

The bots are coming: and they are hungry for your marketing budget

Stewart Boutcher – Technology Director and Data Lead

Safe Harbour Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Beaconsoft's products remains at the sole discretion of Beaconsoft.



A top-down view of several people's hands holding champagne flutes, clinking them together in a toast. The background is a wooden floor. The text is overlaid on a semi-transparent dark grey rectangle.

Free Prosecco!!

1. Follow [@this_is_beacon](#)
2. Tweet us anything (nice!) about this event with the hashtag [#LeedsDigi19](#)
3. Optional photo!



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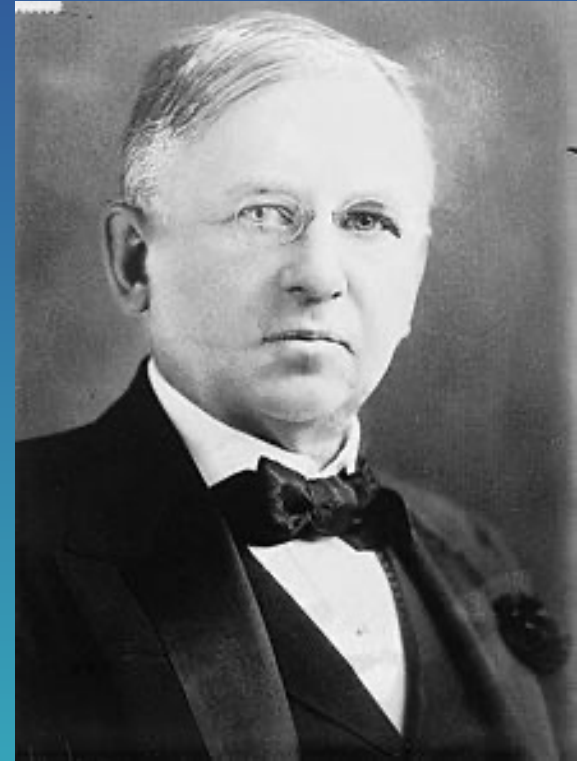
www.thisisbeacon.com

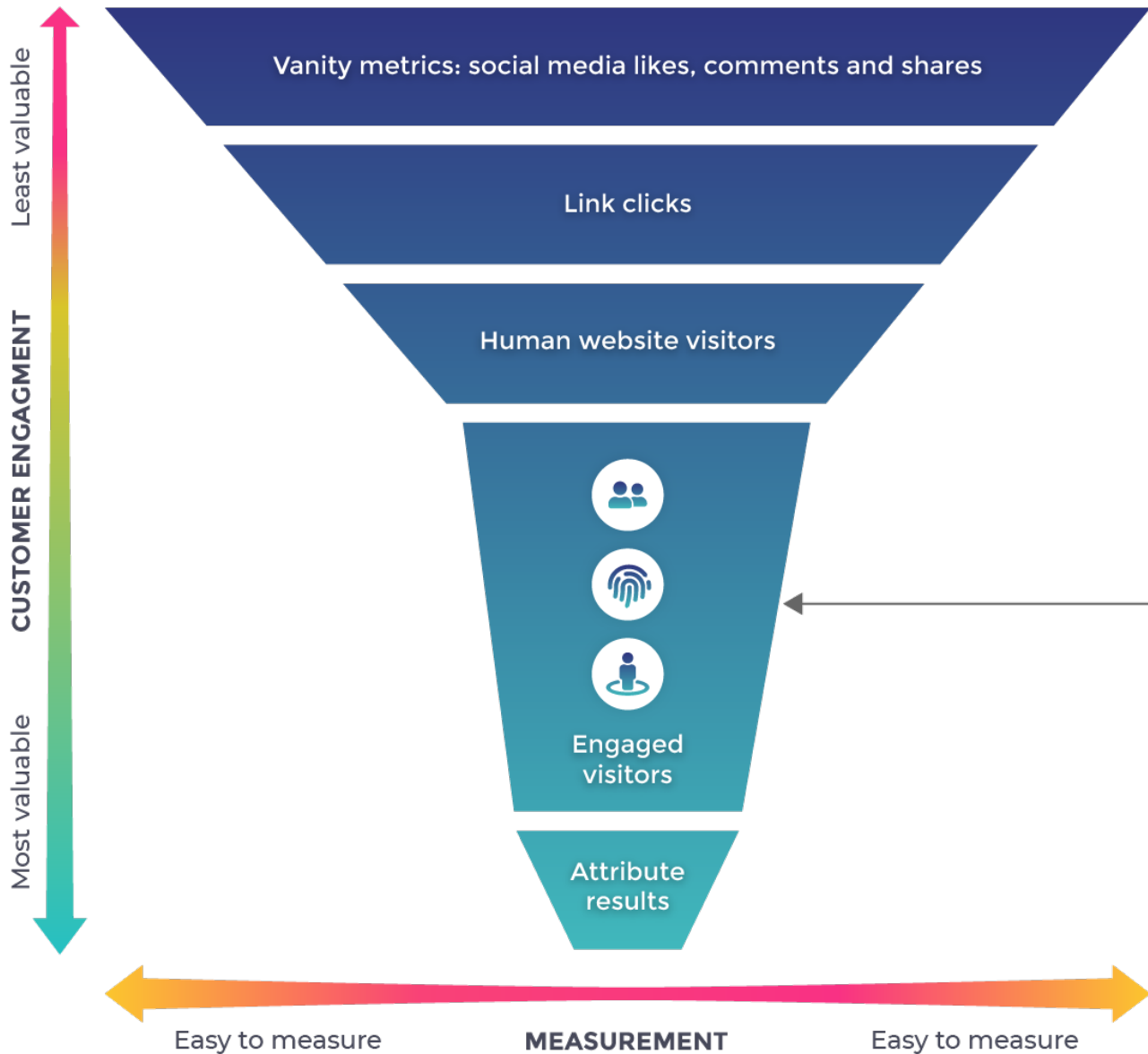
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"Half the money I spend on advertising is wasted; the trouble is I don't know which half."





Engaged visitors

Measuring the true engagement of your website visitors is incredible difficult - how do you understand visitor behaviour, the context of their visit, and the factors that result in them converting to become a customer?



