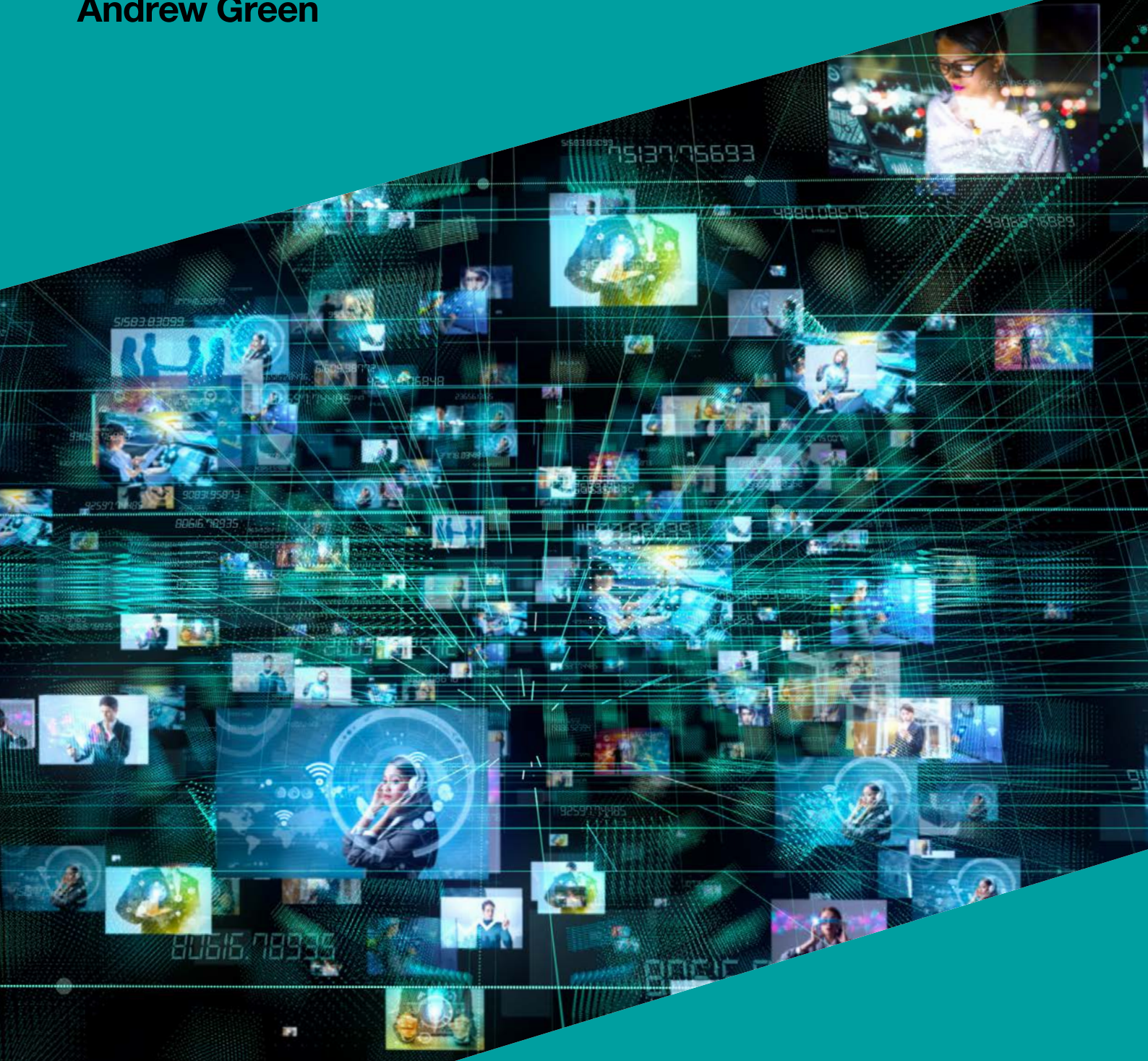


# It's About Time Measuring Media Impact

Andrew Green





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# “Time is what we want most, but what we use worst.”

