
Feeding the Machines: A Prognosis for Programmatic

Andrew Green



Feeding the Machines: A Prognosis for Programmatic

Executive Summary

- Programmatically traded media represents less than 4% of total adspend. This is about one-third the size of printed newspaper ad revenues, half the size of radio and 10% of the television total.
- On a *good day*, programmatic technology enables media buyers to save time, increase efficiency and improve effectiveness.
- On a *bad day*, programmatically targeted advertising will be seen by almost nobody, as a result of ad blocking, fraud and viewability issues.
- On an *average day* digital display advertising struggles to be seen, due to heavy clutter and poor positioning. Viewability tends to be lower for ads placed programmatically, as opposed to those placed by a human.
- Whatever day it is, programmatic technology will continue to grow strongly and will begin to make its presence felt beyond the digital space – in television, radio, Out of Home, newspapers and magazines. It is being driven by the quest for better efficiency, improved targeting, measurable ROI – and by undoubted pressure to embrace everything new and digital.
- It is being challenged by ad blocking, fraud, viewability issues, poor data quality and brand safety concerns, as well as by skills shortages and a reluctance on the part of traditional media companies to release premium inventory into the system.
- Many of the challenges inherent in getting an ad seen and acted on in the digital environment can be managed through careful stewarding and use of existing technologies. New kinds of media buyer, more conversant with data science than with wining and dining, will emerge to master the necessary skills.
- The measurement challenge lies in linking short-term behavioural responses to longer-term brand building efforts. Not every brand is searched for online and online is not the only place people look to help them make buying decisions.
- GRPs (Gross Rating Points) will remain a robust and useful measure of audiences, even amidst the promise of greater precision in targeting ads. Like all media, digital display advertising can really only guarantee ‘opportunities’ to see to its advertisers.
- At the end of the day, brands live inside people’s minds. So it is people’s minds we, as market researchers, must seek to understand and to help brands influence.



Feeding the Machines: A Prognosis for Programmatic

Introduction

“Programmatic is growing bigger, it’s not going away. And it’s not just digital media; it’s going to print and TV as well.”

Sital Banerjee, Philips

“Programmatic” media buying can be defined as the use of software programmes to buy advertising space. The software replicates and automates what, in some media, can be a lengthy manual process.

It starts with a buyer briefing his requirements to the media (target audience, campaign objectives, budgets, qualitative considerations etc.)

Options for meeting the brief are considered and analysed and negotiations take place around what the options will deliver and the price the client will pay.

Programmatic buying does not remove the need for these steps - it still needs to begin with a brief and to work within parameters set by the buyer. But it eliminates much of the interim drudgery and speeds the process up considerably.

The traditional buying process originated in a time of media scarcity and limited technology. Programmatic buying began in response to an almost infinite supply of digital inventory, the impossibility of a human being sifting through every possible permutation to create an optimum campaign and a massive advance in technology.

Instead of placing an ad on a website (as one might in a newspaper or within a television programme), programmatic buying aims to place the message in front of the people it wants to talk to – whichever sites they are browsing.

As a result, it offers the ability to show ads to some people on a particular site and not to others. And to stay with those people – identified as a core target – and reach them on other sites.

An IAB Europe survey in June 2016 found that only 13% of advertisers and 7% of media agencies claimed not to be using programmatic technology to some degree. 90% expected to increase investment over the coming year.

This enthusiasm is based around reducing media wastage, targeting more precisely and operating more efficiently.

Bottlenecks cited in the survey included the difficulty of finding suitably skilled people to navigate the emerging digital ecosystem, as well as concerns around viewability, brand safety, data quality and fraud. Concern was also expressed about the cost of implementing the programmatic technology itself.

