

CREATING THE BIGGER PICTURE

For the past 20 years, BARB measurement has been about covering viewing through television sets and in particular, viewing that takes place within 7 days of an original broadcast.

Over time the system has had to continually adapt in order to remain a comprehensive measure of viewing and cover the growth of new things like digital; larger screens; PVRs; HD; and on-demand.

The investment and technical development needed to cope with innovation in television and increase the scope of what can be measured is an important part of the value of the measurement system. But it's only one aspect of it, is mainly about measuring devices, and is by no means the only part that's important. BARB really exists to measure people. A lot of the credibility and robustness of the system rests on the research principles on which it is founded. I won't spend the rest of the morning going through the details of these, but they are designed to ensure that

- The measurement is unbiased
- The sample on which it is based is well balanced, so that it reflects the population as a whole
- Response rates are kept as high as possible, and respondents participate fully in their task
- The research companies involved maintain the highest standards of research practice

An industry measure is about more than just the published set of numbers it produces, it is about the quality and integrity of the approach, and the methodology used to arrive at those numbers.

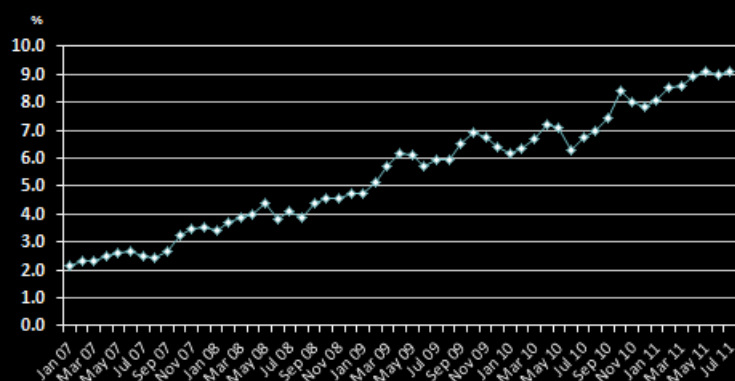
We're currently in the middle of a revolution in television, which is giving the viewer more and more control of what they watch, when they watch and how they watch.

One way this is becoming more evident is in the volume of viewing that is time-shifted. This has risen steadily over the past five years, driven by the ongoing growth of PVRs, which are now in nearly half of TV homes, and time-shifted viewing now accounts for 9% of all the viewing we report.

This has had a different impact across different types of

- Unbiased
- Balanced
- Participation
- High standards

Timeshift as % total viewing



programmes, so while the overall proportion of viewing time-shifted is 9%, it is considerably more for some programme types:

For example 20% for dramas, 16% for soaps and 13% for documentaries, across the top 10 channels.

The current phase of the TV revolution is the expansion of On Demand services, delivered either through cable TV, or through the internet, and available on other devices such as computers, tablets and mobile phones, as well as TV sets.

BARB's priorities for development are therefore focussed on extending the coverage of the measurement service beyond its current limits:

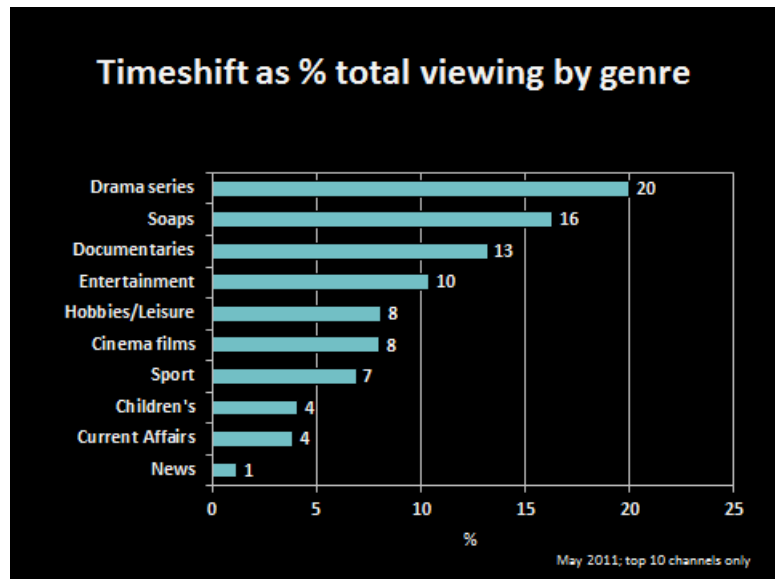
- to improve the existing measurement of Connected TV devices;
- in particular, to extend what we can report beyond the constraints of the linear broadcast schedule, and
- extend what we can measure beyond the TV set;
- and ultimately to facilitate the use of data from the BARB panel in conjunction with other data sources such as server data.

