with the music component to platforms like Twitch and YouTube."

TELCOS ENGAGE

Online games have started to challenge online video as a driver of data revenue for telcos. "For every dollar we make in video billed at the moment, we make probably three or four in gaming," said **Crispin Tristram, VP, Digital Lifestyle, Telkomsel**, Indonesia's largest mobile operator. Telkomsel has created a gaming subsidiary called Dunia Games which also runs its gaming portal. "In the last couple of years, we're seeing mobile gaming smartphone usage on our network go from about 5 million to 60 million," Tristram added. "That's about 60% of our smartphone base."

Leading Philippine mobile player Globe has a similar story. "More than half of Globe's total content revenues are from games," said **Jake San Diego, Head of Games & Esports, Globe Telecom**. "The reason we also wanted to capitalize on games is we saw that a lot of the gamers who were playing on our network were leeching off of a WiFi," he added. "We wanted to create a habit of gaming on the go. In order to entice them, we bundled a free data wallet on top of the one that they can use for whatever they want."

At the backend, a serious gaming push also requires investments to optimize latency for games that are being promoted. Telcos work directly with game publishers and developers to pre-establish the most efficient route to the game servers. Telcos may also host the game servers on their network, which leads to additional business on the enterprise side.

A long-term gaming strategy goes beyond driving data consumption however, especially for telcos that progress into esports. Telcos can leverage their subscribers to create a self-sustaining esports community, which feeds into revenue-generating events and marketable content. "In order to future-proof ourselves, we took a look at the other aspects of esports which is basically the complete ecosystem play of running events, supporting teams and doing online tournaments,"

From left
Jake San Diego, Head of Games & Esports, Globe Telecom
Crispin Tristram, VP, Digital Lifestyle, Telkomsel

San Diego said. "We fund the production of these events as well as the tournament prizes. Apart from that, we've secured exclusive partnerships with Riot and Garena for League of Legends and Arena of Valor so that after our tournaments, there are international tournaments waiting for the winners," he added.

Telkomsel has also deepened its involvement by launching three esports leagues: an amateur league, a pro league and a campus league. "You've got a pro league, which is great, there's lots of usage and the monetization behind that is the content as well, but the area that we're most excited about is the grass roots," Tristram said. "The league we've just launched will be around 141 cities, 40,000 teams and that will run twice a year. That enables us to use our outlets and to actually monetize that."

FACEBOOK GOES BIG ON GAMING

Facebook has come a long way since the days of social games such as FarmVille, when users to send each other virtual farm supplies and other digital gifts. Nonetheless, gaming remains an integral part of the company's social mission. "It really ties in well with the community aspect," said **Michael Rose, Head of SEA, APAC Games Partnerships, Facebook**. "We might not speak the same language but we can find a way to communicate because we have games that we love."

Michael Rose, Head of SEA, APAC Games Partnerships, Facebook

Several teams work on various aspects of Facebook's gaming ecosystem, from gaming-focused ad sales teams to audience network teams that help publishers monetize their apps. Rose's division works with developers, publishers and creators across three areas: (1) Gaming video, which takes in competitive gaming such as esports as well as a livestreaming ecosystem for games players; (2) Instant games, HTML 5-based offerings which run on Facebook Messenger; (3) SDK (software development kit) implementation that enables users to log into game networks with their Facebook profile and connect with people in their Facebook network playing the same games.

Gaming video is a key area for Southeast Asia. "We're focused on ensuring that the creators themselves can make a living on Facebook," Rose said. "When I say make a living, I mean actually quitting your job and doing this full time." Viewers can watch creator content streams on Facebook Watch or on fb.gg, a page dedicated to gaming video, while donating via a tipping system called Stars in certain markets, named after a star logo near someone's chat box. Accredited creators receive US$1 for every 100 stars received. Facebook is also looking at a model where users can subscribe directly to creators in return for certain benefits such as exclusive page feeds, livestreams and access to a special community page. In July, Facebook conducted its first APAC Gaming Creator Summit in Bangkok, which introduced more than a hundred gaming creators from across Southeast Asia to Facebook's growing gaming initiatives.

Facebook has also forayed into esports, inking an agreement with ESL, the world largest esports company, in Jan. 2018. The agreement gives Facebook streaming rights in six languages to more than 5,500 hours of live tournament programming, including 1,500 hours of exclusive content. "You have to be pro players in those types of events, but we're also looking at how we can build more grassroots-community driven events," Rose said. "How can our creators, for example, organize their own competitions between fans?"

