videonet

WWW.V-NET.TV

# BOOSTING TELEVISION PROSPECTS WITH ENRICHED DATA ANALYTICS


*USING VIEWING BEHAVIOUR TO IMPROVE ADVERTISING*

*HOW VIEWING DATA BOOSTS OPERATIONS AND QOE*

*WHY IMPROVED NETWORK OPERATIONS INCREASES CONSUMPTION*

*THE VALUE OF ENRICHED METADATA FOR ADVERTISING*

*METADATA'S IMPACT ON CONTENT MARKETING AND MONETISATION*

ARRIS

# > WE ASKED 19,000 PEOPLE ABOUT WHAT THEY WANT OUT OF WI-FI

## (THEIR ANSWERS MAY SURPRISE YOU)

www.arris.com/arriscei


Videonet gives platform operators, media groups and channel owners information and analysis that helps them transform themselves for the connected era. We are focused on the push towards any-screen TV, virtualized operations, data-driven advertising, programmatic trading, more HTTP streaming, immersive television and more personalized TV experiences, highlighting trends and best practice in an era of unprecedented disruption and new opportunities. We deliver our insights through a regular newsletter, special reports and webcasts.

**Editor**
John Moulding
john@hubblemedia.co.uk

**Publisher**
Justin Lebbon
justin@hubblemedia.co.uk

**Advertising and Marketing**
Katrina Coyne, Business Development Director
+44 (0)20 8425 0966
katrina@hubblemedia.co.uk

**Websites**
www.v-net.tv
www.futuretvads.com
www.connectedtvsummit.com





# COMMENT

The television industry is becoming more data-centric, partly because it can but mostly because it has to.

Competition from online video providers like Netflix means 'traditional' media companies need to offer a more personalized viewing experience and that means better search and recommendations as a starting point. Better metadata and behavioural data are the foundations for personalized TV.

Competition also makes it harder to increase video-related revenues and some of the most promising new business opportunities rely on data analytics. Content owners who want to monetize their archives will benefit from improved metadata, for example. Pay TV operators can provide advanced advertising services if they marry subscriber data to set-top box viewing data and advertiser audience targets in a privacy-compliant way. Pay TV operators can also provide viewing insights that are valuable to their channel partners. 'Data insights as a service' is another way to diversify revenues.

Broadcasters are using improved data to counter the threat from 'digital' advertising giants like Google and Facebook. By harnessing personal data from online viewers, they can give marketers more targeted campaigns. Meanwhile, anyone offering subscription or ad-funded video must maintain increasingly stringent Quality of Service standards. Consumers are becoming less forgiving of slow start-ups and buffering on multiscreen devices. Actionable performance data from networks provides a competitive edge.

This report shows how data analytics can impact different parts of a media company, ultimately improving the ability to satisfy customers and monetize content.

**John Moulding, Editor, Videonet**

# CONTENTS


ARRIS
WE ARE
MULTISCREEN
We are driving the TV viewing experiences of the future into reality. Not only are we helping our customers make content discovery and consumption really, really easy, but we're doing that with flexible, cost-effective solutions.
WE ARE ARRIS
Meet Andy Aftelak, head of our Applied Research Center. He's using the power of ARRIS' deep, user-centered research and distributed software platforms to develop new innovations in personalized multiscreen. Andy's unique expertise includes being a fellow of the Institution of Engineering & Technology, holding 21 patents and participating on multiple international standards boards like the Wireless World Research Forum.
THE PEOPLE OF ARRIS
DRIVING THE FUTURE OF MULTISCREEN

# INTRODUCTION:

# Big data powers compelling TV

By Andy Aftelak, Vice President and Director in Advanced Technology, ARRIS

Data is everywhere. And for TV, the winners will be those who gather it in the best ways and make it work for them. Understanding the principles of big data in the modern era of video delivery is a win-win situation. Yet many service providers are only scratching the surface of what is possible. An exciting future lies ahead for those who can generate, capture, analyse and act on data insights. It could make for a more efficient, effective and more profitable business – not just tomorrow, but right now.

The evolving TV industry knows that it must make changes to better understand its audiences. Viewing is happening in more places and on more devices so guesswork is no longer an option. It calls for an in-depth understanding of preferences and habits driven by hard facts. The bottom line of the balance sheet depends on it.

AN EXCITING FUTURE LIES AHEAD FOR THOSE WHO CAN GENERATE, CAPTURE, ANALYSE AND ACT ON DATA INSIGHTS. IT COULD MAKE FOR A MORE EFFICIENT, EFFECTIVE AND MORE PROFITABLE BUSINESS

TV service providers are competing in a tough marketplace, made more challenging by new players emerging. It's easy for viewers to vote with their feet if they aren't getting what they need. Enter big data. We're now able to delve much deeper to become better acquainted with consumers.

Scene level metadata can deliver insights that used to be impossible to gain. We can now see the specifics of what is on screen down to the exact detail so targeting becomes much more interesting. It means we don't have to rely on crude genre categories to serve up recommendations to viewers. Instead, we can be more dynamic by suggesting shows based on their mood or the show's dialogue. It's a tool that advertisers would also find useful.