– William Penn

Advertisers need to know who is exposed to their campaign messages. This means devising a way to count the number of people seeing or hearing them across all the different media touchpoints where they appear. Audience **reach** and **frequency** are at the heart of media trading and evaluation. Yet how we measure and define these metrics differs between media: in most countries, exposure to a television ad is defined as somebody being in a room in front of the screen at the moment a commercial airs. A newspaper ad, by contrast, simply has to be placed anywhere on any page in a publication which somebody has read any part of to be counted as ‘reach.’ A digital display ad needs to have initiated a load onto a user’s device to be counted in the reach calculation.

**Reach** is clearly not the same as **impact**. But the measurement systems do not take account of this. Quite apart from the differences between media, somebody reading an entire magazine they subscribe to every month is given the same value as somebody glancing through an old copy in a waiting room. Somebody browsing past a web page for a few seconds is treated as equivalent to somebody looking at the screen for ten minutes to read the content.

So how can we move beyond reach?

In this paper, we look further at how **time** can be used to measure media impact. Time can be useful. But it is not a panacea, any more than audience reach is. It too has flaws and limitations as a measure. If all media exposure minutes had equal value to advertisers, then TV’s share of advertising expenditure in the UK would be far lower than it is today. As advertisers clearly don’t value time in the same way between media, analyses of the share of time devoted to each medium with the share of advertising monies spent cannot be useful without considerable caveats.

Some possible metrics include **‘soft’ engagement measures**, which are based on what people say they feel about particular programmes or publications. This is subjective and difficult to quantify, as well as changeable over time and place. **Eye-tracking** technology closely measures attention through eye ‘fixations’ for screen-based media. Although it has become more scalable in recent years, it is still too early to apply this across the board.

Time also provides a quantifiable measure of attention by looking at the duration of contact with a medium or ad. This is already incorporated into television and (to a lesser extent) radio audience measurement as well as for a handful of online newspaper and magazine publishers. The challenge is how to translate time measures into impact.



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## It's Time...

Time is built into the measurement of television audiences. A 'rating' or GRP (the traditional measuring stick applied to a programme) comprises the percentage of people tuning into each minute of a programme and the number of minutes they view. The same calculation can be applied to an entire commercial break or to an individual commercial.

But television is unique. Radio also has a time dimension, but the calculation of its audience is slightly different. Here, people claiming to tune in for some part of a given quarter hour are assumed to be listening to any commercial aired during that period.

Time spent listening is usually a sum of all the quarter hour periods people have listened to for at least five minutes (this calculation is used even where actual minutes are now tracked passively via a handful of electronic measurement systems).

For newspapers and magazines, the measure of advertising opportunity is the number of people who claimed to have

read or viewed any part of a publication over a given period; for example, a day for daily newspapers or a week for weekly magazines.

For Out Of Home (OOH) media, anybody passing within an area where a poster can be seen counts as an audience (whether or not their heads are turned towards the poster). Time is not an integral part of the measurement, although it is assuming greater importance as digital OOH grows.

For digital media, the definition of 'audience' also has limitations: a 'Page View', for example, is simply the initiation of a page load by a user clicking on a link. Within a Page View, users generate 'Hits' for every file they request and a web page usually contains multiple images, each of which is a separate file.

Once initiated, there are a series of steps which occur, from an ad being sent, delivered and then actually rendered on the user's screen. As with print, time spent can be measured, but it is not incorporated into the Page View metric.



**The challenge is how to translate time measures into impact**

### The Digital Advertising Process



“

**Time is a useful  
complement  
to Reach for  
assessing  
the value of  
different media  
opportunities.**



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## Time is of the Essence

Time can – at least technically – be incorporated into many of these measures. Apart from television and radio, where it is already a consideration, readers of newspapers and magazines are often asked in studies about how much time they spend reading. On average, in the United Kingdom, readers of the 250 or so printed publications that are measured spend around 18 minutes every day reading them. In the United States, according to eMarketer, adults spend around 25 minutes a day reading printed publications.