At the same time, Facebook is determined to ensure that it remains a venue for both casual and hardcore gamers. "We have an advantage that we have really big reach," Rose said. "We have people that are not just interested in gaming, and people that might have an interest in gaming but do not necessarily want to go to a gaming-specific destination. We'll just continue focusing on that and the community aspect."

“Our primary focus has been about consumer journeys that our consumers choose to have, rather than enforcing a particular journey we believe they ought to have.”

Satheesh Kumar, Chief Product Officer, PCCW Vuclip

“We want to not only optimize one particular user journey but enable onward journeys across a more complex portfolio. Digital enables you to break down silos.”

Fabian Birgfeld, Founder & CEO, W12 Studios

“There is always pricing pressure but there is also quality, scale and time to market. We have seen prices stabilize, if anything.”

Jim Ballard, Chief Revenue Officer, Iyuno Media Group

“We are working hard on how we service demand for better, faster, cheaper creatives. There is a huge need for content in the digital ecosystem.”

Anurag Gupta, Chief of Agency & COO, Ada, Axiata Digital

TELEVISION

THE FUTURE OF VIDEO DISTRIBUTION

Traditional players are looking to new partnerships, tools and opportunities.

Android TV, a software package offering a readymade a set of OTT tools for the big screen, can help established and new platforms alike rapidly ramp up. Many pay-TV services however, in an ongoing quest for relevance and a competitive edge, are still keen to apply their own touches. "Each operator knows their particular subscriber base and the interface they want," said **Mark Seidenfeld, Android TV Partnerships, Asia Pacific, Google**. "We have nothing against operators doing their own custom UIs and UXs on Android TV," he added. "The UI and UX that we offer as a standard is either for a smaller operator who doesn't want to spend that money on design or for a retail device like a TV set. I think very few broadcasters are actually [using it]… certainly not the cable TV provider."

Instead, Google can assist with customization, Seidenfeld explains. APIs can help integrate search for example, as well as voice that can help with subscriber queries as Google Assistant becomes available by market and language. Android TV also provides access to Google's analytics tools, although it cannot monitor linear viewing, a deliberate omission to allay fears that this could give Google too much leverage. "We can give you the tools to come up with all sorts of statistics that you might find difficult to get from any other manufacturer or platform," Seidenfeld said. "However, if you want to know what's happening to linear, as an open platform there are tools that are easy to implement but none of them are going to come from us. For linear specifically, we leave that up to you, to do it in the way that you want."

Mark Seidenfeld, Android TV Partnerships, Asia Pacific, Google

Harit Nagpal, MD & CEO, Tata Sky

Android TV's flexibility and functionality has helped it land a wide range of partners – from traditional pay-TV platforms to telcos to streaming device manufacturers – since launch four years ago, including deals with more than 20 companies in APAC. Indian DTH operator Tata Sky will start rolling out a hybrid box based on Android TV with a tailored UI next year, although the first step will be a dongle that hooks up to existing set-tops. Getting the right hardware and software in place has been a drawn-out process that has already taken two years. "There were many products available off the shelf but we used them ourselves and we said no," explained **Harit Nagpal, MD & CEO, Tata Sky**. "It's either the price was too high or the interface was too cumbersome. It's all right for phones to put apps across on the screen, but customers as we know them watch genres. As platforms, our job is to make content discovery easy for the customer."

Pay-TV executives have to combine patience with strategic focus to nurture new revenue streams while prolonging the life of existing services, which remain their bread and butter. In tandem with its upcoming OTT offering, Tata Sky has also been working on a measured fixed broadband rollout based on where its biggest-spending customers live. The company has started leasing fiber in these areas while extending the network to connect customer homes after eighteen months testing different geographies and models. "I'll pick up this building but I may not pick up the next building," Nagpal said. "I'll pick up this lane and not the next lane because I want a higher concentration of high-value customers in that building or that lane. That keeps my capex low, my returns are under control. We don't have ambitions of 30-40-50 million customers. If we get about 1.5-2 million of my high-end customers using my broadband to watch my content, I'll be more than happy."

