Ipsos Connect

Audience Measurement 5.0
Pushing the Boundaries

Andrew Green

GAME CHANGERS | **Ipsos**

Introduction

We are entering the Fifth Age of Audience Measurement. It is an age where methodologies are being re-calibrated in response to a fast-changing media environment and where the quest for total understanding of audiences is higher than it has ever been. It is also an era where politics and economics are far greater barriers to progress than technical concerns.

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Looking back into history, we can say that there have been at least four key phases of development in audience measurement methods and that the one we are entering now – the Fifth Age – is different.

But not completely different. Many of the techniques and methods we can expect to feature in this Fifth Age are already in place: device-agnostic surveys, passive data collection, the integration of multiple data sources with traditional survey data etc. And there continues to be a role for high quality methods and skilled human practitioners in the process.

What may need to change is the attitude of the various industry players to change and to working together. Fear of change has been a great barrier to progress in implementing new methods – often exacerbated by the rising cost of measuring more platforms and reporting faster and more frequently. But digital technology has disrupted every business model and must be embraced, even though it offers difficult choices for many.

Co-operation amongst different media (e.g. sharing a panel equipped with multiple data collection technologies) offers one potential way of overcoming the financial challenges – as long as priorities can be agreed amongst the disparate stakeholders. Data science also has a far greater role to play in turning Big Data into usable insight.

Audience Measurement: A Potted History	
Pre-1920	Development of newspaper/magazine circulation audits
1920s	First radio survey
1930s	Earliest radio diaries and readership survey
1940s	Audimeter deployed (TV); travel survey initiated (OOH)
1950s - 1970s	Further refinement and global spread of methods
1980s	Peoplemeters for TV
1990s	Internet audience measurement initiated
2000s	Passive measurement (radio); GPS meters (OOH)
2010s	Evolution of cross-platform measurement (video, audio, text…)

Audience Measurement 1.0
Counting units

The earliest efforts to measure audiences centred around verifying newspaper and magazine circulation claims (number of copies sold) rather than the number of people actually reading them. They were sponsored by publishers, who did not need to worry about competition from radio, television or the internet in the early part of the 20th century. The Audit Bureau of Circulations was first created in the United States in 1914 to provide independent verification of the circulation claims made by member publishers.

In the 1930s, household surveys were carried out in both the USA and the UK to verify which publications were being purchased by household members. At the time, nobody was looking to find out the demographics or other characteristics of readers.

As well as newspaper and magazine circulations, radio set sales and viewers' letters were also used in some places to help advertisers evaluate media opportunities and to support media sales people pricing their product.

Audience Measurement 2.0
Counting people

During the inter-war period, newspapers, magazines and radio stations started to employ surveys to give them better insight into their audiences. The first radio audience study was carried out for the Association of National Advertisers in the United States in 1929; there was a critical need at the time for radio station owners to prove the value and popularity of what was then a very new medium to the advertisers which funded the industry.

The earliest readership study of the sort we might recognise today was the 1939 Survey of Press Readership, sponsored by the UK's advertising agency trade association, the IIPA. Other similar types of study were also being created elsewhere in the world.

This move from counting physical units sold to surveys that could be projected to a population represented the second age of audience measurement.

Audience Measurement 3.0
Broader and deeper

From the 1940s through to the 1970s, surveys of radio, newspaper and magazine audiences spread to many more countries. Media diaries were introduced to collect audience behaviour over time for media like television and radio, which sold packages of spots to advertisers and needed to demonstrate how many people were reached by advertising campaigns lasting several weeks or months.

The first TV meters were introduced by Nielsen in New York in 1949 to measure set tuning activity; this was to expand rapidly over the following years, supplemented by separate diary studies of viewing behaviour from individuals.

While all this was going on, readership measurement continued to evolve ever more sophisticated approaches, with very detailed scrutiny and methodological work being carried out on how best to prompt survey respondents to give accurate answers in the context of such studies.