In fact, data analytics gives a plethora of options for advertisers who want to make their spend go further. And for the service providers, they are empowered to have more insightful and rewarding conversations with brands and ad agencies. Currently, advertisers are struggling to connect with viewers. According to ARRIS research, 60% download or record shows so they can fast-forward the ads.

But there is another telling statistic. Some 17% of consumers use secondary devices to buy products featured on the programs they watch. There's a golden opportunity on two fronts. First, big data can help track viewer preferences that help to create ads that consumers find engaging. Second, data analysis can create synergies with secondary screens that create buying cues linked to relevant points in a show. It's all linked to better understanding viewing and purchasing patterns of TV viewers.

Building customer relationships and minimising churn isn't just about responding to programming preferences, however. It's also about offering a high quality service, whatever is on screen. Data analytics is the intelligence that can predict service outages before they occur. It is also the solution to the often quoted problem with streaming in the home - connectivity issues.

Households consider good quality Wi-Fi a necessity, yet so many aren't happy with the service they're receiving. Providers can use the data generated from devices in the home to provision the right amount of bandwidth to each. As a result, viewers have an optimised experience.

This report will discuss the ways in which big data will provide new opportunities for TV. There's every reason to be optimistic about what these opportunities will do for the industry. Long live data-driven content delivery.

# BOOSTING TELEVISION PROSPECTS WITH ENRICHED DATA ANALYTICS

**How media companies can use a combination of viewing data, better programme metadata and network performance statistics to super-charge their content marketing and monetization, and strengthen advertising. Barry Flynn investigates what a holistic, enterprise-wide data analytics strategy looks like.**


Last September, ThinkAnalytics published research showing that after integrating its Recommendations Engine product, its clients' subscribers increased their viewing time by 20-50%, and the number of channels they watched rose by 25-35%. VOD uptake, meanwhile, increased by between 30-100%. These benefits were achieved just weeks or months after clients went live with its technology, ThinkAnalytics found.

Two months later, UK Pay TV operator Sky released figures showing that channel switching during Sky AdSmart's targeted commercials was a third lower than during non-targeted ones. As Jamie West, Sky Media's Deputy Managing Director, observed at the time, since "viewers cannot distinguish AdSmart commercials from any others, higher viewing levels can only be attributed to customers finding them more interesting or engaging."

Both findings eloquently demonstrate how enriched data analytics can boost television's prospects. This report accordingly looks at how such benefits can be achieved, investigating the gathering and analysis of three different types of data – consumer viewing behaviour, programme metadata, and network performance statistics – and the ways in which these can be combined to enhance their value to video service providers.

Clearleap says you can use viewing patterns for proactive churn management

## HOW A BETTER UNDERSTANDING OF VIEWING BEHAVIOUR IMPROVES CONTENT MARKETING AND MONETIZATION

TV audience measurement systems generally deduce overall content popularity by aggregating how a statistically representative panel of viewers behaves. But advanced Pay TV systems, as well as OTT video platforms such as Netflix, can access a much more detailed set of statistics: remote control commands to the set-top box, sent back over the return-path, in the first case; and server logs recording media player interactions, in the second.

As Andy Aftelak, Vice President and Director in Advanced Technology at ARRIS, whose Pay TV and broadband solutions cover the network, back office, headend and home, puts it, "On a modern TV system, almost every button push is able to be recorded. You're beginning now to look at being able to measure the way that people interact with a TV system in the same way that they interact with the Internet."

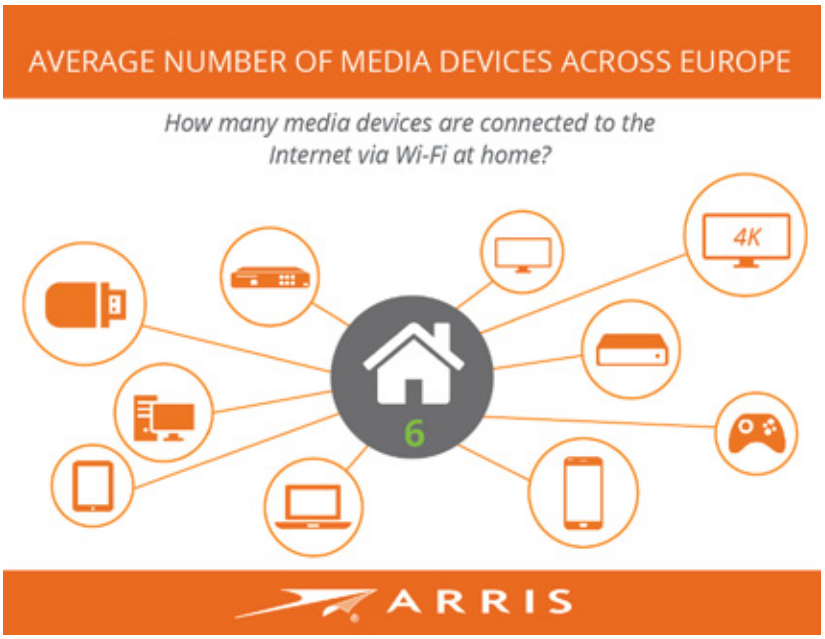
"THANKS TO RECOMMENDATIONS, SUBSCRIBERS INCREASED VIEWING TIME BY 20-50% AND WATCHED 25-35% MORE CHANNELS"

To derive maximum benefit, such data needs to be married with other information such as socio-demographic profiles, which can be derived from audience research panels at a macro level and household level subscriber data from Pay TV operators' CRM systems.