In 2014, the Media Ratings Council in the United States introduced a time dimension into the reporting of digital audience data, ruling that a 'viewable impression' (an ad that can physically be seen by a user) should be one where a minimum of 50% of the ad's pixels are in view for a minimum of one continuous second.<sup>1</sup> Many have argued that this is a far from sufficient guarantee of an 'opportunity' to see an ad comparable with other media. But, as of the end of 2018, this remains the main definition of viewability used globally.

Analysis by Meetrics in the second quarter of 2018 found that just over 60% of digital display ads in Europe were actually viewable according to this definition of viewability.<sup>2</sup> Similar viewability rates are also seen in other countries. Viewable digital video (where people must watch for at least two seconds) was lower, at around 53% of impressions.

An ad might fail to be viewable (despite loading or being 'served' to a user as they open or reads a web page) because it appears outside of the active screen being

looked at, because users click past before it finishes loading, or for a host of other reasons.

But viewability is not the end of the story. Work by Eye-Tracking company Lumen in the UK has found that even when an ad is technically viewable, few people actually look at it. Using technology that tracks where a panel of viewers eyes fixate on a screen, they find an average of 18% of viewable digital ads are actually looked at; but only 5% of these for more than a second. This accounts for around 3% of all ads served.

This compares unfavourably with advertising appearing within newspapers (although these were shown to respondents on large computer screens, not in print), where 41% of ads were looked at for at least a second.

Technology has enabled a handful of publishers to incorporate time more formally into their sales equation. It is possible to track the amount of time any given web page is in the active browser of a device. The Financial Times, for example, has been selling advertising on its website based on the amount of time users spend with their content (and by extension the advertiser's content), rather than simply looking at reach. They knew they could be competitive using this metric: although the newspaper attracts fewer readers than the more generalist titles, their users spend more time with the content. Their Cost Per Hour package was introduced in 2015 and remains a key part of the title's offer.



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## The Trouble with Time

According to eMarketer, based on a range of sources, the average American spends 12 hours and 8 minutes using media every day<sup>3</sup>, while the average UK adult spends 9 hours and 23 minutes doing so.

On the face of it, these are rather meaningless numbers. But they do serve to show that there is a lot of multi-tasking going on. People play with their phones or tablets while 'watching' television. They may read (or surf the internet) while 'listening' to the radio. If they were not multi-tasking, there would be little time for work or sleep.

And the level of multi-tasking is just one reason why, just as reach is an imperfect metric on its own for comparing different media, so too is time. Who can say whether a viewer's attention is on the TV ad or his Facebook friends during the time a commercial break is playing? Which ad is most prominent if somebody is reading the morning paper while the radio is on in the background? Or can both be taken in?

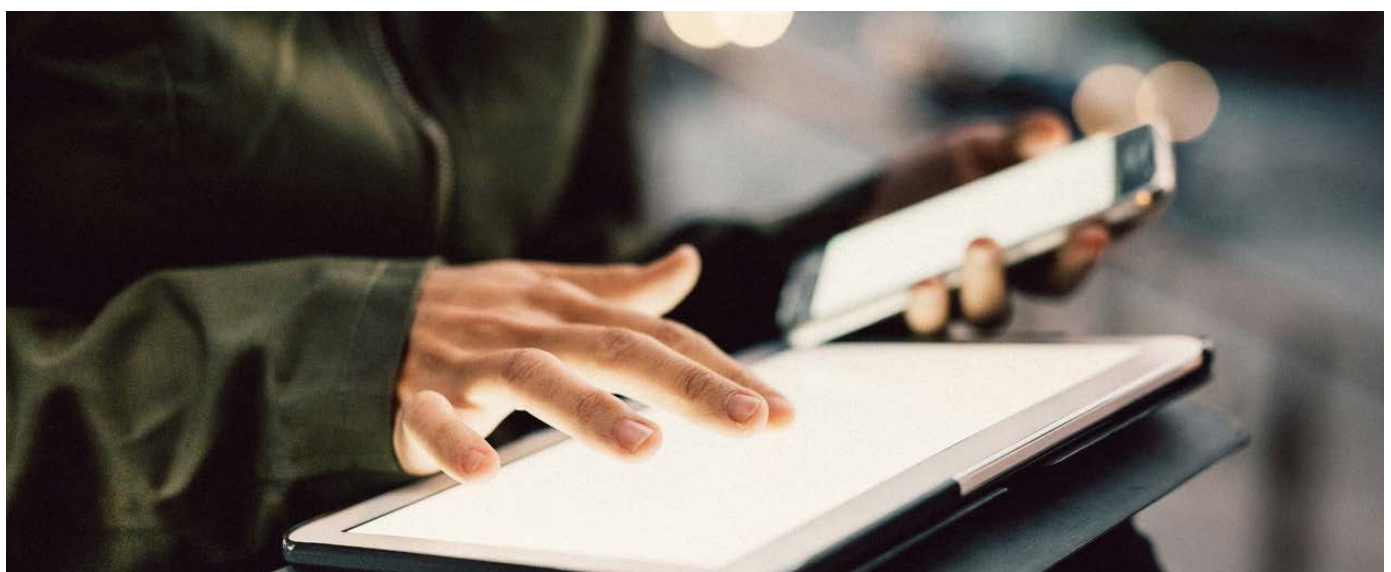
The questions continue. Even without multi-tasking, can we really compare one minute searching for something on Google (lean forward, full attention) with a minute watching television (in the room with the set on, mostly attentive) and

