The Asia Video Industry Association (AVIA) is the trade association for the video industry and ecosystem in Asia Pacific. It serves to make the video industry stronger and healthier through promoting the common interests of its members. AVIA is the interlocutor for the industry with governments across the region, leads the fight against video piracy and provides insight into the video industry through reports and conferences aimed to support a vibrant video industry.

AVIA IS

POLICY
THE VOICE OF THE INDUSTRY WITH GOVERNMENTS AND REGULATORS

PIRACY
DEDICATED TO FIGHTING AND REDUCING VIDEO PIRACY

INSIGHT
COMMITTED TO PROVIDING INSIGHT THROUGH ENGAGEMENT

The Asia Video Industry Association (AVIA) exists to make the industry stronger and healthier and thus create a better business environment for its members.

Asia Video Industry Association
20/F Leighton Centre, 77 Leighton Road
Causeway Bay, Hong Kong
www.asiavia.org
2019 has been a big year for the Asia Video Industry Association. Our role is to try to stabilise the foundations of our industry so that as companies consolidate, as streaming services vie with linear, as the balance between subscription and advertising is contested, the ground beneath our feet remains firm.

Even as the environment around us continues to change, we are making very real progress. As streaming services grow, we want to ensure there is not an undue regulatory burden placed upon them. There is growing momentum behind a Self-Regulatory Code for the curated video industry in ASEAN. We are a responsible industry, one that respects copyright, respects national laws and invests in the economies where we operate. The content that we curate and deliver over the internet should not be a cause of concern for governments.

We are not only interested in streaming services. There are many restrictions, burdens and regulations placed on traditional pay TV services around the region as well. We continue to push for these to be eased. In the short term, this may be a harder sell, as governments are loath to revisit existing policies, but the more successful we are in having light touch regulation for streaming services, the more that should serve as a model for the rest of our industry. We want a level playing field between services, but that level should be one of light touch regulation.

The reality is, as more and more video gets delivered over the internet, we really are the good guys in the story. Piracy remains rampant but, increasingly, governments are waking up to the reality that the internet is a place that needs law and order just like the rest of society. Theft is not tolerated in the physical world and we are constantly pushing the case that it should not be tolerated in the digital world either. This message is finally being heard.

Our co-hosted Kuala Lumpur Digital Anti-Piracy Summit at the beginning of the year helped bring about the “one Ministry” fast-tracked procedures in Malaysia, allowing the content industry to block illegal content more quickly and more effectively.

We have worked extremely closely with the Indonesian authorities and have seen record numbers of piracy sites and piracy applications being blocked there, resulting thus far in a 15% decline in viewership of the most egregious sites.

We are eagerly looking forward to Singapore’s new Copyright Amendment Act, which will finally see the blatant commercialisation of illegal set top boxes criminalised.

And there is also momentum in Taiwan and the Philippines.

Our collaborative efforts against piracy are working, but we still have a long way to go in this fight together.

We continue to inform and engage our members through our committees and conferences. We have held engaging seminars this year with the big names of industry in both Indonesia and Malaysia with in-depth reports published on each.

The Asia Video Industry Report 2020 is written and curated by Jane Buckthought, Research and Advertising Consultant.

Please note that data provided by third parties has been generated independently and represents their own views.
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The “next big wave” has arrived for the television industry in the Asia Pacific region, and it is a wave of policy proposals designed to shackle the online curated content (OCC) industry with burdens; some of which are new, and some drawn from legacy broadcasting regulations.

The reasons for this wave are not hard to understand – we’ve all seen the headlines about online content carried on social media platforms being used to foment hatred, divisiveness and even terrorism. Asian countries join many others in looking for solutions that protect their societies while still allowing them to benefit from the fruits of innovation and growth. Plus, it is also not hard to understand the motivations of tax collectors who see a rising share of their national economic activity conducted by companies based overseas, who may not make traditional tax payments.

AVIA’s response has been to stress in all our dialogues with governments two aspects of our industry’s activities: Responsibility and Competition.

RESPONSIBILITY
We’ve adopted the moniker for our online content industry that was invented in India: “Online Curated Content”. So, that’s OCC. Not OTT. OTT video includes everything transmitted over the internet, from the sublime to the trash. We’re not interested in being taken out with the trash – video services operated by traditional media companies are responsible providers of entertainment to the world, and we want to be regulated as such. We recognise our responsibility to provide services that meet prevailing social standards in all the countries where we operate. Our companies are also responsible dialogue partners for governments – problems are better discussed openly rather than being the subject of disruptive fiat regulation.

COMPETITION
Even as we stress our openness to dialogue, we urge governments to open their eyes to the virulent competition we face in the online arena. Our relatively expensive curated content has to struggle to win the same eyeballs that are sought by piracy syndicates, websites promoting radical political, racial or religious views, and gigantic social media platforms which give unmediated exposure to user-generated content. (Whether user-posted videos are trash, fake or maybe even sublime is in the eye of the beholder, but no matter – they’re all good for extracting and monetising personal data.)

New digital policy approaches that assume every online service is equally bad are erroneous. Our cohort of companies is the most responsible segment of content providers on the internet, and we want governments to recognise that, and devise rules that are suitable for us, not for social media. At the same time, legacy policy approaches that assume we have a monopoly, or a licence to print money (as terrestrial broadcasting did, from the 1950s to the turn of the century) are also wrong. Online curated video services are in a struggle for their lives with a host of other internet players, good and bad, and if governments decide we have to bear legacy broadcasting burdens, we will inevitably lose. And then consumers will be the ultimate losers.

Our approach to OCC regulation also aims to take account of the diversity in this part of our industry: there are global OCC services; there are cross-regional Asian services; and there are local services in individual Asian markets. They all face the same challenges – as do the traditional pay TV service providers. If anything, the traditional pay TV providers face the worst of all possible worlds – legacy rules that impose huge burdens on them, AND a poisonous competitive environment in which completely unregulated piracy platforms are one of their main competitors.

So AVIA continues to press the case for lighter-touch regulation of traditional pay TV as a vital component of a 21st Century media policy. The outdated legacy rules have to change, as the competitive and technological environments have already shifted. And in this aspect, governments are wayyyyyy behind the curve. In light of that, people sometimes ask “well, isn’t it important to have a level playing field – if governments won’t change the burdens on pay TV, then OCC should have all the same burdens imposed on them”. But that would be a lose-lose strategy – the result would be to have ALL curated services over-regulated and facing severe unregulated or under-regulated online competition from piracy sites and social media. We think it’s important to seek win-win development, for both OCC and pay TV; telling governments to avoid over-regulation of OCC, and to also reduce the burdens on pay TV.

That’s not necessarily an easy sell – it requires serious re-thinking in bureaucracies that don’t like change. But it’s the only way to advance toward real wins, for both OCC and pay TV.
FIGHTING CONTENT PIRACY IN THE DIGITAL AGE

As piracy has moved online over the years, one of the handicaps to effective enforcement has been the lack of a physical product and, as downloads have moved to streams, the product becomes even more transient whilst presenting no single point of attack from a law enforcement perspective. However, we believe governments increasingly agree that the online world needs to be managed and there needs to be rules. As more and more business is done online, the internet must be a safe environment. Society does not accept blatant theft from high street stores – and neither should it be accepted on the internet.

Consumers in South East Asia have an unhealthy appetite for viewing pirated content via piracy streaming websites and illicit streaming devices (ISD). A recent YouGov consumer survey in Indonesia found that 29% of consumers use an ISD to access pirated content and a staggering 63% of respondents access piracy streaming websites. In Vietnam, 66% use an ISD to access content and 61% have accessed piracy streaming websites. In the Philippines, 34% use an ISD to access content and two-thirds of Filipino online consumers (66%) use piracy streaming websites.

Because anyone with an internet connection can access stolen content, we have to prevent stolen content being made available to consumers. On behalf of industry, we are urgently and actively engaging governments, and working with them to define a clear and effective strategy to tackle this content theft crisis.

In Indonesia, we were instrumental in forming the Video Coalition of Indonesia (VCI) which now has a broad spectrum of members from Indonesian telecommunication companies, domestic terrestrial content creators, OTT players, pay TV channels, theatrical exhibition groups, and film producers. In a four month period (June-September) the VCI has referred over 550 streaming websites and piracy applications to KOMINFO – all of which have been blocked. In a six week period (August-September) we saw a 15% decline in viewership of the top 12 indooxi sites – the indooxi crime syndicate being one of the world’s largest piracy networks. This “rolling” site blocking strategy will continue, as will enforcement initiatives.

In Malaysia, together with the Minister of Communications and Multimedia (MCMC) and ASTRO, we hosted the KL Digital Anti-Piracy Summit, attended by 250 guests, over 50 media outlets, and participation by the Minister of Communications and Multimedia Malaysia, YB Tuan Gobind Singh Deo. The result of this has been a much greater focus on the piracy issue by the Malaysian government and a streamlining and acceleration of the site-blocking apparatus by introducing a fast-tracked “one Ministry” solution.

In Thailand, together with the DIP and TRUE, we hosted a Digital Anti-Piracy Summit – again with a key focus to encourage a fast-tracked “one Ministry” solution to the current site blocking process. We are also working with the DIP on a government-led Infringing Website List (IWL) and enhanced cooperation from intermediaries.

% OF CONSUMERS WHO ADMIT TO USING ISD TO ACCESS COMMERCIAL CONTENT

<table>
<thead>
<tr>
<th>Country</th>
<th>% Using ISD</th>
</tr>
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<tbody>
<tr>
<td>Hong Kong</td>
<td>24%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>33%</td>
</tr>
<tr>
<td>Thailand</td>
<td>45%</td>
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<tr>
<td>Malaysia</td>
<td>25%</td>
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<tr>
<td>Singapore</td>
<td>20%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>66%</td>
</tr>
<tr>
<td>Philippines</td>
<td>34%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>29%</td>
</tr>
</tbody>
</table>

% OF CONSUMERS WHO ADMIT HAVING ACCESSED PIRACY STREAMING WEBSITES

- Indonesia: 63%
- Vietnam: 61%
- Philippines: 66%

The Asia Video Industry Report 2020
For industry initiatives and actions to be successful, the cooperation of technology platforms and other intermediaries is essential. CAP continues to work alongside e-market platforms and social media sites where ISDs are commonly traded, as well as disrupting illicit commercial transactions at the point of sale. To further this intermediary engagement approach we have been hosting dialogues between CAP Steering Committee members and Google to understand what measures Google is already taking, and for them to hear industry concerns and have a constructive dialogue about what more can be done. The focus of these AVIA – Google forums is to push for specific solutions to problems in our markets and we’re already seeing these pan-Asia issues get the additional attention they desperately needed. The forthcoming November dialogue will be the third Forum this year.

Content theft on its current scale is simply unsustainable, and we are confident that governments in South East Asia will put measures into place to curb this. It is happening already and the problem can be effectively disrupted. It is our intention to be at the forefront of encouraging governments and industry to do what is fair and effective. The time for change is now.

In the Philippines, we are fully behind Senate Bill ‘Online Infringement Act’ (SB # 2109) which proposes an administrative site blocking mechanism which would empower the authorities to ensure that ISPs take “reasonable steps to disable access to sites whenever these sites are reported to be infringing copyright or facilitating copyright infringement”. With recent changes to the Department of Justice’s definition of a storage device making ISDs illegal under the Optical Media Act, we have been working with the Optical Media Board (OMB) to take enforcement action against ISD retailers throughout Metro Manila. We are also an active partner of Globe’s award winning “Play It Right” consumer outreach campaign.

In Singapore, through the IMDA, we managed to get all IT Exhibition management companies to institute a zero tolerance policy on sellers of ISDs. Through our enforcement action and outreach efforts, we have seen sales of ISDs at these events significantly decline. The recent Singapore Copyright Review Report makes it clear that their policy position is to prevent the commercial gains derived from providing access to commercial content from unauthorised sources.

The Coalition Against Piracy (CAP) Steering Committee Members include: ASTRO, BBC Studios, BeIN Sports, Canal +, Discovery, Disney, Fox Networks Group, Globe Telecom, HBO Asia, Irdeto, La Liga, Motion Picture Association of America, Nagra, NBA, NBC Universal, Netflix, PCCW, Premier League, Singtel, SIPI/Veri-site, Sony Pictures Entertainment, True Visions, Turner and TV5Monde.
THE OPPORTUNITY: OPEN PLATFORMS AND THE FUTURE OF PAY TV

TRENDS & BUSINESS BENEFITS

The pay TV landscape has evolved rapidly, driven by device proliferation and increased content choice. The advantages broadcast operators have will diminish over time, meaning they must grow by offering more choice, quicker. Operators must therefore look to open platforms for launching future-proofed hybrid set-top boxes (STB) in less time and with fewer risks.

Take Android TV for example – the money operators will save and the shorter time to market mean real benefits. With Android TV, operators can get advanced features for free from Google, while they focus on content and user experience (UX) differentiation through the Operator Tier. Best of all, operators retain control over HDMI-1 by giving consumers access to the Google app store from their platforms. Interest in Android TV has risen sharply for these reasons.

In the case of Android TV, with thousands of apps in the Google Play Store, the operator can offer consumers fantastic choice and expand its business models. However, with increased choice comes a greater threat. Kodi and Plex are prime examples. They give consumers legitimate content choices but can also be misused, allowing consumers to install piracy add-ons or access pirate sources and bypass operators’ subscriptions.

Google is focused on security and will remove an app from the Google Play Store when it has sufficient evidence of pirate or malicious behaviour, but this may take time. The security firm Check Point reported more than 200 apps with malicious advertising code, which amassed 150 million Google Play downloads before being pulled\(^3\). And, even when removed from the store, the downloaded app is likely to remain on the Android device. Therefore, operators need their own control to monitor apps and add-ons on their STBs and stop them as needed. This requires a solution that leverages intelligent services which combine cutting edge IoT protocols with big data to detect and address app-based piracy and other security risks on open platforms.

SECURITY CONSIDERATIONS

Open platforms have inherent security risks, however. These include content piracy, STBs repurposed with unauthorised software, and malicious apps compromising the STB, data and privacy. In 2018, Google removed 1.1million apps from the Google Play Store due to malicious behaviour, up 66% from 2017\(^1\). Worse still, it’s estimated that ten times more potentially harmful apps are installed on Android devices from outside the Play Store\(^2\).

While Google has taken steps toward securing Android TV, operators must do more to protect their businesses. This includes: ensuring vendors meet Android TV security requirements, applying best-in-class content protection technologies (e.g. Conditional Access (CA), Multi-DRM, app security and watermarking), and having effective threat monitoring and response capabilities.
Irdeto is the world leader in digital platform security, protecting platforms and applications for video entertainment, video games, connected transport and IoT connected industries. With 50 years of security expertise, Irdeto’s software security technology and cyberservices protect over 5 billion devices and applications for some of the world’s best-known brands. Irdeto supports operators that are looking to deploy a hybrid, Ultra HD-ready Android TV set-top box in the fastest, most flexible and secure way. www.irdeto.com.

LAUNCHING A HYBRID ANDROID TV STB

Android TV imposes new launch and certification requirements. In addition to Google’s security requirements, Google requires STB manufacturers to update boxes to the latest Android release within a few months. This gets tricky as the Android release is about every 12 months, and the STB integration process could take 12 months or more – even trickier when operators have multiple STB models.

Taking advantage of pre-integrated solutions is key to expediting launch and keeping up with Google releases. The Android TV launch process is as follows:

1. Integration with Google-approved hybrid chipset
2. Integration of DVB stack as a TV input (having one unified DVB stack regardless of chipsets is crucial for simplifying integration and expediting word form certification)
3. CA integration
4. Integration of STB Boot / Loader
5. Over-the-air update process creation
6. UX integration
7. Google certification of each STB combo (i.e. chipset, STB, CA, UX and Android release)
8. App certification as applicable (Netflix requires its own certification, and a trusted security partner can help operators get popular apps certified faster)

Operators can cut launch time by at least three to six months if using a pre-integrated solution for steps one to five. Some pre-integration with UX (step six) and app vendors (step eight) can save more time. However, selecting a pre-integrated solution that will give operators a choice of chipsets, STBs and UX options from different suppliers is key to avoiding vendor lock-in, keeping costs down and offers attractive.

Pre-integration can save at least 3 to 6 months

<table>
<thead>
<tr>
<th>SoC</th>
<th>CA</th>
<th>GOTA / OTA</th>
<th>Google Certification</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>DVB stack</td>
<td>Boot / loader</td>
<td>Operator Tier UX</td>
<td>App certification</td>
</tr>
</tbody>
</table>

Launching a hybrid Android TV STB

Such a solution must follow the Android TV usage guidelines and be supported by Google, and will allow operators to conduct targeted, granular blocking of apps or add-ons used for piracy or malicious activities. With no impact to consumers’ legitimate app use, this will ensure operators optimise the consumer experience and secure their future on open platforms.
With illicit streaming piracy on the rise, more governments are passing regulations to block access to sites that infringe copyrights.

According to a Motion Picture Association Inc. study released in June 2019, 45 countries, including seven in Asia Pacific, have already adopted site-blocking regulations and/or issued court orders. These administrative and judicial site blockings generally target domain names linked to services delivered by illicit streaming devices (ISDs). Take Singapore, for example. In November 2018, the High Court ordered internet service providers to block access to popular illegal applications pre-loaded onto Android TV boxes.

Since the court order, users have been unable to access most illicit streaming services. Instead of being able to watch pirated live sports events, movies, or other premium content, users are redirected to a block page or a page with a brief explanation of why their service was disrupted.

While the intention is good, site blocking regulations are not enough to eliminate piracy.

According to a survey in South East Asia conducted by Synamedia, illicit streaming services typically use a back-up domain name and updated server domain name. So, if the main domain name is blocked, all pirates need to do is switch to the back-up domain name, which is compiled on the Android Package (APK). Users continue to enjoy illicit services, and pirates continue to eat away at operator revenues.

Pirates offer subscribers two different user-friendly tools so they can bypass site blocking. The first is a private app market resembling an app store on a smartphone. Users simply enter the app market and click on the appropriate app, as prompted by the pirate, to reinstate the blocked service. The second tool is an in-app update feature that’s built into the ISD. Again, all the user has to do is single-click a button to bypass the blocked site.

Access to the website you are attempting to reach has been blocked pursuant to an order of the High Court of Singapore.

How illicit service subscribers bypass blocked sites with a single click

Pirates offer subscribers two different user-friendly tools so they can bypass site blocking. The first is a private app market resembling an app store on a smartphone. Users simply enter the app market and click on the appropriate app, as prompted by the pirate, to reinstate the blocked service. The second tool is an in-app update feature that’s built into the ISD. Again, all the user has to do is single-click a button to bypass the blocked site.

Private app market on the ISD

COMBATTING PIRACY

Three ways pirates bring blocked sites back to life

Based on our site-blocking survey and ongoing monitoring of closed pirate-subscriber group discussions which are accessible via social media or internet forums, there are three ways to bypass blocked sites:

METHOD #1: DNS SERVER CONFIGURATION CHANGES

With this method, the pirate gives its subscriber base instructions for activating one of the tools mentioned above. Using the private app market, the user clicks on that icon and then the DNS Changer app to change the DNS server set-up. Using the in-app update, the subscriber simply clicks on the manual update button to change the device’s DNS server set-up. This way the user changes the configuration to a global DNS server and is no longer redirected to a block page.

METHOD #2: ALTERNATIVE DOMAIN NAME CREATION

Here, the pirate creates an alternative domain name, compiles it on the APK, and releases it to subscribers — all within a very short time period. One illicit streaming service in South East Asia, for example, created an alternative domain in just one day, and distributed the updated APK to subscribers in four days. After receiving the new APK, the user updates their device or app to access the illicit streaming service without having to change the DNS server configuration.

METHOD #3: VPN SERVICE SUBSCRIPTION

The third method doesn’t even require a tool. Instead, the user subscribes to a commercial VPN service. While a user typically needs to pay an annual subscription fee for the VPN, this popular option bypasses geo-filters on the server side, even though blocking takes place on the subscriber side.

New approaches to combat streaming piracy

Regulatory-driven site blocking certainly demotivates pirates and disrupts copyright infringement streaming services.

In order to combat pirates more effectively, there’s a need to raise public awareness of the problem and form a coalition of regulators, anti-piracy organisations, and affected parties to coordinate industry-wide efforts.

At the same time, there is a need for comprehensive solutions that combine human intelligence, global monitoring, and automated detection of illicit streams. This calls for security teams to effectively track pirate networks complemented by predictive analytics and machine learning technologies to verify the activities of pirates and identify their source. With this in place, it will be possible to improve illicit streaming service detection and disruption, and offer the most effective deterrent against the stiff “competition” from pirates.

by Operational Security
Synamedia

Synamedia helps service and content providers around the world to deliver, protect, and monetise video content so they can win in the age of Infinite Entertainment. We do that with the world’s most complete, secure, and advanced end-to-end open video delivery solution. And we’re trusted by over 200 top satellite DTH, cable, telco and OTT operators, broadcasters, and media companies. www.synamedia.com.
Committed to the fight against audiovisual piracy: LaLiga takes action worldwide

Sharing knowledge with other institutions is key to actually getting ahead of the pirates. We should all be open to collaborating with any company that owns audiovisual content, whether it’s football, other sports, or general entertainment.

There’s also a need to create good relationships with the police and the public prosecutors, who help to make the fraud detection processes more efficient. Judicial frameworks can promote better mechanisms to protect audiovisual content in real time and collaboration between the public and private sectors is fundamental to this.