Meanwhile, satellite operator SES is also positioning itself to work with companies that have varied in-house resources as well as competitive challenges to future proof its own business. In 2016, SES bolstered its capabilities by buying media services specialist RR Media and merging it with its own SES Platform Services arm, renaming the combined entity MX1. Collaboration and investment strategies have to adapt to a shifting landscape. "In the UK, Sky has the capability to develop the Sky Q box on its own, but a lot of other DTH operators around the world don't have that capability," said **Deepak Mathur, EVP, Global Sales, SES Video**. "We're acting as a glue bringing the ecosystem together to help them get this capability while they're trying to address where their customers are going from a content consumption point of view. I wouldn't say we're necessarily going out and actually buying companies that are integrators of this technology but we've got all the relationships in-house to be able to bring what a particular operator may want."

Deepak Mathur, EVP, Global Sales, SES Video

Consumer behavior isn't the only factor behind satellite's changing role in video distribution. The looming launch of 5G could greatly disrupt the satellite industry if it utilizes the C-band, a popular frequency to broadcast TV channels, especially in tropical areas. Interference caused by a crowded frequency may drive broadcasters to look for other ways to transmit their channels. SES, meanwhile, could extend its portfolio into fixed broadband as well as satellite services. "We're always looking at interesting opportunities," Mathur said. "It's very clear that satellite will remain a very critical and core infrastructure. It needs to be enhanced and there are many ways to do this, through partnerships or through conceivably acquisition."

"The ability to target very accurately allows media owners to reduce the ad load and also increase their inventory yield. It provides a good experience to consumers."

Sandro Catanzaro, Co-Founder & Chief Innovation Officer, DataXu

"There is a lot of money going directly from advertisers to platforms. That is impacting the agency business. We have to think about the value we deliver."

Siwat Chawareewong, CEO, GroupM Thailand, President, Digital Advertising Association of Thailand

"Being procurement driven tends to push advertisers away from using new digital platforms, because you can't do year-on-year cost comparisons."

Guy Hearn, Chief Product Officer, APAC, Omnicom Media Group

"We have great collaboration but technology also needs to be internalized. We want to develop our platform and data understanding via AI and machine learning."

Shane Park, SVP, Advertising Business HQ, SK Stoa

DIGITAL PAYMENTS

E-WALLETS CHALLENGE EXISTING BUSINESS MODELS

Alternative payment methods open up new ways to monetize.

Alexander Rusli, Founder, Digi Asia Bios

Direct carrier billing provides an entry point into digital payments for hundreds of millions of people, making it one of the fastest growing revenue streams for telcos today. Digital wallets provide a cheaper alternative however, undermining direct carrier billing's long-term future and setting in play a new set of competitive dynamics. **Alexander Rusli, Founder, Digi Asia Bios**, used to run Indonesian telecoms major Indosat Ooredoo, where he hoped to ramp up digital payments, before setting up his own fintech startup. "I think the gap is too far," Alexander said. "When carrier billing came into play, the telcos saw this as a way of making margins. I think about that now, it's another mistake. You have created arbitrage. They see this as a value-added service. When there is arbitrage, there's opportunity for someone else to come in."

A shake-up of Indonesia's status quo is still some way off, as rival offerings can't match the reach and scale of big telcos. Nonetheless, Alexander thinks it will be inevitable if incumbents can't wean themselves off large margins for digital transactions. Digi Asia Bios, which has separate fintech licenses for digital payments, peer-to-peer lending and remittances, changed tack from its initial consumer focus to a B2B2C play, tailoring financial services via employers for employees for example. This gives the company a tighter rein on costs by concentrating on signing up merchants in specific areas, while avoiding the heavy discounting common in consumer-facing services. Nonetheless, the underlying tech had to be overhauled to meet different customer needs. "You almost have to have a white label solution, where you are able to put in functionalities easily depending on the customer," Alexander said. "The way the tech was put together at the start wasn't like this, so we are revamping that now."

