

### The History of Programmatic Advertising: Everything You Need to Know

• 14 August 2017



US digital display-ad spend is expected to top \$27 billion sometime this year. Of this 27 billion, 72% will come from programmatic. That's astronomical! We are talking about almost three of every four display-ad dollars being spent programmatically.

#### US Programmatic Digital Display Ad Spending, billions, % change and % of total digital display ad spending\* 118.6% \$22.10 72.0% 67.0% 59.0% 49.0% 53.3% \$10.32 39.7% 24.3% 2017 Programmatic digital display ad spending % of total digital display ad spending\* Note: digital display ads transacted via an API, including everything from publisher-erected APIs to more standardized RTB technology; includes native ads and ads on social networks like Facebook and Twitter; includes advertising that appears on desktop/laptop computers, mobile phones, tablets and other internet-connected devices; \*includes banners, rich media, sponsorship, video and other Source: eMarketer, April 2016 www.eMarketer.com

And considering the relatively short time frame programmatic has had to work with it is even more impressive. Unlike other marketing forms that just adapted to the internet, programmatic was created online. But how and when did programmatic begin?

## The History of Programmatic Advertising: Everything You Need to Know

The precursor to programmatic advertising was the banner ad. There was nothing programmatic about this banner ad but the trusty 468×60 banner gave us a template that advertisers would build on for decades.



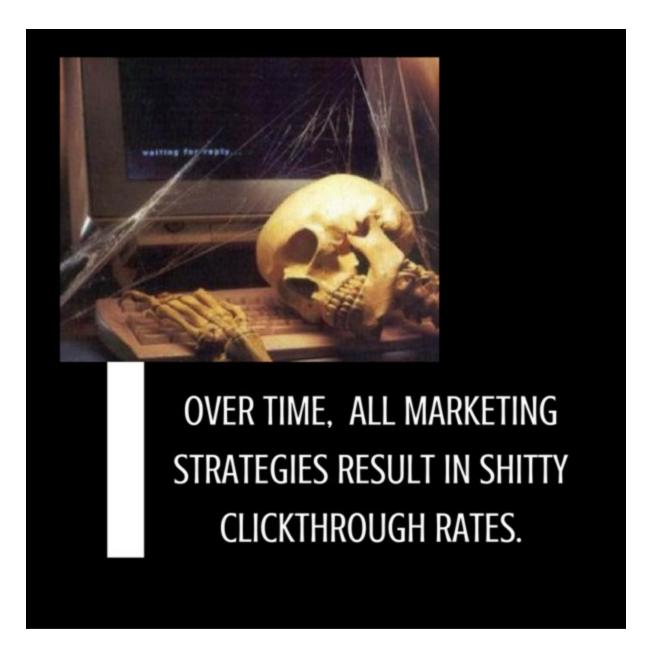
This was the world's first banner advertisement. We <u>have Hotwired.com</u> to thank or hate for it. In 1994, they signed a deal with AT&T to display this ambiguous image on their site for 3 months.

Lots of people did click their mouse right there. It achieved click-through rates between 40 - 50%, which is pretty extraordinary. I mean, just think about that for a second; half of all the people that saw that banner ad clicked on it.

Today, banner ads average an engagement of around 0.06%.

#### What happened?

There are all kinds of elegant marketing theories, but <u>the law of shitty click-throughs</u> is a personal favorite. 'All marketing strategies will eventually fail,' words you should live by. Substantiated by the entire history of marketing, not just programmatic.



Anyway, time went on, websites were created, and morning shows told us the internet was going to rot our children's brains. In other words, it was slowly legitimized and integrated with society. There was money to be made, and advertisers were eager to buy up more online real-estate.



In 1996, the first ad servers were created to meet the insatiable desire advertisers had to place banners online. <u>DoubleClick</u> was arguably the first ad server, and it continues to supply ads today.



Google purchased the company in 2007 for \$3.1 billion.

Even these ad servers couldn't quench the industry's thirst for web ads and in 1998 – 2000 we saw the very first ad networks beginning to take shape.



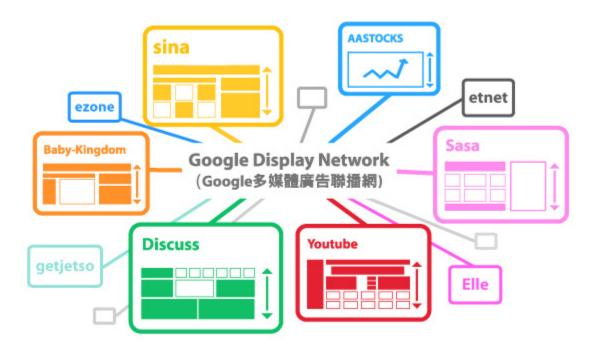
Brands could now advertise on multiple sites across entire platforms. A lot of ad servers have been released since but, 24/7 Open AdStream, Advertising.com, Value Click, and Zedo, are just some of the noteworthy ad networks that came out before 2000.



Then in 2000 Google released their prodigal AdWords. Originally launched with 350 advertisers, AdWords wasn't the beginning of programmatic advertising, because it only allows campaigns to run within the Google network.