THE VALUE OF DIGITAL TOOLS

The other key element that will help turn the tide against piracy is the creation of new digital tools. We don’t only have the challenge of having to remain up-to-date and aware of the latest digital trends, we also have to be proactive.

Marauder was the first system that LaLiga launched to help with geolocation, producing a map that outlined where to find most of the illegal websites, social media accounts and apps. Next there was Lumière, a tool that assists with investigations by digitally extracting evidence. This tool was loaned to Spain’s Ministry of Culture and Sport and Peru’s National Institute for the Defence of Free Competition and the Protection of Intellectual Property.

A key success from this year is the Blackhole software, which has helped to draw up maps of IPTVs at a national and international level which helps us to define our strategy. Another tool, NEKO, will allow us to file reports on social media in a quicker and more efficient manner. This will increase the number of complaints made per minute considerably.

The continued development of such tools is the result of significant and long-standing investment. What is more, by sharing these tools with other rights holders, the effect can be amplified around the world.

SIGNS OF SUCCESS

During the last season, we have seen significant advances against the illegal broadcast of LaLiga content via channels such as social media, IPTV and card sharing. More than 360,000 videos were reported on social media sites in 2018/19, 97.4% of which were taken down, while over 15,800 IPTV subscriptions were reported to Google, 67.2% of which have been deindexed. Over 10,800 profiles that were sharing illegal streams in Facebook groups have been reported with over 91% of them removed. Meanwhile for card sharing services, 5,772 of the 5,779 complaints filed were accepted and led to elimination.

While there is still work to be done, audiovisual pirates around the world are feeling the impact of digital tools and international alliances. The development of new, more innovative software, as well as the increase in the number of those involved, has been key in ensuring that the statistics keep on moving in a positive direction. With more developments and more partnerships to come, even more illegal activity will be stopped in the future.

by Diego Dabrio
Head of Global Content Protection

LaLiga is a private sports association responsible for the organisation of the LaLiga Santander and LaLiga SmartBank competitions. It is a global, innovative and socially responsible organisation, a leader in the leisure and entertainment sector.

LaLiga
After imposing exacting standards, Indian courts are now lending a sympathetic ear to copyright owners while granting website-blocking injunctions.

Website blocking is widely acknowledged to be one of the most effective methods of copyright enforcement. As a case study, India is intriguing. The country is home to one of the world’s largest media industries and second-largest number of internet users, but suffers from high levels of piracy. Once stereotyped as slow and inefficient, Indian courts are now increasingly pro-active, speedily awarding website-blocking injunctions on several occasions. However, for copyright owners, the path to success has been paved with some (now-resolved) roadblocks; a story that we have chronicled here.

In *Taj Television v Mandal* (2002), the plaintiffs sued unlicensed cable operators broadcasting the FIFA World Cup, along with unknown defendants. The plaintiffs cited decisions from Anglo-American countries permitting such ‘John Doe’ lawsuits. The Delhi High Court accepted the plaintiff’s contentions. The court observed that the ‘unique nature of cable piracy and the unstructured nature of the cable industry’ meant that redress of a ‘conservative nature’ would be ineffective. Over the past decade, courts across India have transposed this reasoning in website blocking cases, directing infringers (known or unknown) and ISPs to comply. The trend began with the Delhi High Court’s decision in *Reliance v Jyoti Cable* (2011), involving a major Bollywood film. The court injunctioned anyone ‘communicating or making available …the movie…in any manner’ without a licence.

However, free speech activists complained that ISPs were allegedly blocking certain popular websites outright, instead of specific links (arguably, a vastly ill-informed and alarmist criticism picking on stray incidents). Thus, in 2012; the Calcutta and Madras High Courts — in *Saganka versus Dishnet and Vodafone versus RK Productions* respectively — passed ‘John Doe’ orders conditional on blocking specific links only. The limitations of this were soon evident, as the page blocked by the Calcutta High Court, songs.pk, migrated to songsapk.pk. In 2016, the Delhi and Bombay High Courts — in *DEITY v Star and Balaji v BSNL* respectively — passed similarly restrictive orders, with the latter directing the plaintiffs to list individual download links and get them vetted.

Amidst concerns that judges were going two steps backwards and hindering enforcement efforts, the Delhi High Court recalled its order and held that ‘rogue websites’ indulging in ‘rank piracy’ could be blocked outright. Subsequently, the Bombay High Court blocked over 100 websites outright instead of specific links, including thepiratebay.org and limetorrents.cc. Courts have also permitted plaintiffs to impede the Indian government’s telecommunications departments, directing them to ask ISPs (to whom they grant operating licences) to block websites. This was after ISPs (sluggish to comply with copyright laws) claimed that they were not obliged to block websites merely on receipt of correspondence from law firms annexing court orders.

In April 2019, copyright owners secured a major victory after the Delhi High Court (in *UTV v 1337X.to*) passed a broadly-worded dynamic website blocking order against a laundry list of defendants. Significantly, the court made a number of observations emphasising the need to curb piracy in India. The court cited studies by the Motion Picture Association and discussed legal developments in multiple jurisdictions (from Asia, the dynamic site blocking injunction passed by the Singapore High Court in *Disney v M1* last year, and recent policies for site blocking in South Korea, Thailand, Malaysia and Indonesia). The court also directed the Indian telecommunications departments to consider a policy where internet users could be issued warning messages. This decision is proving to be a gamechanger that could hobble pirate networks significantly. For example, between July and August 2019, the court passed a dozen similar orders, in cases initiated by Warner Brothers. In one case (involving the notorious pirate syndicate Tamil Rockers), the court required Warner to simply file an affidavit establishing that a newly impleaded website was a ‘mirror/redirect/alphanumerical’ version of the original, following which the court’s Joint Registrar would direct ISPs to disable access.

Going forward, we can think of other measures that will make website blocking more effective, including a few test cases, legislative amendments, and dialogue between the government and copyright owners.

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**ABOUT THE AUTHORS**

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GLOBE TELECOM CONTINUES TO FIGHT PIRACY, BY ENCOURAGING CONSUMERS TO #PLAYITRIGHT

Piracy continues to be a problem in the Philippines. Not only does it infringe on the livelihood of content producers such as artists, filmmakers, and musicians, it also puts its clueless consumers at risk.

Frustratingly, many Filipinos have an unhealthy appetite for content theft. A new study of the online content viewing behaviour of Filipinos revealed that 34% use an illicit streaming device (ISD) to view pirated television and video content. The survey, commissioned by AVIA’s CAP and undertaken by YouGov, also found that a staggering two-thirds (66%) of online Filipino consumers are active users of streaming piracy websites and/or torrent sites.

It is the ease of use of these piracy sites and ISDs, the wide range of unauthorised content available for free or cheap subscriptions, and the fact they are readily available from Manila malls or online e-retailers such as Lazada, that has led to a sharp rise in their use by Filipino consumers.

This unhealthy demand for online theft is compounded by the fact that the anti-piracy laws governing enforcement agencies are outdated. The Optical Media Law of 2003 gave life to the Optical Media Board (OMB) to fight piracy in CDs, VCDs and DVDs.

Today, the Optical Media Law has become obsolete. The OMB can only enforce existing laws under its jurisdiction including the Anti-Camcording Act of 2010 which is confined to movie theaters. Given the outdated laws, Globe can only block sites with child pornography from a list given by its regulator, the National Telecommunications Commission (NTC). In this regard, there is a great need for key industry stakeholders to push for a more aggressive education campaign as Filipinos are not aware of the implications of online piracy.

Given these challenges, Globe Telecom launched #PlayItRight, an award winning anti-piracy awareness campaign with an objective to educate its 74 million customers on illegal content consumption to protect the Filipino family, local entertainment industry, the Globe network and its global content partners.

PROTECTING THE FILIPINO FAMILY

Today’s fast internet transmission speeds have facilitated access to online pirated content. A devastating by-product of this internet era is an expectation amongst some Filipino consumers of getting ‘something for nothing’ resulting in a devaluation in the work of Filipino artists, musicians, actors, and others making entertainment products.

There is a secondary dark side to this appetite for free or cheap, ISD subscriptions to pirated content. It blinds users from the very real risks of malware infection. Piracy websites and applications typically have a click-happy user base and, as such, are being used more and more as clickbait to distribute malware.

In order to increase awareness about the very real risks of consuming illegally downloaded and streamed content, Globe has released a number of educational videos as part of its #PlayItRight campaign. For Globe’s home internet brand, Globe At Home, a video was created that shows local comedian Kiray Celis comparing the quality of content from an illegal source and a legitimate source. Kiray further explains in the video that illegally consuming content via torrents and illicit streaming sites can expose its consumers to malware and viruses, thus harming their devices and putting their digital safety at risk.

We want to change perceptions that piracy is no longer ‘cool’ as well as informing consumers that their behaviour does not give the people who create content the rewards and respect that’s rightfully due to them.

PROTECTING THE GLOBE NETWORK

Due to red tape and outdated ICT laws, the Philippines has only 17,000 cell sites and 126 million mobile users (more than the population of 110 million). In line with this, network congestion has become a problem given the active Filipino internet user. As Globe lobbies to build more telco infrastructure, it needs to protect its network from unnecessary internet traffic such as piracy. Based on Globe monitoring, there are around one million users who frequent illegal sites that add to internet congestion in the Globe network.

PROTECTING THE GLOBAL CONTENT PARTNERS AND OWN CONTENT

Globe considers one of its biggest priorities is to protect the intellectual property rights of the company’s original content and the licensed content of its global and local partners. Since 2014, Globe has been introducing various content and service providers such as Disney, Spotify, Netflix and HOOQ, among others, to allow the Filipino audience to consume digital content legally.

Globe Telecom also partnered with the Optical Media Board (OMB), the government agency responsible for regulating the production and distribution of recording media in the Philippines. Not only does it infringe on the property rights of the company’s original content and the licensed content of its global and local partners. Since 2014, Globe has been introducing various content and service providers such as Disney, Spotify, Netflix and HOOQ, among others, to allow the Filipino audience to consume digital content legally.
**COMBATTING PIRACY**

With the OMB, Globe Telecom organised a series of events and seminars for over 2,500 high school students and 100 law students that tackled the negative impact of online piracy to the economy, specifically the film industry. It also held information campaigns in various schools across the country discussing the dangers of engaging in movie, TV, and music piracy.

**PROTECTING THE PHILIPPINE CREATIVE INDUSTRY**

Globe also inked a partnership with the Film Development Council of the Philippines (FDCP) for its annual film festival, Pista ng Pelikulang Pilipino (PPP). The all-Filipino festival adopted #PlayItRight and promoted it alongside its films.

During the festival season, PPP featured short clips of all eight film entries showcasing the total number of hours and manpower all the movies took to make. This was to emphasise the effects of piracy on the lives of those in front and behind the camera.

At the 2017 Metro Manila Film Festival (MMFF), #PlayItRight also launched the Piracy versus Piracy initiative. The campaign employed YouTube videos that were made to look like illegally uploaded movies from the film festival.

The videos contained anti-piracy messages straight from the film professional who worked on the movie. "I hope that instead of looking for a new torrent or website, you would consider watching Siargao the right way. Because if no one watches Filipino movies the right way, no one will want to make Filipino movies" said Lora Ledesma, Special Effects Artist of 2017 MMFF entry Siargao, on the video.

Globe then released other material on social media, particularly Facebook, highlighting the difference in quality between legitimate content and illegitimate content. It also showed the dangers of malware that can compromise the user’s data privacy.

**SUCCESS AND RESULTS**

The success of the #PlayItRight campaign has created a ripple effect on the commercial aspect of the company and renewed interest for the various sectors of the government to stop online piracy in the Philippines. The results of the education campaign are threefold: Commercial Contribution, Relationship Building and Campaign Performance.

**Commercial contribution**

#PlayItRight contributed to the reduction of internet traffic to illegal sites in the Globe network which declined by 53% six months after the start of the campaign among Globe subscribers who watched videos. The total traffic of illegal sites in 2018 went down to 8.46 petabytes from 18 petabytes (or 3% of total traffic of 600 petabytes) in 2017. The campaign also helped increase access to legitimate sites. In 2018, GoWatch and Play increased by 170% due to growing demand for online entertainment and video streaming.

**Relationship building**

The bandwagon effect that built relationships and collaboration with key stakeholders such FDCP, OMB, IPO, NTC, AVIA and CAP resulted in the sponsorship of a bill in the Senate of the Philippines to stop online piracy. Known as the Senate Bill 2109 written by Senate President Tito Sotto, a copyright owner or exclusive licensee may file an application to the IPO to require all ISPs, or any person or legal entity that provides access to an online location, to take reasonable steps to disable access to an infringing online location.

**Campaign performance**

The #PlayItRight campaign in 2018, achieved a total media mileage of PHP308,511,860 with PHP291,396,062 coming from social media efforts and PHP17,115,798 from PR stories picked up in both mainstream and digital media. The social media push in Facebook had 579,530 engagements and 6,992,693 views. On Twitter, #PlayItRight received 40,764,900 impressions with 4,339 mentions. The PR side was able to deliver 355 pick-ups in mainstream and digital media, or a total of PHP17,115,798 of mileage.

In the words of our President and CEO Ernest Cu “As we create new forms of content, this is an opportunity for Globe to enhance synergies with other stakeholders in the global entertainment industry. Through AVIA, we will ensure that our customers get the full benefit of our partnerships. In addition, it will help strengthen our advocacy of protecting original content providers against piracy. The battle against illegal consumption of digital content continues, but Globe Telecom is committed through its partnership with AVIA — to further its message to consumers to Play It Right.”

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**Globe** is a leading full-service telecommunications company in the Philippines and publicly listed in the PSE with the stock symbol GLO. The company serves the telecommunications and technology needs of consumers and businesses across an entire suite of products and services including mobile, fixed, broadband, data connectivity, internet and managed services.

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**by Yoly Crisanto**

Senior Vice President for Corporate Communications

Globe
SCALABILITY

KEY TO SUCCESS IN ONLINE VIDEO BUSINESS PERFORMANCE

The global TV and video ecosystems are increasingly facing a new daunting reality: all content can be illegally redistributed worldwide to any device, costing billions of dollars in lost revenue.

Consumers are connected anywhere and everywhere, massively increasing the attack surface for content, consumer data and intellectual property theft at large. As such, a more comprehensive approach that encompasses a pay TV operator’s entire service is essential to the next generation of content security.

Yet, this isn’t a simple task by any means; Operators will have to simplify operations and reduce overheads, while still meeting all relevant Hollywood and sports rights holder requirements for content protection. They must also look to rationalise architectures by selecting a scalable, modular, cloud-based solution to unify all aspects of their content protection needs – regardless of which network or device they’re delivering content to. And of course, it’s critical to work with a partner who can deliver a solution specifically designed for converged networks – but one that’s also easy to deploy and addresses the need for scale and global reach.

But first and foremost, it’s important for pay TV operators to work with the right technology partner who can guide them to accurately and holistically assess those needs against main areas of concern such as monetisation, convergence, service, analytics and business intelligence. In this way, they can determine and prioritise the steps required to adequately address the threats.

This is where a scalable service protection strategy takes on its full meaning, helping service providers and content owners arm themselves to overcome the many threats levied against their services today – whether it’s direct threats to content, or broader threats at the service level from the increasing adoption of IoT devices – with Cloud-based solutions that can scale across operations of different sizes. They can also provide online trial options and leverage adaptive security for optimal performance across a vast client device ecosystem.

Of course, protecting content is just one element in the equation. In the Asia Pacific region, getting people to pay for content entails delivering compelling and engaging features, exclusive content, consistency of quality of service, and consistency of accessibility.

More broadly, the region is unique to almost every other – the population is overwhelmingly young, and the GDP is increasing across many markets. With that, there is an increased propensity to spend on entertainment and communication after basic needs are met.

But as we look forward to the next generation of content security, the imperative for operators is to implement a scalable and modular system for managing multiple environments across existing and newer generation client devices. This also means giving service providers complete control of content value protection across all their networks, devices and use cases, along with anti-piracy services and tools to keep premium content secure. This is particularly important in Asia where easier access to pirate services is increasingly squeezing pay TV revenue.

The piracy threat was a key area of focus in the 2019 pay TV Innovation Forum programme. Its latest research highlighted that piracy is evolving and continues to be a significant challenge for the global pay TV industry, with 60% of executives surveyed considering it as challenge to their business. The findings also indicated that nearly half of executives (48%) expect that content piracy will lead to greater pressures on the pay TV industry over the next five years.

So it is clear that piracy, and the fight against it, continues to be top of mind for the industry. Studios, sports rights owners and pay TV service providers must come together to understand, manage and disrupt the ecosystem – it’s not just an issue of technology alone; having the right technology is the first step. In essence, the right technology needs to enable three key actions: stopping leaks at the source (with technologies like forensic watermarking), disrupting pirate infrastructure and blocking access to pirate content when possible (with anti-piracy services). There is no silver bullet and, in the end, it’s about doing several complementary actions that will make end users feel annoyed, frustrated and cheated by the pirate experience. If you want to watch something and it does not work, you give up. Pirate customers are no different.

Looking ahead, with conversations dominated by the prospect of “anytime, anywhere content delivery”, the key will be to stay on top of new content security challenges as they arise while proactively laying the foundation for a more comprehensive approach to protecting their service at large. Ultimately, scalable service protection benefits everyone in the ecosystem. For service providers, it simplifies customer acquisition and extends their market reach to the natural adjacency of broadband security; and for consumers, it delivers more convenience and value so they can enjoy the content they love.

The Asia Pacific TV industry is primed for change. The challenge for service providers is in not only facing new trials, but also leveraging current and emerging opportunities together to create positive results in the region.

by Stéphane Le Drea
Senior Vice President
Regional General Manager Asia Pacific
NAGRA

NAGRA, the digital TV division of the Kudelski Group, provides scalable service protection and multiscreen user experience solutions for the monetisation of digital media. With a focus on cloud-based strategies, NAGRA offers content owners and pay TV service providers worldwide, secure, open and integrated platforms and applications enabling compelling and personalised viewing experiences.
What are you most pleased about that you have accomplished in the last twelve months?

Our team has put in great efforts in working with our satellite operator colleagues on protecting the interests of various stakeholders in our industry – on issues such as C-band spectrum reassignment for 5G, space debris and other challenges that the GEO business is currently facing. All these issues have far-reaching implications for the future of the satellite services that our video customers are now enjoying.

We are very pleased that with the concerted efforts of 17 satellite operators, the industry was able to convince Maxar to reaffirm its commitment to the GEO satellite market.

What are your biggest challenges in the next twelve months?

Both the satellite industry and players in the video ecosystem are facing challenges from changing consumers’ needs and expectations.

Clearly, the arrival of 5G services will pose a huge challenge to satellite operators, and it is important to manage our customers’ concerns about possible signal interference, future capacity availability and services convergence.

For the satellite industry, a significant milestone will be the WRC-19 in November. In preparation for this meeting, our spectrum team has actively participated in workshops organised by industry associations – including AVIA and the Global Satellite Coalition – to protect existing C-band satellite service against 5G deployment. Through maintaining an ongoing dialogue with both government regulators and industry players, we anticipate each country will find the right balance between facilitating terrestrial wireless developments while ensuring that current and next-generation satellite systems and networks will have a vital role in the 5G ecosystem.

In the meantime, we have worked with microwave experts to develop a new high-performance bandpass filter to help protect against “out-of-band” interference from 5G networks. Results from field tests and customer sites installation have been positive – our new 5G filters have proven to be effective in preserving picture quality delivered by C-band transmission, even when 5G base stations are operating at close range.

Do you have a vision of where our industry will be in five years?

I think not many people could have predicted five years ago how fast OTT would develop and get to where it is today. It is very hard to predict what the video industry will look like in the next five years.

The satellite industry has reached the digital age where you can use Moore’s Law to predict future developments. There are reports predicting huge growth for emerging OTT markets such as India to become the second largest OTT market after China in five years. Our challenge will be how we can adapt to rapid growth by providing our customers with the right type of services that they need.

What do we need to do better together as an industry?

I would like to think more cooperation among industry players would create better value that will, in turn, benefit all our customers. The recent joint efforts of the satellite operators in defending C-band spectrum and to ensure the harmonious co-existence of satellite and 5G services is a good start.

However, the industry also needs more vertical cooperation with infrastructure and applications providers working together to develop end-to-end services that can meet our customers’ needs and expectations. Horizontal consolidation has proven to be difficult but vertical cooperation should definitely be explored further.

What recent programmes have you bingewatched and would highly recommend to friends?

I always go for quality instead of quantity or flexibility. I would rather enjoy 4K live sports events than binge-watch the entire season of a TV show or drama series. I do expect higher broadcast programme quality in the years to come, be it sports or drama.

I shall look forward to watching the 2020 Tokyo Olympics in full 4K – or even 8K, which is a good indication of how rapidly broadcast technologies are evolving in Asia.
What are you most pleased about that you have accomplished in the last twelve months?

Our customers spend over four hours on Astro TV and Astro GO daily and today our own content underpins more than two-thirds of this viewership. We have the number one drama which achieved over three million viewership and our original animation IPs “Didi and Friends” and “Omar and Hana” are amongst the most popular Malaysian YouTube channels with sold-out extensions for on-ground events.

In addition, our local films have set new records with Astro garnering over 60% of the total local box office collection. Our films “Hantu Kak Limah”, “Paskal The Movie” and “Polis Evo 2” rivaled Hollywood blockbusters “Venom, Mission: Impossible – Fallout” and “Deadpool 2”, in Gross Box Office (GBO). Our latest partnership with Animonsta on “Boboiboy Movie 2” made history by becoming the number one animation feature of all time in Malaysia, trumping Disney’s “Frozen” and Pixar’s “Toy Story”.