Even Out of Home media, one of the least well researched media during this period, started to carry out travel surveys in a small number of places (the first being in Fort Wayne, Indiana in 1946). It was also one of the earliest media to employ statistical modelling to project audiences from travel surveys, which could never be large enough to represent every unique urban OOH environment.

But although there was a lot happening in audience measurement between the mid-1940s and the beginning of the 1980s, much of it was about perfecting existing techniques rather than initiating new ones. Few radical changes were made in the basic methods and approaches developed in the 1950s and 1960s – because there was little reason to do so.

During this period, radio and television media expanded to cover the majority of the populations in the industrialised world; newspapers and magazines were widely distributed and read and consumer goods and services companies spent more and more every year as they began to appreciate the value of marketing and advertising through these media.

Audience Measurement 4.0
Facing up to fragmentation

By 1980, almost all television viewing took place live, on television sets. Most people outside the United States had very limited choice in the number of TV and radio channels they could receive. Newspapers and magazines had improved their printing processes and expanded in size and number – but they were still basically the same entities as they had been for many decades.

Then it all changed. For the thirty or so years after about 1980, media choice exploded: hundreds of television and radio stations were launched, newspapers and magazines got bigger and better and, of course, the internet was launched, as well as a range of new devices for accessing media content.

To meet the challenges of fragmentation, digitisation, greater competition and globalisation of the media world, audience measurement techniques had to evolve.

For television, the first big change was the introduction of peoplemeters. First launched in the early 1980s, they rapidly expanded to become the *de facto* approach to measuring and reporting audiences. Peoplemeters – which require panel members to indicate their presence or absence from a room where a television set is being monitored - allow individuals to more easily record their viewing behaviour without having to remember to fill in a diary or otherwise remember what they watched.

Radio studies began to complement the paper diary with one that could be completed online or via a mobile device. In a handful of countries, passive metering devices have been deployed which automatically capture the audio signals they are exposed to without survey participants being required to remember what they listen to.

Readership surveys in more than 20 countries now collect some or all of their data online and include measurement of both print and digital reading. Out of Home media, while still not universally measured, have employed GPS meters to track travel behaviour in a number of countries, combining this with external data on people's journeys (e.g. traffic counts on roads) to project the potential audience passing by individual poster frames.

The internet itself – the world's fastest growing advertising medium - also went through several stages of measurement. It has a built-in system for identifying and counting the number of times a web page is opened. But this has to be transformed into a measurement system that turns what are effectively device requests into a count of the people using the devices and which also needs to exclude the 'bots' and crawlers continuously indexing the web and people viewing web pages from outside their home countries.

This has been achieved through the development of 'hybrid' measurement approaches which combine the site-centric web page counts with panels and other methods into a unified view of the audience.

What we call here the fourth age of audience measurement - an age of household and personal meters, of an increasingly cross-platform focus and where a growing number of surveys are being carried out online - is how most media in most countries are measured today.

Audience Measurement 5.0
Anywhere, anytime, any platform

Audience Measurement 5.0 is all about what Ipsos calls a Total Understanding of audiences across media and across platforms. There are at least five core principles underlying the evolution of audience measurement into its fifth age.

Platform-neutral

The first is that it will be **platform-neutral**. Audiences will be measured from wherever they consume media content, whenever they are exposed to it. In the past, measurement centred around a particular distribution channel (like a television set, a printed newspaper or a magazine). Now that audiences of the same content can access it in many different ways, each platform needs to be included in the measurement).

Take television. Most people today watch television the way they always have – live and on a television set. But this has slowly been changing, with the growth in time-shifted viewing, in the use of non-TV devices to watch television and with competition from new video content providers. This is particularly true for younger viewers.

It has of course been possible to time-shift television programmes for many years. First were video recorders, then Digital Video Recorders and, most recently, the 'catch-up' services offered by broadcasters (like the BBC's iPlayer or ITV Player in the UK, Hulu in the US and 7Plus or TenPlay in Australia).