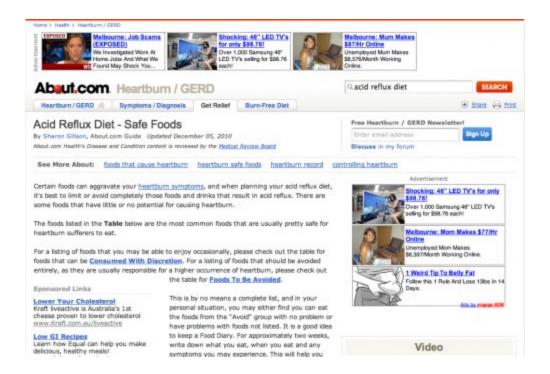
AdWords brought clarity to online advertising. 2 years after AdWords released it had CPC pricing, and the search engine had a tidying effect on the cluttered predotcom crash internet.

In 2013 Google released their display ad network called AdSense. Google's Display Network (GDN) was available through AdWords and limited to Google/DoubleClick properties. Remember I said that Google bought DoubleClick in 2008?



Targeting segments are defined by demographic data, search queries, and basic behavioral targeting. When Google crawls sites, and at the impression, the GDN software reads the text on the webpage. This is then compared to the segment data and relevant ads are served.

I don't want to give the impression that Google was the only company serving ads in this almost programmatic way.



eZula, Gator, IndustryBrains, About.com's and Sprinks were all working on similar ad networks, but Google definitely had a leg up because of the popularity of their search engine, and their acquisition of a company called Applied Semantics and DoubleClick.

AdSense, and the self-serve advertising it offered gave publishers a legitimate channel to monetize their sites, but it also funded an era of trashy spam content.



#### Computers

#### Ads by Googgoogle

#### Complete I.T. Solutions

Hardware, Software & IT Services supplied and supported in the UK www.custandgroup.co.uk

#### **Families Computers**

Check for weekly special offers on Dell PCs and home electronics. Dell.ca

#### Just Laptops

All the Laptops You Want. Find Laptop Bargains Herel Laptops TrueLocal.com

#### Computer Sales

Find the PC that Meets Your Needs - Shop Our Huge Selection & Save! www.tigerdirect.ca

Made for AdSense became synonymous with spam sites, content farms, and doorway sites that attracted an audience for the clicks.

The Panda Update, in 2011, was Google's way of fighting back.



Marketers need to know about this kind of stuff because it can affect how our sites rank on search engine.

## Real-Time Bidding and What You and I Consider Programmatic Advertising

Up until now the history of programmatic has been somewhat linear. That nice chronological series of events where one innovation leads to another is a bit of a simplification, but it's one that I can get away with. It all falls in a discombobulated heap when advertisers catch wind of programmatic and it explodes.

Between 2007 – 2010, ad exchanges like Yahoo's Right Media, Google AdEX, Microsoft AdECN, AdMeld, PubMatic, The Rubicon Project, and Open X all started

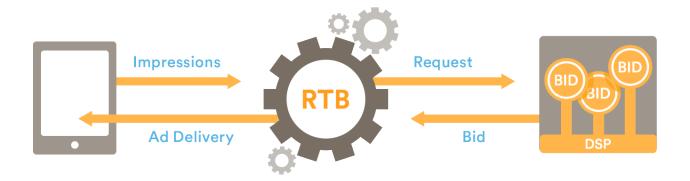
build RTB software that worked as a DSP, an SSP, an ad exchange, or some combination of the three.



Yahoo's Right Media was arguably the first RTB ad exchange. The exchange started in 2007 and enjoyed a brief moment of brilliance before frizzling out and eventually dying in 2014.



RTB platforms were coming into their own. DSPs and SSPs working together to provide access to vendor-neutral RTB ecosystems meant that advertisers were spending money targeting their core markets directly, seeing better engagement metrics, and at the end of the day making more money.



So far, I have only spoken about desktop programmatic, but since 2014 mobile programmatic has been growing faster than its desktop counterpart, and it has been worth more since 2015.

US Programmatic Digital Display Ad Spending, by Device, 2013-2016 billions, % change and % of total programmatic digital display ad spending						
	2013	2014	2015	2016		
Desktop/laptop	\$2.92	\$5.62	\$6.52	\$6.26		
—% change	-	92.9%	15.9%	-3.9%		
-% of total programmatic	68.7%	55.9%	43.8%	30.7%		

digital display ad spending				
Mobile*	\$1.33	\$4.44	\$8.36	\$14.15
—% change	-	234.3%	88.4%	69.2%
—% of total programmatic digital display ad spending	31.3%	44.1%	56.2%	69.3%

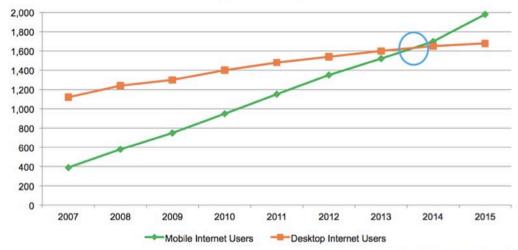
Note: digital display ads transacted via an API, including everything from publisher-erected APIs to more standardized RTB technology; \*ad spending on tablets is included Source: eMarketer, Oct 2014

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We use our phones to access the internet more than any other device. Part of programmatic's appeal is that creatives are served across devices with minimal effort.