We are excited about “The Garden Of Evening Mists”, the adaptation of the award winning book by Malaysian author Tan Twan Eng, featuring an international and renowned scriptwriter, director and cast, which has been nominated for nine awards including Best Film at the prestigious Golden Horse Awards.

The combination of our winning content and strong penetration of over 75% of Malaysia households make us the ideal partner for any adjacent businesses such as broadband and global OTTs. Most recently, SmartStudy have signed on to co-produce for the first time ever the live action show of the global phenomenon “PinkFong and Baby Shark”.

What are your biggest challenges in the next twelve months?

Piracy continues to be the number one scourge of the industry and to our business. Simply put, piracy is theft and we cannot fight this theft alone. If content owners do not do enough to keep piracy in check, they will continue to devalue their IP. As an industry, AVIA, CAP, platform and OTT players, content networks, ISPs, talents and the regulators must work together to raise awareness and take concrete actions to safeguard the interest of content buyers. These include the government regulations mandating the blocking of sites, strict enforcement, industry vigilance and consumer education.

Breaking away from existing practices, such as the slicing and dicing of rights and content windows, continues to confound us.

The investment in technology and the lead time to roll out products and functionalities are a challenge, however, they also enable us to leverage on the vast data on customer interactions collected over the years that will underpin our ambitions in the adjacencies such as OTT, broadband, commerce and a data driven marketing network.

Do you have a vision of where our industry will be in five years?

Technology will provide an environment of parity and continue to democratise the delivery of content and services, and will remain a key enabler. Pureplay OTT will be passé given that technology will enable much more than viewing – from gaming, to purchasing, social, interactive and much more. Content will grow in priority and be a key differentiator. We believe that we are in a strong position given our years of building up capabilities in the ideation, development, creation and production of original content from film, TV, digital and audio including managing talent.

What do we need to do better together as an industry?

The industry must come together to fight piracy. The industry also has to break away from legacy practices by which pirates are not bound.

What recent programmes have you binge-watched and would highly recommend to friends?

Jon was appointed after the Asia and Australia & New Zealand regions were brought together by BBC Studios to form one Asia Pacific region in October 2019.

What are you most pleased about that you have accomplished in the last twelve months?

The BBC Studios Australia business has a long history of partnership with national pay TV network Foxtel. Every few years we have the opportunity to renew our partnership and to adapt it for changes in audience interests and behaviour. In July this year we completed the renewal, bringing back all four branded services, including BBC First, and with agreement to launch a new service and global BBC brand – BBC Earth. We significantly improved the VOD offering of BBC content on Foxtel as well. I am also very pleased to have led the team who, after closing this deal, then went on to extend our carriage deal with Sky NZ and renew our partnership with IPTV company Fetch TV. We also re-signed with Foxtel Media for advertising sales representation, so it has been quite a year.

What are your biggest challenges in the next twelve months?

The most exciting challenge I face is to stitch our Australia & New Zealand and Asia businesses together to operate as one Asia Pacific region, for the first time in the BBC's history. I enjoy selecting and managing teams and watching the ideas pop from the increased collaboration that this will bring. At a business level, we need to refine our Asia Pacific digital (OTT) strategy and need to continue to develop the Greater China market-place and grow our business in India. Things are moving so fast in many Asian markets at the moment that it can be hard to keep up. We need to be organised, efficient and focused to meet the challenge.

Do you have a vision of where our industry will be in five years?

I can imagine a world in five years where “streaming” as a distinct distribution method has become a thing of the past and content has just become available to all of us in whichever way we chose to consume it. As the major players re-tool their business models to embrace the new world, launching an unlimited number of new services, I do think that there will have to be a degree of aggregation and therefore new aggregation services, perhaps based on AI, to make consumer choice easier. I also think that podcasting will go mainstream.

What do you need to do better together as an industry?

Believe in the power of our brands and our content, celebrate, collaborate and, sometimes, stop to smell the roses. The pace of change is so fast that it can lead to a frenetic work style that can be unhealthy.

What recent programmes have you binge-watched and would highly recommend to friends?

My favourite recent drama series is the brilliant “Chernobyl”. I went out immediately and bought the book and subscribed to the companion podcast. I am crazy about military history so I am looking forward to upcoming BBC First series “World on Fire”. I’m a bit of a news junkie so I can’t get enough of the ABC’s 7.30 Report, Australian Story and, of course, BBC World News. I’m also looking forward to binge-watching the original “Planet Earth” series when BBC Earth launches in Australia this October.

BBC Studios, a global content company with British creativity at its heart, is a commercial subsidiary of the BBC Group. Taking ideas seamlessly from thought to screen, it spans content financing, development, production, sales, branded services, and ancillaries from both its own productions and high-quality UK independents.
What are you most pleased about that you have accomplished in the last twelve months?
The past ten months have been very challenging as we were just out of our merger with Scripps network. We had lost the StarHub account and the teams had a hard time bouncing back. I spent a lot of time managing change in our business as well as in the office, getting the belief back and the machine to roll again!

Today I can say that there is still a lot to do but we can be proud of some of our achievements: HGTV has experienced a huge growth since we acquired it from Scripps: it achieved its best quarterly performance in Q2 2019 since its debut in South East Asia, driven by hit shows like Property Brothers, House Hunters and Perfect Home Asia.

AFC is the most loved channel of our portfolio in South East Asia and on the digital front, AFC.com has had some great wins, such as the short form video “Thai bananas in coconut milk” which went viral on social media and reached more than 17 million viewers organically in June this year.

TLC achieved its best performing quarterly rating performance since Q1 2018 driven by “Dr. Pimple Popper”, “Master Chef Australia”, “Buddy vs Duff” and “Cake Boss”.

Last, but not least, our office turned into a start-up, as we have a D2C product coming up soon.

What are your biggest challenges in the next twelve months?
We are an affiliate business and we want to continue improving our working relationship with our partners. We have introduced some changes and 2020 will be about testing out more new ideas!

As I mentioned earlier, we are hard at work on a digital project we will be launching before the end of 2019. 2020 will be all about scaling our reach and community engagement in South East Asia and beyond. This AVOD product is complementary to our traditional business and is in line with our global strategy to power people’s passions.

Do you have a vision of where our industry will be in five years?
Platforms will be more and more hybrid. They will combine social media, content consumption, music, communication, e-commerce, games, probably with a high usage of AR. And of course, consumers will decide of the fate of these platforms depending on how they engage with them. For example, consumers will always like good content, so these platforms will need to invest in their content.

Eventually, and this is in line with what we have witnessed in the past years, there will be more consolidation of the market and the smaller players will disappear.

What do we need to do better together as an industry?
I think about two areas of improvement for our industry. The first one is that we need to think more creatively on how to fight against piracy. The second area has to do with the consumer. I think we need to be consumer-obsessed and put back the consumer at the heart of everything we do.

What recent programmes have you binge-watched and would highly recommend to friends?
I am a big fan of European series that I can find on Netflix, certainly because I lived in France for a long time. For example, I really enjoyed the French series “Call my agent!”. On another note, I have just finished watching the Steven Spielberg Series “Why We Hate” that Discovery will start airing this month in the USA and on October 20th in South East Asia. This type of series makes me proud as I can see that Discovery does not shy away from tackling difficult topics – the origin of hate in this case. Finally, my family and I binge-watch HGTV, and especially “Perfect Home Asia”. So you can see, I have eclectic tastes!
What are you most pleased about that you have accomplished in the last twelve months?
We are pleased with our overall growth, especially in countries outside the USA. Non-USA countries now represent over 60% of our global member base. We launched in Asia in January 2016, and that changed the way we thought about our content and our product. In the first two years in Asia, we focused on learning as much as we could about the region. Netflix has always believed that great stories can come from anywhere. Asia opened up a massive pool of talented storytellers. Unlike other parts of the world, some of the challenges were unique too. For instance, several countries in Asia are truly mobile-first.
Since 2018, we leveraged our learnings to further invest in localisation, content production as well as building innovative product features tailored to Asia. For instance, the Mobile Plan we launched in India earlier this year, Vertical Previews (since browsing on phones is done with the phone held upright), Smart Downloads (to make watching content on-the-go easier than ever), sharing to Instagram Stories, even an adaptive user interface that optimises for entry-level Android phones and uses less phone memory.

What are your biggest challenges in the next twelve months?
Our biggest challenge is to provide the best possible experience in Asia; one that’s so good that it makes piracy redundant. We believe that focusing on our product and ease of use, and delivering joy to our customers when they browse and watch on Netflix, will pay off in the long run. For instance, with adaptive streaming, we adjust our stream as your data fluctuates – at home, in transit, inside a tunnel. Our members love it since buffering is one of the most frustrating experiences. In that context, we are also ramping our local production efforts in Asia. We have more than 100 new and returning Asian originals, and more than 30 new productions for 2019.

Do you have a vision of where our industry will be in five years?
It will increasingly be a great time to be a customer as they will get more and more content choice and a better experience at the right price.

What do we need to do better together as an industry?
As an industry, we will work closely together to build the online entertainment category. Customers in Asia are used to getting access to content for free. We believe that with more SVOD services launching in Asia, it will be important to prove the value of paying for differentiated, high-quality entertainment shot in 4K, with high-quality sound, and telling stories that are not told elsewhere.

What recent programs have you watched and would highly recommend to friends?
I have just finished “The Spy” and “Inside Bill’s Brain”. These are two amazing Netflix Originals for different reasons. I was particularly impressed by Sacha Baron Cohen’s performance as a “serious” actor. The documentary series on Bill Gates gave me a very different perspective on him, and his and Melinda’s efforts to make our world a better place.

Tony Zameczkowski
Vice President
Business Development Asia
Netflix

Netflix is the world’s leading internet entertainment service with over 151 million paid memberships in over 190 countries enjoying TV series, documentaries and feature films across a wide variety of genres and languages. Members can watch as much as they want, anytime, anywhere, on any internet-connected screen. Members can play, pause and resume watching, all without commercials or commitments.
What are you most pleased about that you have accomplished in the last twelve months?
We are most pleased that our media businesses have continued to evolve and grow in ways that make our offerings current and relevant to viewers today, whether it be our pay TV (Now TV), free TV (Viu TV), or OTT service (Viu).

Our continual investment into the media business delivered solid results despite the changing media landscape and challenges. We continue to pave way for the future, with the launch of new services such as free TV (Viu TV) and our pan-regional streaming service Viu. By leveraging our experience and embracing new technologies and business models, Viu now reaches over 36 million highly engaged users with an average daily time spent of 1.7 hours per viewer.

What are your biggest challenges in the next twelve months?
To continue to identify and invest into stories that resonate with our audience, and the ability to build up a network of talent including producers, writers, directors and actors in Asia. At the same time, while we continue to grow, it is also important that we continually improve the efficiency of our business by leveraging on technologies, whether it be deploying machine learning and AI to enhance a seamless onboarding experience or utilising attribution analysis to more accurately attract quality users to improve user LTV.

Do you have a vision of where our industry will be in five years?
I envisage an even more borderless entertainment ecosystem. Divisions between roles in the value chain will continue to blur, and many organisations such as ours will be operating in areas we are not involved in today. Technologies will continue to enable us to grow our businesses but will also create new challenges for us. However, we will never lose sight of the fact that great content will always be our industry’s key driver.

What do we need to do better together as an industry?
We need to work together more effectively to combat piracy and protect the value of content assets behind which we all put so much investment in order to make our industry more sustainable.

What recent programmes have you binge-watched and would highly recommend to friends?
I would recommend “Chernobyl” on HBO, Korean drama “Hotel del Luna” and Viu Originals “Keluarga Baha Don” from Malaysia, as well as “Rewrite” from Indonesia. And, from what I have seen so far, I am most looking forward to “My Bubble Tea”, a Viu Original from Thailand which will broadcast online soon.

**PCCW Media Group** is a leading, fully integrated multimedia and entertainment group in Hong Kong, offering pay TV, free TV and Over-the-Top (OTT) services with original content and premium international and regional branded content.

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**JANICE LEE**
MANAGING DIRECTOR
PCCW MEDIA GROUP
What are you most pleased about that you have accomplished in the last twelve months?
Growth of our non-traditional revenue streams in location-based entertainment and licensing and merchandising. We Bare Bears, for example, is just a four year old intellectual property but has become a significant franchise for us in Asia and we have been able to capitalise on fan desire to embrace it beyond video content.

What are your biggest challenges in the next twelve months?
Rather than challenges, I see our biggest opportunity, now that we are part of AT&T and WarnerMedia, is the chance to do more, and collaborate more, with all the business units within our group to deliver greater value for our partners and an even better experience for our fans across all platforms.

Do you have a vision of where our industry will be in five years?

What do we need to do better together as an industry?
We’ve made progress but there is still more to be done in combatting piracy. We also need to encourage and recognise Asian original productions.

What recent programmes have you binge-watched and would highly recommend to friends?
I have just finished watching the Korean adaptation of “The Designated Survivor”: “60 Days (60일, 지정생존자)” and have to say it was so well produced it is arguably as good or even better than the original!
What are you most pleased about that you have accomplished in the last twelve months?
The last twelve months of operation have been quite incredible for us with positive outcomes on all fronts: distribution, revenues and audience. Our channels now reach over 112 million homes in the region, 27% of all hotel rooms above three stars, with new audience highs in our primary market, India.

What are your biggest challenges in the next twelve months?
The biggest challenge now will be to continue on the same path, as the industry is going through massive disruption, especially, but not only, in the mature markets.

Do you have a vision of where our industry will be in five years?
The Asia Pacific region represents, nowadays, over 61% of the global pay TV market, but only less than 17% of its revenues. In parallel, North America, with less than 10% of global pay TV subscribers, count for over 52% of the global revenue pie.

It is therefore difficult to say where our industry will be in five years from now. Decisions made to balance the pay TV loss of revenues in the USA will be impacting the rest of the world, including Asia Pacific. It is hard to predict how Disney Plus, HBO Max, Peacock and other global and local direct-to-consumer services will be altering the pay TV operators’ business. Nevertheless, I believe Asia, as a whole, will resist better than most regions. The reasons are a lower entry price and a growing middle-class population in markets like India, Indonesia and, of course, China.

The key to our success will be our capacity to differentiate our B2B and B2C approach and offering. If we manage to do so, we will be able to keep the relevance of each constituent of the video industry ecosystem.

What do we need to do better together as an industry?
We should stand together to fight our common enemy: piracy! It is a global issue that does not only affect broadcasters, whose content is stolen, but also, by extension, the operators and the entire industry.

As a video industry, we also need to be careful about regulation. Our goal is to ensure that all kinds of curated content, whether it be online or on traditional pay TV, is treated in such a way to encourage innovation and creation.

What recent programmes have you binge-watched and would highly recommend to friends?
I, unfortunately, do not have much time to binge-watch content. The last time I did, it was on a plane to Europe when I watched an entire season of “Vikings”.

Generally speaking, and being a big fan of fantasy, I would recommend “Game of Thrones”, but I guess everyone has seen it already :).

Alternatively, for those interested in this genre, I would recommend “The Last Kingdom”. Otherwise, I love watching French police dramas. They are so realistic and genuinely engaging. “Cain”, “Cherif” and, recently, “Captain Marleau” are a few great examples you can watch on… TV5MONDE.

TV5MONDE is the world’s cultural TV network in French. It offers a wide variety of subtitled primetime films and dramas, international news, live sports, high-quality documentaries and discovery magazines, kids’ programmes, cooking & design, as well as exciting game shows.
The proliferation of Over-the-Top (OTT) video has taken its toll on the traditional pay TV industry in the Asia Pacific region. The impact was felt across the multichannel landscape in many markets as the region lost nearly 5.9 million cable TV subscribers and 600,000 Direct-to-Home (DTH) subscribers in 2018.

Despite customer losses in the DTH and cable sectors, the region’s overall multichannel subscriber base still managed a 4.2% increase Year-on-Year during the same period, ending 2018 with 648.9 million connections. Growth primarily came from China’s IPTV sector as two of the country’s state-owned telco incumbents, China Telecom Corp. and China Unicom, sought to increase broadband value propositions with low-cost video add-ons.

Over the next ten years, Kagan analysis indicates the number of total multichannel subscribers in Asia Pacific will continue to increase annually, but at a slower rate than in the past. As a result, multichannel penetration of TV households will largely remain flat at roughly 70% beyond 2019, as further growth is constrained by pay TV alternatives including OTT and Free-to-Air (FTA) digital terrestrial or satellite services.

China and India remain the two largest multichannel markets by subscriber, collectively accounting for nearly 80% of the region’s total pay TV households. On the flipside, their multichannel subscription average revenues per user are among the lowest in the region at typically US$2.00 to US$3.00 per month, resulting in smaller market shares in terms of revenue.

In 2018, total multichannel subscription revenue for Asia Pacific reached US$34 billion, a 3.1% Year-on-Year growth. As ARPU improves, our analysis indicates multichannel revenue is projected to grow at a 4.9% CAGR over the next ten years, and will reach nearly US$56 billion by 2029.

Region-wide, cable is expected to maintain its lead position within the next ten years in both subscriber and revenue terms. Nevertheless, its shares will be eroded year after year by DTH and IPTV. Our analysis estimates cable accounted for 58.2% of multichannel households and 56.1% of multichannel service revenue in the Asia Pacific in 2018.
**DTH MARKET**

Our analysis indicates the DTH sector served 91.6 million multichannel households in Asia Pacific as of 2018, a minor 0.6% fall from the previous year. Despite the decline, we anticipate DTH will regain subscriber growth in the region over the next ten years with a 4.7% CAGR, reaching 153.8 million households by 2029. During the same period, DTH service subscription revenue is projected to grow from US$8.07 billion in 2018 versus US$14.48 billion by 2029.

India will remain the single largest DTH market in Asia Pacific, with a roughly 70% subscriber share and more than 30% revenue share for the foreseeable future. However, the market generated the lowest DTH ARPU in the region during 2018, at just US$3.12 per month.

In contrast, the highest DTH ARPU in Asia Pacific was found in Australia, at US$66.39 per month in 2018.

Within Asia Pacific, DTH is the dominant multichannel platform by subscriber count in Australia, India, Malaysia, Myanmar, New Zealand, the Philippines and Sri Lanka. In the long term, while India will continue to be the main driver for DTH growth in the region, our analysis indicates the DTH market size will shrink across several geographies, including Japan, Malaysia, New Zealand and South Korea. Shifts in consumer preference from full multichannel packages to flexible online video alternatives are largely what is stopping DTH businesses from growing in these markets.

**DTH SUBSCRIBERS BY MARKET**, as of December 2018 (million)

**DTH SERVICE REVENUE BY MARKET**, as of December 2018 ($US million)
CABLE MARKET

The cable TV market in Asia Pacific has been losing multichannel subscribers since 2016, a trend we anticipate will persist over the coming years. As of 2018, cable served 377.5 million pay TV households in the region, down 1.5% from the previous year. The biggest cable TV subscriber churn occurred in China with loss of six million connections in 2018, as a result of the fast growing IPTV and OTT sectors. During the same period, cable experienced subscriber declines across a number of other territories as well, including Hong Kong, Japan, the Philippines, New Zealand, Singapore, Korea, Taiwan and Vietnam.

Over the next ten years, cable TV subscription revenue is projected to grow at a 3.3% CAGR, from US$19.1 billion to US$26.4 billion by 2029. Taking inflation into account, revenue growth at a regional level will largely stay flat, with revenue losses expected in New Zealand, Taiwan and Singapore. In fact, existing operators in both Singapore and New Zealand are phasing out their cable TV platforms in favour of IPTV and OTT.

Digitisation of analogue cable systems has been fully achieved in Australia, Hong Kong, Japan, New Zealand, Singapore and Taiwan as of 2018, with additional markets on their way to digitisation within the next ten years. At year-end 2018, our analysis indicated 71.9% of cable TV households in Asia Pacific markets had a digital connection, a figure projected to increase to 96.6% by 2029. Historically, analogue cable connections were prone to widespread content piracy in the form of signal theft in many parts of the region.
IPTV MARKET

IPTV is the fastest growing multichannel platform in Asia Pacific. As of 2018, our analysis indicates the total number of IPTV households had reached 177.9 million, up 22.4% year-on-year. Much of the growth came from the Chinese market, where IPTV is marketed as a telco value-added service with minimal monthly cost. Over the next ten years, we anticipate China’s pay TV sector will become nearly saturated, hence the slowdown in overall IPTV subscriber growth region-wide. By 2029, the Asia Pacific IPTV subscriber base is projected to reach 329.5 million connections.

With a 10.7% increase year-on-year, subscription revenue for IPTV services amounted to US$6.7 billion in 2018 across the region, and is projected to more than double by 2029 to US$14.3 billion. Since 2010, The IPTV economy in Asia Pacific has been dominated by South Korea, Japan and China which, in 2018, collectively accounted for three-quarters of aggregate revenue. Although China grabbed more than 80% of the region’s IPTV households in 2018, it only contributed to less than 20% of revenue due to the sector’s ultra-low monthly ARPU at less than US$1.00. In contrast, New Zealand generated the highest IPTV subscription ARPU in 2018, at an estimated US$50.58 per month.
More than 216 million households in Asia Pacific, according to our estimate, received FTA digital terrestrial TV (DTT) in 2018, translating to a 23.2% penetration rate of TV households. As national governments facilitate implementation of digital switchover initiatives, the number of FTA DTT homes is projected to more than double within the next ten years, reaching 448 million by 2029.