I'll outline some of the work we've been doing to achieve these aims.

The change in television with perhaps the greatest long-term impact will be to what can be done through the TV set, thanks to the growth of "Connected Television" or "Smart TVs". These already have the capability to bring the internet delivery of television programmes (as well as movies, music, and so on), on-demand, to the TV set.

Although this capability has existed for several years, it has so far achieved only limited penetration; but it now looks clear that fairly soon pretty much all new TV equipment (both sets and boxes) will have internet connectivity built in as standard. It will then be up to the consumer whether they choose to make use of it.

Already within the BARB system, on-demand viewing, on TV sets, of "TV catch-up" services is being captured and reported as time-shifted viewing, provided the viewing takes place



- Connected TV
- Beyond linear
- Beyond the TV set
- Server Data

within 7 days of the broadcast. So in that sense viewing to these types of Connected TV services is already being counted in our existing measure of TV, and is contributing to the 9% time-shift figure.

The main limitation of this measurement is that it does not enable us to identify where the viewing originates from.

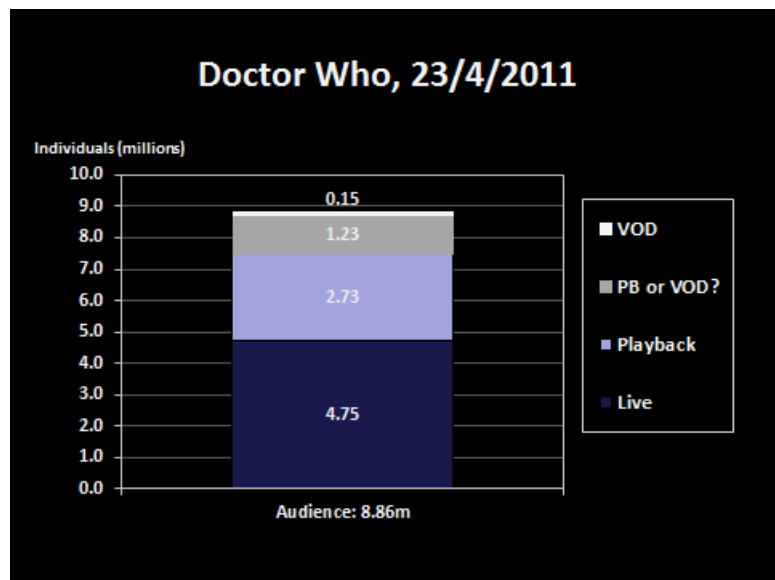
For example, on 23 April this year the new series of Doctor Who started on BBC1 with an episode called The Impossible Astronaut. The average audience level through the programme was reported by BARB as 8.9 million Individuals.

We can break this audience down into its live and time-shifted components:

This shows that about 4.8m were watching live, and 4.1m time shifted their viewing (an unusually high proportion, so this particular example is not at all typical of most programmes).

We can also break down the time-shifted component a little further. Of the average 4.1m time-shift viewers,

- 2.7m watched via satellite or terrestrial, mainly through PVRs, but also VCRs (which a few people still use); we can fairly confidently label this as playback of recorded content;
- About 150,000 watched via cable, but on sets without a PVR, so we can be pretty confident that this viewing must be through the Catch-up iPlayer service available on Virgin's standard cable boxes;
- a further 1.2m watched through cable PVRs, or other potentially connected recording devices such as BT Vision boxes; in these cases we cannot currently identify whether the viewing originated from a VOD service, or from viewing a PVR recording.



This distinction will be crucially important if we are going to be able in the future to use panel based audience data alongside server based counts of machine activity (in a way that makes the most of the benefits that both can bring).

Another limitation of our current measurement of Connected TV is that it really only covers programme content; it does not provide any measurement of viewing to commercials. Mainly because where they exist the commercials associated with on-demand programmes are not the same as those that were broadcast with it; and given that the ads can be served, it is likely that viewers of the same on-demand programme will not all see the same commercial.

So we are looking for ways in which the panel-based measurement of Connected TV can be improved.

There are two main options:

The first would be for the meter on the TV set to gain direct access to data from the connected TV device.