Steve Sydee, Head of Media Business Solutions at data analysis specialists Information Management Group Ltd (IMGROUP), says that while good data about what people are watching gives you good insight into what they're likely to want to watch, you can ally that with lots of geo-demographic data to essentially make some more educated guesswork. This can then be fed back into search and recommendation engines' algorithms to refine personalised suggestions.

We have reached an inflection point with data, Clearleap reckons

These combined data-sets can be leveraged to help reduce churn, says David Mowrey, Vice President, Product Management at multiscreen platform provider Clearleap, which has just been acquired by IBM. "If you can look at what a consumer is watching on any device, from whichever location, and whether that user then takes an action to either change their subscription, drop their subscription or consume more content over the next 30 or 60 or 90 days, then you can start doing some very interesting things. You can say, 'Okay, this user's habits are like that user, who is 20% more likely to churn than customers that watched two more videos last month. If I can just get this consumer to watch another couple of videos, I can reduce their churn rate by 20%."




As more devices are connected, data gathering becomes more complex but also more rewarding

Such information can also be used to optimize content acquisition, points out Peter Docherty, Founder and CTO of ThinkAnalytics, whose content and recommendations engine services more than 130 million subscribers worldwide via its various Pay TV customers. "If you can really understand the preferences of the consumers, then you can actually use that to try to negotiate or look for content that you think is going to [better] match the preferences and the likes and dislikes of your consumer base compared to your competition."

"YOU CAN SAY, 'OKAY, THIS USER'S HABITS ARE LIKE THAT USER, WHO IS 20% MORE LIKELY TO CHURN THAN CUSTOMERS THAT WATCHED TWO MORE VIDEOS LAST MONTH"



Understanding QoE for streaming video is one of the building blocks for a holistic, enterprise-wide data analytics strategy


STB viewing data underpins addressable advertising at Sky UK

## SET-TOP BOX DATA AND SERVER LOGS – UNLIKE AUDIENCE MEASUREMENT PANELS – REGISTER ALL INSTANCES OF CHANNEL OR PROGRAMME VIEWING, NO MATTER HOW SMALL THE NUMBER OF VIEWERS

### HOW A BETTER UNDERSTANDING OF VIEWING BEHAVIOUR IMPROVES ADVERTISING PROSPECTS

Such benefits also apply to advertising. "If you're bringing together all of these different data sets to understand more about individuals or groups of individuals, then obviously the more you understand them, the better you can target the type of advert that you know those people will be interested in," asserts Alex Phillips, Senior Managing Consultant in the Communication Practice at IBM's Global Business Services Division. "That puts you in a position to be able to charge more for the advertising slot."

Other benefits include the fact that set-top box data and server logs – unlike audience measurement panels – register all instances of channel or programme viewing, no matter how small the number of viewers.

"For a lot of the advertising panels, there might be ten or twenty thousand people in them," notes ThinkAnalytics' Docherty. "We're getting data from the whole base, for millions of subscribers, and so the data that we'll have there will be much more accurate."

For US cable operators, who are entitled to re-sell part of the airtime of the channels they carry, such data can allow niche channels not previously seen as attractive to be monetised. "Sometimes those streams don't necessarily get counted, and they can be a pretty significant portion of your viewer base," suggests Eric Abbruzzese, Research Analyst at ABI Research. "If you can suddenly begin accounting for them, that can be a really nice surprise."

Operators can also exploit such viewing data by entering into partnerships with the channels they carry. At Future TV Advertising Forum in December, John Paul, Managing Director of cable giant Liberty Global's recently-formed Advanced Advertising & Data division, revealed that the company was already partnering with broadcasters on targeted advertising, explaining that there were opportunities "inside VOD to change how we put those ads in and how we charge for them."

ARRIS's Aftelak points out that the availability of data that includes detailed behaviour such as fast-forwarding means that "if you know where the ads are, you can figure out whether that fast-forward was somebody fast-forwarding the programme or fast-forwarding through the ads."

IMGROUP's Media Insights

Peter Docherty, ThinkAnalytics


More relevant ads led to one-third less channel switching at Sky

YOU CAN RECOGNISE A PATTERN OF BEHAVIOUR AND BECOME MORE PREDICTIVE WHEN LOOKING FOR A DROP IN THE QUALITY OF SERVICE

Evangelist, Suranjan Som, says this technique, dubbed 'junction analysis,' can help broadcasters look at "the impact of where an ad is placed in a break, what is the impact of that ad, how many people are fast-forwarding through it, how many people are zapping it completely, and so on. Where you have your campaign data, your advertising revenue, your cost information, and the advertising break information together in one place, you can do all these types of analyses, including campaign effectiveness."