As of 2018, countries in Asia Pacific that had completed analogue switch-off included Australia, Japan, New Zealand, Singapore, South Korea and Taiwan, with more countries working toward full digitalisation in the coming years. Subscription-based DTT services are available in select South East Asian markets and include Indonesia, the Philippines and Vietnam. As of 2018, we estimate pay DTT served 1.4 million subscribers, maintaining a niche position in the region’s multichannel landscape. In these markets, pay DTT is often offered as a low-cost alternative to full-fledged multichannel packages over DTH, cable or IPTV.

Our model measures a market’s multichannel affordability by calculating the cost of an annual subscription to the dominant multichannel platform as a percentage of per capita gross national income in purchasing power parity. Multichannel affordability tends to be less than 2% for countries where multichannel services are considered affordable for mass-market adoption.

Across Asia Pacific, our analysis indicates pay TV is most affordable in South Korea, China and India, where multichannel affordability was just 0.2% for 2018. On the flipside, Australia and New Zealand have the most expensive pay TV services, with multichannel affordability at 1.6% and 1.4% respectively.

**ECONOMY & MULTICHANNEL AFFORDABILITY**

<table>
<thead>
<tr>
<th>Country</th>
<th>FTA DTT Households</th>
<th>Multichannel Affordability</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Korea</td>
<td>65.9</td>
<td>0.2%</td>
</tr>
<tr>
<td>China</td>
<td>52.5</td>
<td>0.2%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>29.8</td>
<td>0.2%</td>
</tr>
<tr>
<td>Singapore</td>
<td>16.7</td>
<td>0.3%</td>
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<tr>
<td>Philippines</td>
<td>16.5</td>
<td>0.4%</td>
</tr>
<tr>
<td>South Korea</td>
<td>7.1</td>
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<tr>
<td>Vietnam</td>
<td>6.9</td>
<td>0.6%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4.3</td>
<td>0.7%</td>
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<tr>
<td>Japan</td>
<td>3.8</td>
<td>0.7%</td>
</tr>
<tr>
<td>Australia</td>
<td>2.2</td>
<td>0.8%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1.6</td>
<td>1%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>0.8</td>
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</tr>
<tr>
<td>Malaysia</td>
<td>0.6</td>
<td>1.6%</td>
</tr>
<tr>
<td>Other</td>
<td>0.6</td>
<td>0%</td>
</tr>
</tbody>
</table>

**FTA DTT HOUSEHOLDS BY MARKET, as of December 2018 (million)**

**MULTICHANNEL AFFORDABILITY BY MARKET, as of 2018**

Global Multichannel is a service of Kagan, a group within S&P Global Market Intelligence’s TMT offering.

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ASIA PACIFIC PAY VIDEO LANDSCAPE REVIEW

OVERVIEW

The pay TV industry will add 11 million net new customers across 14 markets in Asia Pacific in 2019, according to Media Partners Asia (MPA). This represents the lowest growth rate experienced by the Asia Pacific pay TV industry this century. The deceleration reflects pronounced levels of cord-cutting across the traditional pay TV industry in key markets, partially offset by growth across Direct-to-Home (DTH) satellite and broadband IPTV operators in India, Korea, Malaysia and Vietnam.

Traditional operators are leveraging the growing broadband pie to offer live TV channels and OTT services through bundled fixed and mobile partnerships. This may help sustain linear pay TV distribution in markets with high levels of home broadband penetration and growing mobile connectivity.

Consolidation of pay TV distribution is accelerating, driven by M&A in large markets, such as India and Korea in particular.

BROADBAND & PAY TV

Household spend across developed markets is increasingly dominated by broadband, while cheap mobile broadband is pervasive in emerging markets. This has helped fuel the growth of online video and piracy while also creating an opportunity for distributors of linear content.

Examples include:

Australia
Foxtel’s traditional high ARPU cable & satellite business is in decline. Its subscription-based online video platforms are, however, growing rapidly at much lower ARPPUs. In aggregate, Kayo and Foxtel Go had approximately 800,000 paying customers at the end of June 2019. Both platforms stream live TV sports, news, movie and entertainment channels along with on-demand and catch-up content.

Hong Kong
PCW Media’s Now E service streams live sport, news and entertainment, including premium content from the EPL (English Premier League) and HBO. The service complements PCW Media’s core pay TV service Now TV and caters to the growing OTT market.

Indonesia
Dominant telco Telkom Indonesia has a critical mass of customers for its IPTV service branded UseeTV. The platform bundles pay channels with Telkom’s fast growing fiber broadband service, Indihome. Telkom Indonesia has also integrated OTTs such as Hooq and iflix into its OTT Set-top-Box (STB). Smaller broadband operators such as Linknet, MNC Play and MyRepublic continue to hard bundle pay channels with home broadband services. IPTV and bundled broadband remain the sole driver of pay TV growth in Indonesia amidst the accelerated erosion of DTH subscribers.

India
Traditional pay TV demand remains robust. Broadcast players are also bundling live pay TV channels across mobile, led by Jio and Airtel, and across home broadband, led by Airtel and Tata Sky. Jio’s acquisition of two large cable operators and its investment in fibre broadband will help scale premium home broadband offerings in the future. More consolidation could be in the works if Airtel acquires Dish TV, a leading DTH operator.

Japan
KDDI’s J.COM and NTT DoCoMo have experienced a decent level of bundled pay TV customer growth (at low ARPPUs) through mobile and home broadband offerings. This is critical as traditional pay TV is stagnant although it retains a loyal audience amongst Japan’s older demographic.

Korea
Bundled IPTV, broadband and T-VOD offerings by the three telcos (KT, SKT and LG U+) continue to drive subscriber and revenue growth, partially offset by cord-cutting across cable TV. SKT and LG U+ also acquired large cable MSOs during 2019 – TBroad and CJ Hello.

Malaysia
Market leader Astro, which continues to rely on satellite delivery for pay channels, is entering into partnerships with Maxis and other broadband players to retail pay TV channel bundles at a discounted ARPU.

Thailand
True Corp. and AIS continue to invest in broadband connectivity with some exposure for basic and premium packages of pay TV. Subscriber growth across pay TV has been mixed.

PURE PAY TV

India
India will add 6 million net new pay TV customers in 2019, driven by two DTH players – Tata Sky and Airtel. Regulations from TRAI have hurt cable operators and significantly reduced reach and viewership for niche and international pay channels. Sports, local and regional entertainment remain key drivers of pay TV. Tata Sky is also rolling broadband and OTT services to select premium customers.

Philippines
Cignal, Sky DTH and GSat continue to grow DTH satellite subs outside Metro Manila though at low ARPPUs. Sky Cable continues to struggle in Metro Manila.

Vietnam
Urban markets are almost fully penetrated by pay TV. Digital upgrades are expected to proceed incrementally as capital constraints and the lack of a government mandate limit conversion. The bundling of pay TV and telco services will be key to growing pay TV subscriptions in the future.
OTT

Direct-to-Consumer (D2C) paying online video subscriptions are forecast by MPA to grow by 24% to reach 335 million in 2019, driven by low ARPU subscriber growth in China and India. Subscriber growth across OTT entertainment and sports platforms is especially strong in Australia and New Zealand, and is also growing rapidly from a low base in India and Korea.

D2C customer growth has also been robust in Singapore, offset partially by piracy, while IP infringement and affordability continue to limit significant adoption in markets such as Indonesia, the Philippines, Thailand and Vietnam. SVOD continues to grow at a steady pace in Japan. Global rollouts of Apple TV+, Disney+ and HBO Max, will grow the market for SVOD in Australia, India, Japan and Korea with long-term upside in Southeast Asia.

Media Partners Asia (MPA) is the leading independent provider of research, advisory and consulting services across the media, entertainment, sports, telecommunications and technology industries in Asia Pacific. MPA research reports are widely used by companies for strategic planning and equity & debt transactions. MPA also provides dedicated primary research to measure behaviour across digital video and online gaming platforms. MPA’s advisory & consulting services help clients enter new markets and acquire companies with MPA offering commercial due diligence (DD).
NIELSEN MARKET OVERVIEW

HONG KONG
A review of the media landscape of Hong Kong for the same period for 2019 and 2018 shows that the internet remains the key medium, reporting an increase from 95% to 96%. This was followed by TV viewing which reported a slight drop from 93% to 92%.

Newspaper was a growth medium, reporting a significant readership increase of 4%. The growth was mainly generated by digital platform usage (especially by apps with video content), registering a positive growth of 6.2%. People overall also spent a longer time (+8%) on digital news consumption.

A similar consumption pattern was also observed for online video viewing where there were 4.7% more viewers and online video time spent increased by 9%.

INDONESIA
The TV penetration rate in Indonesia remains stable and still the highest at 95% among people aged ten and over. TV is also the most consumed media with five hours per day.

In the past three years, the growth of internet usage is around 46%, with penetration now around 52%. It is mostly driven by smartphone penetration, which grew 64% compared to three years ago. However, the internet is now the second most consumed media with 3.5 hours per day, following TV consumption. Internet users also interact with other media, for example, 50% duplication with TV, 62% duplication with radio and 72% duplication with print. Internet fills many types of needs such as messaging, social media, online shopping and access to video content. It’s reflected in the apps that are most used by the smartphone users (WhatsApp, YouTube, Facebook, Instagram, Gojek, Grab, Tokopedia etc).

People overall also spent a longer time (+8%) on digital news consumption.

JAPAN
With a 17% increase Year-on-Year, digital media ad spend for 2018 is now on par with traditional TV, reaching 27% of overall share. (Source: Dentsu)

The number of internet users via smartphone continues to grow, surpassing 70 million users in December 2018. While overall time spent on smartphones remains unchanged, time spent on video viewing has significantly increased over the last year. Both free video streaming services, such as YouTube or TikTok, and Subscription Video on Demand (SVOD) services saw a growth in number of users, as well as time spent. As of March 2019, one in four internet users use SVOD services, with Amazon Prime Video being the driving force behind the growth. (Source: Nielsen)

MALAYSIA
For Malaysians, the growing fragmentation of media means more choices for them when it comes to media consumption – it television, radio, newspaper or online – with digital media continuing to grow in significance.

The rate of people using internet in the past year is 79.1%. Nonetheless, traditional media still plays a role in the lives of all consumers. About seven in ten Malaysians are consuming both traditional and digital media, signifying the importance of cross-media integrated campaigns in today’s landscape.

Thus, it is becoming increasingly important for all industry players to have visibility in the entire advertising space in Malaysia. As digital advertising expenditure continues to grow, it often accounts for an increasingly large, yet often unquantified, slice of the total media pie. With the launch of Digital Ad Intel in the first half of 2019, we are one step closer to addressing this issue by providing a single, comparable measurement, to quantify the digital

ASIA PACIFIC VIEWERS
MARKETING SPEND IN MALAYSIA, Whilst also allowing for comparisons with traditional media.

MYANMAR
By 2019, 93% of the Myanmar population aged ten and over were exposed to at least one media form, either traditional (TV, radio, print, OOH) or digital. Media penetration is driven primarily by TV as well as digital. Major television channels broadcasting local TV content and advertising now number over 50 across FTA, pay and satellite with three new TV channels launched in 2019 alone. TV is more consumed among females, those aged under 20, middle Social Economic Class (SEC), and coming from rural areas. Digital has slowed down slightly compared to unprecedented penetration growth in the last two years, and is driven by males, of working age, upper to middle SEC and coming from metro as well as urban areas. Mobile, far more than any other device, is driving internet usage in Myanmar.

Meanwhile, recent political issues have coincided with hesitation in both foreign direct investment and advertising spend in traditional media. Digital ads have seemingly also taken some share in advertising expenditure, with Myanmar agencies servicing digital advertising requirements now listed at around 50.

NEW ZEALAND
Digital Content Ratings (DCR) has launched in New Zealand, with the roll-out across key digital publisher clients across the rest of the year and into 2020. DCR provides daily measurement of unique audiences across digital content types including text and video, with metrics comparable to television audience measurement and in-app measurement also included.

THE PHILIPPINES
TV is still the most consumed medium in the Philippines, with an average minute rating (AMR%) of 15.9% as recorded by the Philippines television audience measurement (PhinTAM) and PHP 179,780,000,000 in ad spend in Q2 2019, making up 71% of total adspend (minus digital). After a small dip in 2017, TV rose again in 2018, driven by a continuing adoption of Digital Terrestrial Television (DTT) boxes, to the point where four of the top ten TV channels measured by PhinTAM are DTT-exclusive channels.

Digital usage has also continued to increase, with 70% of urban Philippianos using the internet ‘Yesterday’ in Q2 2019, an all time high. This is now significantly ahead of radio (45%), and thus makes the internet an indispensable part of ad campaigns.

These two realities make it fortunate that Total Ad Ratings (TAR) has been launched in the Philippines as of July 11, and that YouTube in-app certification for Digital Ad Ratings (DAR) was finalised on June 1. Additionally, the Philippines Nielsen Media Impact (NMI) tool now has digital media groups, so it is possible for clients to analyse a total view of their plan in NMI and a TV and digital view of their execution in TAR.

SOUTH KOREA
Both homes using TV (HUT) and people using TV (PUT) have been decreasing for three years and the decrease in HUT is due to an increase in single-person households. Pay TV channels ratings have been ahead of FTA channels ratings since 2018 Q2 and it is still increasing in 2019. By demographic, people under 40 watch more pay TV channels, while over 50s watch FTA channels.

In 2018, digital (mobile and PC) ad spend (US$3.7 billion) surpassed broadcasting ad spending (US$3.3 billion). Digital ad spend accounts for 38% of total ad spend (US$9.9 billion), and mobile ad spend alone accounts for 24% (US$2.3 billion). Mobile ad spend took the largest market share by media, and is estimated to increase by about 3% in 2019.

Smartphone penetration has reached up to 91%. iOS takes 21% share of smartphone users, and 50% of the younger generation (age ten to 20 years old) are iOS users.
Video consumption on smartphones is still being led by YouTube, but also from diverse competitors like Netflix, social media, and local OTT providers.

TAIWAN
The overall spending shows a downwards trend compared to the same period in 2018. The major reason is budget constraints due to the conservative outlook for the Taiwan market. Digital spending is still growing at double digit pace, but as local publishers and advertising networks have been hit severely in the first half, more budget has moved to Facebook and YouTube. In terms of TV, overall TV ratings are stable versus 1H 2018, both reach and viewing hours are seeing the same trend. Online video viewing shows 9% growth, YouTube is the most popular followed by iQiyi and Line TV, while Netflix is also growing.

THAILAND
The Thai media industry is going through a challenging time with TV dominating 60% of ad spend, but declining. Each player is having difficulty from the emergence of Digital TV in 2014 (from six to 24 Free TV channels) and the disruption from international digital platforms such as YouTube and Facebook. Digital media showed double digit growth, but the price point is much lower than traditional media, leading to market deflation.

THAILAND MEDIA SPENDING

<table>
<thead>
<tr>
<th>Year</th>
<th>TV</th>
<th>Internet (DAAT)</th>
<th>Print</th>
<th>Radio</th>
<th>Outdoor &amp; Transit</th>
<th>Cinema</th>
<th>In-Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>70,286</td>
<td>123,545</td>
<td>64%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>2015</td>
<td>70,286</td>
<td>123,545</td>
<td>64%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>2016</td>
<td>70,286</td>
<td>123,545</td>
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<td>65%</td>
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<td>123,545</td>
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<tr>
<td>2018</td>
<td>70,286</td>
<td>123,545</td>
<td>64%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Source: Nielsen Ad Intel, DAAT (Digital Advertising Association Thailand)
611
MILLION PAY TV SUBSCRIBERS

3.5
BILLION BROADBAND SUBSCRIBERS

IN ASIA PACIFIC

77%
INDIA
137 Million
597.2 Million

55%
CHINA
383.3 Million
192.3 Million

100%
SOUTH KOREA
33.3 Million
86.8 Million

24%
JAPAN
12.5 Million
226.3 Million

75%
HONG KONG
2 Million
21.5 Million

85%
TAIWAN
7.1 Million
34.5 Million

25%
PHILIPPINES
5.3 Million
70.8 Million

46%
SINGAPORE
0.7 Million
8.9 Million

26%
AUSTRALIA
2.5 Million
33.6 Million

35%
NEW ZEALAND
0.6 Million
7.9 Million

54%
VIETNAM
11.7 Million
78.4 Million

44%
MALAYSIA
3.2 Million
38.6 Million

11%
INDONESIA
4.6 Million
264.8 Million

77%
TAIWAN
33.3 Million
86.8 Million

55%
SOUTH KOREA
33.3 Million
86.8 Million

24%
JAPAN
12.5 Million
226.3 Million

FAST FACTS*

POPULATION .................................................. 3,522,300,000
TOTAL HOMES ................................................ 1,019,400,000
TELEVISION HOMES ........................................ 875,000,000
PAY TV PENETRATION* .................................. 55%
PAY TV SUBSCRIBERS .................................. 611,100,000
BROADBAND SUBSCRIBERS ......................... 3,506,100,000

* Includes subscribers to multiple platforms

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1. Percent of Pay TV penetration and Pay TV subscribers
2. Free-to-Air satellite subscribers are excluded from numbers above
3. Based on 14 selected markets

Source: Media Partners Asia
Note: Total broadband subscribers include mobile broadband users and fixed broadband households.
### Multichannel TV Viewers

**Viewed yesterday**
- India: 75%
- Thailand: 71%
- Malaysia: 73%
- Singapore: 71%
- Indonesia: 64%
- Hong Kong: 31%
- Taiwan: 74%
- South Korea: 62%
- Philippines: 71%
- Australia: 35%

**Not viewed in past month**
- India: 7%
- Thailand: 13%
- Malaysia: 8%
- Singapore: 6%
- Indonesia: 15%
- Hong Kong: 31%
- Taiwan: 6%
- South Korea: 12%
- Philippines: 10%
- Australia: 31%

Source: Ipsos Affluent Survey Asia Pacific Q1 - Q4 2018 - % reach. Average Base Index: 100. Thailand or Hong Kong or Indonesia or Malaysia or The Philippines or Singapore or Taiwan or India or South Korea or Australia. Viewed cable/satellite channels yesterday and not viewed any cable/satellite channels in past month.

### Multichannel TV Consumed More Than Other Media

- Any Cable/Satellite TV channel (monthly): 86%
- Any Cable/Satellite TV (weekly): 62%
- Any Inflight Magazine: 21%
- Any Regional Monthly Magazine: 26%
- Any Regional Weekly Magazine: 14%
- Any Regional Daily Newspaper: 5%
- Any Regional Title: 32%

Source: Ipsos Affluent Survey Asia Pacific Q1 - Q4 2018 - % media consumption. Thailand or Hong Kong or Indonesia or Malaysia or The Philippines or Singapore or Taiwan or India or South Korea or Australia. Viewed cable/satellite channels yesterday and not viewed any cable/satellite channels in past month.

### Affluent Viewers

**Strongly agree that...**

<table>
<thead>
<tr>
<th></th>
<th>Watch</th>
<th>Don’t Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am always one of the first to use technologically innovative products</td>
<td>126</td>
<td>&gt; 31</td>
</tr>
<tr>
<td>I have more confidence in purchasing products/using services that have been advertised</td>
<td>122</td>
<td>&gt; 45</td>
</tr>
<tr>
<td>I tend to go for premium rather than standard goods/services</td>
<td>123</td>
<td>&gt; 46</td>
</tr>
<tr>
<td>I have expensive tastes</td>
<td>122</td>
<td>&gt; 52</td>
</tr>
<tr>
<td>Gaining knowledge and becoming better informed is a priority to me</td>
<td>114</td>
<td>&gt; 66</td>
</tr>
<tr>
<td>People come to me for advice before buying new things</td>
<td>125</td>
<td>&gt; 42</td>
</tr>
</tbody>
</table>

Source: Ipsos Affluent Survey Asia Pacific Q1 - Q4 2018. Average Base Index: 100. Thailand or Hong Kong or Indonesia or Malaysia or The Philippines or Singapore or Taiwan or India or South Korea or Australia. Viewed cable/satellite channels yesterday and not viewed any cable/satellite channels in past month.
## Affluent Viewers Are Early Adopters...