Even the most conservative of viewers are starting to make use of this technology. In the United States, the average viewer spends more than half an hour every day watching time-shifted programmes, which represents around 12% of total viewing on the TV set. In Australia, the viewing share is similar.

In the UK around 15% of TV set viewing is now time-shifted, a figure that has risen gradually over the past decade.

The Growth in Time-Shifted Viewing in the UK: 2006-2017

Live vs. time-shifted viewing, 2 Jan 2006 - 26 Nov 2017

Source: BARB
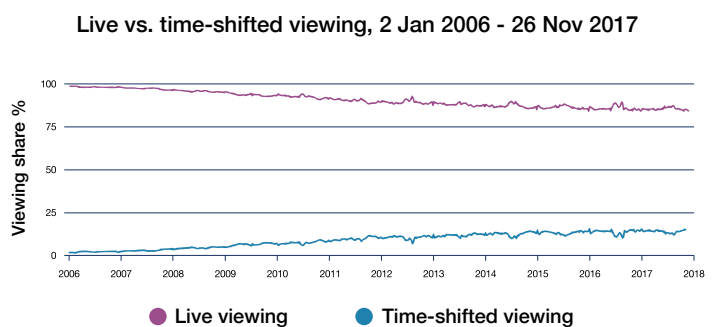
Internet speeds have made it increasingly practical, as well as convenient to watch video on PCs, laptops, tablets or smartphones. More and more people are doing this – especially the younger generation, who have become accustomed to a different kind of television experience to that of their parents and grandparents.

Instead of sitting down after dinner to watch whatever the schedule throws at them, they may search for or browse video content online and evaluate whether to watch that or the scheduled programmes. They watch what they want to, when they want to watch it.

BARB in the UK has estimated[1] that when it comes to viewing content from broadcasters via the various TV players, people spend only around 1-1.5% of their television viewing time watching on non-TV devices.

But they do watch other content on these devices. For example, YouTube users upload more than a billion hours of video content every day. 'Over the Top' streaming services like Netflix (109 million subscribers worldwide) and Amazon (more than 100 million Amazon Prime members) have attracted a growing number of people to subscribe to and view their advertising-free fare.

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1. BARB (April 2017). The Viewing Report

Measurement services have not always been able to keep up with all this viewing (which is not helped by the reluctance of Netflix and others to be measured). Significant 'blind spots' exist, where it is known that somebody is watching television on a television set, but simply cannot identify what is being watched. This is particularly the case for younger viewers. It is even more complex on other devices.

**30% of 16-24s' TV viewing is 'unmatched'
- not identified by industry measurement**

H1 2016: Hours and minutes consumed per head per week - all individuals

Legend: Live | VOSDAL | 1-7 day timeshift | 8-28 day timeshift | Unmatched

H1 2016: 29:14
25:20
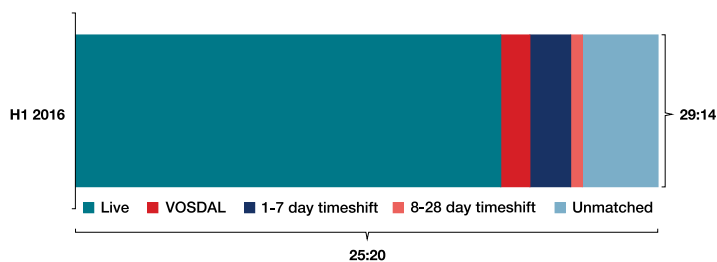
Source: BARB, BBC

It is not only television that has been affected by the digital revolution. A growing number of people are reading newspapers and magazines online. Many are also listening to radio on their PCs and smartphones and listening to podcasts of radio content.

Audience measurement has had to keep up with all these changes in behaviour. And, to a large extent, it has. Technologies and methods have been developed which track television audiences from pretty much any device, whether the viewing is live or time-shifted, streamed or broadcast or inside or outside the home. The same applies to radio, newspaper and Out of Home audiences.