a minute browsing the internet (hundreds of ads, many non-viewable or, even when they are, not looked at)?

How much time does it take before an ad has 'cut through' or somehow registered in the conscious (or sub-conscious) mind of the reader or viewer? To what extent is this dependent on a person's mood, surroundings or motivations? And how important is the creative impact of the ad itself in this equation? Factors like attention, engagement, cut-through and so on are not taken into account with this measure.

Eye-Tracking data suggest that around 40% of ads shown to people looking through a newspaper on screen were looked at for one or more seconds – eight times as many as the 5% "seen" on digital sites generally. We don't have comparable data for other media, but this reinforces the message that the time people spend on a page which contains advertising is not the only thing that counts.

In other words, time is a useful complement to reach in assessing the value of different media opportunities to advertisers. But on its own, it is not sufficient. Which brings us to Mary...



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## Mitigating Mary

It is often said that if you repeat something enough times, everybody will believe it.

Mary Meeker is well known in the advertising and marketing community. Forbes voted her the 84th most powerful woman in the world in its annual rankings for 2017 and 6th ranked on its MIDAS List of Top Tech Investors for 2018<sup>4</sup>. She is particularly well known for her annual Internet Trends Report, where she reports on all the shiny new digital trends and toys hitting the world.

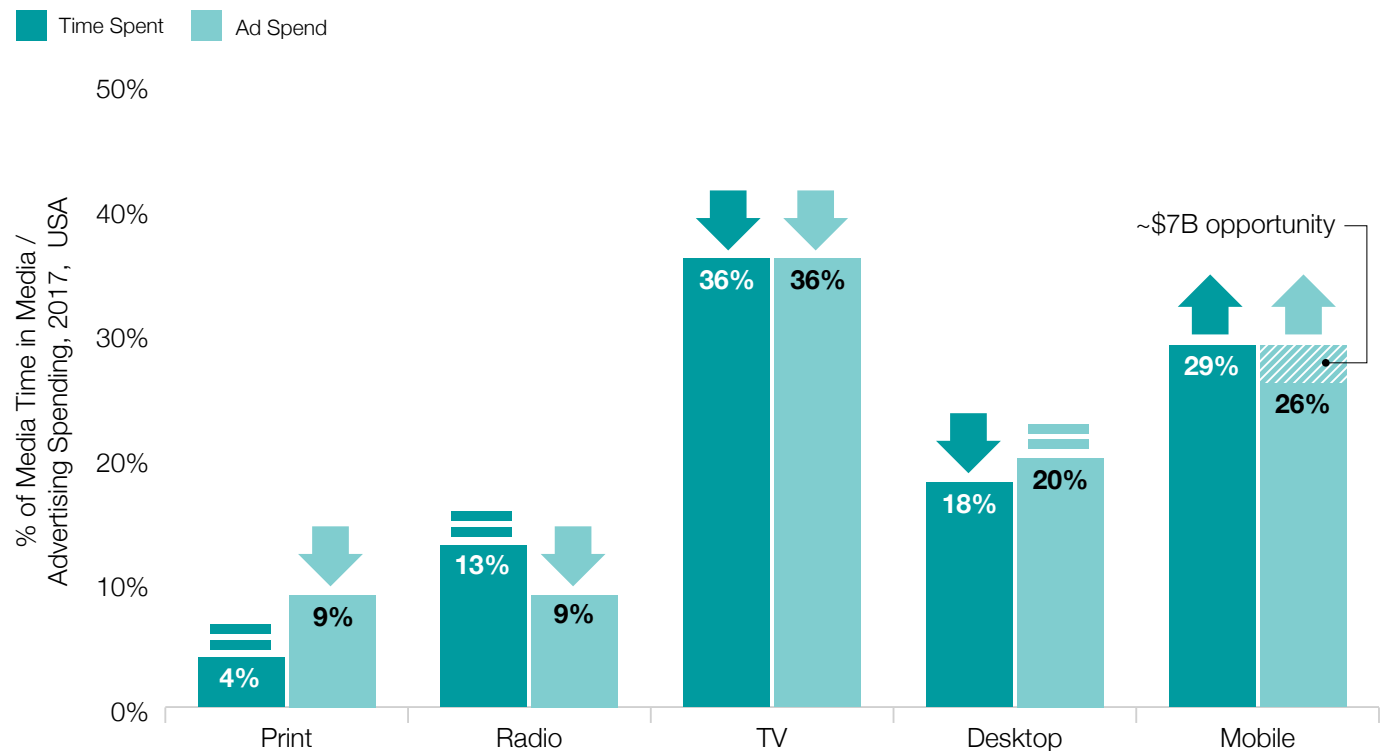
A regular feature of the report is a chart which compares the share of advertising expenditure in the United States going to each medium with the share of time spent using these media. The underlying assumption of the chart is that advertisers will follow the people. The share of adspend,

it says, will inevitably tend towards matching the share of time people spend with a medium.