This would be similar to the type of measurement we get from Sky set top boxes, based on Service Information (which is already used to identify live and time-shifted viewing on the Sky platform, and could be used to measure Sky's connected Anytime Plus service). We have approached platform operators and manufacturers about this over the past two years. Although this would potentially be of relevance to audience measurement around the world and not just in the UK, the lack of an immediate need from the manufacturers' perspective (or a return on the work (and cost) involved) is a significant barrier to achieving this type of measurement.

We're still exploring possible ways in which data from connected devices in panel homes could be retrieved (not necessarily involving a physical connection to the meter).

However an alternative approach would be to create a facility for broadcasters or programme providers to add a measurement identifier to their material. This could act as a label to identify what the content was and (perhaps) which service it was viewed through.

CTV measurement options

1. Direct from device to meter
2. Measurement identifier

The identifier is most likely to be a watermark, in the form of a hidden audio code. The TV meter we're using already has the built-in capability to detect one type of code, so we are exploring (with Kantar) whether this code is suitable for use within VOD services.

It's important to bear in mind that making progress on either of these approaches requires co-operation across the industry if they are to work – either from equipment manufacturers or platform operators (for the first), or from broadcasters or content owners for the second.

Looking now at how viewing figures are reported:

Up to now the structure for reporting has been based entirely around the linear broadcast schedule; and so far, the reporting of Connected TV services has also been made to fit in to this structure.

Programmes available on-demand are often presented in the context of a channel schedule, giving viewers another opportunity to watch a programme they may have missed.

This type of “catch-up” viewing is in a way fairly similar to ordinary time-shifted viewing, in that it can be related back to something that was recently broadcast. So in that respect it fits in to the established linear structure.

However there is also material available on-demand, and through red button services, that does not fit in to this structure.

So we have been creating a place in which we can report viewing to this type of material – we currently refer to this as our “Non-linear database” (but we need a better name for it – the Smart TV database perhaps?).

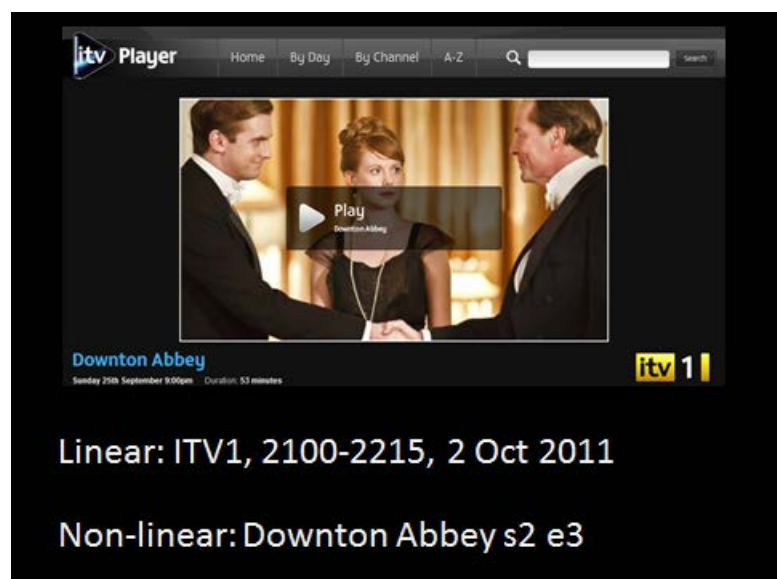
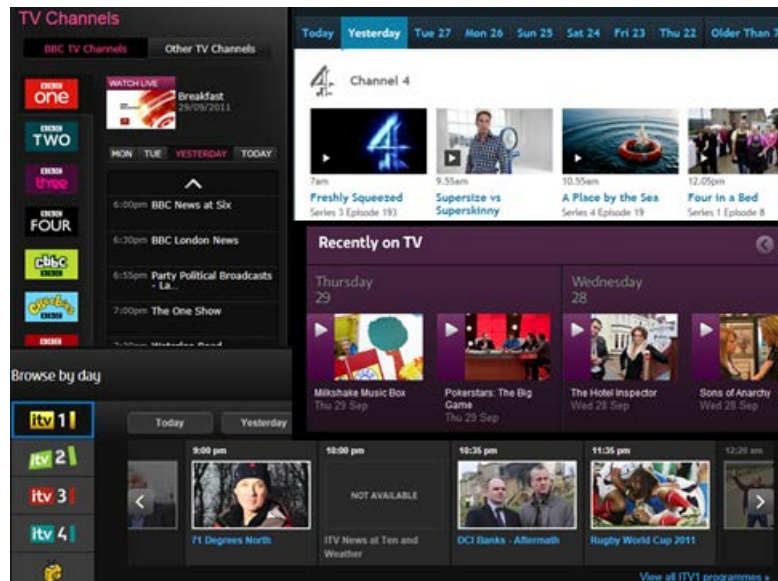
For the past year Kantar have been running a pilot version of this data set for us. It reports viewing relative to individual “content assets” rather than broadcast channels. So far these content assets have been programmes – for example series stacks and archive, but the database could also potentially support reporting of clips, or red button text, or perhaps commercials.