Respondent-Friendly

A second requirement for Audience Measurement 5.0 is that it should be **respondent-friendly**. For many years, it was relatively easy to get people to take part in interviews. They were happy to open their doors or answer the phone to strangers and respond to questions about their media usage or agree to have special equipment installed in their television sets to keep track of what they watched.

But we live in a different world today. People are busier than ever, with less time to spend on unscheduled tasks. They are more security conscious. Strangers rarely get through the front door or even as far as the door in apartment buildings. Access has also been made more difficult by a fall in the number of households with landlines, which have been displaced by mobile phones. Sampling, as well as recruitment has become increasingly hard as a result.

The volume of cold calls from salesmen has inured people to them; they will hang up as soon as they don't recognise the person on the other end of the line or refuse to listen for very long in case they are being tricked into hearing a sales message.

So recruiting and then retaining the interest of participants in a research study is more of a challenge than ever - yet must play a part in generating accurate, representative, credible, audience measurement data.

One approach is to enable them to respond to surveys on whichever platforms they are most comfortable with (e.g. paper, smartphone, tablet, PC etc.). Several radio studies around the world already offer this for their audience diaries.

Another is to collect data passively, asking little of respondents once the relevant technology has been installed on their devices.

Ipsos's passive electronic measurement tool, MediaCell, is a good example of what we call 'passive simplicity'. Instead of asking people to recall their radio listening or TV viewing behaviour over a period of time, we ask them if we can install an app on their phones to do the remembering for them.

We start by inserting a special code[2] into the audio signals broadcast by stations. We then ask a representative sample to load an app into their wsmartphone which can detect these codes whenever the phone is within audio range. People are asked to keep their phones with them, switched on and charged. That's it! They don't have to remember anything else. And because they carry their phones with them anyway, we are not really asking them to do anything difficult or unusual.

Other passive applications can also be included on the same devices to track internet access, offering a fully rounded view of a person's media consumption.

Big Data

The third component of Audience Measurement 5.0. is Big Data. There are lots of different kinds of Big Data. For television, we can access details of the video content households tune into second-by-second through their set-top boxes (which they need in order to receive satellite or cable signals). Using router meters and other methods, we can also look at all kinds of internet usage, including access to streamed video or audio, as well as requests for text or imagery online.

For Out of Home audience measurement, traffic and pedestrian counts are available from multiple sources to help estimate how many people pass by poster frames.

Hybrid

The fourth feature of Audience Measurement 5.0 is that it will be hybrid. In other words, it will increasingly comprise a mix of information from external sources (much of it Big Data) alongside sample-based information which turns data on devices into data about people using the devices.

2. Another approach MediaCell can use is known as 'audio matching', where samples of the audio are captured by the device and matched with reference audio databases.

The set-top box data on TV audiences, for example, can be attached to a household. But it tells us about set tuning, not about who is viewing. Circulation data tells us how many copies of a newspaper or magazine are sold or distributed, but not how many people read each copy.
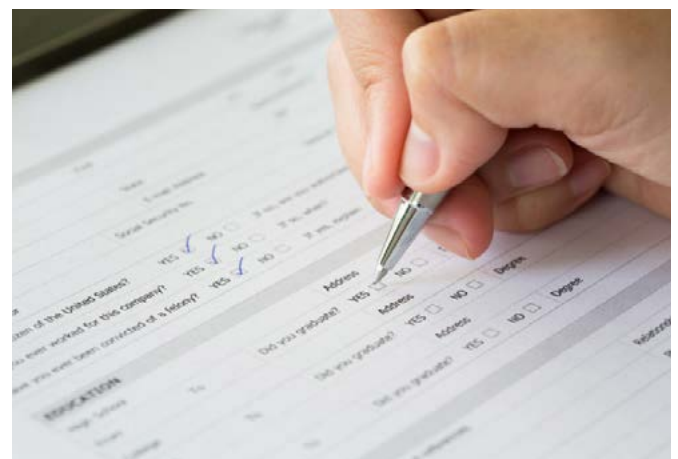
We already noted above that internet audience data often combines a census count of webpage views (i.e. device requests) with panel data helping transform it into audience estimates.