Feeding the Machines: A Prognosis for Programmatic



Andrew Green

TOO MANY ADS

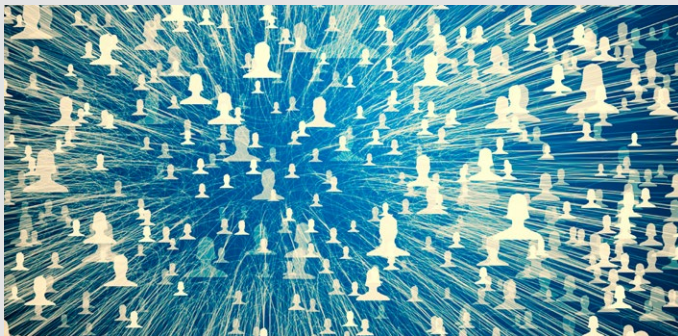
There is no real limit on the number of ads that can be 'served' on many of these pages, which leads to an unfortunate side effect: too many ads clutter users' screens. Some of these ads may even contain viruses and other malware.

This has prompted as many as one in five online users according to a recent study¹ to install ad blockers to prevent ad messages reaching them. So while the total number of web users continues to grow, those available to advertise to are shrinking.

What cannot be contested is that digital advertising spend has now overtaken television in many countries to become the largest single advertising medium.

Globally, according to ZenithOptimedia, internet and mobile advertising will reach \$175 billion in 2016, almost exactly one third of the total advertising market (valued at \$537 billion). It will overtake television globally in 2017 according to the forecaster. In this paper we look at the current state of programmatic advertising, including the forces driving it forward and those holding it back from growing even more quickly.

We also look at the data feeding the programmatic machines and compare it to the 'legacy' audience measurement data that have long driven media placement decisions.



¹ <https://www.statista.com/chart/5048/the-use-of-ad-blocking-around-the-world/>

The Programmatic Market

“Programmatic is the new norm.”

Mediapost, 21 June 2016

The programmatic advertising market is far smaller than the headlines might suggest, at least when seen in the context of the entire advertising market.

Programmatic represents less than 4% of total adspend. This is about one-third the size of printed newspaper ad revenues, half the size of radio and 10% of the television total.

Programmatic is growing, it's changing, it's digital and it's the future. So, of course, even though small, it dominates the advertising trade press. And remains the hot topic for the young, digitally-savvy practitioners in charge of spending marketing budgets at media agencies and anybody else who likes to make the headlines...

But it's worth delving into the numbers a little. Just under half of the \$175 billion spent on digital media around the world in 2016 went into Paid Search - where marketers bid to place their own content against words used (typically) in a Google search.

They bid more to have their content appearing higher on the search results page. Paid search is not usually considered to be 'programmatic' (although it certainly shares some of its characteristics).

A further 9% of the digital total flows to classified advertising (for jobs, property, used cars etc).

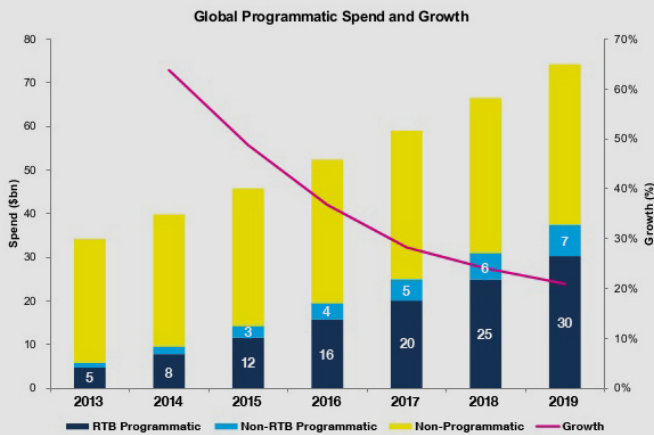
Feeding the Machines: A Prognosis for Programmatic

Andrew Green

43% of the total is spent on 'display' ads, such as banners of various kinds, video and social media. It is this display part (around \$75.4 billion in 2016) that has been most heavily impacted by the growth of programmatic trading.

Magna Global, which issues regular forecasts about the programmatic market, estimated that around \$20 billion would be spent on programmatic advertising in 2016 – 26% of total digital display advertising in that year but just 3.7% of total advertising. (It is, of course, higher in the most developed advertising markets).