Visitor journey tracking

Beacon reports on the full visitor journey, attributing where they came from and which pages they view



Multi-touch attribution

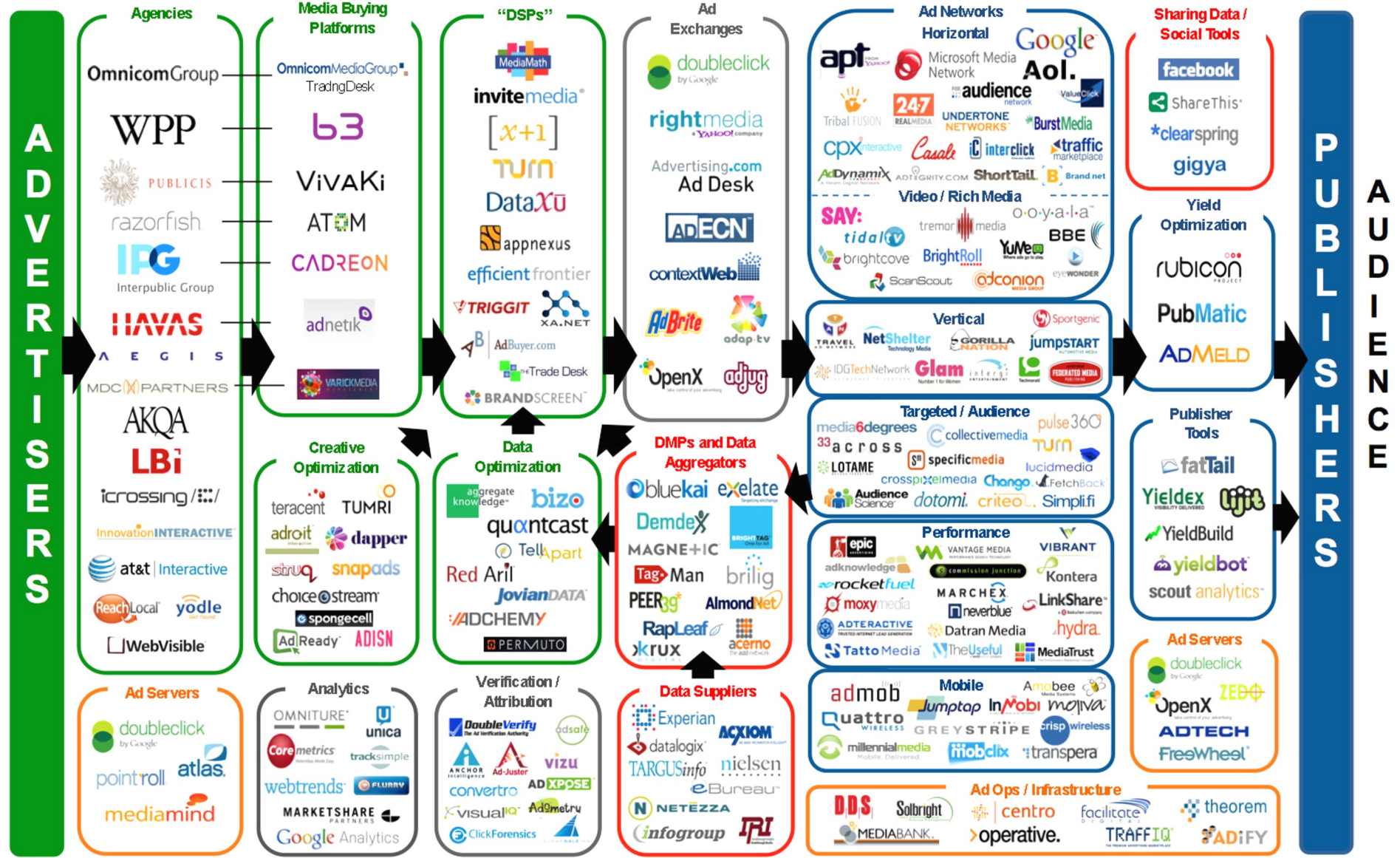
Beacon tells you if a website visitor is new or has visited before, giving you insights into your marketing performance