In a small number of countries, survey-based readership research has been enhanced by longitudinal data from panels and by newspaper and magazines sales data, which can add granular detail to what were historically broad-based estimates.

The Ipsos *Route* Out of Home measurement system in the UK is a good example of a hybrid approach. It combines data from road traffic counts, train and bus timetables, shopping mall footfall counts and much more with travel survey data to generate audience estimates.

The economics of continually expanding audience measurement systems to cover more platforms, more detail and faster reporting may lead, in some cases, to combining multiple technologies to measure the different media consumption behaviours of the same people. In other words, previously separate measurement systems covering (e.g.) television, radio, the internet, readership etc. could conceivably be combined into a unified approach.

The barriers to this are more political than technical...

Data Science

The final major feature of Audience Measurement 5.0 – already well-established in Audience Measurement today, but set to become central to it – is the growing role of data science in our measurement systems. All the disparate strands of information noted earlier need to be joined together, and the people we call the 'Maths Men' can do this using clever statistics and algorithms.

The most popular techniques include data ascription, data integration and modelling. Ascription helps us limit the length of questionnaires by 'imputing' answers onto part of a sample instead of needing to ask them all the questions on a long survey (based on their demographic characteristics and the answers they give to other questions).

Data integration enables us to combine different studies together using 'hooks' that help us find similar people from each study and combine their information in various ways.

Modelling lets us project behaviour from limited data collected from surveys and other sources and also to (for example) predict the viewing behaviour of people from set tuning data.

Data Science, in short, is the glue that joins together the four other key requirements of Audience Measurement 5.0 - allowing us to deliver cross-platform insights, with reduced burden on respondents, potentially drawing on Big Data from multiple sources.

Conclusion

- The technology and the methods for Audience Measurement 5.0 are largely in place to measure everything we need to measure today. They are not perfect and they will get better, but the fundamentals have been developed.

- But this does not mean they have been – or even will be - deployed. It has been said that everybody likes progress, but nobody likes change. In practice, this can hold things up for a long time. The ratings are the lifeblood of the media being measured. If an organisation wins from a change in method, it is likely to vigorously promote it; if it loses its place in the rankings or otherwise has a less good story to tell, it is more likely to find and focus on any flaws or limitations in a new approach.

- When new methods are introduced and the numbers change, it can be very disruptive. Even the possibility that their place in the rankings will fall can have a negative impact on the willingness of those who pay for audience measurement to make any changes.

- The other obvious barrier to change is cost. The digital revolution has challenged business models. Newspaper and magazine publishers, alongside traditional TV and radio networks have had to make painful adjustments amidst difficult trading conditions. Yet progress in audience measurement usually involves measuring more platforms, reporting more quickly and more often. It is also, as noted earlier, getting harder to persuade people to participate in surveys and panels. So the bad news is that this will cost more.

- The good news is that it can be done and in some places is being done. Costs could be amortised amongst more players if they are willing to consider it – for example combining radio, internet and television measurement using passive data collection methods.

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Andrew Green is Global Head of Audience Solutions at Ipsos Connect

Ipsos Connect is a global specialised business to co-ordinate Ipsos services in the domains of Brand Communications, Advertising and Media. As the world of brand communications, advertising and media become increasingly complex, fragmented and digitalised, Ipsos is helping clients better embrace this modern complexity with investment in new approaches and products that will fit with the digital age. Ipsos Connect aims to be the preferred global partner for companies to measure and amplify how media, brands and consumers connect through compelling content, great communication and relevant media planning.

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www.ipsos.com
@_Ipsos
IKC@ipsos.com

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