## HOW A BETTER UNDERSTANDING OF VIEWING BEHAVIOUR IMPROVES NETWORK OPERATIONS AND QOE

Set-top box or server data can also be combined with network layer data – measuring the flow of bits sent over cable or fibre or through routers – to deliver additional benefits. ARRIS's Aftelak cites network DVR usage behaviour as an example, which demonstrates cyclical peaks based on when during the week the most popular shows are recorded. Such data is "invaluable" for network planners trying to compute the storage and networking resources required to optimise customers' Quality of Experience (QoE), Aftelak points out.

Simon Jones, Conviva

"You can pin-point when a problem is happening, or indeed recognise a pattern of behaviour so that you can become more predictive in the way you look for a drop in the Quality of Service," he explains.

Abbruzzese references recent research by ABI Research revealing that new QoE products are coming to market which attempt to mine this combination of viewing and network-level data, for instance when a customer stops viewing mid-stream at the same time as a capacity 'crunch'.

Simply knowing whether this happened in the operator's network or in the customer's own Wi-Fi set-up is valuable in itself, notes Abbruzzese, since the information can be used to streamline call-centre responses. Meanwhile, if the delivery network turns out to be responsible, "you can get data such as 'how long did the buffering event last? Did they quit immediately? What percentage of users quit after five seconds of buffering, or ten seconds? That is where the viewing behaviour data comes into play."

Abbruzzese points out that where cloud infrastructure is available, "it is much easier to scale in real-time very quickly to account for those viewing behaviours. When the World Cup is on, you need a lot more infrastructure. You can do that very quickly and scale [up processing capacity], and then when the World Cup ends, you can scale it back down." This not only optimises QoE but potentially minimises infrastructure CapEx.

## HOW MORE MEANINGFUL METADATA IMPROVES CONTENT MARKETING AND MONETIZATION

Every film or TV programme


John Paul of Liberty Global (fourth from left) at Future TV Advertising Forum 2015, together with Neerav Shah, VP & GM, Multiscreen Video Infrastructure, Cloud Business Solutions at ARRIS (far right)

ANOTHER LAYER OF PROGRAMME METADATA HAS BECOME AVAILABLE WHERE THE VIDEO ITSELF IS COMPUTER ANALYSED TO PRODUCE DATA SIMILAR TO THAT CREATED BY AUDIO DESCRIPTION OR CLOSED CAPTIONING

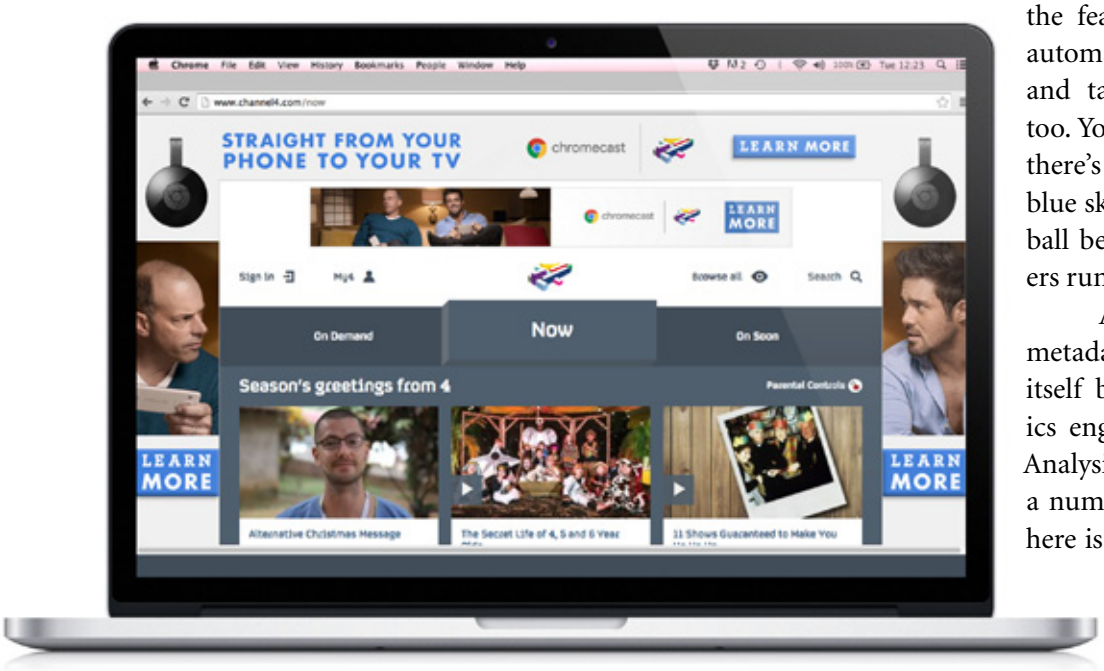
delivered over a digital TV system – broadcast or online – is associated with a set of 'metadata' of one sort or another that includes descriptive information about the content, including such things as title, story-line, cast, genre, release date, running-time, and so on.