Three-quarters of this total is spent on digital display advertising, with the rest on video and social media.



Source: Magna Global Programmatic Intelligence Report 2015

It is growing very rapidly. Magna Global predicts that it will reach \$37 billion by 2019 which (if the total advertising market continues to grow at its current rate) will mean programmatic taking a 6% share of the total market (still, incidentally,

smaller than printed newspapers, Out of Home or television advertising).

Programmatic TV is currently even smaller – representing less than 1% of TV adspend in the United States for example.

But it is expected to grow strongly from this low base to reach a 6% share of total TV spending by 2018, according to eMarketer and well over two-thirds of digital video spending.

Programmatic approaches have also started making tentative inroads into the **Out of Home** medium – although in this case, with the majority of inventory being 'static' rather than digital in most countries – the systems need to enable access to both types of frame.

A number of publishers have made parts of their **print** inventory available to buy programmatically as well.

All media are likely to see some part of their inventory traded programmatically in the coming years, as the systems improve and the data begins to flow more easily into them.



Feeding the Machines: A Prognosis for Programmatic



Andrew Green

Drivers of Growth

The drivers of the rapid growth in programmatic advertising in recent years revolve around generating efficiencies, increasing speed and exploiting the power of digital media to identify and target people with the greatest propensity to respond to an advertising message.

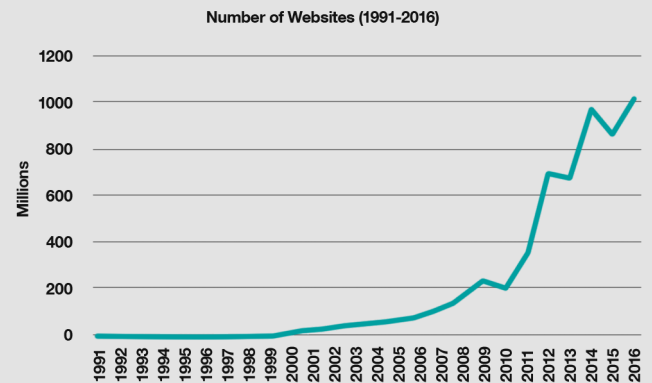
GENERATING EFFICIENCIES

For buyers, it is about driving efficiencies in the buying process, optimising ad campaigns across an almost infinite number of choices and doing it all at very high speed.

For sellers, programmatic can drive efficiencies and also provide a way to offload lower-demand inventory.

At the end of July 2016, there were 4.8 billion web pages across 1 billion websites from which buyers could – at least theoretically - choose. This is a far more daunting canvass than

the few hundred TV or radio stations and couple of thousand publications a planner/buyer might have been faced with in the past.



Source: <http://www.scribblrs.com/>

Programmatic technology, which starts with the audiences rather than with the media outlets, can deal with the burgeoning number of permutations without breaking sweat.

The process of sending out buying briefs, sorting through options and negotiating prices can be time-consuming and inefficient when done by a human buyer. Programmatic technology automates much of the drudgery.

This means that fewer man hours need to be spent on the buying process and more can be spent on the strategy and the thinking.

Trading decisions can be made almost in real time (as people in a target audience initiate a web page load, an ad can be immediately served to them as the page loads).

RTB (Real Time Bidding) is not the only – or even the major – form of programmatic buying. Most inventory is, in fact, bought directly at a fixed price and is simply an automated version of traditional media buying.

Feeding the Machines: A Prognosis for Programmatic

Andrew Green

TARGETING

Marketers have long been concerned about ‘wastage’ – paying to reach people they do not want to reach with their advertising messages.

If, for example, they are targeting men with a shaving product, any women seeing the ad will have limited value to them. If they are targeting older people with a retirement product, they do not need to reach (and may even irritate) younger people who see it.