### Ownership Index

<table>
<thead>
<tr>
<th>Ownership Index</th>
<th>Watch</th>
<th>Don’t Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pay TV</strong></td>
<td></td>
<td></td>
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<tr>
<td>HD TV</td>
<td>105</td>
<td>85</td>
</tr>
<tr>
<td>Digital Video Camera</td>
<td>115</td>
<td>56</td>
</tr>
<tr>
<td>Smart TV</td>
<td>105</td>
<td>88</td>
</tr>
<tr>
<td>Home Theatre Sound System (US$1,000+)</td>
<td>118</td>
<td>55</td>
</tr>
<tr>
<td>Personally Interested in Latest Gadgets &amp; Technology</td>
<td>111</td>
<td>71</td>
</tr>
<tr>
<td>Personally Own a Luxury Watch Worth US$5,000+</td>
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<td>68</td>
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Source: Ipsos Affluent Survey Asia Pacific Q1 - Q4 2018

Average Base Used: 100 Thailand or Hong Kong or Indonesia or Malaysia or The Philippines or Singapore or Taiwan or India or South Korea or Australia Viewed cable/satellite channels yesterday and Not viewed any cable/satellite channels in past month

## ... Decision Makers...

### Ownership Index

<table>
<thead>
<tr>
<th>Ownership Index</th>
<th>Watch</th>
<th>Don’t Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pay TV</strong></td>
<td></td>
<td></td>
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<tr>
<td>Car Owner</td>
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<td>87</td>
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<tr>
<td>Business Decision Maker</td>
<td>108</td>
<td>64</td>
</tr>
<tr>
<td>Top Manager</td>
<td>121</td>
<td>38</td>
</tr>
<tr>
<td>Own Unit Trust Fund/Mutual Fund</td>
<td>115</td>
<td>60</td>
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<tr>
<td>Own a Privilege/Priority Bank Account</td>
<td>103</td>
<td>89</td>
</tr>
<tr>
<td>Own Offshore Accounts for Investment Purposes</td>
<td>118</td>
<td>67</td>
</tr>
</tbody>
</table>

Source: Ipsos Affluent Survey Asia Pacific Q1 - Q4 2018

Average Base Used: 100 Thailand or Hong Kong or Indonesia or Malaysia or The Philippines or Singapore or Taiwan or India or South Korea or Australia Viewed cable/satellite channels yesterday and Not viewed any cable/satellite channels in past month
### ... & TRAVELLERS TOO

<table>
<thead>
<tr>
<th>Ownership Index</th>
<th>Watch</th>
<th>Don’t Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>6+ International Business Trips in Past 12 Months</td>
<td>120</td>
<td>&gt; 62</td>
</tr>
<tr>
<td>Fly First or Business Class in Past 12 Months</td>
<td>118</td>
<td>&gt; 62</td>
</tr>
<tr>
<td>12+ Nights for Business/Leisure in an Hotel in Past 12 Months</td>
<td>103</td>
<td>&gt; 81</td>
</tr>
<tr>
<td>6+ Leisure Trips in Past 12 Months</td>
<td>123</td>
<td>&gt; 52</td>
</tr>
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</table>

Source: Ipsos Affluent Survey Asia Pacific Q1 - Q4 2018

### BUSINESS ACTIVITIES IN PAST 12 MONTHS

<table>
<thead>
<tr>
<th>Pay TV</th>
<th>Watch</th>
<th>Don’t Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewed on TV, Radio, Press</td>
<td>123</td>
<td>&gt; 62</td>
</tr>
<tr>
<td>Addressed a Conference/Public Meeting</td>
<td>112</td>
<td>&gt; 63</td>
</tr>
<tr>
<td>Worked on International Business Strategies</td>
<td>127</td>
<td>&gt; 30</td>
</tr>
<tr>
<td>Attended Meetings Abroad with Executives From Other Countries</td>
<td>124</td>
<td>&gt; 35</td>
</tr>
<tr>
<td>Studied for a MBA</td>
<td>120</td>
<td>&gt; 44</td>
</tr>
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</table>

Average Base Index: 700. Thailand or Hong Kong or Indonesia or Malaysia or The Philippines or Singapore or Taiwan or India or South Korea or Australia

Viewed cable/satellite channels yesterday and Not viewed any cable/satellite channels in past month.
TELEVISION STILL RULES FILIPINO HOUSEHOLDS IN TODAY’S DIGITAL AGE

Despite new technologies and shifting viewing habits, TV continues to be the preferred viewing platform for Filipino households, with the national TV penetration rate standing at 83\% \(^1\) in 2019. There is immense opportunity for broadcasters and satellite operators to work together to capture not only the urban market, but also the TV market in more rural locations of the archipelago, where terrestrial networks remain unreliable.

Here are five key video trends illustrating how TV remains popular across the Philippines:

1. The digital switchover is underway

With about 54\% \(^2\) of TV homes served by analogue terrestrial networks, the transition to digital TV is progressing slowly as the analogue switch-off has been set for 2023. The Department of Information and Communications Technology (DICT) in the Philippines aims to have 95\% \(^3\) of the country’s households switch to digital television by 2023. The digital switchover is certainly good news for viewers as it ensures better reception quality, but it also brings with it a set of challenges, namely when it comes to deploying new ground infrastructure, which requires significant investment. This is where Direct-to-Home (DTH) operators have a significant advantage: relying on satellite technology, they already bring the benefits of digital TV to their subscribers, and they can reach audiences wherever they are, without the need for any terrestrial network.

2. Direct-to-Home is gaining ground

While terrestrial TV remains strong in the Philippines, its market penetration has been decreasing over the years. Cable TV has also started to slow down so much that the DTH is now the largest pay TV technology in the Philippines, with 78\% \(^4\) of pay TV subscribers getting their feed directly via satellite.

3. Winning viewers’ hearts with more content

The video market in the Philippines is increasingly competitive as the market is no longer shared among pay TV operators who fight to attract the largest audience. Now, mobile operators and telcos are also entering the video market, cooperating with broadcasters and international players to provide bundled services and a widening array of content for their viewers. OTT and Video-on-Demand (VOD) providers are joining the video market as well. With so many new players in the video arena, it is becoming essential for pay TV operators to differentiate themselves with new, quality content for their viewers.

On the other hand, we see more and more content owners and TV channels willing to bring new programmes into the market to diversify the offer, for example, content specifically targeted at specific interest groups, such as youths, gaming enthusiasts, pet lovers and so on.

4. TV revenues to grow with advertising dollars

“Show me the money” may be a well-known line from a 20-year-old movie but is also the best way to illustrate the growth potential of TV. As it is the most popular medium in the country, TV advertising spend is projected to jump from US$5.2 billion to US$9.2 billion between 2018 and 2024 \(^5\). In 2024, TV is expected to account for 77\% \(^6\) of total ad spend in the country. Free-to-Air (FTA) TV will remain the majority contributor to the total TV ad expenditure.

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\(^1\) Asia Pacific Pay TV Distribution 2017, Media Partners Asia, 2017. \(^2\) Dataxis Filipino TV Subs, 2018. \(^3\) Full migration to Digital TV doable by 2023, says DICT, Philstar Global, Jun 2019. \(^4\) Dataxis Filipino TV Subs, 2018. \(^5\) - \(^6\) Ampere Analysis 2018
The pay TV market has grown in the past few years and will continue on a positive growth trajectory. According to Media Partners Asia (MPA), revenue from the pay TV market in the Philippines will grow from USD$422 million in 2018 to USD$482 million in 2022, a healthy growth of USD$60 million over a four-year period. Similarly, the proportion of pay TV subscribers will continue to grow from 22% in 2018 to 27% of all TV viewers by 2023.

The TV market in the Philippines continues to be an open field for growth, so long as content houses, broadcasters and everyone in the media ecosystem continue to evolve with changing viewer tastes and habits to provide them with what they want. TV operators must make the right moves to increase the attractiveness of their offer, for example, by bringing more channels and compelling content to suit a fickle TV audience in a sea of so many competing entertainment options.

**Pay TV market offers boundless opportunities**

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**by Yew Weng Soo**

Vice President, Sales & Market Development, SES Video, Asia Pacific

SES is the world’s leading satellite operator with over 70 satellites in two different orbits, Geostationary Orbit (GEO) and Medium Earth Orbit (MEO). It provides a diverse range of customers with global video distribution and data connectivity services through two business units: SES Video and SES Networks.
NOW SCREENING
THE FUTURE OF BROADCAST & AUDIENCE MEASUREMENT IN INDIA

We are deep into the age of information, and technology has completely redefined the way video content is being produced, distributed and even consumed.

On one hand there is linear television, which continues to grow and rule prime time entertainment in the living rooms and, on the other hand, there is the emerging digital video consumption on mobile / hand-held devices that is being fuelled by the falling costs of data and proliferation of OTT platforms.

This growth has largely been additional to rather than cannibalising traditional media. Data indicates that, unlike in the West, Indian families may not be purchasing a second TV set, but are adopting mobile as a “second screen” and this is eating away into personal time, be it sleeping, relaxing, travelling or weekend binge watching.

The lines between television, online video, and even cinema for that matter, are blurring quickly. The television screen, for example, acts as an extension of Video-on-Demand (VOD) platforms viz Firesticks and Chrome cast. Meanwhile, the VOD platforms are redefining story-telling by investing heavily in original productions and improving user experience with personalised recommendations.

The abundance of content and platform choices that a consumer has access to is leading to heavy fragmentation of the media. Simultaneously, audience autonomy is growing, and there are infinite permutations and combinations of ‘what’ is being consumed across these platforms, and ‘when’ it is being consumed. This leads us to the question of how can we account for such narrow audiences and consumption behaviours through measurement?

It is inevitable that ‘pipes & screens’ will not matter a few years down the line from a measurement perspective. Rather, advertisers, content creators and distribution platforms will chase the viewers as they move from one compelling content to another, thus generating the need for an evolved measurement system which enables cross-platform evaluation for a combination of media.

As of today, television is the only medium that offers transparent measurement across the globe with comparable metrics of reach and time spent. However, the pace and magnitude of fragmentation may compel one to think if exposure alone would be sufficient to plan and account for these audiences, or whether dimensions such as engagement and purchase consideration should also be accounted for.

The magnitude of total video consumption in India is to the tune of 1.1 trillion viewing minutes per week - and growing - with multi-genre and multi-linguistic content being consumed across 600+ TV channels, and 30+ OTT platforms.

India has the largest panel in the world for measuring TV viewership and captures 93% of the total video consumption. And yet, with only 66% TV penetration, there is more room for growth. Developed countries such as the USA and UK, which are at over 90% TV penetration, spend as much as four hours per day watching television, which is 1.5 hours more than that in India.
The Indian economy is growing at a fast pace, and accounts for 1.2 billion of the global population. As affluence grows, electrification improves, and high-speed internet penetrates deeper into the hinterlands, the overall media consumption will increase significantly. India will be a multi-modal market for the next several years, where traditional media such as TV and digital will continue to co-exist.

The ecosystem is ripe, and audience measurement needs to evolve and keep pace with the evolving technology and consumption behaviours.

A unified currency and standard metrics to enable congruence across media types will be the first step in advancing audience measurement. The next disruption in media & entertainment might just be around the corner, and the ones who overcome these challenges will reap the benefits.

by Partho Dasgupta
Chief Executive Officer
BARC India

BARC INDIA is a JIC founded by stakeholder bodies that represent Broadcasters, Advertisers and Media Agencies. Built upon a robust and future-ready technology backbone, BARC India owns and manages an accurate and inclusive TV audience measurement system. Apart from currency products, BARC India also provides a suite of insight products which powers efficient media spends and content decisions. www.barcindia.co.in
THE ROLE OF CURATED ONLINE VIDEO SERVICES IN ASEAN

A light-touch approach towards a nascent industry raises content quality by spurring creativity and collaboration while meeting regulatory goals.

CHARACTERISTICS OF CURATED ONLINE VIDEO SERVICES:

- CURATED, with guidance for viewers and parental control tools
- COPYRIGHT-PROTECTED, so local content creators earn a fair share
- PERSONALISED, consumer-centric services delivered online, via any network service provider

WHAT ARE CURATED ONLINE VIDEO SERVICES?

Curated online video service providers offer films, documentaries and TV series that are produced by professional filmmakers and production houses. Although curated online video service providers deliver their services through online channels, they are distinct from other Over-the-Top (OTT) platforms that feature User-Generated Content (UGC). Moreover, curated online video services allow viewers to select and watch the shows on-demand, with the ability to implement solutions such as parental control tools to ensure only age-appropriate content is viewed. Curated online video service platforms provide new alternative distribution channels where creatives and producers can launch their films or TV series and find a variety of production opportunities.

CURATED ONLINE VIDEO ECOSYSTEM IN ASEAN

The ASEAN curated online video ecosystem, which includes subscription-based or advertisement-supported services, is expected to grow as more customers access video content via their on-the-go devices. Within the broader Asia Pacific region, internet video revenue is expected to have 18.1% CAGR between 2016 and 2021, eventually reaching US$8.2 billion in 2021 (Source: PwC).

To capture this potential source of revenue, mobile operators are partnering with curated online video services to offer consumers’ desired content. Curated online video services include ASEAN companies such as Doonee, Hooq, iflix, iWant, and Viu, as well as international companies such as Netflix and HBO Go. ASEAN producers, directors, actors, and production companies also form part of this ecosystem because of the local content that feeds into these curated online video companies.

BENEFITS OF A LIGHT-TOUCH REGULATORY ENVIRONMENT

- Develops mechanisms that mitigate harmful content (e.g. child pornography and hate speech) without undermining the growth of the creative industry.
- Empowers consumers to make their own judgement on the types of content that their families should access through parental control mechanisms (e.g. PIN mechanism) that prevent children from accessing inappropriate content, as well as viewing guidance and ratings.
- Creates a public/private partnership. Close collaboration between government and industry allows a flexible regulatory environment to adapt quickly and supplement existing laws in ways that keep pace with technology.
- Identifies new approaches that can be applied to traditional video industries to liberalise legacy regulations and move into the ‘Internet Age’ with a more level playing field.
- Stimulates a vibrant environment which encourages investments and partnerships between international, regional and local creative industries that drive new revenue streams for local creators and production houses, while raising the quality of content.
- Supports legitimate companies in offering consumers the content they desire to discourage them from turning to pirate services, which are replete with malware, gambling and pornography.
- Builds on a history of successful self-regulation in some ASEAN member states such as the Philippines and Singapore in diverse areas, from advertising to broadcasting and cryptocurrency.

ONLINE CURATED VIDEO SERVICES – RESPONSIBLE COMPANIES WHO ARE PLEDGING SELF-REGULATION

- A new industry needs new modes of regulation. Online curated video services must innovate to compete with unregulated and pirate services.
- Curated online video services have an interest in providing consumers with high quality, legal content that meets the demands of local society.
- Companies have pledged adherence to an ASEAN Content Code for Video-On-Demand Services, which was created to uphold a set of high ethical standards and ensure that there is oversight without restricting agile competition in the internet marketplace.
- ASEAN governments can depend on industry to self-regulate and reduce the resources needed to manage the curated online video service industry.
OTT & STREAMING

ASIA OTT LEADERS CONTINUE TO EXPAND PARTNERSHIPS WITH TELCOS

Since 2018, international OTT services operating in the Asia Pacific region continue to partner with telecommunications and multichannel operators. We added emerging OTT providers Eros International, Amazon.com and Media Prima Television Networks’ tonton to our survey of top regional OTT companies, which includes Netflix, Iflix, PCCW’s Viu, and Hooq Digital. As of June 2019, our updated survey has tracked a total of 120 partner deals with telcos and multichannel operators across 21 markets in the region. Thirty-one new tie-ups have been signed since May 2018, with telcos in South East Asia being the most common targets of the seven OTT companies. China still lacks any deals with our surveyed OTT providers, due to State regulations prohibiting international media entities from entering the market.

Such partnership agreements allow both parties to benefit. Telcos can pursue lofty digital strategies by leveraging their infrastructure advantage and customer base with OTT partners’ premium, on-demand content libraries. Meanwhile, OTT platforms become more accessible to telcos’ existing mass customer bases via built-in video apps, integrated billing mechanisms over existing fixed or mobile connections, and promotional access to OTT content and other exclusive deals. These agreements are especially important in the face of increased competition and other market challenges.

Among the surveyed partnerships, Netflix has most aggressively expanded its portfolio of agreements in Asia Pacific, completing ten since May 2018. Netflix’s arrangement with Sri Lankan Direct-to-Home (DTH) provider Dialog is the most recent deal. Under the agreement, Dialog offers direct carrier billing to its postpaid subscribers. The deal came right after Netflix partnered with Atria Convergence Technologies, doing business as ACT Fibernet, in March 2019, whereby the telco also offers direct carrier billing to its broadband customers. The telco also allows the Netflix app to be integrated into the ACT Stream TV 4K set-top box.

The region’s first OTT-telco agreement began with Netflix in early 2015, when it launched in Australia. Launch partners iiNet and Singtel Optus offered unmetered Netflix streaming for their respective broadband customers. In addition, the Netflix app was built into Optus’ Fetch TV platform, allowing Fetch TV subscribers to access Netflix content from their set-top boxes.

Netflix’s expansion to the Asia Pacific region led several regional rival services to adopt similar strategies. Hooq, in partnership with Globe Telecom, launched in the Philippines immediately after Netflix’s planned arrival in Australia. Hooq enabled Globe customers to access thousands of Hollywood and Philippino movies and TV series, with the option for offline viewing. Other established OTT companies in Asia Pacific have also begun partnering with telcos. Eros’ platform, Eros Now, first partnered with Bharti Airtel in late 2015 to provide content integration into the Airtel TV app, and has since expanded to partner with telcos across six countries. Meanwhile, tonton expanded its previous 2014 partnership with U Mobile in April 2016 from unlimited streaming during off-peak hours only to 24/7 for select customers.

On the content side, our survey reveals that OTT providers are most willing to offer discounted deals or bundle their services into entertainment packages with partnering operators, offering 72 subscription promotions in total. For instance, iflix offers selected customers of telco partners across 13 markets free subscriptions ranging from one month to unlimited access in length, as well as discounted promotions for its OTT service. Viu, owned by telco PCCW, has most recently bundled package deals with Telenor Myanmar, through which customers can purchase Viu’s premium subscription service bundled with discounted streaming at a rate of one Burmese Kyat per MB.

Direct carrier billing is at the core of many OTT-telco partnerships as well. In markets where credit card payment is unavailable to the average OTT subscriber, this allows users to pay OTT subscription fees as part of their monthly telephone or data bills. OTT providers are leveraging telecom incumbents’ billing systems to reach new customers that would otherwise be unable to sign up due to payment difficulties. As of June 2019, our surveyed OTT services had set up 40 carrier billing agreements in 12 Asian markets, including Indonesia, India, the Philippines, Malaysia, Thailand, Singapore, Maldives, Pakistan, Sri Lanka, Myanmar, Japan and South Korea.

These types of partnership deals also serve other purposes in South and South East Asian markets, such as India, Malaysia, Indonesia and the Philippines, where fixed-broadband penetration is low and mobile dominates. For example, direct carrier billing also allows customers to pay for these streaming subscriptions through their mobile services. Additionally, certain subscription promotions apply specifically to mobile broadband plans, such as Eros Now’s subscription inclusion in select prepaid and postpaid plans for U Mobile customers. We can see OTT platforms adopting different partnership strategies to best approach these mobile-first markets.

Direct integration into existing mobile app services, streaming devices, or mobile phones offered by telcos also allow OTT providers to tap into Asian mobile markets. We’ve tracked 14 such deals across five Asian markets, including India, Malaysia, Japan, Australia and Sri Lanka. Notably, Eros Now is integrated into mobile-app or streaming device services provided by Airtel, Vodafone Idea, Tata Sky, Reliance Jio and Dialog in South Asian markets. A Netflix app is also pre-installed onto SoftBank Group phones and Vodafone Australia’s Vodafone TV streaming player. Telcos that partner with OTT providers, for their part, have used these add-on subscriptions and integration to add value to their services.
and drive consumer preference toward their offerings.

Unlike OTT providers that solely focus on telco partners, Netflix also sees distribution opportunities with multichannel TV operators. To date, the company has made its service available on DTH and IPTV platforms by working with 18 telcos to integrate the Netflix app into pay TV set-top boxes. Meanwhile, HOOQ has also integrated its services into the set-top boxes of ACT Fibernet, Telkomsel, First Media and AIS. Among the other OTT companies we have surveyed, only Eros Now has integrated its services into a set-top box — specifically, with that of Videocron D2H. Multichannel subscribers of those operators then have direct access to Netflix and other streaming services on the primary screen via the built-in app.

With the inundation of OTT providers in Asia Pacific, competition between OTT companies is escalating, and the need for OTT companies to differentiate themselves through these partnerships is growing. The Amazon Prime Video service has been expanding its presence in the Asia Pacific region and signed its first deal with Indian telco Vodafone Idea in June 2018. Since then, it has partnered with many major operators to offer temporary subscription promotions, other streaming platforms have greater shares of the country’s OTT market. After any promotional subscriptions expire, paying for the service can be over five times as expensive as more popular platforms such as Hotstar, Amazon Prime, and Eros Now, which have telco and multichannel TV operator tie-ups of their own. In terms of bandwidth pricing, we have tracked 23 deals across six markets, including Pakistan, the Maldives, Myanmar, Malaysia, Indonesia and Australia, which provide large or unlimited data streaming packages for partner OTT platforms. These tie-ups indicate OTT platforms’ efforts to provide affordable access to more customers in the Asia Pacific region.

Regulatory and competitive hostilities in certain Asian markets are another challenge for OTT providers. For example, digital service taxes on foreign OTT services such as Netflix and Viu have been passed in Malaysia and Singapore, and introduced in Thailand. Meanwhile, South Korean telcos and broadcasting conglomerates have targeted anti-competitive practices at international OTT services, such as when the three major broadcasters SBS, KBS, and MBC, which jointly own streaming platform poqoq through the Content Alliance Platform, pulled content from LG U+ for partnering with Netflix. The country has also seen regulatory uncertainty regarding OTT that has hindered international OTT providers from partnering with more telcos in the South Korean market. These hindrances highlight the importance of major OTT platforms leveraging these partnerships to reach more consumers in markets where barriers are increasing.

Inspired by strategic cross-sector alliances between upstart OTT and traditional media and telecommunications industries, pay TV operators and premium networks are also putting together OTT services themselves to create new business opportunities for value-added gains. Other than telco-backed regional players HOOQ, Viu and Now E, our survey finds several other operator/network-owned OTT services across eight markets in the Asia Pacific region. Among them, FOXTEL and Astro Malaysia Holdings are going one step further than their counterparts by offering linear streaming packages in addition to on-demand content, effectively operating as virtual multichannel service providers. As of June 2019, HBO, FOX and STAR India were the only premium networks in the Asia Pacific region with proprietary OTT offerings.
BROADCASTING THE MOVE FROM SATELLITE TO FIBRE

Broadcasting and the delivery of entertainment and sports content are going through immense disruption as new entrants and new technologies challenge the established models of traditional players.