It is this data that drives Electronic Programme Guides (EPGs) and search and recommendation engines – and the more detailed it is, the greater the value it delivers. Indeed, ThinkAnalytics' Docherty claims that one of the reasons his company's technology is able to deliver the benefits cited at the beginning of this report (i.e. more time spent viewing, more channels watched and higher VOD uptake) is precisely because it both re-analyses existing programme metadata (which he says is often incomplete) to extract more meaning from it and adds extra information to it from ThinkAnalytics' own libraries (ThinkMovies and ThinkTV), which between them contain detailed metadata for over a million titles. "It is the combination of that data, that we've created, with the viewing data, that lets us really understand the consumer," he maintains.

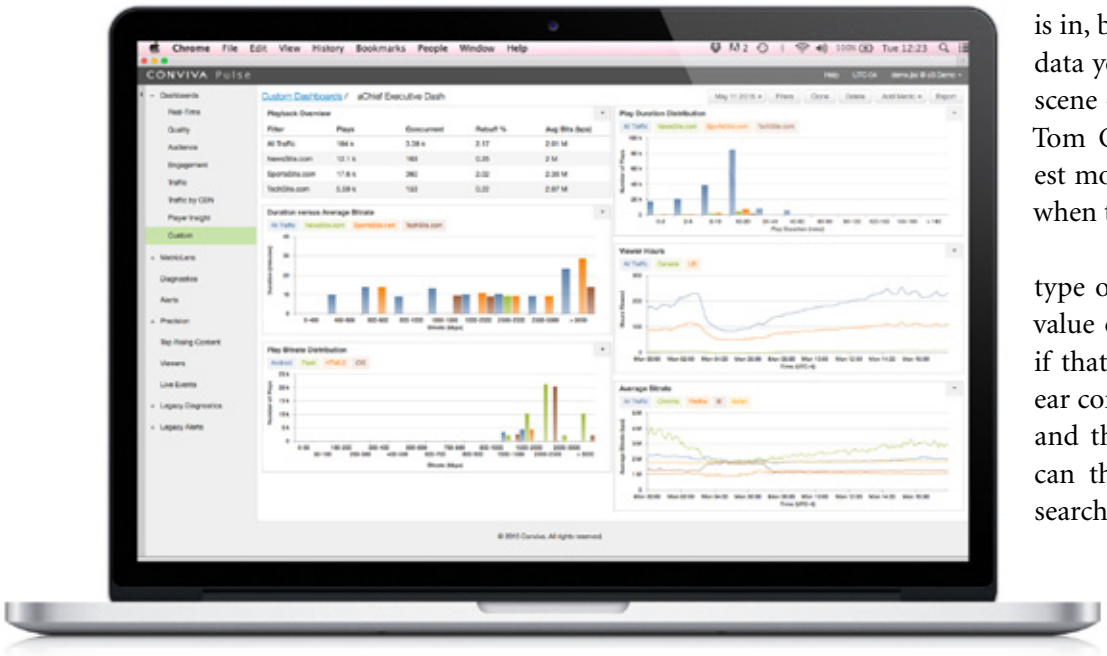
Recently, another layer of programme metadata has become available which potentially offers even greater personalisation benefits, by subjecting the video content itself to computer analysis, producing data similar to that created through audio description or closed captioning.

Phillips notes that IBM has developed its own technology for doing this, whereby "analysing the images in each video frame and looking at the features there, you are able to automatically produce metadata – and tag the content automatically, too. You might be able to detect that there's a sports scene, that there's blue sky, there's a crowd, there's football being played, there are footballers running around the pitch."

Aftelak dubs this 'temporal' metadata, and notes that ARRIS has itself been running such an analytics engine, which it calls its Media Analysis Framework (or MAF), for a number of years. "The whole idea here is to extract some sort of meaning from the content, so that you can create new experiences or use your




Channel 4's All 4 online service has over 12 million registered users




Conviva shows off a custom dashboard linking QoE to viewer engagement

WITH TEMPORAL METADATA YOU CAN GO BACK OVER NEWS ARCHIVES AND AUTOMATICALLY ANALYSE AND TAG THEM, MAKING THEM SEARCHABLE AND MONETISABLE

understanding of what's going on in the context to be a trigger for something else," he explains.

Potential use-cases for temporal metadata abound. Phillips cites one obvious application as "going back over news archives and automatically analysing them and tagging them and making them searchable." Indeed, he suggests, one could in principle go back over any archive to re-process it if standard metadata were absent, rendering it potentially monetisable for the first time.

Aftelak suggests that once such systems can detect structure in programmes, these can automatically be "chapterised": thus a sports event could be split up "into highlights and normal play, so that you can create personalised highlights for a specific demographic."

ABI's Abbruzzese notes that with traditional metadata "you can search for an actor and see what he is in, but maybe with temporal metadata you can figure out exactly what scene – so if you want to see where Tom Cruise first appears in his latest movie, you can skip directly to it when that happens."

Steve Sydee, IMGROUP

IMG's Som believes this new type of metadata "does add a lot of value on the content side, especially if that content is meant for non-linear consumption – video downloads and things like that. This metadata can then be harnessed to improve searchability. As soon as you do that, the ranking of the video goes higher, and therefore you have a better way of monetizing that video online."