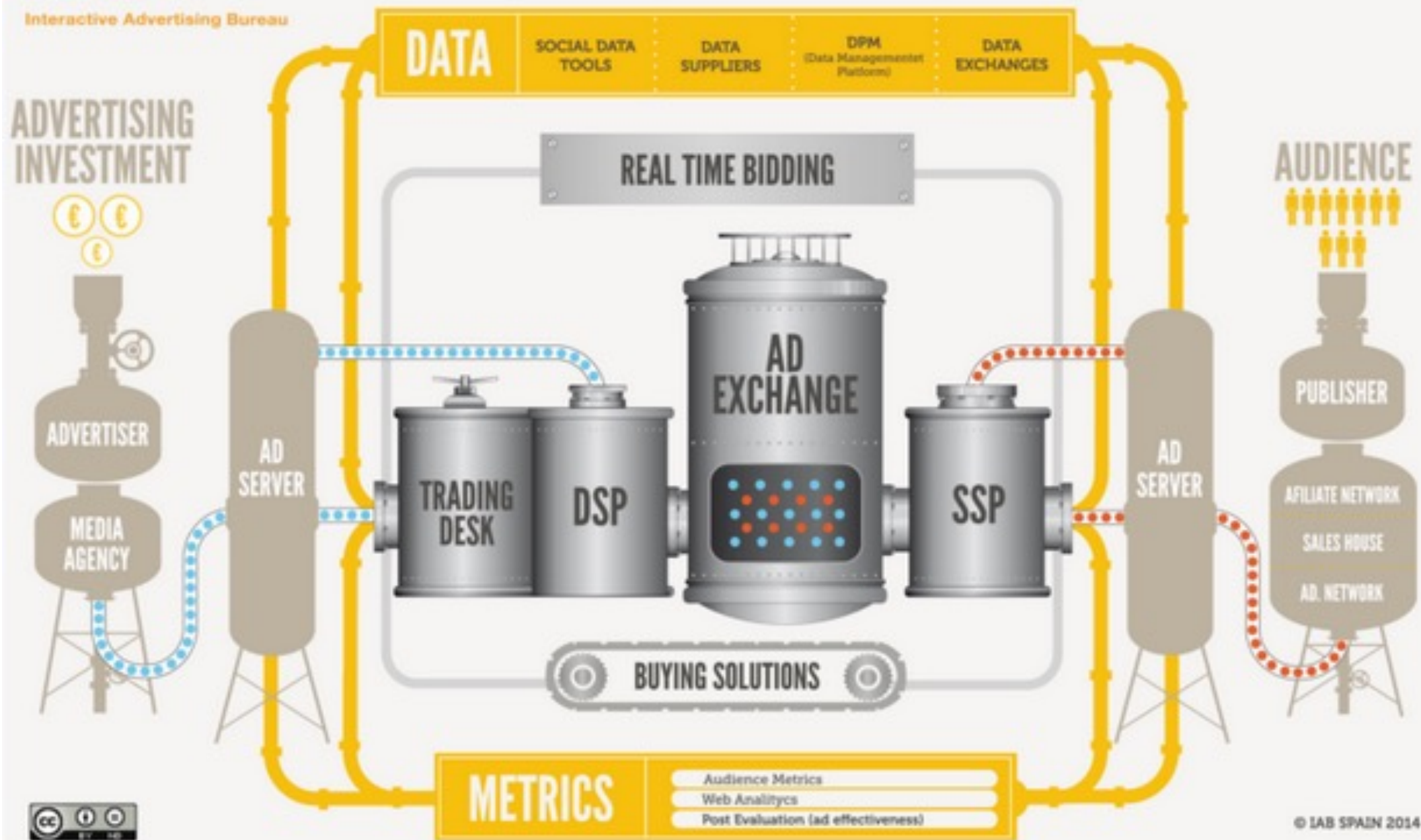
Visitor engagement score

Beacon analyses all visitor journey metrics and ranks them by their level of engagement

Display Advertising Technology Landscape



PROGRAMMATIC BUYING ECOSYSTEMS





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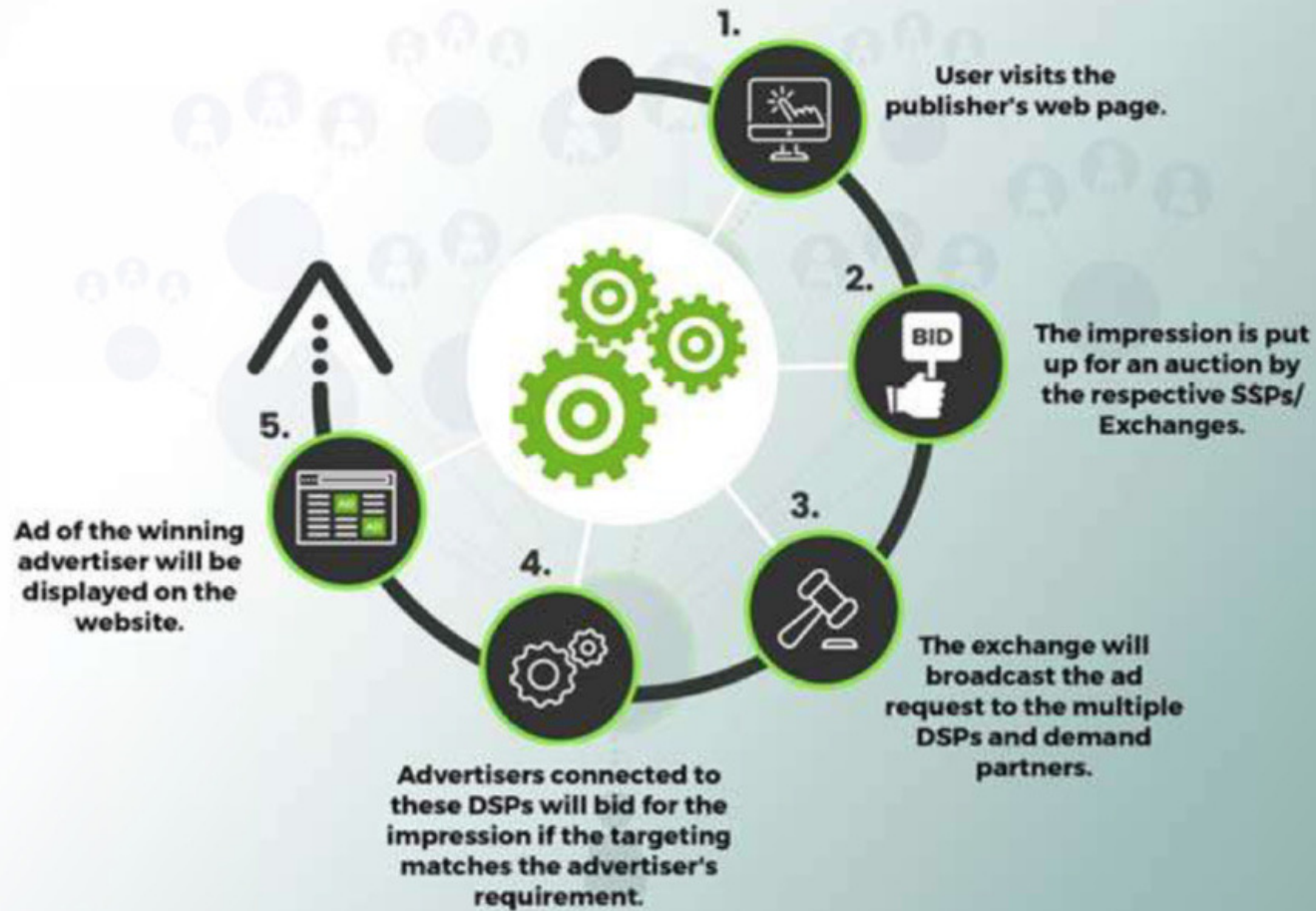
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How does Programmatic Advertising work?