In other words, if people are spending 5% of their time with a medium and advertisers spend 10% of their budgets in that medium, adspend shares are likely to decline – and vice versa. The obvious standouts are print (with a share of time less than half its share of adspend) and mobile (where the share of adspend is below the share of time spent).

This appears to make sense. The number of people (and therefore the amount of time) spent with printed newspapers and magazines is declining. The amount of time spent online and using mobile devices is rising. Advertisers surely need to follow their customers.

### % of Time Spent in Media vs. % of Advertising Spending



Source: KPCB: Internet Trends 2018



**Andrew Green**

In truth, it is not that simple. While it is highly convenient to look at time because it is common between media, all minutes spent using media are not equal. Some minutes are spent highly engaged with content and others much less engaged.

There are also some flaws in the data. First, time spent is not calculated in the same way across the different media. For television and the internet, it is pretty much a metered measure; other media use recall data of one sort or another. Time spent with print is certainly underestimated due to several thousand smaller magazines and newspapers where adspend is counted, but not the time spent reading them.

Online or mobile access to TV, radio or newspaper content is included in the digital figures but not in the 'legacy' numbers. GlobalWebIndex figures (based on recall) suggest that this accounts for around a third of online time. Some

of this online content will contain the same ads which air offline, for example for 'catch-up' TV.

While estimates of time spent watching commercial TV and listening to the radio look good, we believe the digital time spent numbers to be lower than those published. There are many different statistics for time spent online, some from consumer surveys and others from tracking panels of people. It is important both to account for multi-device usage (eliminating any double-counting) and to include non-internet users in the totals.

On this basis, we estimate the average US adult spends approximately 3 and-a-half-hours a day using the internet (USC Annenberg), while the average UK adult spends 2 hours 37 minutes online (UKOM). Out of Home media are not included in Meeker's US analysis.