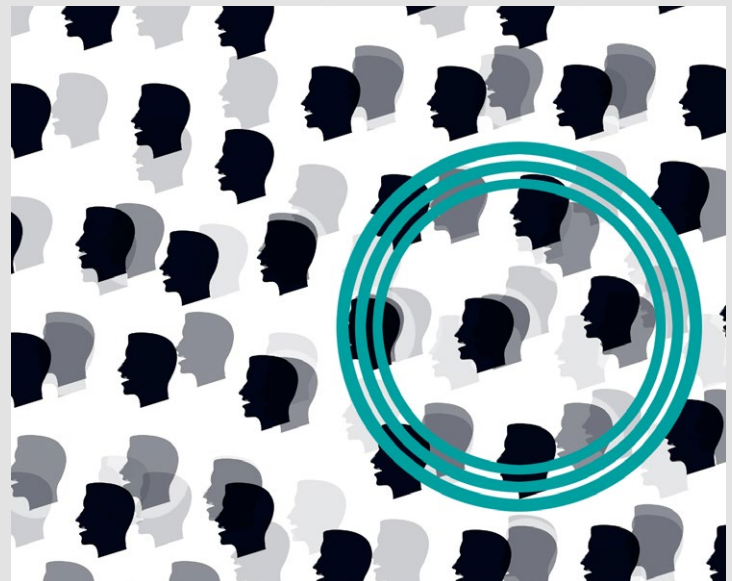
Another concern with traditional media planning is the emphasis on broad demographics rather than true buyer targets.

It may, for example, be true that most buyers of a particular brand or type of car are male, aged over 35 and working in certain kinds of occupation. But this doesn't mean that every male over 35 working in these occupations is in the market for a new car. So advertising reaching them is also ‘wasted’.

The growth in digital media has transformed this scenario. Countless research studies have pointed to the growing popularity of researching products online before buying. More and more people buy products and services online, as well as in the store.

As they do, their actions leave behind a trail that can be followed. Marketers trying to sell a new car can focus in on people who have recently looked at car sites. Financial services companies can target people searching for information about insurance. Holiday companies, hotels and airlines can all hone in on people investigating vacation destinations.

Targeting can also be built around people's location in real time. An advertiser may wish to direct people at a trade show to his stand or people in the high street to a particular store.



This has to be done programmatically, as the ad will be served only when the person being targeted enters a designated location. It is the reason why mobile programmatic in particular is growing so quickly.

Another form of location targeting is addressable television: transmitting ads only to households with certain known characteristics (e.g. children present). This has been enabled by the spread of set-top boxes.

Programmatic trading is being driven ever forward by its promise of greater efficiency, faster turnaround times and more precise targeting. It is also, undoubtedly, propelled by its fashionability amongst the digerati.

No media agency, client or publisher would want to admit to not having ‘digital’, ‘mobile’ and/or ‘programmatic’ at the heart of their strategy for growth.

Feeding the Machines: A Prognosis for Programmatic



Andrew Green

Barriers to Growth

“Virtually any programmatic buy can be exposed to ad fraud... any claims to the contrary should be treated with caution.”

World Federation of Advertisers

But if there are good reasons to expect continuing growth in programmatic, there are many factors holding it back. Being such a new area, the **talent pool** to manage and leverage the technology remains small and expensive.

The process is complex, with multiple variations around how ‘audiences’ are defined and measured, how ROI should be calculated and so on.

There are also a number of critical challenges to contend with when managing a programmatic buy, including viewability, ad

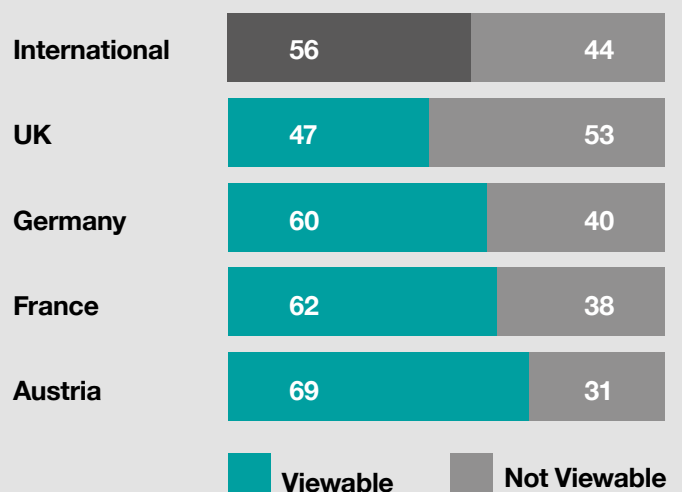
fraud, brand safety and data quality. As well as this, the whole issue of inventory control is limiting the spread of programmatic trading into more traditional media.