## HOW MORE MEANINGFUL METADATA IMPROVES ADVERTISING PROSPECTS

The ability to detect where programme segments end and begin means that, in principle, the boundaries of commercial breaks can be identified even when these are inserted, server-side, to mask the 'joins' in a bid to counter ad-blocking. As ARRIS' Aftelak comments, "it is interesting to know where the ads are, because you might want to replace them."

This type of substitution, used in addressable advertising platforms such as Sky's AdSmart in the UK, is able to target the viewer with relevant ads by leveraging a Pay TV operator's CRM database.

By definition, temporal metadata enriches that mix even further, since it adds an additional level of insight into what type of content viewers like and should therefore allow broadcasters to charge even more for their targeted ads.

"Seeing what users are consuming and how they are consuming it can be really powerful, especially if you can pair that with automation of some sort," suggests ABI's Abbruzzese. "You could automate what type of advertising to send to what users. That's a really good way to hone in on targeted advertising: it could be temporal in terms of when to send it, or also, content-wise, what type [of ad]."

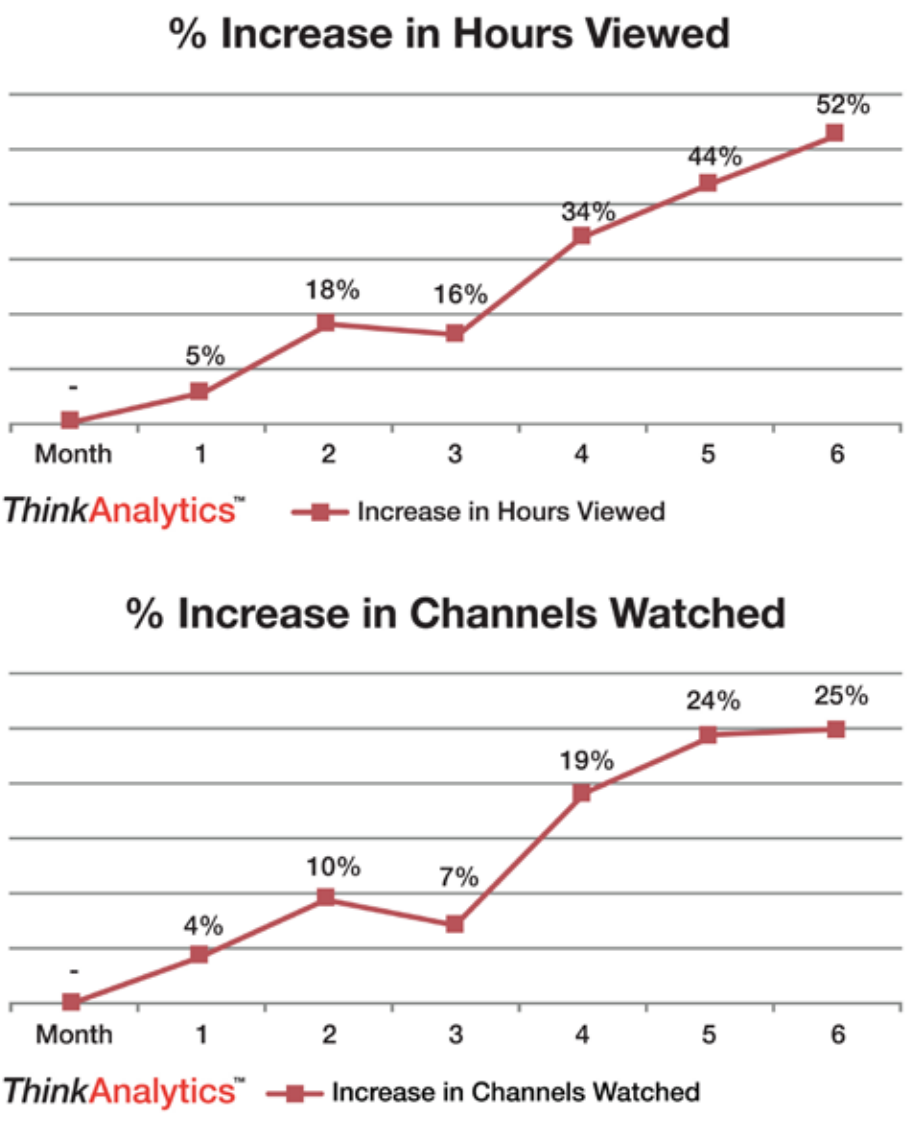
The ability of such systems to recognize onscreen objects – particularly faces – is also regarded as potentially valuable. "If you can, for example, detect when a specific actor or actress is on the screen, you can use that as a trigger to do or not do things. You might want to trigger an overlay which is a promotion for another show that the actor is in," suggests Aftelak. "Or you could use that to trigger an ad, because that actor or actress sponsors a particular product."