Digital spend & bot fraud in 2018

Google ad revenue, 2018

\$105bn

Facebook ad revenue, 2018

\$54.9bn

\$66bn

[Estimated ad fraud in 2018 according to http://adcontrarian.blogspot.com/](http://adcontrarian.blogspot.com/)

28%

Estimated about of bot traffic on non-ad based web traffic (WSJ + Adobe)



<https://thebestvpn.com/what-does-google-know-about-you/>

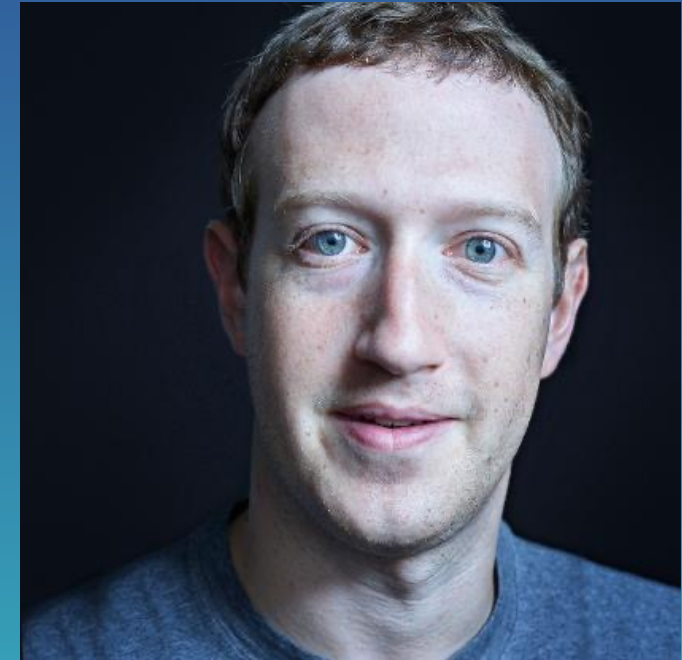
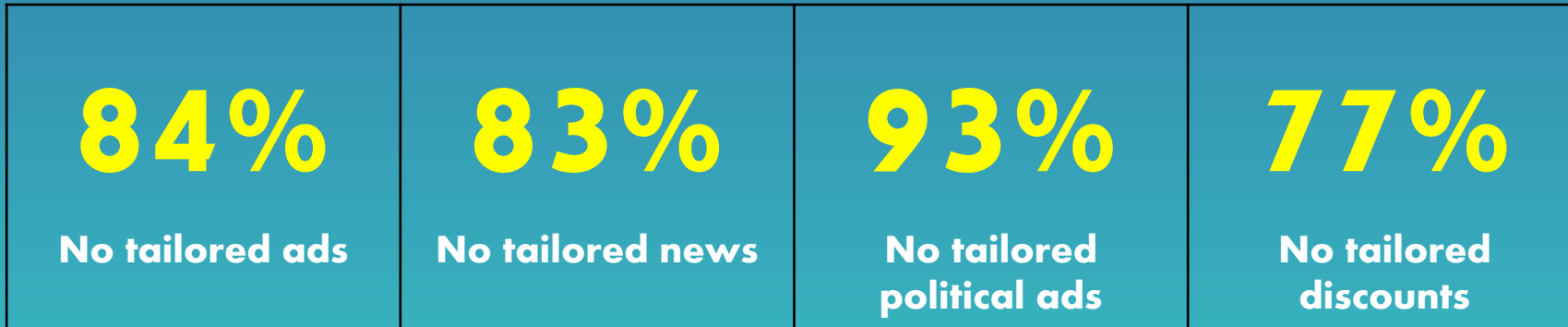
**8.4
MILLION**

The number of websites Facebook is tracking you on.

Give or take an additional 3 million.

“People consistently tell us that if they’re going to see ads, they want them to be relevant.”

Yet – a New York Times survey say people want...





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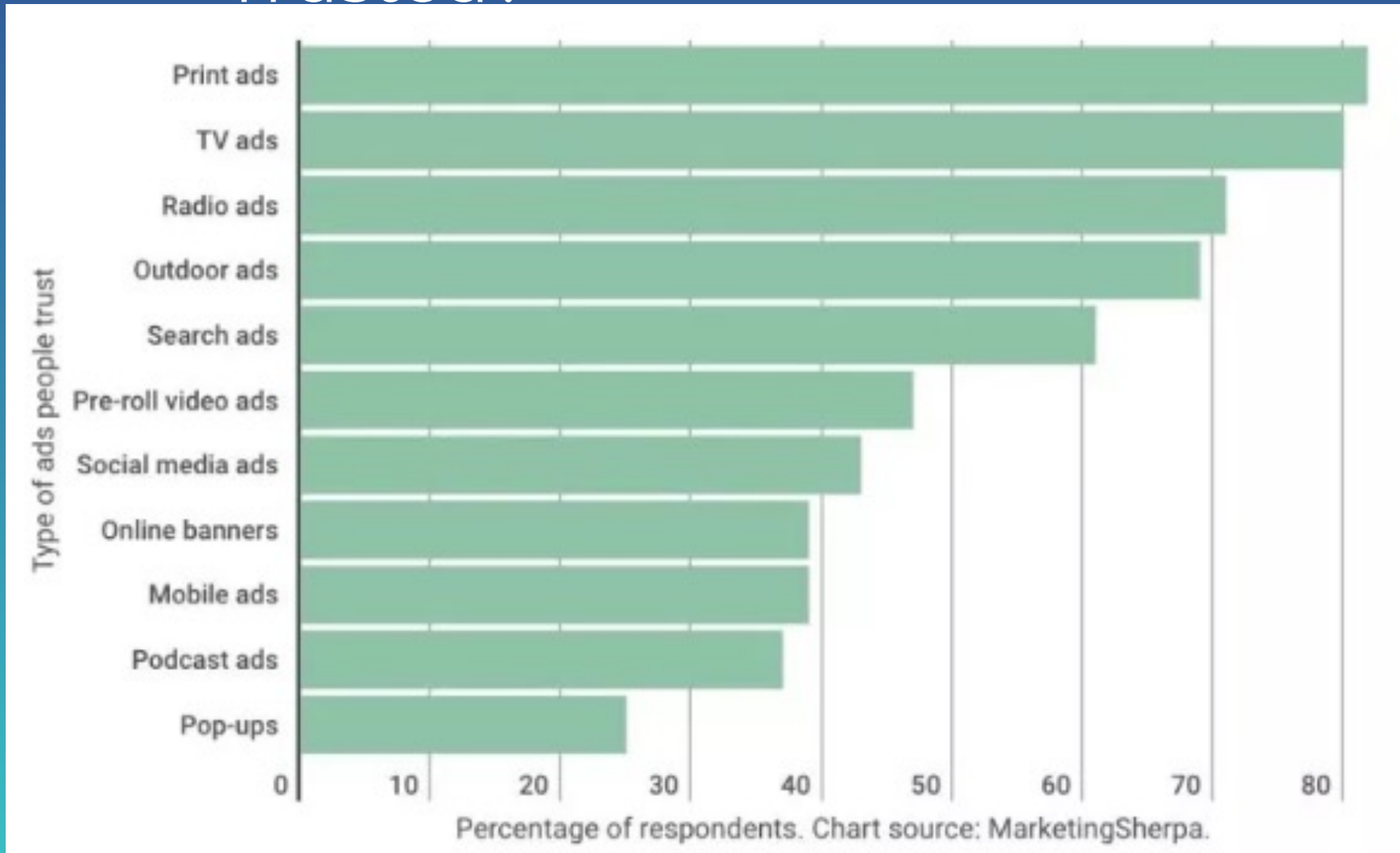
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The digital ad industry. Trusted?