This nascent disruption has also encouraged entrepreneurial telcos to step into this space too, via dedicated units offering a customized blend of technology, digital partners and advisory services to the industry at large. Axiata's specialist unit developing APIs (software connecting platforms with digital services) was spun out as a separate company called Apigate at the end of 2017, having started life looking after Axiata Group companies. The company has also expanded its suite of APIs, which had originally centered around carrier billing and SMS, to include services spanning

From left
Filippo Giachi, MD, Asia Pacific, Docomo Digital
Zoran Vasiljev, CEO, Apigate and Chief Strategy Officer, Axiata Digital

entertainment, content and gaming, securing more than 100 mobile operator relationships in the process. It also provides services from more than 250 commercial partners, realizing it could accelerate growth by focusing on this part of the value chain. "Your value increases if you procure and do these deals and relationships without waiting," explained **Zoran Vasiljev, CEO, Apigate and Chief Strategy Officer, Axiata Digital**. "That's where a lot of our time is spent and why we are excited about this space." Telcos can also ramp up earnings from digital services by changing the way they package and commission these additional offerings, Vasiljev contended. "There is so much money still left on the table that many participants in the entire ecosystem don't realize," he said.

> "Many participants in the ecosystem don't realize there is so much money still on the table."
>
> **Zoran Vasiljey**, Axiata Digital

Meanwhile, NTT Docomo's specialized payments division Docomo Digital also offers a range of services to around 200 mobile operators while brokering seller relationships, increasingly through merchant aggregators, at the same time. The company's core business and technology is oriented around direct carrier billing although in recent years this has been supplemented with wallets and other alternative payment methods to help increase on-ground monetization.

Direct carrier billing, a form of unsecured credit, also poses a risk to telcos less adept at financial management than traditional banks, creating another opportunity for payments specialists. Docomo Digital, for example, has started using AI to help grade a subscriber's credit risk for some carriers in Europe, noted **Filippo Giachi, MD, Asia Pacific, Docomo Digital**. Telcos must also keep an eye on how services can exploit the near-frictionless nature of direct carrier billing transactions. Inadequate oversight resulted in some stiff fines in Australia for telco leaders Telstra and Optus. That wouldn't have happened with a fairer value exchange, Giachi said. "This imbalance caused trouble in Australia and other countries before that," he added. "Good business rules, delivering value to your customers, will fix this issue and many more."

"VR and AR increases interconnectivity in the value chain. Providers with powerful telecommunication technologies have become a force. It's an ecosystem."

Jihong Lee, Manager, Future Business Development, Korea Telecom

"Technology innovation affects all industries. We want to give opportunities to other industries to make best use of our media technology."

Hoisoo Cho, Manager, Media Technology R&D Center, SK Telecom

"We have put together a key opinion leader community to give advertisers exposure beyond Viu. That has helped us bring many premium brands on our platform."

Thawatvongse Silamanonda, Country Manager, Viu Thailand

"People try to understand the technology behind blockchain. That's a barrier. You use the internet but you don't need to know exactly how the internet works."

Anita Chan, COO, Jumpstart Media

BLOCKCHAIN

BUSINESS REALITIES FOR BLOCKCHAIN

A new kind of database could reset the digital status quo.

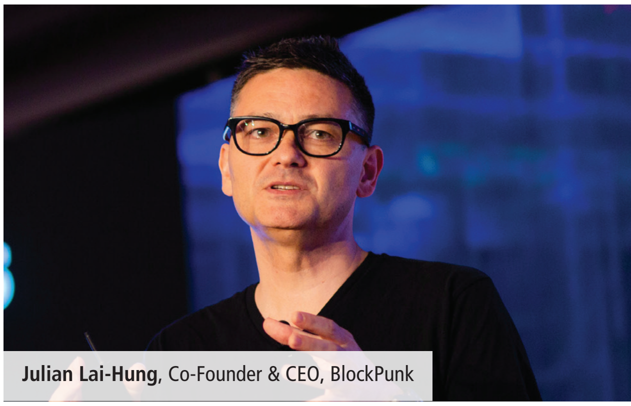
Blockchain's potential impact on TV, film and online video is still obscure but should become clearer over the next 12 months. Large media companies as well as entrepreneurs have started to test commercial applications for the new technology, which promises to reset competitive dynamics and the importance of scale by changing the way data is stored and accessed online. "The shift to digital distribution is bringing a lot of centralization, a lot of power concentrated in huge Silicon Valley platforms like Netflix, Amazon, Facebook and Google," observed **Julian Lai-Hung, Co-Founder & CEO, BlockPunk**. "If you're an independent creator, there's some tension there," added Lai-Hung, a former executive at Netflix and Warner Bros before setting up on his own. "I see blockchain giving creators another option to potentially finance their shows, potentially monetize though merchandize. That's the high level direction we're going in, that's the potential. It's an interesting

Hiroaki Takeuchi, CEO, Take-Y

opportunity to bring the community together, but also introduce new economic incentives."