The rise of digital, online and Direct-to-Consumer (DTC) offerings has created a competitive environment in which audiences have high expectations for quality viewing experiences and greater choice of where, when and how they can access live and on-demand content. Viewers and fans are consuming content in different ways and the traditional boundaries between linear and non-linear services are increasingly blurred.

THE SWITCH TO FIBRE

These changing viewing habits have pushed media and sports companies to re-evaluate their business models and increasingly move more of their video transit away from satellite and onto fibre networks.

As recently as 2016, the professional media contribution and distribution market in the Asia Pacific region was dominated by satellite delivery¹. Satellite remains the primary means of transport in much of Asia where fibre infrastructure is still developing but that is changing.

While contribution of non-live material is moving from traditional pathways to the cloud, broadcasters are increasingly using fibre and data services for live and non-linear content so they can select and manage their own IP-based services.

Take sports for example. Most major venues now have fibre connectivity, with satellite only used where fibre is unavailable. Capacity on these fibre links is growing dramatically. Three years ago, a typical fibre link at a venue would have just one gigabyte capacity. Now it can be multiple gigabytes.

Broadcasters are seeing the value of fibre for several reasons.

1. End-user expectations

As viewing habits change and consumers demand more choice of unique and personalised content, the days of a single satellite feed from a global event are in the past. At Wimbledon in 2018, all 18 championship courts were televised to cover 675 matches during the tournament².

Viewers are also demanding new types of viewing experiences. Asia Pacific is the largest market in terms of annual sales of Ultra HD TVs, with 46 million units sold in 2018 and more live events there being covered in high definition. Wimbledon broadcast coverage in 4K for the first time in 2018.

Whether to support more coverage from a venue, provide new and interesting camera angles, ultra-high definition coverage or immersive virtual and augmented reality, fibre provides the most economical model to delight viewers with new experiences.

Fibre also offers the advantage of reduced latency. Satellite signals take approximately a quarter of a second each way. Fibre has a one-way latency of 150-200 milliseconds, which reduces delays in live crosses and improves the viewing experience.

2. Scale of content

The volume of broadcast content continues to increase as broadcasters invest in live, locally shaped content to differentiate their offerings and attract new audiences.

For example, more than 350,000 hours of coverage were broadcast globally¹ from the Rio Olympic Games in 2016. For the first time at the Olympics, more hours were broadcast on digital platforms than on traditional TV.

3. Economics of the technology platforms

The last five years have seen an average 26% increase in available capacity per year on major fibre routes³, bringing down the price per gigabyte.

Satellite generally costs approximately US$300 per hour for one feed. Fibre can be one-third of this cost while also carrying more content, enabling broadcasters to diversify their spending.

These factors combine to make it more economical for broadcasters to keep primary production facilities at home. As an example, the recent IAAF World Relay Championships in Japan was produced in Sydney, Australia, with a round trip of 16,000 kilometres, and then broadcast to London and around the world without any lag⁴.

At the 2020 Tokyo Olympics, more flexible options will be available under a video and audio package delivered via IP to points of presence. This means some broadcasters no longer have to be on-site at the International Broadcast Centre with a full production facility. With more contribution feeds now available via IP, they also no longer need to receive a limited number of Olympic contributions channels and feeds via satellites. It’s a major leap forward for event coverage.
The cost savings associated with remote production can be upward of 40% or more based on recent studies, enabling broadcasters to add value to content in their studios and invest more in their audience experience.

**THE FUTURE IS HYBRID**

IP networks scale up easily. Reliability, quality and cost become the key determining factors for all IP workflow from major event locations to TV studios around the globe and it’s happening as we speak.

Yet there remains a vital role for satellite. We see the industry moving to a hybrid model with fibre, IP and satellite all used depending on the broadcaster’s goal.

Such hybrid approaches require extensive infrastructure, but they can cater for maximum coverage and varying in-country infrastructure and last-mile connectivity while still enabling high-quality viewing experiences.

Even then, in a market where commoditised services reign, broadcasters need the support of expert teams to bridge regional standards and help customers deliver unique content experiences.

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**by Steven M Dargham**

Business Development Executive - Special Events

Telstra Broadcast Services

Telstra has decades of experience helping our customers connect in Asia Pacific. We bring innovative technology, capability and talent from around the world to enable our customers to thrive in a connected world. Telstra Broadcast Services brings to our customers a dedicated team of media industry professionals, high performance media networks, online video and cloud platforms, satellite services, and 24/7 bookings, operations and engineering support.
THE ASIA VIDEO INDUSTRY REPORT 2020

The Asia Video Industry Report 2020

Many articles have been written about the disruption occurring within the media industry. Media platforms have become fragmented and business models upended. The fact of the matter is that this is not the first time, nor the last, that the content distribution ecosystem will undergo a structural shift.

The biggest challenge that could befall us is a lack of imagination, the inability to rethink and restructure the media ecosystem to address the disruptive forces at play. Content remains king, but the viewer is no longer homogenous nor passive. The convergences of technologies, emergence of 5G and proliferation of interactive viewing platforms have placed the viewer in control like never before. Big data and Artificial Intelligence (AI) are going a long way toward increased monetisation of subscribers, but a reimagination of core content distribution will need to occur for growth to be sustainable.

As media companies work to distribute high quality content over multiple distribution platforms and provide easy mechanisms for viewers to easily find their favourite show or channel, fragmentation has made their network infrastructure costly and more technically complex to manage.

At the same time, viewers expect the same level of quality and reliability across multiple platforms and across more devices at affordable prices. For major sporting events and television cliffhangers, availability and reliability of high-quality content are required regardless of screen. Otherwise, media companies will be increasingly susceptible to viewer churn and become less attractive to advertisers.

That is why flexible, scalable, and reliable solutions for a newly emerging ecosystem are needed, solutions that reimagine traditional roles, technologies, and partnerships. Over the past few years, Intelsat has taken a deeper look at the media ecosystem to find better ways to serve our customers.

First, the qualities that have made satellite essential to the content distribution ecosystem remain. The ubiquity, scalability, reliability and ability to cost-effectively and securely distribute content to millions of people all over the world will to continue to play an integral role.

That said, given the fragmentation of content streams and platforms, there is a need to solve the complexity facing our media customer and find simpler ways to more cost-effectively aggregate content and data in a way that does not sacrifice the viewer’s experience. Our goal is to build a media ecosystem that converges these disparate work flows and connectivities by making intelligent decisions around connectivity and media processing in a single platform.

We will do this by:

PROVIDING ACCESS ANYTIME, ANYWHERE IN THE WORLD

In the new media environment, Intelsat’s global space-based and terrestrial network will continue to provide access to premier cable and broadcast systems around the world. By using our network which also consists of our leading global video neighbourhoods and Multi-Channel Per Carrier (MCPC) platforms, media companies are automatically connected to two billion viewers worldwide. In fact, just four satellites provide media customers with instant global distribution.

INVESTING IN PARTNERSHIPS THAT ENHANCE OUR DISTRIBUTION NETWORK’S REACH AND RELIABILITY IN AN ALL INTERNET PROTOCOL (IP) ENVIRONMENT

Our partnership with Dejero provides blended connectivity so that media outlets can take advantage of the inherent strengths of satellite and cellular technologies to ensure that they are able to remotely broadcast and distribute content in any environment.

BUILDING A FOUNDATION THAT ADDRESSES THE NEEDS OF A DYNAMIC MEDIA ENVIRONMENT

We have begun that process by complementing existing distribution models beginning with Dejero IronRoute, which solves the challenge of first - and last - mile connectivity to and from the cloud. Dejero IronRoute is a fully-managed solution for media that delivers reliable...
connectivity by blending broadband, cellular (3G/4G/5G), and satellite connectivity from Intelsat’s global network. It combines all available network connections to create a virtual ‘network of networks’ with the necessary bandwidth to deliver broadcast-quality content to and from the Cloud.

We are also partnering with leading Cloud service providers to deliver scalable Cloud-based online video solutions that will seamlessly deliver video content to any screen as well as industry leading audio, textual and content enrichment.

**REMOVING COMPLEXITY AND COST ASSOCIATED WITH THE MANAGEMENT OF OUR CUSTOMER’S NETWORK**

We are providing our customers with the tools to seamlessly and more cost-effectively ingest video and metadata from multiple sources and systems. The tools will also help them manage streams of increasing file size and provide them with the ability to transcode, store and transfer that content across multiple platforms all around the world.

Dejero IronRoute is the first step towards simplifying the simultaneous distribution of content to multiple locations anywhere in the world, whether it be network affiliates, station groups, or to other broadcasters and media organisations. Live and file-based content can quickly and easily be distributed point-to-point, point-to-multipoint, and multipoint-to-multipoint with a simple drag and drop interface in a web browser.

And this is only the beginning. As technology evolves and viewer behaviour continues to shift, the content distribution network will evolve as it has in the past. Amidst the disruption, one factor will remain constant. Media companies will continue to rely on Intelsat and satellite technology to ensure that viewers have access to high quality, entertaining content, whenever or wherever they want to watch it.

**by Bill O’Hara**

General Manager, Media
Intelsat

*Intelsat S.A. (NYSE: I) operates the world’s first Globalised Network, delivering high-quality, cost-effective video and broadband services anywhere in the world. Intelsat’s Globalised Network combines the world’s largest satellite backbone with terrestrial infrastructure, managed services and an open, interoperable architecture to enable customers to drive revenue and reach through a new generation of network services. www.intelsat.com.*
CONSUMER TRENDS IMPACTING OTT SERVICES IN THE FUTURE

Today’s OTT streaming companies, pay TV operators, mobile telcos, and free-to-air broadcasters are all focused on one thing: profitably distributing content directly to consumers. For consumers, their needs are relatively simple; they seek a combination of diverse high-quality content, a low price, and a frictionless user experience.

Understanding this consumer mindset and the most valuable customer segments will be crucial to the success of OTT platforms. Brightcove partnered with YouGov to poll 9,000 participants across nine countries in Asia. Here are the top three consumer trends that will impact OTT services in 2020.

OTT IS RESETTING EXPECTATIONS WITH ADVERTISING

When OTT streaming services first launched across Asia, OTT service providers set an early expectation that it would be an ad-free experience. However, revenue from Subscription Video-on-Demand (SVOD) alone might not be sustainable in the long term. Users in the OTT world understand that there is a trade-off between watching free content and having advertisers serve ads as part of the value exchange. Hence, OTT service providers do not need to limit themselves to one fixed OTT plan. They should experiment with different price plans and offer users the flexibility to choose between ad-free and ad-funded packages.

There are myriad of reasons why a user unsubscribes to an OTT service. However, one striking finding was that “lapsed” users often do remain as advocates for OTT services. “Never” users are more cautious about trying out new OTT services, because they are highly price sensitive towards a service they have not tried before. In order to effectively target all three types of users (current, lapsed and never users), OTT service providers need to roll out three different marketing campaigns, and not stick to a ‘one-campaign fits all’ approach.

How many ads per ad break are acceptable?

Lapsed users: Do you intend to subscribe to OTT services in the future?

Non-current users: do you intend to subscribe to OTT services in the future?
Across the region, there is strong interest in the TV-to-Commerce opportunity. For consumers, advertising taps into the power of discovery and awareness. With OTT, ads can be part of the OTT content experience. Combining the two means shoppable OTT video can form part of a dual-pronged ad strategy, as well as open up a new revenue stream for OTT service providers.

Would you be interested in purchasing products shown on an OTT programme?

As a leading provider of online video solutions, Brightcove works with broadcasters and content owners in 70 countries across the world. Speak to our experts on launching, growing, monetising, and managing your OTT business. www.brightcove.com

The full report can be downloaded at https://get.brightcove.com/asia-ott-research-report

by Radha K Raman
Marketing Director, Asia
Brightcove
CONVERGENT TELCOS IN SOUTH EAST ASIA ARE SEEKING INNOVATIVE CONTENT PARTNERS

Telcos in South East Asia are looking for revenue growth. Fixed Mobile Convergence (FMC), the bundling of mobile broadband service with fixed broadband service, has been talked about for years in developed markets. As fibre-broadband services gain prominence in developing markets, telcos in South East Asia are starting to get excited about FMC’s revenue potential, with hopes of improved profitability. However, many telcos’ FMC propositions have simply centred around offering discounts to customers – this is value depletive and therefore not viable in the long term.

Looking ahead, we believe that telcos are likely to place content at the heart of their convergence propositions to ensure a sustainable business. How will telcos do this?

Telcos will team up with innovative content partners who have embraced the digital model and offer content suitable for telcos’ target markets. In what way?

a. On the video front, OTT services are attractive. They appeal to both consumers as they fit in with digital lifestyles as well as to telcos because the OTT service providers tend to be more flexible with their business models.

b. For games, the reality is that while they take up a lot of mobile screen time, games do not consume that much data. Hence, the offering is likely to add value in the home setting; streaming console games from the Cloud via a set-top box without the need to invest in a standalone console box may well be the next big thing, with Google and Amazon placing big bets in this space as well as telcos like Orange, PCCW and Telefonica.

c. Music is more straightforward with telcos offering a seamless experience between playing a music service in the home and on-the-go for all household members.

Convergence is an attractive opportunity for many telcos, but execution will be critical to avoid value erosion. At the same time, convergence provides an opportunity for content providers to grow their relationships with telcos and drive deeper market penetration.

Pioneer Consulting Asia-Pacific is an international management consultancy that specialises in telecoms, media and digital. For further information, please contact info@pioneerconsultingasia.com
ASIA PACIFIC CONSUMERS HAVE THE MOST DIGITALLY FORWARD BEHAVIOUR

The Asia Pacific region typically displays some of the most digitally-forward behaviours across all regions tracked by GlobalWebindex, and media consumption is no exception. Across markets in the Asia Pacific region, online populations continue to see some of the most rapid growth rates, and the profile of these online populations tends to be young, wealthy, urban and, primarily, mobile-first. As a result, users tend to set themselves apart when it comes to how they consume media.

Many of the global macro-trends in media have progressed further in the Asia Pacific region than elsewhere, making it somewhat of a media bellwether. The percentage share of daily TV time devoted to online media sources in the region leaves no doubt as to the growing importance of online TV, both in this region and indeed globally. But this masks the fact that linear TV is, and will continue to be, a major component in the media landscape, even in Asia Pacific. Average time spent watching linear TV per day remains the same in 2019 as it was in 2014 (around 1 hour 40 minutes per day) in Asia Pacific, whereas in every other region we’ve seen a decline in this time period, albeit a fairly modest one.

Nevertheless, online TV still constitutes the largest share of daily TV time in Asia Pacific compared to all other regions, and that’s because Asia Pacific has experienced the sharpest increase in daily TV time overall, thanks to the growth of online. In fact, compared to 2014 we’ve seen around a 20% increase in total daily TV viewing time, compared to around 16% growth in the Middle East and Africa, less than 10% in Europe and Latin America, and a slight decline overall in North America.

The shift online for TV consumption is a truly global trend, but it is often identified with western giants such as Netflix and Amazon Prime Video. GlobalWebindex illustrates how this is only half the story when it comes to the Asia Pacific region. In many markets, it might only be a tenth of the story.

Top five online TV services by market

<table>
<thead>
<tr>
<th>Australia</th>
<th>China</th>
<th>Hong Kong</th>
<th>India</th>
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<tr>
<td>Netflix</td>
<td>iQiyi</td>
<td>myTV Super</td>
<td>Hotstar</td>
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<td>7plus</td>
<td>YouKu &amp; Tudou</td>
<td>Viu</td>
<td>Netflix</td>
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<td>9Now</td>
<td>Tencent Hollywood VIP</td>
<td>Netflix</td>
<td>Sony Liv</td>
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<td>SBS On Demand</td>
<td>MangaTV</td>
<td>Google Play</td>
<td>Google Play</td>
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<td>Stan.com.au</td>
<td>Sohu</td>
<td>HKTV</td>
<td>Amazon Prime Video</td>
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<th>Indonesia</th>
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<td>Netflix</td>
<td>Amazon Prime Video</td>
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<td>Google Play</td>
<td>Abema TV</td>
<td>Google Play</td>
<td>TVNZ</td>
<td>Google Play</td>
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<td>HOOQ</td>
<td>Google Play</td>
<td>iFlix</td>
<td>Lightbox</td>
<td>iWantTV</td>
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<td>iFlix</td>
<td>Hulu</td>
<td>Astro on the go</td>
<td>Google Play</td>
<td>iFlix</td>
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<tr>
<td>Viu</td>
<td>Netflix</td>
<td>Viu</td>
<td>Choice TV</td>
<td>iTunes</td>
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<th>Singapore</th>
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<td>Netflix</td>
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<td>Google Play</td>
<td>Olleh TV</td>
<td>YouKu &amp; Tudou</td>
<td>Line.me TV</td>
<td>iTunes</td>
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<td>Viu</td>
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<td>Line.me TV</td>
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<td>Singtel TV Go</td>
<td>U+</td>
<td>Netflix</td>
<td>Viu</td>
<td>Vimeo</td>
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Question: On an average day, how long do you spend watching television? On an average day, how long do you spend watching online television/streaming?
Source: GlobalWebIndex 2014-2019 averages of all research waves conducted in each year.
Base: 484,851 internet users aged 16-64

Question: In the last month, which of these services have you used to watch / download TV shows, films or videos? Please think about any sort of TV, video or film content that you have watched, streamed, downloaded or accessed in any other way.
Source: GlobalWebIndex Q3 2019
Base: 38,496 internet users in APAC aged 16-64
As shown by the charts, the global trend toward online consumption of TV in practice plays out according to the local market. Global players are present across the region, other than China, but in most markets are met by strong local players. YouTube might be the only exception for adoption across the board but, even so, it is marginal in the largest Asia Pacific media market, China.

### Weekly TV viewing behaviours by market

<table>
<thead>
<tr>
<th>% who say they do the following at least weekly</th>
<th>Watch subscription services such as Netflix</th>
<th>Watch a TV channel’s catch-up/on-demand service</th>
<th>Watch shows that you have recorded from TV</th>
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<tbody>
<tr>
<td>Australia</td>
<td>64</td>
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<td>China</td>
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<td>Japan</td>
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<td>Vietnam</td>
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<td>54</td>
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**Question:** How often do you... at least weekly?  
**Source:** GlobalWebIndex Q2 2019  
**Base:** 38,496 internet users in APAC aged 16-64

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### Monthly mobile TV viewing behaviours by market

<table>
<thead>
<tr>
<th>% who say they do the following on their mobile at least monthly</th>
<th>Watch subscription services such as Netflix</th>
<th>Watch a TV channel’s catch-up/on-demand service</th>
<th>Watch live television on a TV channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>21</td>
<td>14</td>
<td>10</td>
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<tr>
<td>China</td>
<td>48</td>
<td>41</td>
<td>44</td>
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<td>Hong Kong</td>
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<td>India</td>
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<td>Indonesia</td>
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<td>Japan</td>
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<td>Malaysia</td>
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<td>Vietnam</td>
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**Question:** In the past month, which devices have you used to do the following? (Mobile)  
**Base:** 38,496 internet users in APAC aged 16-64

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### Mobile behaviours aren’t uniform

Beyond language preference and market access, national viewer cultures strongly affect how people consume TV content in the here-and-now. Since smartphones became ubiquitous with smartphone ownership (96% in Asia Pacific), second-screening has been a key part of the viewing experience. For brands wanting to attract attention to on-screen advertising, this is recognised as a major challenge. There is now a range of second-screen activities that unite viewers across all the countries, such as using social media (62% do so while watching TV in Asia Pacific) searching for products while watching television (41%) and playing games (39%). These tend to be solitary activities, where national cultural differences might be less impactful. In other areas, we see bigger gaps; preference for interaction and response is the main dividing line. For instance, viewers in China are over three times more likely to interact with on-screen content on their mobile phones than their counterparts in Australia.

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Mobile TV content casting by market

<table>
<thead>
<tr>
<th>Country</th>
<th>% who have watched content on a TV by mirroring/casting it via a phone in the past month</th>
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<tbody>
<tr>
<td>Global</td>
<td>30</td>
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<tr>
<td>Philippines</td>
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<td>Japan</td>
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</table>

Source: GlobalWebIndex Q2 2019
Question: Which of these have you done on your mobile in the last month?
Base: 38,496 internet users in APAC aged 16-64

Adapting to mobile and time-sensitive video content will be key

The big question is how TV content producers can match online video, and even if they should. Our survey data suggests that, on a regional basis, video consumption is being shuffled into more time-shifted, mobile directions, but what that means in practice will vary by audience. Giving attention to the richness and variety of overall video consumption and drawing on more sources than viewership figures and device-level data, will be instrumental in enabling publishers to keep up with the changes in TV consumption, culturally and technologically.

COUNTRIES INCLUDED IN THE ASIA PACIFIC DEFINITION:
Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, The Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam

by Chase Buckle
Trends Manager
GlobalWebIndex

However, the relationship between mobile and TV doesn’t stop at second-screening. The rise of smart TVs and streaming devices has allowed media consumers to use their mobile to watch content on the bigger screen. “Casting”, or “mirroring” content from a phone onto a TV screen has introduced a new level of convenience in online TV viewing which has found significant appeal in markets like the Philippines, India, Vietnam and New Zealand.