In the linear structure, reporting is based on minute by minute viewing data for channels, which is then aligned to events broadcast on those channels; for non-linear, reporting is based on minute-by-minute viewing data for individual assets. Conceptually the two are not all that different, and in both cases the minute level data provides the building block for other measures to be reported (average audiences, reach, and so on).

The next step is to decide what kind of measures the industry would like to see for non-linear viewing and to explore where the scope of linear reporting should end, and non-linear begin.

For example, if tonight someone views last Sunday’s Downton Abbey through the catch-up service on cable, is it more appropriate to report this as:

- Linear: in other words as time-shifted viewing to ITV1? (which is how the viewing would currently be reported)
- Or Non-linear: simply as viewing to the asset Downton Abbey Series 2 Episode 3?



As I mentioned earlier, although the system can identify that (in this case) Downton Abbey is being viewed, it cannot currently tell whether the viewing is coming from a recording of the broadcast or from the on-demand service. Maybe the source of the programme is the distinction that matters between linear and non-linear; (if so this illustrates the importance of developing a more detailed measurement of Connected TV).

The viewer of course only really cares about the programme itself – not necessarily where it came from.

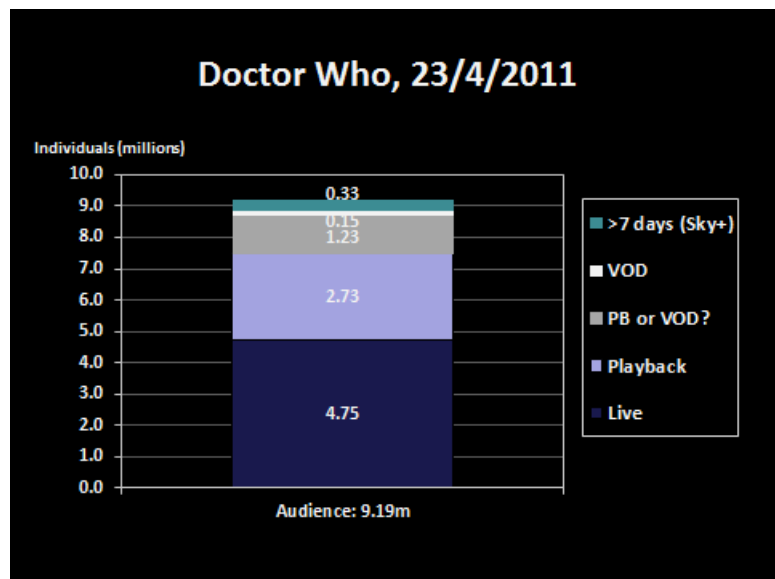
Either way, it is likely that content owners will wish to compare and align the linear and non-linear audiences; so in the BARB data files we are aiming to facilitate a simple link between the linear and non-linear programme data.

A further aspect of the non-linear database is that it could potentially be used to report time-shifted viewing that is not currently included within BARB's measure of Total TV – namely time-shifted viewing that takes place more than 7 days after the broadcast. This would not affect the existing Consolidated viewing data, or commercial trading currency, but would provide a way for reporting legitimate viewing to programmes and channels that is currently not counted.

We have a good idea of the volume of this from looking at the data we get from Sky+ boxes. Returning to our very atypical Doctor Who example.

Including Sky+ playback after the first 7 days and up to 4 months after the broadcast would have added a further 300,000 to the average programme audience, bringing it up to 9.2m.

All of the figures I've shown for Doctor Who are based on data already collected by the BARB meter on viewing through TV sets, but of course, not all non-linear viewing is taking place through TV sets.