"IF YOU CAN DETECT WHEN A SPECIFIC ACTRESS IS ON THE SCREEN, YOU CAN USE THAT TO TRIGGER AN OVERLAY PROMOTION FOR HER OTHER SHOW"

ThinkAnalytics' Docherty agrees that there is some potential to use temporal metadata for product placement. "You could use that and say, 'Well, there's a scene here with an Aston Martin in it. There's a scene here and it is clear that it's a Hugo Boss suit, or whatever.'" Docherty reveals that ThinkAnalytics' platform is able to support scene-based and temporal metadata, but he believes it is early days to assess its value for advertising.

Other experiments suggest temporal metadata could be used to match programming recommendations to a viewer's mood. BBC R&D has had a project running since 2010 which uses signal processing and machine learning to classify programming across two mood-related axes: serious/humorous and slow-paced/fast-paced. "Rather than search for a programme by title, actor or description, people can find programmes based on the mood of programme they fancy watching," the BBC says. The BBC has built a prototype that uses the technology to support content discovery on its on-demand platform, iPlayer.

However, Aftelak cautions: "With anything that's context-driven, you have to be very careful that you don't make it creepy, because then you're defeating the purpose. All this technology is tremendously impressive and we can do lots of good things with it, but without also being respectful of people's privacy and understanding the way they react to these triggers, you can build something that does not necessarily have the effect you want. You have to be




ThinkAnalytics illustrates the impact of content recommendation on engagement levels

Alex Phillips, Global Business Services Division, IBM

"IF YOUR NETWORK GIVES YOU ACCESS TO MORE ACTIONABLE DATA, YOU CAN IMPROVE YOUR NETWORK PLANNING AND QOE, LEADING TO BETTER CUSTOMER ENGAGEMENT"

mindful of people's privacy, and mindful of not misusing the technology," he concludes.

## HOW IMPROVED NETWORK OPERATIONS AND QOE CAN BOOST CONTENT CONSUMPTION AND MONETIZATION

"The network behaviour drives user viewing consumption or viewing analytics," asserts Clearleap's Mowrey. "If you don't have Quality of Service, you're not going to have viewing."

ThinkAnalytics' Docherty agrees: "Obviously, from an overall end-to-end churn perspective, if your picture keeps on breaking up then you can't watch your service, so that is going to annoy you, which could then lead to a churn problem. Quality of Service data is obviously important from that perspective."

IBM's Phillips observes that "telecoms companies have been quite advanced in this space in terms of putting probes into the network to carefully monitor in real-time the traffic that's moving across the network. If your network gives you access to more actionable data, you can improve your network planning and Quality of Experience and lead to better customer engagement."

Aftelak notes that ARRIS currently has intelligent systems in the field that monitor and manage the delivery of bits on the network layer. These can spot when, for instance, a customer's QoE has dropped due to a network outage, and proactively schedule resources to fix the problem.

This is important, because – according to evidence from video optimisation firm Conviva – viewers are increasingly impatient when QoE deteriorates and ever more likely to vote with their feet. "Everything we see tells us that [QoE] has a very direct and quantifiable impact on engagement, and engagement subsequently has a very direct correlation to the financial stability of the service," says Conviva's VP of Marketing, Simon Jones.

Sony Crackle, the digital network owned by Sony Pictures, found that deployment of Conviva's Precision platform led to an 82% improvement in the buffering ratio (the percentage of total viewing time that a viewer sees the 'spinning wheel'), plus a 49.6% increase in the average bit-rate. Together these network-level improvements led to a 2-8 minute increase in minutes watched per viewer – i.e. a significant rise in user engagement.

Paul Collins, IMGROUP


Wi-Fi is the foundation for the multiscreen entertainment home network

## CONCLUSION

The lesson from all these examples suggests that the three different types of data investigated – consumer viewing behaviour, programme metadata and network performance statistics – derive their maximum benefit when combined together.

This can lead to a virtuous cycle, suggests Clearleap's Mowrey, where network statistics can be used to improve content consumption, consumption data can be used to improve customer relationship management and CRM data can be fed back into improving network operations. "The way I would think about it is, in the middle of that circle is your metadata, that kind of ties all data together. You can think of metadata as central pieces to making those insights self-reinforce."

It is tempting to deduce that Pay TV operators – who manage their own infrastructure and are inherently able to exploit viewing data from their set-top boxes as well as CRM data from their subscriber management systems – are currently best placed to exploit this.

IMGROUP's Sydee agrees, but suggests "many of them aren't actually joining all those ingredients up in the right way, so they're not at an advantage. A lot of the ex-analogue operators have got to work out where the information resides, then join it together in the right way."

ABI's Abbruzzese believes that while the advantage exists, it is not massive and may only be temporary: "Over the next year or so I think that [advantage] is going to shift more and more towards OTT and IP video as operators figure out 'How can we glean more data from users, what can we get, how can we use it?'"

Whatever kind of media company is involved, Paul Collins, Director of Communications and Media at IMGROUP, says it is essential to approach the necessary data collection processes from a business point of view, asking yourself, "What is your business driver? Is it churn? What is it? Then work backwards and say, 'Where does this data reside in my organisation?'"