You're not the customer; You're the product



“Don’t make the mistake of thinking you’re Facebook’s customer, you’re not – you’re the product. Its customers are the advertisers.”

-- Bruce Schneier



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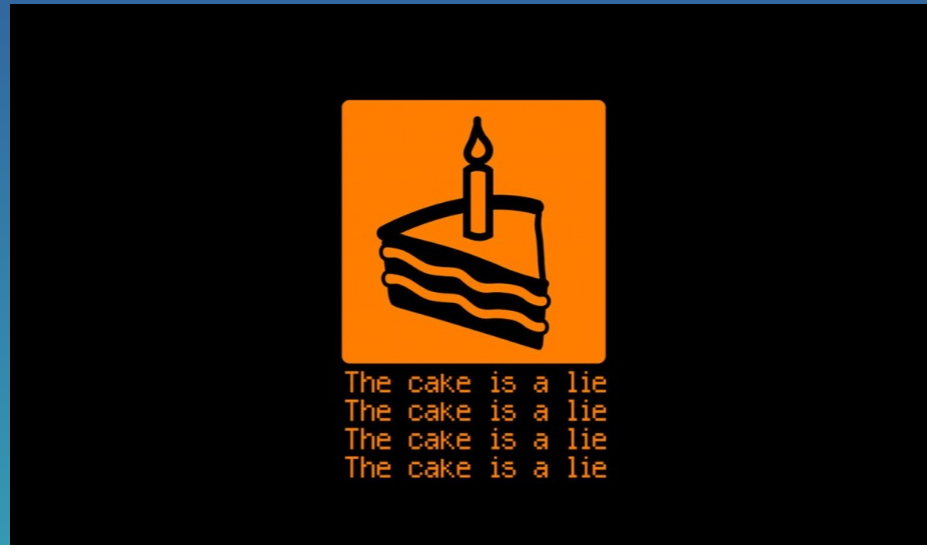
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What does this have to do with bots?



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Speaking: *Stewart Boucher*
Twitter *@eatenbyfoxes*

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A bot is an autonomous program on a network (especially the Internet) which can interact with systems or users.

Good Bots

- Search Engine Crawling
- Website Health Monitoring
- Vulnerability Scanning

Bad Bots

- DDoS
- Site Scraping
- Comment Spam
- SEO Spam
- Fraud
- Vulnerability scanning



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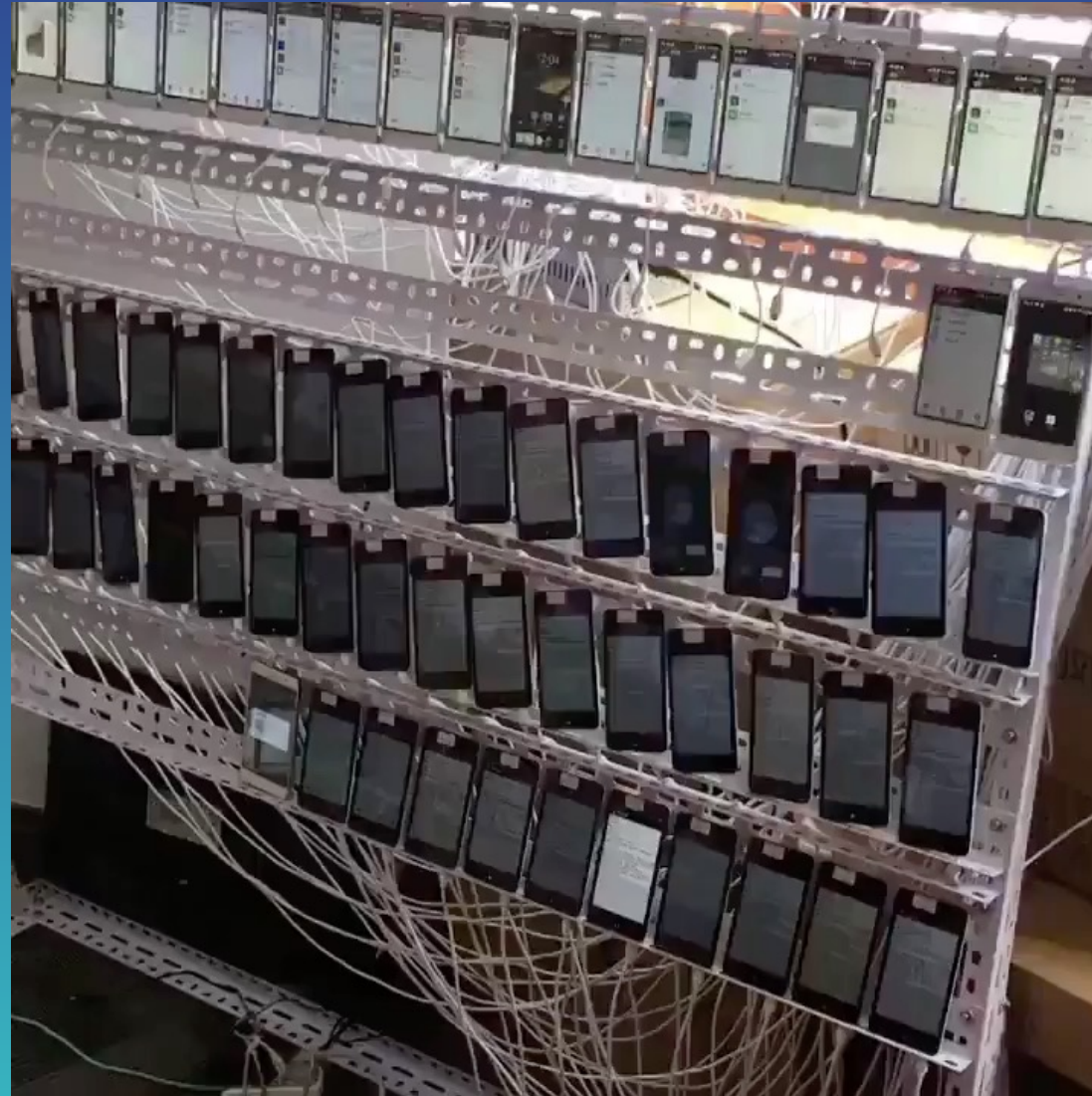
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<https://twitter.com/JamieJBartlett/status/1105151495773847552>