BlockPunk, a Singapore-based startup, is working with anime studios to sell limited edition digital IP such as unpublished art where ownership can be verified by blockchain, to see how fans might embrace a new kind of virtual collectible. "Every time an item is sold and resold, the creator gets a cut of that transaction based on the smart contract we programmed," Lai-Hung explained. "We want to provide a platform so creators can manage rights in a peer-to-peer setting. There are opportunities for entertainment right across the value chain: crowd-funding productions; merchandize, which is what we are doing now; rewarding fans for helping other fans discover new releases; and, at some point, we believe we will get peer-to-peer video streaming as well."

Thanks to digital piracy, anime companies make more money from merchandize than video these days, making them more open to new revenue streams, especially those that can leverage a committed fanbase. "Japanese animation needs



Julian Lai-Hung, Co-Founder & CEO, BlockPunk

three elements to create a successful franchise: the creative, the technology and the global fan community," noted **Hiroaki Takeuchi, CEO, Take-Y**, one of the companies working with BlockPunk on its crypto-collectibles. This has helped anime navigate technology shifts from physical media to streaming to new digital spin-offs, such as games and mixed reality, Takeuchi said. "Next I think will be blockchain," he added.

Advocates see blockchain – effectively an audit trail for digital information – unleashing a new wave of disruption and innovation in media and advertising. It's still early days in blockchain's development however, likened to the internet before enabling applications such as secure credit card payments or video streaming were possible. Blockchain needs some practical implementation to progress on its journey. "It's like the internet

From left
Maxine Ryan, CEO, Spark
Andy Ann, Founder & CEO, NDN Group
Matt Pollins, Partner, CMS

in the 1990s, where we don't have Google or Facebook, we don't have the applications yet but we have the infrastructure," said **Andy Ann, Founder & CEO, NDN Group**. "Next year, we will see a lot of applications deployed into blockchain, we will get to know how to use the technology, the data, the trust in the network and how these can be deployed into different industries."

Blockchain's general hype has notably deflated over the past 12 months, as surging interest and speculation in cryptocurrencies cooled dramatically. That's helped refocus investment on finding other practical uses for the emerging technology. NDN for example, a Hong Kong-based digital conglomerate, is exploring how blockchain can improve online advertising by authenticating audiences for advertisers while giving internet users themselves more say in how their data is used. Global advertisers are pushing for more clarity on ROI from digital advertising, partly spurred by stricter laws in Europe on how consumer information is collected and processed as well as internal upgrades of their own data systems. Agency groups and consultancies are investigating how blockchain can help here too. "Blockchain covers a very wide field in media and entertainment," said **Jeffrey Seah, Partner, Mettle & Salt**, a Singapore-based advisory firm. "Blockchain can solve ad fraud, piracy, fake news, brand safety," added Seah, a former adman who had served in regional roles for some of Asia's biggest media agencies. "With blockchain, you can really get to last-click attribution. Not just a single view but the only view of the customer. With that kind of view, how do you want to price your business model?"

Jeffrey Seah, Partner, Mettle & Salt

In the video industry meanwhile, blockchain looks set to build traction by providing greater transparency and efficiency around buying and selling IP. "What powers this industry is content and intellectual property rights but the way that we trade those rights hasn't really changed in a 100-plus years," said **Matt Pollins, Partner, CMS**, a law firm. "It's based on signing contracts that take a long time to draft and negotiate," Pollins added. "Using smart contracts to move IP rights around is a very clear use case, and we are starting to see it from various startups in the region."

As with other forms of emerging tech, blockchain provides the means to improve on existing processes while introducing new ways of working at the same time. Fintech was one of the first sectors to pick up on blockchain, especially in the field of micropayments where per-transaction costs are relatively high, shoring up trust in financial exchanges with blockchain's built-in ledger. Sometimes however, it easier to build something new rather than change what is already there. "We have to think very differently," said **Maxine Ryan, CEO, Spark**, a digital money transfer platform currently serving growth markets in Africa and Southeast Asia. "The existing ecosystem is already a legacy ecosystem, it's very hard to implement our solution. In the future, we will have a convergence of buzzwords that we have right now, big data, blockchain, AI. In an ideal world, that will just be on one chain where everything can work together."

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