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## Mary Meeker Re-Visited

Using the UK instead of the United States as our example, we have re-visited Meeker's analysis by focusing on the time spent potentially exposed to advertising, rather than total time spent with each medium. We have also used Advertising Association estimates to classify digital adspend with 'traditional' media brands such as newspapers, magazines and radio under the digital total.<sup>5</sup>

We can also include time spent exposed to OOH advertising. In the UK, journeys are metered using a GPS-equipped panel, allowing us to calculate the amount of time people spend out of their homes and within sight of a poster frame. We estimate from ROUTE that the average adult spends around 3 hours and 10 minutes every day 'out and about' of which 16 minutes is in view of advertising.<sup>6</sup>

Roughly 12% of commercial TV time and 18% of commercial radio time consists of advertising. It is relatively easy to transform time spent with these two media into time spent potentially exposed to advertising, as advertising is all that they will see or hear when it airs (unless they are multi-tasking...).

It is more challenging for other media. For example, almost all newspaper and magazine spreads contain advertising,

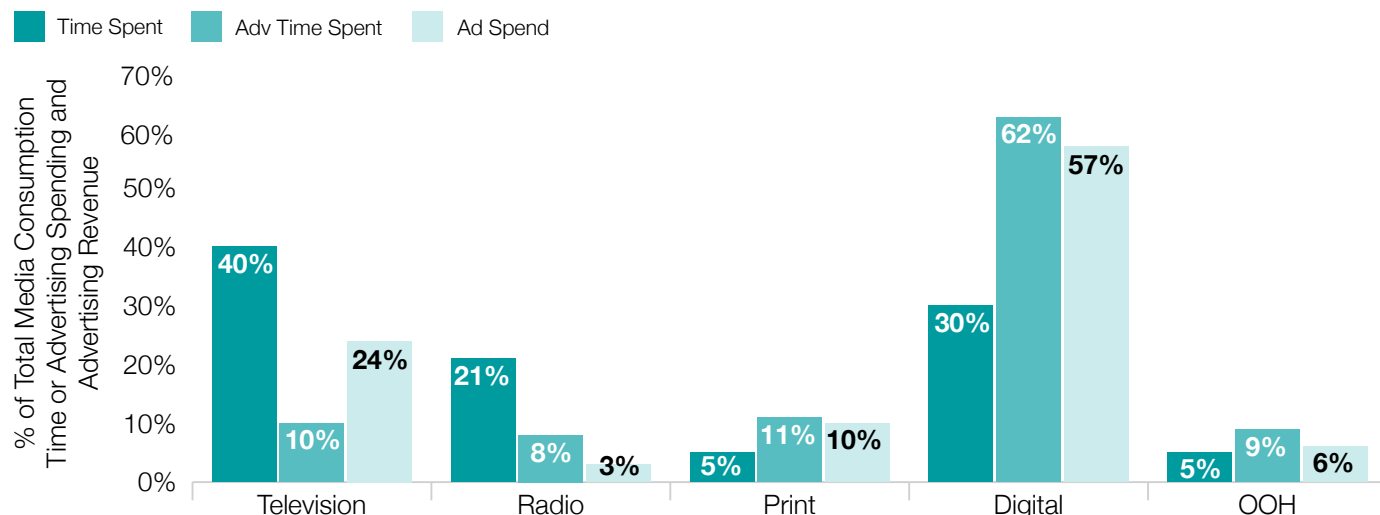
as do all poster sites. So while we can say that 20 minutes exposed to for example newspapers, is potentially 20 minutes exposed to advertising, the advertising is mixed with the articles people are reading and there are often several ads appearing on the same spread. TV commercials are shown separately to the programmes and each one occupies all of the screen when it airs.

In other words, when comparing media, the likelihood of somebody seeing a particular advertisement during a given minute (as opposed to seeing any advertising) vary. Newspaper and magazine readers will have more ads placed in front of them than TV viewers, so each individual message is likely to be seen for less time.