Bot Ad Fraud Techniques

1. Fake users, including fake clicks & click farms
2. Invisible and hidden ads
3. Fake installs
4. Impression laundering
5. Hijacking ads
6. Hijacking clicks
7. Popunders
8. Bot Traffic
9. Attribution manipulation



MALWARE 101:
WHAT IS A BOTNET?



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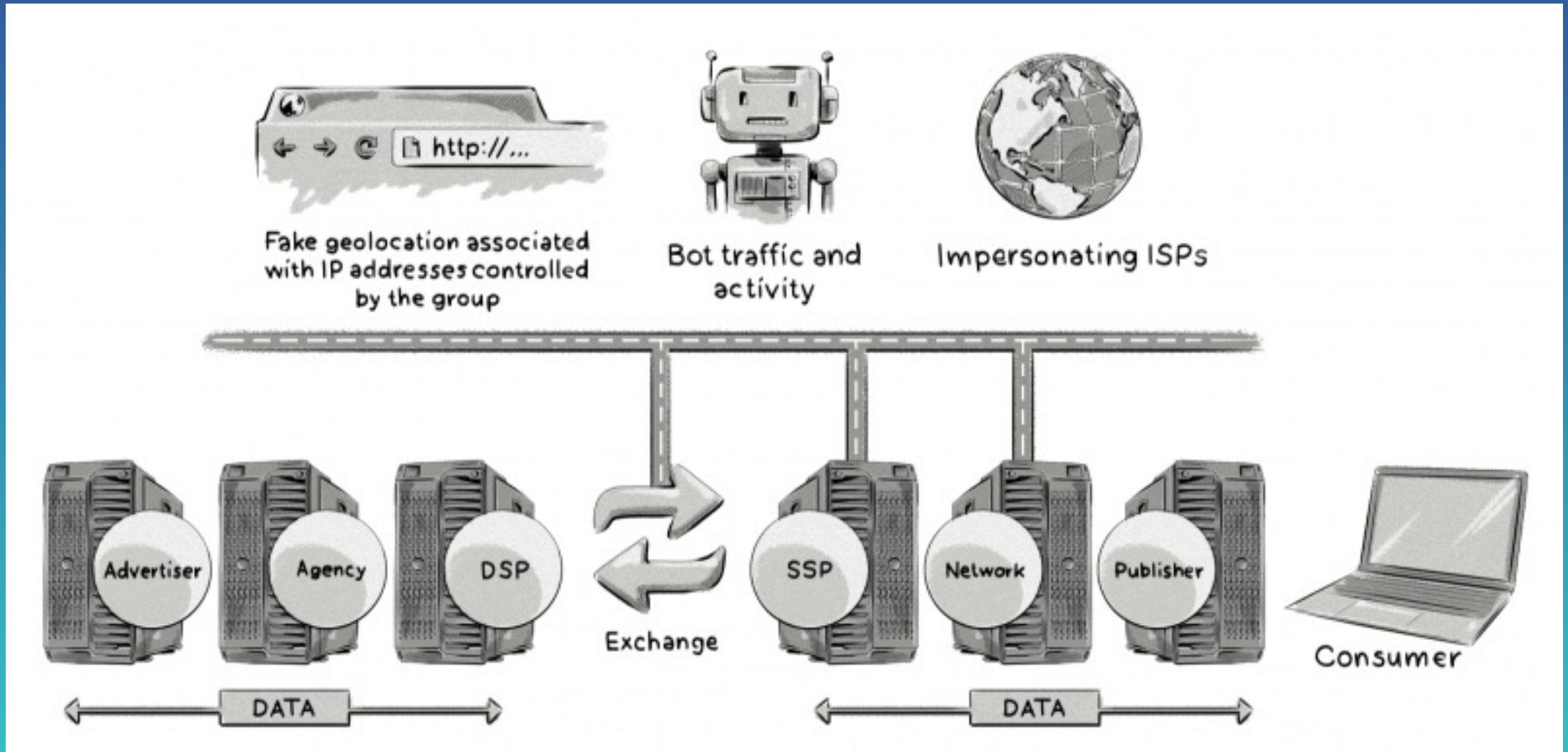
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Methbot





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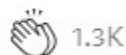
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Bot Operation	Type	Focus	Estimated Losses per day
Methbot	bot farm	Programmatic video advertising	\$3,000,000
ZeroAccess	malware	Ad fraud and bitcoin mining	\$900,000
Chameleon	malware	Ad fraud	\$200,000
Avalanche	malware	Identity theft, access control	\$39,139
Ponmocup	malware	Theft	\$27,778
Metuji and Mariposa	malware	Identity theft, access control	unknown