Viewability remains an issue. A viewable impression, according to guidelines set by the US Media Ratings Council, is one where: at least 50% of the surface of an online ad has to appear in the visible area of the browser for at least 1 second.

According to ad verification specialist Meetric, in Q2 2016, just over half (56%) of the banner ads monitored by them internationally were viewable.

There are many possible reasons why an ad might not be viewable: the user may not scroll to the location on the page where the ad appears (i.e. it may load ‘below the fold’); the ad may not fully render or the user may scroll quickly away from the page.

Viewability of Display Ads in %



Source: Meetric Viewability Benchmarks, Q2 2016

Feeding the Machines: A Prognosis for Programmatic



Andrew Green

Although more and more marketers are taking account of viewability, many are not – meaning they are paying for ads that cannot be seen.

The IAB Europe study referred to earlier found that just 38% of advertisers included the level of viewability as one of the key metrics they used to evaluate programmatic display campaigns.

While the technology exists for this challenge to be tackled, many will question whether loading half an ad for just a second is, in fact, enough...

A UK study by Lumen in 2016 using special eye-tracking cameras embedded with a panel of PC and laptop users found that just 9% of ads served were actually looked at for more than a second, falling to 4% looked at for more than 2 seconds. This, perhaps, is a more accurate use of the word 'viewability.'

One reason for this may be **ad fraud**. Essentially, this is where online behaviour is simulated to look as if real people have visited a website or clicked on an ad. Advertisers pay for these 'views' even though they are not seen by the people they are intended to reach. Fraudulent visits can be made by machines, by people or by a mix of the two.

The World Federation of Advertisers believes that ad fraud could easily represent between 10 and 30% of digital ad impressions – but admits a precise figure does not yet exist.

US comScore data for Q1 2016 confirms that levels of IVT (Invalid Traffic) are much higher with programmatic buys than with direct buys.

It is possible for advertisers to reduce fraud by vigilance, insisting on full transparency, setting up proper controls and by building capabilities within their own organisations to understand what they are buying. But it remains an important barrier to the development of programmatic trading.

...“just 9% of ads served were looked at for more than a second, falling to 4% looked at for more than 2 seconds”

Ad blockers are estimated to have been installed by as many as 25% of US online users. Combined with the 20% having no access to broadband either at home or via a Smartphone (Pew, 2015), this means that **only 60% of the US adult population are even reachable through digital means.**

Blockers are notably skewed towards younger, male and more technically savvy users of great interest to marketers.

This unreachable population is growing, effectively cancelling out the overall growth in online and mobile users seen around the world.

Brand Safety is an issue for many marketers. Programmatic advertising tends to prioritise reaching a targeted audience over picking individual sites – which is part of the reason it is such an efficient way to trade. The more this is constrained to exclude or include particular sites, the less efficient it will be.

Typically, marketers can whitelist sites they trust and blacklist those they believe carry content which would be an inappropriate environment for their brands to appear in. But things can always fall through the cracks, meaning that constant vigilance is needed.

Feeding the Machines: A Prognosis for Programmatic

Andrew Green

COSTS

Another barrier noted by the WFA is the high cost of managing programmatic buys. According to its estimates, as much as 60% of the initial client investment made in a programmatic buy gets swallowed up by payments to their agencies, trading desks, DSPs, data costs and so on.



INVENTORY CONTROL

The success of programmatic trading depends on access to the maximum amount of inventory. Anything that reduces or removes inventory from this part of the trading system necessarily weakens it.