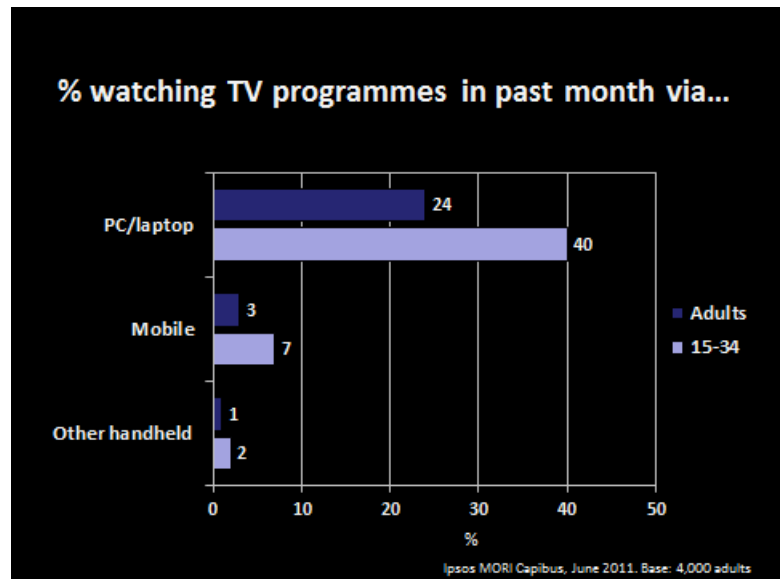
Viewing through computers, tablets and mobile devices is also becoming more important (although maybe in part as a forerunner to wider uptake and use of Connected TVs).

In moving beyond the TV set, the most worthwhile first aim would be to cover viewing that takes place through computers. We've been tracking claimed viewing beyond the TV set for the past 5 years, and it is clear that the vast majority of this takes place through laptops and PCs and perhaps now tablets.

When we last ran a survey on this in June, 24% of adults, (and 40% of young adults), claimed to have watched a TV programme via a computer in the past month.

We have been looking for suitable solutions for panel-based measurement of viewing through computers for several years now. For the past 2½ years we have been working with Kantar Media, and testing the Web TV meter that they have pioneered, which they call “Virtual Meter”.

The Virtual Meter is a piece of software created specifically to measure viewing to audiovisual content on a computer. It is simple to install, and was designed for use within a television audience measurement panel.



Very simply, the Virtual Meter does three main things:

- it recognises when audio is being played, and collects samples of that audio
- it collects details of the website URLs visited through the day
- and it records who is present at the PC/laptop (when audio is being played)

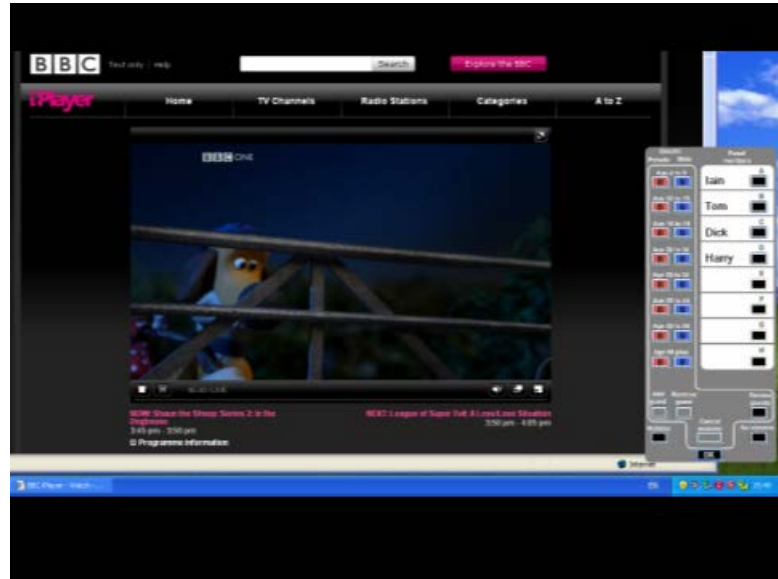
1. Audio (content)

2. URL (source)

3. People

The audio signatures are used to identify what is being watched, in the same way that the meter on a TV set uses audio matching to identify channel viewing.

The website information can then be used to identify the source of the content, if it was streamed online. For example the URL can tell you whether the programme was played from the broadcaster's website, or a third-party site such as YouTube.



The panel member's task is the same as for the meter on their TV set: to declare their presence. They are prompted to do so whenever the Virtual Meter detects audio on the PC, using an on screen prompt that resembles the handset they already use with the TV meter.