<https://www.whiteops.com/methbot>



6. Run the bot!

You can run up to two bots per proxy. The examples folder has many different kinds of bots you can run. Type “ls” in the Linux shell window to see all of them.



```
:-$ cd instabot/examples/
:-~/instabot/examples$ ls
get_followers_or_followings_to_file.py  messages.csv
get_hashtags_from_keywords.py          message_users.py
infinity_feedliker.py                  multi_script_CLI.py
infinity_hashtags_follower.py          photos
infinity_hashtags_liker.py             repost_best_photos_from_users.py
like_and_follow_last_user_media_likers.py  repost_photo.py
like_and_follow_media_likers.py         reset_following.py
like_and_follow_your_last_media_likers.py  save_users_followers_into_file.py
like_example.py                        save_users_following_into_file.py
like_hashtags_from_file.py              ultimate
like_hashtags.py                        ultimate_schedule
like_medias_by_location.py              unarchive_your_medias.py
like_timeline_feed.py                  unfollow_everyone.py
like_user_followers.py                  unfollow_non_followers.py
like_user_following.py                  unlike_users.py
like_users_from_file.py                 video
like_users.py                           welcome_message.py
like_your_last_media_likers.py
```

Create a brand new Instagram account to test the bot works and does what you want first. Just paste the line below into the window(replace USERNAME, PASSWORD, and PROXY_ADDRESS to your login info and the proxy you got) and watch your little bot go :) :

**56% OF DIGITAL ADS SERVED
ARE NEVER SEEN, SAYS
GOOGLE**

AdAge

Quoted in: Wall Street Journal 25 Aug 2017



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Our experiment

“What happens if we run some paid ads on each of these channels?”

Do we get anything of use and how much of it is real?”

Google Ads

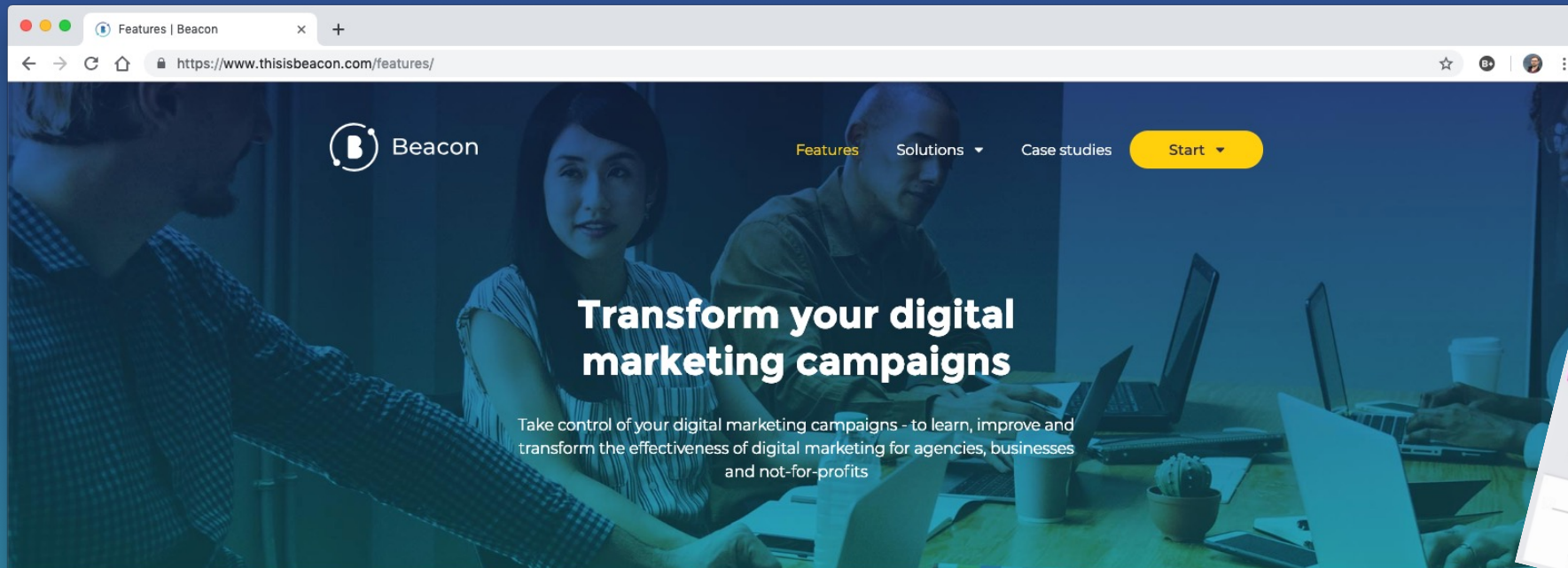
Twitter

Facebook

LinkedIn

Reddit





Campaign dashboard
 Measure all your marketing campaign website traffic from any digital channel