Television is case in point. Although every market operates differently, the largest TV market in the world – the USA – has a particular approach built around large upfront corporate commitments made for primetime network inventory (allocated to individual brands at a later date). It has long resisted advertisers wanting to ‘cherry-pick’ the best spots.

Instead, they must take a package of good and less good spots. To compound the challenge, spot picking is not done solely on the basis of objective criteria such as cost per thousand impacts or campaign reach potential.

For many advertisers, there is a requirement to buy into ‘prestige’ shows that their sales force or franchisees will see. If cost efficiency was the only thing that mattered, few would buy into such shows.

Even the choice of which break in or around a programme or what position in a commercial break the advertiser should appear is traditionally made by the networks on the basis of ‘fair rotation.’

All this is possible because the larger TV networks retain control of their inventory and determine how it should be allocated based on multiple considerations – only one of which is cost efficiency.

Such a system would need to be radically over-hauled in a programmatic world.

Feeding the Machines: A Prognosis for Programmatic

Andrew Green

THE END OF NEGOTIATION?

Importantly, in the US and many other TV markets, the ability to negotiate pricing (so that one advertiser will pay a different price to another for the same airtime) has long been a central feature of the process.

There are plenty of ways in which one advertiser might secure a lower price than another. Budgets might be higher. The share of revenue offered to one network versus another either by the advertiser or his media agency may be greater. Those willing to commit further ahead can benefit. And other, less objective factors can come into play.

In a programmatic system, much of this would presumably change. A fixed price would need to be attached to every piece of inventory (although these could vary triggered by overall spend levels etc.).

All would have to be connected to an audience measurement system that allowed buyers to look both at each spot individually (e.g. by number of target viewers) and as part of an overall campaign (the number of viewers seeing at least one, two, three or more messages for example).

The additional value placed by advertisers on advertising in 'prestige' programmes would have to be priced in.

Today's markets are 'cleared' by packaging: the best programmes are bundled with less good programmes.

All of this is perfectly conceivable. Money could be saved by the re-allocation or elimination of buying and selling teams. Competitive advantage could be sought in how data is used or how programmatic strategies are executed.

Markets would clear based on price, with (assuming demand patterns remain similar to now) high prices being paid for the most highly demanded slots and lower prices for others.

But it would be a very big change. In the US in particular, national, network TV is usually distinguished from 'spot' or local TV, which may move more quickly towards embracing programmatic trading, driven by opportunities to 'address' individual households with known characteristics.

Similar observations can be made for other media. Ways can be designed for programmatic technology to play an increasing role in oiling the buying and selling process. But it will demand commitment from the media owners and, critically, investment in inventory management systems to enable it.



Feeding the Machines: A Prognosis for Programmatic



Andrew Green

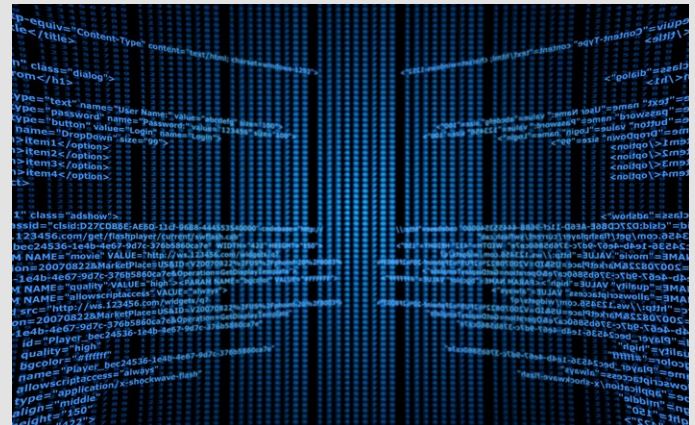
Feeding the Machines

“Nobody measures a car commercial’s effectiveness by the number of people who saw the ad, got off the couch and drove to the dealership within ten seconds of seeing it. People don’t behave that way. Yet lots of digital advertising is measured and optimised against this exact type of behaviour.”