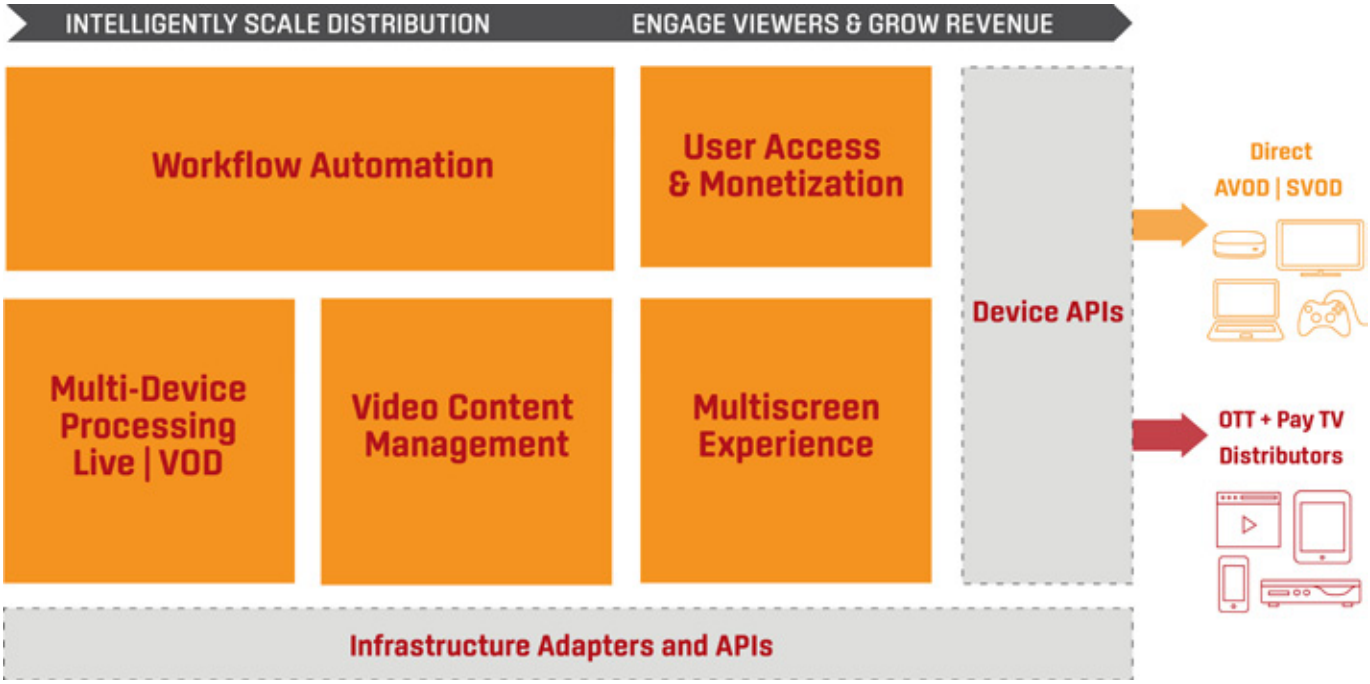
Then you need to pull it all together "in a way that will actually drive the insight that you need to drive your business," he says. "It has to be output and business-driven, with the business case driving the technical elements."

ThinkAnalytics' Docherty adds that "the key thing is to know what data is valuable so that you know, 'If it's going to cost me X to collect this data, what am I getting back for it?', rather than just collecting everything for the sake of it."

If your media company needs data (or more data), you can simply

"MANY PAY TV OPERATORS ARE NOT JOINING UP ALL THE DATA INGREDIENTS IN THE RIGHT WAY, SO THEY DO NOT GAIN AN ADVANTAGE"

David Mowrey, Clearleap




Clearleap says network behaviour has a direct bearing on video consumption

create your own. One of the best examples of such an approach is UK broadcaster Channel 4's All 4 online platform, previously called 4oD.

Channel 4 was one of the first broadcasters anywhere to go online and early on began requiring users to register before they could access the service. It now boasts data from over 12 million UK users: half of the 16-34 age group in the country have registered personal details (including age, gender and postcode) for the service.

"We worked hard to build a very, very large data set of registration data," explains Martin Gee, former Head of Technology Delivery at Channel 4. "We also worked hard on providing really clean and effective tracking of our user behaviour, and made sure all the metadata that underpins all our content was clear and consistent. We've also now got things like personal preferences such as reminders and favourites. We've managed to bring that all together into a central viewer insight area, and strapped a load of analytics around it."

## "WE WORKED HARD TO BUILD REGISTRATION DATA, PROVIDE EFFECTIVE TRACKING OF USER BEHAVIOUR AND ENSURE METADATA WAS CLEAR AND CONSISTENT" – CHANNEL 4

This has given the channel the ability to gather enough information about users and their interests to support a data-driven advertising strategy that includes programmatic trading and addressable VOD advertising. Benefits include higher viewing volumes on the platform and the ability to charge extra for ads, says Gee.

There is general agreement that if video service providers are not already implementing such data-driven strategies, the time to do it is now. "We are definitely at an inflection point," concludes Clearleap's Mowrey. "If you don't have this type of system in place, you are not going to be competitive in the marketplace, either from a customer acquisition perspective or from a churn perspective."


Data analytics, like an increasing variety of television functions, can reside in the cloud