GlobalWebIndex is a market research company headquartered in London that provides audience insight across 46 countries to the world’s largest brands, marketing agencies and media organisations. The company maintains a global panel of more than 22 million connected consumers, which it leverages to create over 40,000 data points on the behaviors and perceptions of internet users around the world. www.globalwebindex.com
LIVE 360-DEGREE VIDEO: THE FUTURE OF SPORTS BROADCASTING

The future of live sport will deliver a sense of ‘being there’, so the prospect of capturing and delivering live 360-degree video offers an exciting insight into the direction sports broadcasting is heading next. As we look to usher in the next evolution in immersive viewing experiences, 360-degree video provides the possibility to transport the viewer immediately into the live action from a variety of different perspectives. By placing 360-degree video cameras above the top of a diving board or behind the basket at a basketball match, we can deliver a viewpoint that would not be possible even from the most expensive seat in the house.

However, the first generations of 360-degree video deployments are unlikely to displace the traditional broadcast. Instead, they are likely to act as a complementary experience via a second screen device that will augment the traditional broadcast. As well as the fully immersive virtual reality experience delivered to a head-mounted device, one potential of this technology lies in delivering 360-degree video to tablets and phones via a ‘flat’ player. By doing this we can create an experience that is both personal and social, allowing fans to personalise their viewing by choosing a specific camera or direction to watch the action, while also continuing to follow the broadcaster’s curated action on the main screen.

By enriching content and creating viewing experiences that match ‘being there’, 360-degree video will help deliver a level of immersive experience that is befitting of the inherently social nature of live event viewing.
So, to realise the potential of 5G the industry needs to focus on tackling security threats on 5G – this will not be easy.

What should be done to address security challenges?

Some say that the architecture of 5G networks lends itself to security problems. Given the range of possible security threats we think it is too simplistic to only fix the problem by addressing the network architecture. We believe all stakeholders – governments, telecoms industry, businesses and individual consumers – have a collective role in addressing security challenges through addressing standards, educating the public on the real and perceived security threats and individuals taking more responsibility in selectively sharing personal data.

What's the difference between today's 3G/4G networks and 5G?

With 3G we needed to download a video clip before viewing it whilst with 4G users are able to stream that video without downloading it first. With this added convenience, we’ve seen widespread streaming of video on 4G.

KEY 5G FEATURES ARE:

- **Much higher speeds** – enable HD video and 4K video as well as real-time gaming between multiple players.
- **Low latency** (delays) – support autonomous vehicles, workplace collaboration, etc.
- **Massive connectivity** – connect sensors that will be embedded in any device we can imagine - these sensors produce a wide range of data and a large volume of data.
MEASURING ASIA PACIFIC’S VIDEO STREAMING LANDSCAPE

The dynamic world of video streaming is set to get even more dynamic. Several media giants are likely to enter Asia Pacific in the coming months, joining globally established paid online streaming services and a crowded market of regional OTT video providers.

In the context of this increase in platforms, what does adoption of streaming subscription look like and how can measurement better enable Asia Pacific's online video ecosystem?

Using Kantar’s TGI Consumer Data, recent Television Audience Measurement data from mainland China, and our flagship DIMENSION study, we can take a deeper look at this question.

WHO ARE THE VIDEO STREAMERS?

According to TGI Global Quick View data, mainland China is the market with connected consumers aged 16+ (those who access the internet for leisure purposes at least once a week) most likely to claim to pay for streaming services. 24% say that they themselves pay for such services while a further 10% claim to have an online streaming service that is paid for by someone else. At the same time, audience data from a recent pilot project led by CSM Media Research with platforms iQiYi and Tencent Video points to one basic characteristic of Chinese online video streamers, they are heavily at the younger end of the age scale and more highly educated than the country’s average. They are also heavy tech early adopters and are around 50% more likely to own a smartwatch or voice-controlled assistant.

At the other end of the scale, amongst the 22 markets in the TGI Global Quick View survey, consumers in India are 62% less likely to pay for subscription services. It may seem that the most tech advanced markets are those that have embraced online video streaming with the greatest enthusiasm, but it’s not that simple – Japanese consumers are 56% less likely to pay for these services.

TRENDS BEHIND VIDEO STREAMING

Dramatic regional differences are also reflected in the fragmentation of the OTT video offerings in Asia Pacific, which have been boosted by an expansion in connectivity and growing smartphone adoption.

Unlike in most of the world, Netflix does not enjoy a complete dominance in the region. While it is the top player in Australia (41% market share), it lags slightly behind the local provider Oksusu (14%) in South Korea. It also loses out to Amazon Prime Video (15%) in Japan and it is very far from challenging the dominance of HotStar (23%) in India. iQiyi (44%) and Tencent Video (36%) are the top players in mainland China, where Netflix does not have a presence.

Findings from Kantar’s 2019 DIMENSION study reveals how this fragmentation may be partly explained by the global preference of paid video subscribers for exclusive content. Across five of the biggest ad markets in the study, including mainland China, nearly half of them cite the subscription offering TV shows and films that they cannot get elsewhere as the main reason for doing so.

Asia Pacific is also significantly different in relation to consumers video consumption habits. According to the report, advertising is twice as popular in mainland China. This is despite 60% of its consumers always or sometimes using an ad-blocker.

CSM Media Research’s audience data shows that as digitalisation of devices continues in mainland China, coverage of IPTV and connected TV households in key cities has grown further. Linear TV ad revenues have been flowing to internet and mobile screens at the same time. We can expect more players tapping into this new opportunity and relying on ad-supported streaming models to overcome the difficulties of an already crowded OTT marketplace.
MEASURING THE VARIOUS MODELS OF VIDEO ON DEMAND

So, if the biggest consideration is choice rather than avoidance of advertising, it becomes even more important to measure and understand these subscribers to engage them effectively.

However, measurement is often blocked because of a ‘walled garden’ approach to first-party data by subscription services to better protect and monetise their business.

The metering and content detection technologies exist. It is, in effect, a series of political and economic considerations that infringe on the open measurement and reporting that prevents us from giving Asia Pacific’s video industry a clearer, more holistic idea of viewing.

At Kantar we have experience in overcoming these challenges and delivering value to the industry by reporting on cross-media viewing of linear and video on demand services across screens.

CSM Media Research’s pilot project with iQiyi and Tencent Video delivers a comprehensive measurement and evaluation system to assess audiences from linear TV and connected TVs and devices’ Video-On-Demand platforms. And it does so with an alternative method to work with content providers who may not want to use tag or coding.

Kantar has also recently deployed our latest router metering technology in Hong Kong to enhance its TV and Online Video Measurement in the market and it will continue its global roll-out over the coming years.

by Nick Burfitt
Managing Director
Media Division Asia Pacific
Kantar
January to June 2019 has recorded a decrease (-3.7%) over the same period as January to June 2018. This continues the trend from the first half declining in spend since 2017.

Television, Newspapers and Magazines all saw moderate declines, contributing to the overall Year-on-Year decline. However, Radio, Outdoor and Cinema all saw growth, but not enough to offset the declines of TV and Print media.

Radio was once again a strong performer, showing an increase (6.6%) and this is continued momentum off an impressive 2018 (17.8%). Outdoor has bounced back, showing an increase (11.0%), after a tough start in 2018 (-31.0%). Print has seen a continued decline again during the first half of 2019, for Newspapers (-15.8%) and Magazines (-22.2%).

2019 has seen a steady start for Indonesia (3.7%), New Zealand (4.3%) and the Philippines (4.3%) compared to the same period last year.

After posting strong growth in 2018, Australia has seen declines in advertising spend over the first half (-17.5%), reflecting challenging market conditions.

Malaysia and Singapore also faced slow starts to 2019 (-18.6% and -19.6% respectively). Taiwan fared slightly better, but still saw a decline of -9.8%.

Overall, the region saw a decline in advertising spend (-3.7%) compared to January to June 2018. Last year, we saw 2.3% growth for the region.
This year, three of the 12 macro sectors showed growth during the first half of 2019 compared to the prior year, with Healthcare (12.4%) leading the way, Media and Industry & Services (8.6% and 2.6% respectively) rounded out the remaining growth sectors. Clothing & Accessories saw the largest decline for 2019 (-23.8%), closely followed by Durables (-17.0%) and Others (-16.2%). Notably, both Clothing & Accessories and Durables had strong starts to 2018, showing (4.4% and 10.0% growth respectively). On average, these 12 macro sectors saw an average decline of -7.9%, which is up from -5.4% for the same time last year.
Investment in total screen advertising in Asia Pacific is predicted to grow by 5.4% in 2019. This compares to 7.4% for all advertising spending. Within screens, mobile video is set to enjoy the highest growth at 37.4%. This is followed by growth in pay TV at 4.0%, desktop video at 2.9% and a small decrease in Free-to-Air (FTA) TV of -0.1%.

In terms of longer term regional growth, we predict a CAGR of 4.3% over the next four years; performing below the prediction for the total advertising industry of 5.6%. Mobile video is predicted to enjoy the highest CAGR at 20.1%. Comparatively, the global CAGR for screen advertising is lower at 2.6%.

We predict that FTA will account for 58% of total screen advertising in 2019; decreasing to 46% by 2023. Pay TV and desktop video spend will remain stable at 21% and 6% respectively. Mobile video is predicted to increase from 15% in 2019 to 27% by 2023.

China and Japan account for 65% of total screen advertising spend in Asia Pacific and they are expected to increase at an annual rate of 4.5% and 1% respectively up to 2023. India is predicted to experience the highest increase into screens by 2023 with a 13.9% CAGR.

Digital investment will continue to grow in the region. It is predicted to increase to 59% of all spend by 2023. Within this 21% will be against video advertising, 25% against social, 46% against search and 8% against display/other.

Spend via programmatic video continues to increase. In 2019 we predict a 37% growth across Asia Pacific. In terms of programmatic video investment as a percentage of total screen advertising, Australia, Malaysia and Hong Kong lead the way at 23%, 15% and 13% respectively.

What we know is that consumers have made a significant change from linear TV to On-Demand TV and we finally see mobile video catching up to the amount of time spent on the device. However, there is still a huge opportunity gap for On-Demand TV, specifically OTT, in terms of advertising growth.

With On-Demand TV having the flexibility to deliver a seamless, personalised, relevant and engaging message we envisage the largest growth potential in the intermediate term for the industry.

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IN TERMS OF CAGR % GROWTH, ALL SCREEN MEDIA IS EXPECTED TO INCREASE IN ASIA PACIFIC WITH THE EXCEPTION OF FREE-TO-AIR

Global 2019-2023 CAGR%
Free-to-Air Television
Pay Television
Online Video
Mobile Video
Total Screens
-0.2% 2.9% 2.6% 1.9% 0.2%

Asia Pacific 2019-2023 CAGR%
-1.3% 4.1% 4.3% 4.3%

India is predicted to enjoy the highest CAGR % growth across the Asia Pacific region at +13.9%

Total Screen Advertising Revenue 2019-2023 CAGR%

Growth in screen investment via programmatic is high at 37% in 2019 vs. 2018 across Asia Pacific

Programmatic Video Advertising Spend 2019 vs. 2018 YoY change %

Australia China Hong Kong India Indonesia Japan Malaysia New Zealand Pakistan Philippines Singapore South Korea Sri Lanka Taiwan Thailand Vietnam

-32% -2.4% 13% 13% 1.0% 13% 22% 10% 12% 15% 17% 19% 21% 22% 23% 24% 25% 26% 27% 28% 29% 30% 31% 32% 33% 34% 35% 36% 37% 38% 39% 40% 41% 42% 43% 44% 45% 46% 47% 48% 49% 50% 51% 52% 53% 54% 55% 56% 57% 58% 59% 60% 61% 62% 63% 64% 65% 66% 67% 68% 69% 70% 71% 72% 73% 74% 75% 76% 77% 78% 79% 80% 81% 82% 83% 84% 85% 86% 87% 88% 89% 90% 91% 92% 93% 94% 95% 96% 97% 98% 99% 100% 101% 102% 103% 104% 105%
ONLINE VIDEO VIEWING IS RISING RAPIDLY IN ASIA PACIFIC

Online video viewing is rising rapidly in Asia Pacific, and in a few years will rival television viewing. But television is much more important for advertisers, and will remain so for the foreseeable future.

Zenith estimates that the average person in Asia Pacific will spend 92 minutes per day watching online video this year, up from 73 minutes in 2018. Meanwhile television viewing will stay static at 144 minutes per day. By online video we mean any video content that’s delivered over the internet, to any device – so a Netflix series viewed on a connected TV set counts as online video as much as a YouTube video viewed on a smartphone. Television refers to broadcast linear TV, whether it’s live or recorded.

Television viewing has been broadly stable in Asia Pacific since 2012, registering a small 0.4% annual decline between that year and this. Meanwhile, online video viewing has enjoyed an explosive average annual growth rate of 66%. This growth has naturally moderated over time, but we still expect online video viewing to grow 26% this year, when it will reach 64% of the time people spend watching television, up from 51% in 2018. By 2021 we expect online video viewing to reach 76% of television viewing.

Advertisers have not embraced online video to the same extent. We forecast online video advertising in Asia Pacific to grow 12% this year to reach US$12.4 billion. This is just 20% of the size of the television ad market, which we forecast at US$61.1 billion. We expect television advertising to continue to grow by 2% per year to 2021, while the growth of online video advertising will slow to 9% in 2020 and 7% in 2021, when it will be 23% of the size of the television ad market. Clearly there’s a large mismatch between the amount of time people spend viewing online video, and the amount of money advertisers spend to reach them there.

This mismatch has arisen for several reasons. Television viewing is an immersive and communal experience, viewed on a large screen with family and friends – if not in the same room, then often at the same time. Television ads are unmatched in their ability to create strong brand experiences at scale. Despite the spread of personal video recorders (PVRs), most viewers watch most of their television live, and when they do watch pre-recorded programmes, they watch them without skipping. Television ads form part of the television viewing experience, and while viewers may criticise them, they will pay at least some attention to them.

Online video viewing can be less immersive, depending on the device on which it appears, and is more individual. With the ability to choose from a much wider range of content and no time constraints, online viewing is spread much more broadly. Furthermore, two people watching the same content may see very different ads. Depending on the platform, ads can be easier to skip, and the number of ads shown considerably lower than on TV. It’s therefore harder to build brand values across mass audiences using online video. We expect television to remain the dominant vehicle for video advertising in Asia Pacific for some time to come.
Average viewing per day in 2019, selected markets (all individuals)

[Chart showing average daily viewing per market, with bars for Television and Online video]

Adspend in 2019, selected markets (US$ million)

[Chart showing adspend by market, with bars for Television and Online video]
# TELEVISION AUDIENCE MEASUREMENT 2019-2020

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<th>PAY TV REACH &amp; FREQUENCY AVAILABLE</th>
<th>TIME SHIFT VIEWING MEASURED</th>
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<tr>
<td>AUSTRALIA</td>
<td>Nielsen TAM on behalf of OzTAM</td>
<td>5,250 (Metropolitan) 2,120 (National Subscription TV)</td>
<td>No</td>
<td>Metro areas (5 cities) &amp; nationally for Subscription TV</td>
<td>Yes</td>
<td>Yes</td>
<td>National Video player data reported separately</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td></td>
<td>Nielsen TAM on behalf of Regional TAM</td>
<td>3,198 (Regional)</td>
<td>No</td>
<td>Queensland, Northern NSW, Southern NSW, Victoria, Tasmania &amp; Regional Western Australia</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>BANGLADESH</td>
<td>Kantar</td>
<td>550 Homes 2,200 Individuals</td>
<td>No</td>
<td>Dhaka Metro, Dhaka Other Urban, Dhaka Rural, Chittagong Metro &amp; Rural</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CAMBODIA</td>
<td>Kantar Media</td>
<td>795 Diaries</td>
<td>No</td>
<td>Phnom Penh, Siem Reip &amp; Battambang</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CHINA</td>
<td>CSM</td>
<td>37,350</td>
<td>No</td>
<td>National panel: 500,000 Smart TV Device &amp; 52 City panel: 200,000 Smart TV Device 1 national panel, 118 city panels, 25 provincial panels</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Nielsen-CCData</td>
<td>30 million RPD terminal units (incl. DTV/YPV/OTT TV); 1 National RPD panel (100,000+ HH); 2 Provincial RPD panels, 60+ City RPD panels</td>
<td>Yes-Cable</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>HONG KONG</td>
<td>CSM &amp; Kantar Media</td>
<td>1,000</td>
<td>No</td>
<td>HK Region</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CSM Media Research</td>
<td>2,000 homes</td>
<td>No</td>
<td>HK Region; Now TV subscriber base</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>INDIA</td>
<td>BARC India</td>
<td>40,000 homes increase to 50,000 by 2020</td>
<td>Yes (Tied up with 4 DPOs so far, in talks with others) - POC in progress</td>
<td>All India (Urban + Rural)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>INDONESIA</td>
<td>Nielsen</td>
<td>2,418 (Terrestrial) 640 (Pay TV)</td>
<td>Terrestrial: 11 cities Pay TV: 11 cities</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>In Digital Ad Ratings (DAR) &amp; Total Ad Ratings (TAR)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>JAPAN</td>
<td>Video Research Ltd</td>
<td>7,100 National panel &amp; separate Subscription TV Panel 900 *</td>
<td>No</td>
<td>Tokyo, Osaka, Nagoya, Sapporo &amp; Fukuoka</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>MALAYSIA</td>
<td>Nielsen</td>
<td>1,100 TV Households in Peninsular Malaysia</td>
<td>No</td>
<td>Across 11 states in Peninsular Malaysia, covering both urban and rural</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>See Digital Ad Ratings (DAR) inclusive of Desktop &amp; Mobile</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Kantar</td>
<td>4,000 homes</td>
<td>No</td>
<td>Across all 13 states in Peninsular &amp; East Malaysia, covering urban &amp; rural</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>(all channels)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>MYANMAR</td>
<td>Nielsen MMRD</td>
<td>1,000 + HH Diary Panel 6,000+ Individuals</td>
<td>No</td>
<td>6 Key Cities within metro &amp; urban</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NEW ZEALAND</td>
<td>Nielsen</td>
<td>900 households (2,250 panel members)</td>
<td>No</td>
<td>National</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PAKISTAN</td>
<td>MediaLogic Pakistan</td>
<td>2,050</td>
<td>In process</td>
<td>Top 26 Cities Incl. 3 Metros</td>
<td>Yes</td>
<td>N/A</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### TELEVISION AUDIENCE MEASUREMENT 2019-2020

#### MARKETS | RESEARCH COMPANY | PEOPLEMETER PANEL SIZE (HOMES/HOUSEHOLD) | RETURN PATH DATA (RPD) PANEL | PANEL COVERAGE | CABLE/SATELLITE MEASURED | DIT MEASURED | INTERNET TABLETS & SMARTPHONES | VOD & OR COTT SERVICES MEASURED | COMMERCIAL BREAK RATINGS FOR PAY TV CHANNELS | COMMERCIAL SPOT LOGS FOR PAY TV CHANNELS | PAYTV REACH & FREQUENCY AVAILABLE | TIME-SHIFT VIEWING MEASURED | SOFTWARE
---|---|---|---|---|---|---|---|---|---|---|---|---|---
**PHILIPPINES NATIONAL** | Nielsen | National Panel: 3,500 (2,000 Urban homes (NUTAM) & 1,500 Rural homes (RTAM)) | No | National (Urban + Rural) | Yes | Yes | Yes | In Digital Ad Ratings (DAR) | No | Yes | Yes | No | Arianna
**PHILIPPINES METRO** | Nielsen | Metro Panel: 2,230 (1,200 Mega Manila homes (MEGATAM) and 1,030 homes for 8 other Metros (MCIATAM)) | No | Metro Cities | Yes | Yes | Yes | In Digital Ad Ratings (DAR) | No | Yes | Yes | No | Arianna
**PHILIPPINES** | Kantar | National Panel: 2,270 (1,370 Urban homes (Urban PH) & 900 homes (Rural PH)) | Yes | National (Urban + Rural) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Instar Analytics
**SINGAPORE** | GIK | 1200 households and 2400 individuals on PC/mobile devices | No | National | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | (up to 28 days) | Evogenius
**SOUTH KOREA** | Nielsen | 4,170 | No | National | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Arianna
**SRI LANKA** | Kantar | 650 Homes – 2,350 Individuals | No | National | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Media Xpress
**TAIWAN** | Nielsen | 2,000 | - | National | Yes | Yes | No | No | No | No | No | No | No | Instar Analytics
**TAIWAN (MOD)** | Nielsen | 1,500 | MOD subscriber base | No | No | No | No | Yes | Yes | Yes | No | No | Instar Analytics
**THAILAND** | Nielsen | 2,400 | No | National | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Arianna
**VIETNAM** | Kantar Media | National TAM (Diaries) 2,258 Homes & 2 Cities (Diary), 518 Homes & 4 Cities (PM), 1,294 homes | National 6 cities | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Instar Analytics

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**Survey Notes:** Australia: OzTAM and Regional TAM. Peoplemeters/OzTAM: 5 City Metro Markets: Sydney, Melbourne, Brisbane, Adelaide & Perth & National for Subscription Australia TV/RegionalTAM: Queensland, Northern NSW, Southern NSW, Victoria, Tasmania and Regional Western Australia-Australia, Use Choice® Gold Standard accredited software suppliers for OzTAM & RegionalTAM Data: TV Map (Broadcast M.A.P), Rifting Library for MediaWise (Day & Technology), AdQuest eTAM (Landsberry & James), Pinergy (MediaCom) OzTAM only, Arianna (NielsenTAM), TARDIIIS (Starcom MediaVest Group), AdvantEdge (TechEdge) Indonesia: Nielsen – Terrestrial & Pay TV, TV & 11 cities, Jakarta, Surabaya, Medan, Semarang, Bandung, Makassar, Yogjakarta, Palembang, Denpasar, Banjarmasin, Surakarta. Japan: Video Research Ltd. Peoplemeters in Tokyo & Osaka: Non continuous measurement; 2 week sweeps conducted every two months (12 weeks/year). Subscription TV panel is separate from national terrestrial TV panel of 6,600 homes, 52 weeks reporting (up to 28 days). Indonesia: Nielsen-MMRD. Diary Panel, covering 6 key Cities within Metro and Urban (Yangon, Mandalay, Nay Pyi Taw, Taunggyi, Magway, Mawlamyine) Pakistan: MediaLop: 20 cities – Karachi, Lahore, Islamabad/Rawalpindi, Faisalabad, Multan, Hyderabad, Sialuc, Gujranwala, Bahawalpur/Peshawar, Skokchupura, Sialkot, Pakpattan, Jhelum, Kohat, Mardan, Larkana, Daud and Quetta, Pakistan, Gallup Pakistan.