Although reliable figures are hard to find, it is also worth mentioning that perhaps one third of total internet time is spent on largely advertising-free activities such as email and banking or other apps. This is very much an estimate (we have not seen any definitive research on this). When online, users may see ads 'in-stream' (equivalent to TV advertising) or as one of multiple messages appearing on the screen around other content (like newspapers and magazines)

With all these caveats in mind, the following is our version of Mary Meeker's chart for the UK:

### Mary Meeker revisited: UK Time Spent vs Advertising Shares



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Medium	Total Time Spent (Mins)	Opportunities to See Advertising (Mins)	2017 Ad Spend (£m)
<b>Television*</b>	139 (40%)	17 (10%)	4,897(24%)
<b>Radio*</b>	72 (21%)	13 (8%)	644 (3%)
<b>Print</b>	18 (5%)	18 (11%)	1,937 (10%)
<b>Digital</b>	105# (30%)	105 (62%)	11,553 (57%)
<b>OOH</b>	16 (5%)	16 (9%)	1,144 (6%)
<b>TOTAL</b>	<b>350</b>	<b>169</b>	<b>20,175</b>

\*Excludes BBC

#Excludes time spent on email/advertising-free sites

These time-based data are not perfect, based as they are on a number of assumptions and caveats. But neither are most of the published statistics on media usage, which can vary quite considerably from source to source. However, we do think it is important to dig deeper than the Meeker analysis. To the extent that we can look at the data in this way, adspend on television would seem to be far ahead of its share of advertising impressions.

Depending on how this is interpreted, this could mean that advertisers perceive television as having a much greater impact per minute of time exposed than other media and will therefore pay a premium for this. Or it could mean that advertisers are spending too much. Clearly a minute spent viewing television advertising is not identical to a minute looking at a computer screen with several banner ads.

As noted above, each minute exposed to a television ad is time exposed to a single message that fills the screen (OOH and radio can claim a similar impact); while for digital and print media, there are likely to be multiple messages in view at the same time, reducing the effectiveness of any single message.

Radio looks to be quite considerably underinvested, even allowing for the fact that its time spent calculation is fairly generous towards the medium. Out of Home is also underinvested on this measure.

Perhaps surprisingly, print looks to be broadly in balance between share of time spent and share of advertising expenditure, while digital advertising looks like it will continue to grow.



**Every ad still has an opportunity to break through in whichever medium it appears**

## Conclusions

Reach is a necessary, but far from sufficient measure of media impact. Definitions of media reach vary between and amongst media types. All measure 'opportunities' to see an advertising message but these all vary in their likely closeness to actual exposure.

Time is a metric that can, in principle, be used across all media. It is already built into the measurement of television and radio audiences and is available from many digital audience measurement systems. Time spent reading is also data requested by a number of readership studies.

But if 'time spent' can be a useful surrogate for attention, it has limitations. Methods of calculating time spent vary between media. The number of ads in view in any given minute and the context in which they can be seen also differ by medium. As a result, the value of every minute is different for an advertiser. That said, every ad still has an opportunity to break through in whichever medium it appears.

A simplistic comparison of the share of time spent and the share of advertising expenditure by medium – often cited in media reports – is a flawed one, even when the data suggest the future trajectory of media spending accurately.

What is clear is that advertisers need to consider a range of measures including **reach**, **frequency**, **time spent** and **attentiveness** when deciding where to invest their marketing budgets.

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## References

<sup>1</sup> [http://www.mediaratingcouncil.org/063014%20Viewable%20Ad%20Impression%20Guideline\\_Final.pdf](http://www.mediaratingcouncil.org/063014%20Viewable%20Ad%20Impression%20Guideline_Final.pdf)

<sup>2</sup> [https://www.meetrics.com/wp-content/uploads/sites/2/2018/07/Meetrics-Benchmark-Report\\_Q2.pdf](https://www.meetrics.com/wp-content/uploads/sites/2/2018/07/Meetrics-Benchmark-Report_Q2.pdf)

<sup>3</sup> <https://www.emarketer.com/content/us-time-spent-with-media-2018>

<sup>4</sup> <https://www.forbes.com/profile/mary-meeker/#249e251732a5>

<sup>5</sup> <https://www.adassoc.org.uk/2018/07/uk-advertising-spend-achieves-record-for-q1-2018/>

<sup>6</sup> <http://route.org.uk/>

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