The scope of the Virtual Meter at the moment is limited to PCs and laptops, but Kantar are developing a version to work on Macs, and in time, given that it is simply a piece of software it has the potential to be extended to cover tablets and mobile devices; I'm told that iPads in particular are likely to be difficult though.

Earlier this year we completed a field test of the Virtual Meter, which was ring-fenced from the main TV measurement panel. This delivered initial findings on how far panel members were willing to participate in measuring viewing via computers, and a first taste of the kind of data that can be collected.

Overall, the results were quite promising, and have encouraged us to take the technique further.

An overriding priority in doing this is to protect the quality and integrity of the existing TV measurement. I suppose the most obvious way to do this would be to create an entirely separate panel for measuring computers. But combining the data from two panels has drawbacks, and in our view the preferable outcome would be to measure "TV via computer" and "TV via TV" from a single sample.

So we have decided to be bold and pursue this aim, but to do it in a way that aims to minimise the risk to the core TV data.

The next step is to commence installation of the Virtual Meter in homes on the main BARB panel. This will initially be done in around 100 panel homes before the end of this year. We won't be publishing any data on viewing through computers from this small sample -

but during the first quarter of 2012 we'll assess the viewing data and the quality control indicators from these homes before a decision is taken on whether to continue with installation of the Virtual Meter across the panel.

A crucial part of that decision will be the response and participation rates achieved. If these are not good enough then there is a risk of compromising the quality of the TV measurement we already have in order to accommodate measurement of these other devices. So the benefits and risks will need to be carefully weighed.

We hope to go further:

with the aim of adding Web TV measurement to another 1,000 panel homes, during next year, which will give an overall sample of 1,100 homes and around 2,800 individuals.

So by the end of 2012 we hope to have a viable sample from which to report at least top-line data on viewing of TV programmes through PCs and laptops. This will provide a comprehensive measure of PC and laptop viewing alongside TV viewing.

It will ...

- show how much viewing takes place through these devices for different sections of the population;
- show how widely, and how frequently, Web TV services are used;
- provide demographic profiles for these services;
- demonstrate to what degree users of Web TV also view through their TV set;
- highlight the most widely-viewed programmes via PCs and laptops

- end 2011 - 100 HH installed
- Q1 2012 - initial data (not published)
- Q2/3/4 2012 - further installs(?)
- end 2012 - 1100 HH/2800 Ind

- Viewing time
- Reach
- Profile
- Overlap with TV
- Big programmes

Any measurement system that aims to produce information on what people are doing needs to be based on people in the first place; so everything I've talked about so far has been about measurement via a panel, based on a sample drawn from the population.

Of course a sample-based measure won't necessarily give very detailed data for every single programme or piece of content out there; it will only provide a usable measure for those that attract a substantial audience.

For on-demand programming it may be more sensible to report aggregates across broadcasters, or content providers/sources, or programme genres.

Furthermore, with the measurement techniques available, it may not be possible to provide exactly the same kind of measurement of commercial viewing that BARB currently generates for broadcast TV

So for audience measurement to remain comprehensive it is going to be necessary to make use of different types of viewing data from different sources. Sample-based measurement of people will need to be at the heart of this in order to properly understand, interpret, and bring together the data coming from these other sources.

But the level of detail that will inevitably be missing from sample based audience research is exactly the sort of detail that can be provided by data from the servers that deliver on demand programmes and commercials.

One of our aims is to configure the data from the BARB panel in a way that helps it to be used alongside, or in combination with, server data. The options I outlined earlier when talking about Connected TV have precisely this end in mind. However it is also possible that the server data itself may need to be configured so that it can be made to work productively with audience research data.

To establish how far data from the panel can be made compatible with server data, and vice versa, we think it's important to:

- first, test and verify how known examples of viewing behaviour are reported within server data
- to compare this directly with how the same behaviour is reported by the panel meter (either the TV meter or the software meter)
- to identify areas of overlap between the two, in other words, to identify types of viewing in a set of server data that will also be reflected in output from the panel
- to explore the types of aggregated measures that can be derived and reported from server data; for example, server data is often reported as "requests", which is rather different from measures like average audience and reach that have traditionally been used for reporting TV

Panel data / Server data

- Verify
- Compare
- Identify overlap
- Reporting

Of course, server data naturally sits with the media owner, or platform operator. It is not yet part of industry measurement for television, and is very much new territory for BARB. With or without BARB's involvement though, server data will clearly become an important aspect of audience measurement in the future. For this to move forward the differing sets of data will need to be collected and reported to common standards.