National diary panel include all 3 Metros (Karachi, Lahore, Islamabad/Rawalpindi), 2,100 individuals. 5 Large Cities (Faisalabad, Hyderabad, Multan, Peshawar, Quetta, 1,100 individuals), 10 Small Cities & Towns (Diaz, Jacobabad, Kawan, Mardan, Peshawar, Rajanpur, Rohri, Sahiwal, Sargodha, Thattar, 1,000 individuals). Rural 800 individuals Philippines: PHVTAM (National Urban and Rural), NUTAM(National Urban), Mega TAM (Metro Manila & suburban), MCTAM (Metro cities; South Korea, Nielsen: National and over 100 pay TV channels are monitored programme names or TVC spot logs. Daesol, Incheors, Bousu, Gwangju, Daegu, Ulungun, Ulsan, Incheon, Gwangju, Gyeonggi Province, Kangwon Province, North Chungcheong Province, South Chungcheong Province, North Gyeongsang Province, South Gyeongsang Province, North Jeolla Province, South Jeolla Province, Jeju Island; South Korea, TMRS: Return Path Data, panel size is 10,000 homes of KT, IPTV Vietnam, Kantar Media, People Meter & Data. 1 National Diary panel, 2 Diaries panel cities; Hai Phong, Nha Trang, 4 People Meter cities: Ha Noi, HoChiMinh City, Da Nang, and Can Tho. 12 TV Channels monitored Programme and TVC Spot logs. Please contact the research company for a comprehensive report on measurement.

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**THE ASIA VIDEO INDUSTRY REPORT 2020**
## Syndicated Media Surveys 2019-2020

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<th>DIT</th>
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<td><strong>Hong Kong</strong></td>
<td>Nielsen</td>
<td>Media Index</td>
<td>6,000+</td>
<td>Hong Kong</td>
<td>Face-to-Face/Online</td>
<td>12 - 64</td>
<td>Yes</td>
<td>Yes</td>
<td>Clear Decisions</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>22,000</td>
<td>Australia</td>
<td>Online</td>
<td>14+</td>
<td>Yes</td>
<td>Yes</td>
<td>Clear Decisions</td>
<td>No</td>
</tr>
<tr>
<td><strong>New Zealand</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media Insights</td>
<td>10,000</td>
<td>New Zealand</td>
<td>Face-to-Face/Online</td>
<td>10+</td>
<td>Fused with TAM data</td>
<td>No</td>
<td>Clear Decisions</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Indonesia</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>17,000</td>
<td>Indonesia, 11 cities</td>
<td>Face-to-Face/Online</td>
<td>10+</td>
<td>Fused with TAM data</td>
<td>No</td>
<td>Clear Decisions</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Malaysia</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>10,000</td>
<td>Peninsular Malaysia Only</td>
<td>Face-to-Face/Online</td>
<td>15+</td>
<td>Fused with TAM data</td>
<td>Fused with TAM data</td>
<td>Clear Decisions</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Myanmar</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>5,600+</td>
<td>National</td>
<td>Face-to-Face</td>
<td>10 - 64</td>
<td>Yes</td>
<td>Yes</td>
<td>Clear Decisions</td>
<td>No</td>
</tr>
<tr>
<td><strong>Philippines</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>10,000</td>
<td>National Urban</td>
<td>Face-to-Face</td>
<td>10+</td>
<td>Yes</td>
<td>Yes</td>
<td>Clear Decisions</td>
<td>Yes</td>
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<tr>
<td><strong>Singapour</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>4,200+</td>
<td>National</td>
<td>Face-to-Face</td>
<td>15+</td>
<td>Yes</td>
<td>No</td>
<td>Clear Decisions</td>
<td>Yes</td>
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<tr>
<td><strong>Thailand</strong></td>
<td>Nielsen</td>
<td>Consumer &amp; Media View</td>
<td>9,000+</td>
<td>National</td>
<td>Face-to-Face</td>
<td>12+</td>
<td>Yes</td>
<td>Yes</td>
<td>Clear Decisions</td>
<td>Yes</td>
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<tr>
<td><strong>Taiwan</strong></td>
<td>Nielsen</td>
<td>Media Index</td>
<td>10,000</td>
<td>National</td>
<td>Face-to-Face/Online</td>
<td>12 - 65</td>
<td>Yes</td>
<td>Yes</td>
<td>Clear Decisions</td>
<td>Yes</td>
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<tr>
<td><strong>Bangladesh</strong></td>
<td>Kantar</td>
<td>National Media Survey (NMS)</td>
<td>16,200</td>
<td>National</td>
<td>Face-to-Face</td>
<td>15+</td>
<td>Yes</td>
<td>No</td>
<td>ThinkMedia</td>
<td>Yes</td>
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<tr>
<td><strong>Sri Lanka</strong></td>
<td>Kantar</td>
<td>National Demographic &amp; Media Survey (NDMS)</td>
<td>12,500</td>
<td>National</td>
<td>Face-to-Face/CAPI</td>
<td>6+</td>
<td>Yes</td>
<td>No</td>
<td>QuestPlus</td>
<td>No</td>
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<tr>
<td><strong>Vietnam</strong></td>
<td>Kantar Media</td>
<td>Media Habit Survey (MHS)</td>
<td>6 Cities 9,352 (Urban) National 7,200 (exc 6 cities) 6 cities &amp; National</td>
<td>Face-to-Face/Self completed/Online</td>
<td>15-54</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>China</strong></td>
<td>CTR</td>
<td>CNRS-Tgi</td>
<td>100,000</td>
<td>60 1-4 tier cities</td>
<td>Face-to-Face/Self completed/Online</td>
<td>15-69</td>
<td>No</td>
<td>No</td>
<td>Telmar/Online</td>
<td>No</td>
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<td><strong>India</strong></td>
<td>IMRB</td>
<td>India</td>
<td>51,000</td>
<td>National</td>
<td>Face-to-Face/Self completed</td>
<td>15-55 ABC</td>
<td>Yes</td>
<td>Yes</td>
<td>GWI Pro</td>
<td>Yes</td>
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<td><strong>Hong Kong</strong></td>
<td>Ipsos</td>
<td>Media Atlas Hong Kong</td>
<td>5,000+</td>
<td>Hong Kong</td>
<td>CATI/Online/Face-to-Face</td>
<td>12 - 64</td>
<td>Yes</td>
<td>Yes</td>
<td>User choice</td>
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<td><strong>11 Asia Markets</strong></td>
<td>Ipsos</td>
<td>Affluent Asia</td>
<td>19,480</td>
<td>Hong Kong, Singapore, Malaysia, Taiwan, Thailand, Indonesia, Philippines, Korea, India, Australia, China</td>
<td>Online</td>
<td>Affluent/BDM/Top Management Age 25 - 64</td>
<td>Yes</td>
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<td>User choice</td>
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<td><strong>12 Asia Markets</strong></td>
<td>Ipsos</td>
<td>GBI (Global Business Influencer Survey)</td>
<td>7,064</td>
<td>Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand</td>
<td>Online</td>
<td>Senior business execs in companies with 50+ employees</td>
<td>Yes</td>
<td>No</td>
<td>User choice</td>
<td>Yes</td>
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<td>GlobalWebIndex</td>
<td>GlobalWebIndex</td>
<td>148,248</td>
<td>Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam</td>
<td>Online</td>
<td>16-64 year old internet users</td>
<td>Yes</td>
<td>GNI Pro</td>
<td>Yes</td>
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<td>MARKETS</td>
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<td>METHODOLOGY</td>
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<td>DEMOGRAPHICS</td>
<td>AUDIENCE SEGMENTATION (BEHAVIOUR)</td>
<td>MULTI-PLATFORM REPORTING</td>
<td>ONLINE VIDEO REPORTING</td>
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<tr>
<td>AUSTRALIA</td>
<td>Nielsen</td>
<td>7,000 PC, 2,000 Smartphone, 750 Tablet</td>
<td>PC + Smartphone + Tablet</td>
<td>Panel-only measurement for audiences. Engagement metrics fused with census collection from tags where applicable</td>
<td>Audience-based metrics such as reach, page views-based metrics including page views per person, session-based metrics including sessions per person and time based metrics including time per person</td>
<td>Age, Gender, Income, Education and Region</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>n.a.</td>
<td>n.a.</td>
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<tr>
<td>HONG KONG</td>
<td>Nielsen</td>
<td>Mobile: 1,200</td>
<td>Smartphone + Tablet</td>
<td>Meter</td>
<td>App Usage: Reach, Time Spent, App Launches, App Launches, Platform, Unique Audience, and Categories</td>
<td>Age, Gender, HH status, Married status, working &amp; income status</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>n.a.</td>
<td>n.a.</td>
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<tr>
<td>INDIA</td>
<td>Nielsen</td>
<td>8,000 Smartphone internet users in urban India</td>
<td>Android</td>
<td>Passive measurement</td>
<td>Unique Audience (000), Active Reach (%), Total Sessions (000), Sessions Per Person, Total Minutes (000), Time Per Person (hh:mm:ss), Total Page Views (000), Page Views Per Person</td>
<td>Age, Gender, Income, Marital Status, Education, Occupation</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Android Smartphones</td>
<td>Yes</td>
<td>n.a.</td>
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<tr>
<td>JAPAN</td>
<td>Nielsen</td>
<td>8,000 Smartphone, 40,000 PC</td>
<td>PC + Smartphone</td>
<td>Not callim based but actual log behaviour-based tracking</td>
<td>Total audience number report is delivered as one of element in DCR</td>
<td>Age, Gender, Income, Occupation, Household Size and presence of children</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
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<td>NEW ZEALAND</td>
<td>Nielsen</td>
<td>3,000 PC</td>
<td>PC Only</td>
<td>Panel-only measurement for audiences. Engagement metrics fused with census collection from tags where applicable</td>
<td>Audience based metrics such as Reach, page views based metrics including page views per person, session based metrics including sessions per person and time based metrics including time per person</td>
<td>Age, Gender, Income, Occupation, Marriage, Income, Lifestyle, Education</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>SOUTH KOREA</td>
<td>Nielsen</td>
<td>PC: 12,000 Mobile: 7,000</td>
<td>PC + Smartphone (Android &amp; iOS)</td>
<td>Panel-only measurement for audiences</td>
<td>Reach, Install, Time spent, Pageview, Session</td>
<td>Age, Gender, Region, Occupation, Marriage, Income, Lifestyle, Education</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>Yes</td>
<td>Measurement of static content on apps and websites</td>
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</tbody>
</table>
## TOTAL AD RATINGS 2019-2020

<table>
<thead>
<tr>
<th>MARKETS</th>
<th>RESEARCH COMPANY</th>
<th>SIZE OF PANEL</th>
<th>PLATFORM COVERAGE</th>
<th>METHODOLOGY</th>
<th>CORE REPORTING METRICS</th>
<th>DEMOGRAPHICS</th>
<th>AUDIENCE SEGMENTATION (BEHAVIOUR)</th>
<th>MULTI-PLATFORM REPORTING</th>
<th>ONLINE VIDEO REPORTING</th>
<th>PLANNING TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDONESIA</strong></td>
<td>Nielsen</td>
<td>Nielsen TAM Panel - 8,500 individuals Nielsen Digital Ad Ratings - Facebook universe (millions) with calibration panel. 50-60% of content impressions matched to a Facebook profile</td>
<td>TV - Nielsen TAM - National TV coverage Digital - Nielsen DAR - Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Deterministic Panel Match using Nielsen proprietary Audience Link Approach, creates single source TV + Digital panel</td>
<td>Unique Audience, Impressions, Frequency, GRP, On Target % TV Only Exposure, Digital Only, TV+Digital, Unduplicated Audience</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>All industry standard video and display advertising</td>
<td>Measurement of digital campaign Impressions, Reach, Frequency, GRP and On Target %</td>
</tr>
<tr>
<td><strong>PHILIPPINES</strong></td>
<td>Nielsen</td>
<td>Nielsen TAM Panel - 8,500 individuals Nielsen Digital Ad Ratings - Facebook universe (millions) with calibration panel. 50-60% of content impressions matched to a Facebook profile</td>
<td>TV - Nielsen TAM - National TV coverage Digital - Nielsen DAR - Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Deterministic Panel Match using Nielsen proprietary Audience Link Approach, creates single source TV + Digital panel</td>
<td>Unique Audience, Impressions, Frequency, GRP, On Target % TV Only Exposure, Digital Only, TV+Digital, Unduplicated Audience</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>All industry standard video and display advertising</td>
<td>Measurement of digital campaign Impressions, Reach, Frequency, GRP and On Target %</td>
</tr>
<tr>
<td><strong>THAILAND</strong></td>
<td>Nielsen</td>
<td>Nielsen TAM Panel - 8,500 individuals Nielsen Digital Ad Ratings - Facebook universe (millions) with calibration panel. 50-60% of content impressions matched to a Facebook profile</td>
<td>TV - Nielsen TAM - National TV coverage Digital - Nielsen DAR - Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Deterministic Panel Match using Nielsen proprietary Audience Link Approach, creates single source TV + Digital panel</td>
<td>Unique Audience, Impressions, Frequency, GRP, On Target % TV Only Exposure, Digital Only, TV+Digital, Unduplicated Audience</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>All industry standard video and display advertising</td>
<td>Measurement of digital campaign Impressions, Reach, Frequency, GRP and On Target %</td>
</tr>
</tbody>
</table>
### Digital Ad Ratings 2019-2020

<table>
<thead>
<tr>
<th>Markets</th>
<th>Research Company</th>
<th>Size of Panel</th>
<th>Platform Coverage</th>
<th>Methodology</th>
<th>Core Reporting Metrics</th>
<th>Demographics</th>
<th>Audience Segmentation (Behaviour)</th>
<th>Multi-Platform Reporting</th>
<th>Online Video Reporting</th>
<th>Planning Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Nielsen</td>
<td>Facebook universe (millions) with calibration panel. 50-60% of campaign impressions matched to a Facebook profile</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Panel, Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Unique Audience, Tracked Ads, Frequency, GRP, On Target %</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>All industry standard video and display advertising</td>
<td>Measurement of digital campaign Impressions, Reach, Frequency, GRP and On Target % Custom Media Analytics tools available to visualise DAR data</td>
</tr>
<tr>
<td>Japan</td>
<td>Nielsen</td>
<td>Facebook universe (millions) with calibration survey. 50-60% of campaign impressions matched to a Facebook profile</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Unique Audience, Tracked Ads, Frequency, GRP, On Target %</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>All industry standard video and display advertising</td>
<td>Measurement of digital campaign Impressions, Reach, Frequency, GRP and On Target % Custom Media Analytics tools available to visualise DAR data</td>
</tr>
<tr>
<td>Hong Kong, Indonesia</td>
<td>Nielsen</td>
<td>Tencent universe with calibration panel</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App), OTT</td>
<td>Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Unique Audience, Tracked Ads, Frequency, GRP, On Target %</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>All industry standard video and display advertising</td>
<td>Measurement of digital campaign Impressions, Reach, Frequency, GRP and On Target % Custom Media Analytics tools available to visualise DAR data</td>
</tr>
<tr>
<td>Australia</td>
<td>Nielsen</td>
<td>Facebook universe (millions) with calibration panel. 50-60% of campaign impressions matched to a Facebook profile</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Panel, Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience and Categories</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>Measurement of digital video and static content Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience, and Categories</td>
<td>Measurement of video and static content, apps, audio, etc.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Nielsen</td>
<td>Facebook universe (millions) with calibration survey. 50-60% of campaign impressions matched to a Facebook profile</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience and Categories</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>Measurement of digital video and static content Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience, and Categories</td>
<td>Measurement of video and static content, apps, audio, etc.</td>
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</table>

### Digital Content Ratings 2019-2020

<table>
<thead>
<tr>
<th>Markets</th>
<th>Research Company</th>
<th>Size of Panel</th>
<th>Platform Coverage</th>
<th>Methodology</th>
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<th>Online Video Reporting</th>
<th>Planning Tools</th>
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</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Nielsen</td>
<td>Facebook universe (millions) with calibration panel. 50-60% of campaign impressions matched to a Facebook profile</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Panel, Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience and Categories</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>Measurement of digital video and static content Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience, and Categories</td>
<td>Measurement of video and static content, apps, audio, etc.</td>
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<tr>
<td>New Zealand</td>
<td>Nielsen</td>
<td>Facebook universe (millions) with calibration survey. 50-60% of campaign impressions matched to a Facebook profile</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>Survey, Census Collection from Tags, Facebook Attribution, SDK or Platform Integration</td>
<td>Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience and Categories</td>
<td>Age and Gender</td>
<td>Additional segments can be explored on an ad hoc, post campaign basis subject to sufficient campaign size and panel availability</td>
<td>Yes</td>
<td>Measurement of digital video and static content Reach, Time Spent, Page Views, App Launches, Platform, Content Type, Unique Audience, and Categories</td>
<td>Measurement of video and static content, apps, audio, etc.</td>
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<tr>
<td>MARKETS</td>
<td>RESEARCH COMPANY</td>
<td>SIZE OF PANEL</td>
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</tr>
<tr>
<td>AUSTRALIA</td>
<td>Comscore</td>
<td>2 million-person global human panel and extensive Comscore census network</td>
<td>Desktop, Mobile (Smartphone and Tablet, Web and App)</td>
<td>People Panel, Enumeration Survey, Server Tags, SDK</td>
<td>Unique Visitors, Minutes, Page Views, Visits</td>
<td>Age, Gender, Expanded Demographics* (depending on market and product)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Campaign Reach/Frequency, VideoReach/Frequency</td>
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<td>Comscore</td>
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*Expanded Demographics include additional demographics depending on market and product.
## Digital Advertising and Audience Validation

### 2019-2020

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<th>Markets</th>
<th>Research Company</th>
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### Other Terms
- **Cord-cutter**: Someone who drops their cable subscription in favour of internet provided content
- **Cord-never**: Someone who has never signed up to a commercial cable subscription

### Acronym Interpretation
- **ABEI**: (Vietnam) Authority for Broadcasting and Electronic Information
- **ABR**: Adaptive Bit Rate
- **ADSL**: Asymmetric Digital Subscriber Line
- **AIDCF**: All India Digital Cable Federation
- **ARPU**: Average Revenue Per User
- **AVOD**: Advertising-supported Video on Demand
- **CAGR**: Compound Annual Growth Rate
- **CAPEX**: Capital Expenditure
- **CAS**: Conditional Access System
- **CDN**: Content Delivery Network
- **DRM**: Digital Rights Management
- **DTI**: Digital Terrestrial Television
- **DVBl**: Digital Video Broadcasting
- **DVBlCA**: Digital Video Broadcasting - Conditional Access
- **DVBlH**: Digital Video Broadcasting - Mobile handsets
- **DVBlS**: Digital Video Broadcasting - Satellite
- **DVBlT**: Digital Video Broadcasting - Terrestrial
- **DVR**: Digital Video Recorder
- **EPL**: English Premier League
- **FTA**: Free-to-Air
- **FTTx**: Fibre to the x (Broadband network using optical fibre for last mile)
- **HUT**: Homes Using Television
- **HVOD**: Hybrid Video on Demand
- **IPOS**: Intellectual Property Office Singapore
- **IPTV**: Internet Protocol Television
- **IDD**: Illegal Streaming Device
- **ITU**: International Telecommunication Union
- **KCC**: Korean Copyright Commission
- **KCC**: Korean Communications Commission
- **MCMA**: Malaysian Communications and Multimedia Commission
- **MinCom**: (Vietnam) Ministry of Information and Communications
- **MSO**: Multi-System Cable Operator
- **NBEA**: (Thailand) National Broadcasting and Telecommunications Commission
- **NCC**: (Taiwan) National Communication Commission
- **NTC**: (Philippines) National Telecommunications Commission
- **OTT**: Over-the-Top
- **OPEX**: Operating Expenditure
- **PCTA**: Philippines Cable Television Association
- **PMEB**: Professional, Manager, Executive, Business Person
- **PPV**: Pay Per View
- **QOE**: Quality of Experience
- **QOS**: Quality of Service
- **PUT**: Person Using Television
- **RPD**: Return Path Data (Viewing information from a set top box)
- **STB**: Set-Top Box
- **STBA**: (Taiwan) Satellite Television Broadcasting Association
- **SVOD**: Subscription Video on Demand
- **TAM**: Television Audience Measurement
- **TRAI**: Telecom Regulatory Authority of India
- **UHD**: Ultra High Definition TV
- **UGC**: User Generated Content
- **UI**: User Interface
- **UX**: User Experience
- **VAS**: Value Added Service
- **VCA**: Vietnam Content Alliance