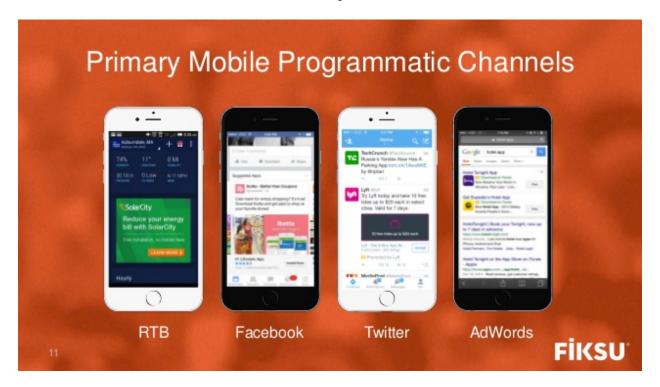
### **Mobile Web Usage Growing**

### Forward Projection: Mobile Web Browsing vs. Desktop Web Browsing (2007-2015)



Source: Mary Meeker, Morgan Stanley, "Internet Trends," April 12, 2010

In spite of mobile programmatic's popularity, it hasn't been smooth sailing. To implement programmatic the ad platform needs to segment the user. This was difficult to do on a mobile device because phones don't have cookies.

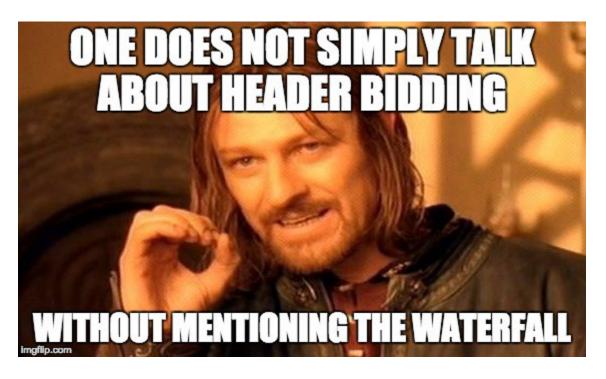


90% of the time on a phone is time spent in an application. Therein lies the solution. By tracking users with SDKs and APIs built into mobile applications, programmatic found its way onto mobile devices.

# Header Bidding the Recent History of Programmatic Advertising

People started talking about header bidding in 2014 and using it in 2015.

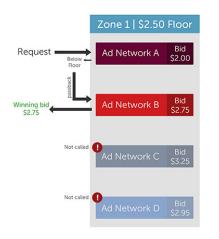
Before header bidding, the programmatic auction was decided with something called the waterfall, and one is very difficult to understand without a firm grasp of the other.

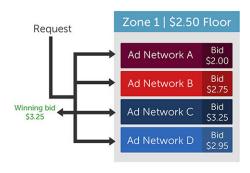


Boromir is right; it is very difficult to say anything meaningful about header bidding without discussing the waterfall that preceded it. Waterfall bidding, also called the daisy chain, showed impressions to DSPs in order of the perceived value of each channel.

It used historical data to show DSPs impressions, and you got to see it first if you have bid more in the past.

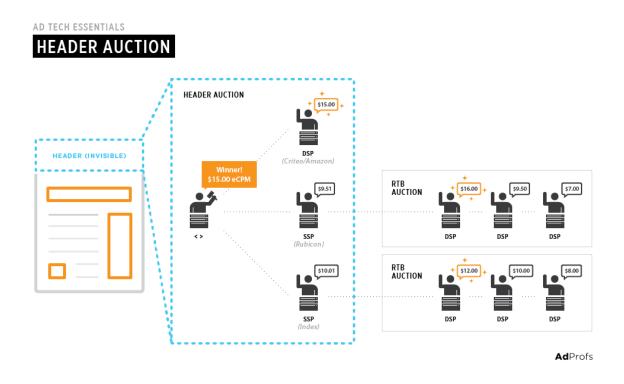
### Waterfall Auction vs. Header Auction





It didn't matter is the third or fourth DSP was willing to bid higher for that impression. With waterfall bidding, you only got to bid after the pass back. The publisher was missing out on potential revenue, advertisers were wasting their budgets and not reaching their core marketers, and the audience wasn't being

shown the most relevant advertisement.



### The Future of Programmatic Advertising

Looking at the past of programmatic marketing we can see a technology that has changed to simplify the relationship between advertiser and publisher and show ads to segmented audiences.

The programmatic trend is all about automation, and the reason we automate is to free up people power to focus on the tasks that matter. To this extent I think

programmatic will continue to automate and bravely seek out new platforms.



It won't be long before marketers are looking for realistic ways to get impressions on VR, IOTs devices, and HUDS.



Programmatic is focusing more and more on behavioral targeting and better qualifying leads. I think that alongside the rise of AI, big data, and accurate audience segmentation, we will see an explosion in the data a DSP has to bid for impressions, and the ad experience will be almost personal.