Deacon Webster

Programmatic starts and ends with data. Trading decisions need to be based on data. In practice, this has meant the use of ‘re-targeting’ (following internet users around the web and pushing ad messages to them) and employing other kinds of behavioural data like page views and clicks.

This is nothing new: media have always been planned and bought using data of one kind or another. Television and radio have their ratings data, newspapers and magazines have circulation and



readership data and Out of Home media have traffic data. There are many flaws and weaknesses in these audience measurement systems. For example:

- **Survey data, based on samples, can only ever measure the media with the highest audiences. The long-tail will be excluded.**
- **Rather than measuring true exposure to a commercial, the data counts ‘opportunities to see’ an exposure.**
- **Audience segmentation tends to be based around broad demographics.**
- **Non-TV data is typically averaged over long periods (e.g. 3 or 6 months) with slow and infrequent reporting.**

In the UK, for example, more than 1,000 TV channels are licenced to broadcast. But BARB, the official measurement organisation, reports on just 275 of these.

The vast majority of commercial breaks have nobody at all from the metered sample watching them. It is the same for newspapers and magazines. With more than 3,000 titles circulating in the UK, less than 200 can boast official readership numbers in the National Readership Survey. Audiences to individual pages are not measured.

Feeding the Machines: A Prognosis for Programmatic



Andrew Green

Digital data come in several forms:

- **FIRST-PARTY** data is information the advertiser owns and controls; usually data it has collected itself on visitors to its website, social media data, customer email addresses and purchase histories and any other information about its customers or people it comes into contact with.
- **SECOND-PARTY** data is somebody else's first-party data which can be usefully exploited by an advertiser. This can include retailers co-operating with brands or selling them data and even non-competing marketers sharing information (e.g. a car company and a petrol retailer).
- **THIRD-PARTY** data is collected by others and available to anybody to licence or buy. For example, a credit rating agency like Experian might offer to sell marketers access to audiences with known financial characteristics or behaviours.
- Other kinds of data can also be utilised within the programmatic system to provide additional insight.

Programmatic evangelists talk up how media buying will move from broad demographics that act as proxies for client prospects to 'strategic' targets, such as beer drinkers, new car buyers or frequent movie goers.

But digital audience data has its own flaws. It measures devices rather than people. Internet audience data uses cookies which are deleted after a time. TV set-top box data is fraught with limitations as a measure of human audiences.

All the issues of viewability, visibility, ad fraud and ad blocking described earlier remain challenges.

Then there is the whole topic of 'wastage.' It is true that people visiting a website to research a product are likely to have a higher than average interest in buying the product.

But it is equally true that other potential buyers may *not* be searching the internet for information about the product – or may have done so a long time before. So they would be missed if a campaign precisely targeted only those showing an active interest in looking for information about the product online.

There are many examples, too, where the ad messaging misses the boat. People who have recently returned from holiday do not want to see ads for holidays. Recent car buyers will have no interest in special offers for a new car.

Targeting people digitally can only be as good as the data available. While there are many cases where digital behavioural data can clearly help an advertiser get his message in front of a potential consumer quickly and efficiently, there are many others where it might not be so helpful.

All media have 'Big Data' potential. TV has set-top box data which, combined with addressable technology, may allow advertisers to pinpoint households with a greater propensity to buy their brands.

They will know, for example, whether children are present, where the household is located and possibly other information collected when the household signs on.

Newspapers and magazines have sales and circulation data, available for every issue sold. Out of Home audience data is often built around very detailed traffic data.

Feeding the Machines: A Prognosis for Programmatic

Andrew Green

BEYOND OPPORTUNITY TO SEE

All these Big Data sources overcome at some level the challenge of small samples, low granularity and slow speeds. But they do not take us any closer to measuring true commercial exposure than the traditional measures do.

As noted earlier, a small-scale eye-tracking study carried out by Lumen in the UK found that only a third of advertisements served to websites are actually looked at (eyes on) by people exposed to them on PCs and laptops. The rest are either non-viewable or simply not noticed.

Even when they are, few are actually looked at for longer than a second (9% of those served) or two (4% of those served).

This does not make digital media somehow less good than non-digital media; but it does highlight the clear difference between serving an ad message and people actually seeing it. Just like 'traditional' media, digital media are serving up 'opportunities' to see.

The speed and granularity of digital data has had some impact on the speed and granularity ambitions of traditional audience measurement services.

TV data has been available overnight for many years, but in Australia – a good example of newspaper publishers being spurred on by digital advances – readership survey updates were made available monthly instead of quarterly in 2013.

In 2017, Belgian publishers will begin to publish daily, dated readership data for individual newspaper titles.

Many other stakeholder groups are looking into how they can develop their studies from single-platform, infrequently-published, broadly-based surveys to multi-platform studies with faster and more frequent updates.

BRAND EQUITY

But building brands is about more than generating short term response. 43% of advertisers in the IAB Europe survey still use brand awareness as one of their key effectiveness metrics to evaluate programmatic display campaigns. 37% use Purchase Intent.

But far more employed the number clicking on an ad or other direct response-type measures than used the more traditional measures of brand equity.



Brand-building is a long-term game. People having a strong affinity with a brand will react far more positively to short-term stimuli than those with a weaker affinity. This much is obvious. It is time for advertisers to look back at the brand data they have collected over the years and see how it can be incorporated into the programmatic data stream.

[2 http://adexchanger.com/data-driven-thinking/programmatic-finally-hit-bottom/](http://adexchanger.com/data-driven-thinking/programmatic-finally-hit-bottom/)

Feeding the Machines: A Prognosis for Programmatic



Andrew Green

PLUS ÇA CHANGE, PLUS C'EST LA MÊME CHOSE

John Lee, EVP and Chief Marketing Officer at Merkle wrote in August 2016 that²: *“Programmatic 1.0. has been fundamentally built on trading remnant inventory at the lowest price possible in an effort to justify and sustain a complex, costly data and technology supply chain.”*

His prognosis was that the technology focus of recent years has paved the way for a new era focused around ad quality and transparency: Programmatic 2.0.

He sees increased emphasis on premium inventory, direct buying from publishers and fuller transparency of both the process and the audience metrics. Becoming, perhaps, a bit more like ‘traditional’ media buying, but faster, more efficient and better targeted.

So what will the role of market research be in Programmatic 2.0? It is to be hoped, certainly, that data quality will assume a more important role than it has to date. The value of deeper, more insightful data should not be lost in the rush to base decisions on short-term, direct response-type metrics.

Measures such as the amount of time spent with an ad in view have already been adopted by a handful of publishers as a way of valuing the level of engagement people have with the content on their screens.

And we still need to understand what goes on in people's minds when they are exposed to advertising messages, as well as their short-term behavioural responses. This will not change.

Traditional media metrics like GRPs, reach and frequency will remain important for the foreseeable future. Advertisers are still only buying ‘opportunities’ to see their messages, whether they are buying digital or non-digital media. They still need to speak to people who are not searching online for their brands and who are deciding in the store.

Traditional advertising measures like top of mind awareness, brand saliency and intent to buy will not lose their meaning either. In short, we still need to understand consumers.

We still need to understand what goes on in people's minds when they are exposed to advertising messages, as well as their short-term behavioural responses. This will not change.



² <http://adexchanger.com/data-driven-thinking/programmatic-finally-hit-bottom/>

Feeding the Machines: A Prognosis for Programmatic

September 2016

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.

This *Ipsos Views* paper is
produced by the
Ipsos Knowledge Centre.

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

GAME CHANGERS

<< Game Changers >> is the **Ipsos** signature.

At **Ipsos** we are passionately curious about people, markets, brands and society. We make our changing world easier and faster to navigate and inspire clients to make smarter decisions. We deliver with security, simplicity, speed and substance. We are Game Changers.

GAME CHANGERS