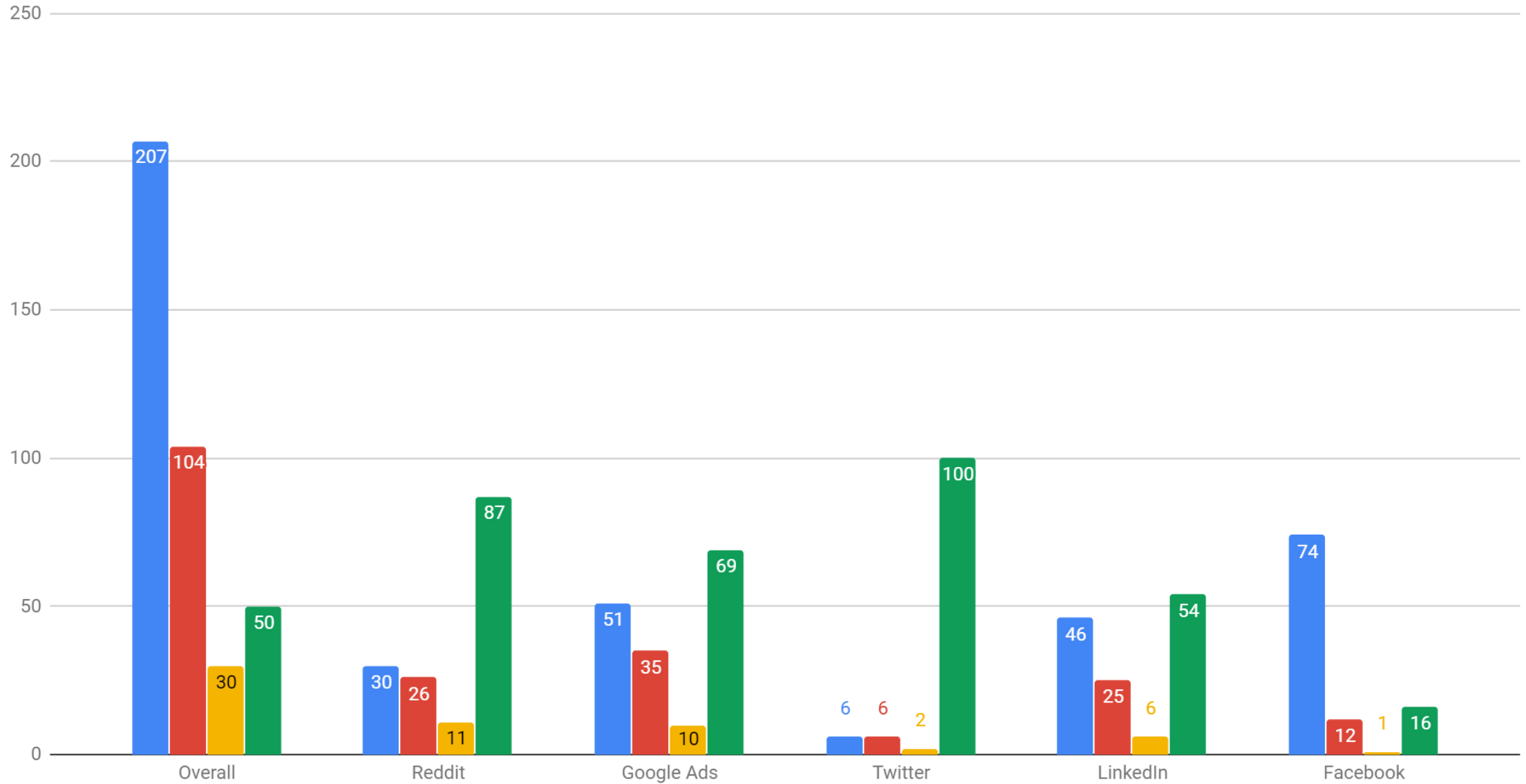
Visitor journey tracking
 Map and review all website visitor journeys; discover hidden opportunities

Bot identification
 Identify and combat bot clicks and fraudulent website traffic

How to Measure Marketing | Learn, Improve and Transform
www.thisbeacon.com/success
 Actionable information that enables you to do more of what works and less of what doesn't of your marketing campaign traffic from any digital channel & measure RO.

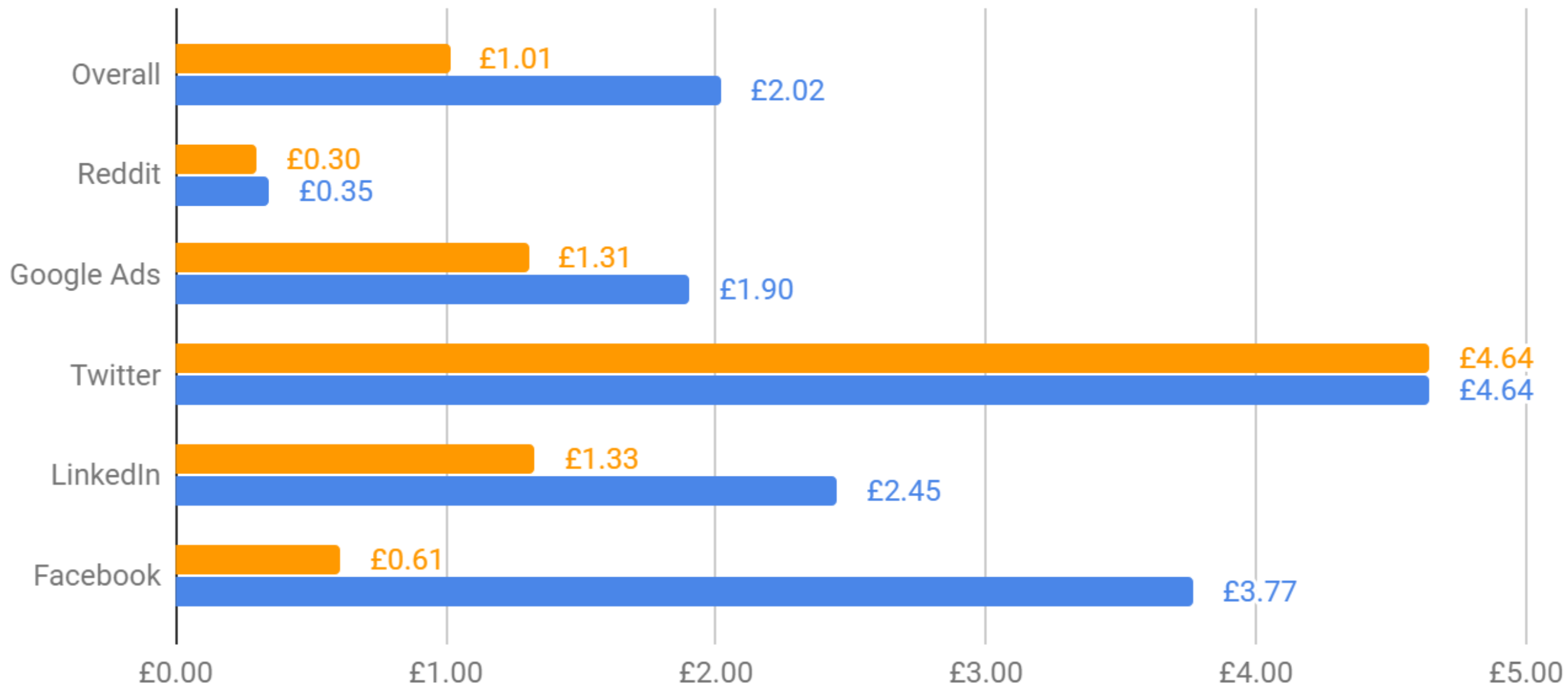
Clicks, Human Visitors & Engaged Visitors

Clicks Human Visitors Engaged Visitors % visitors to clicks



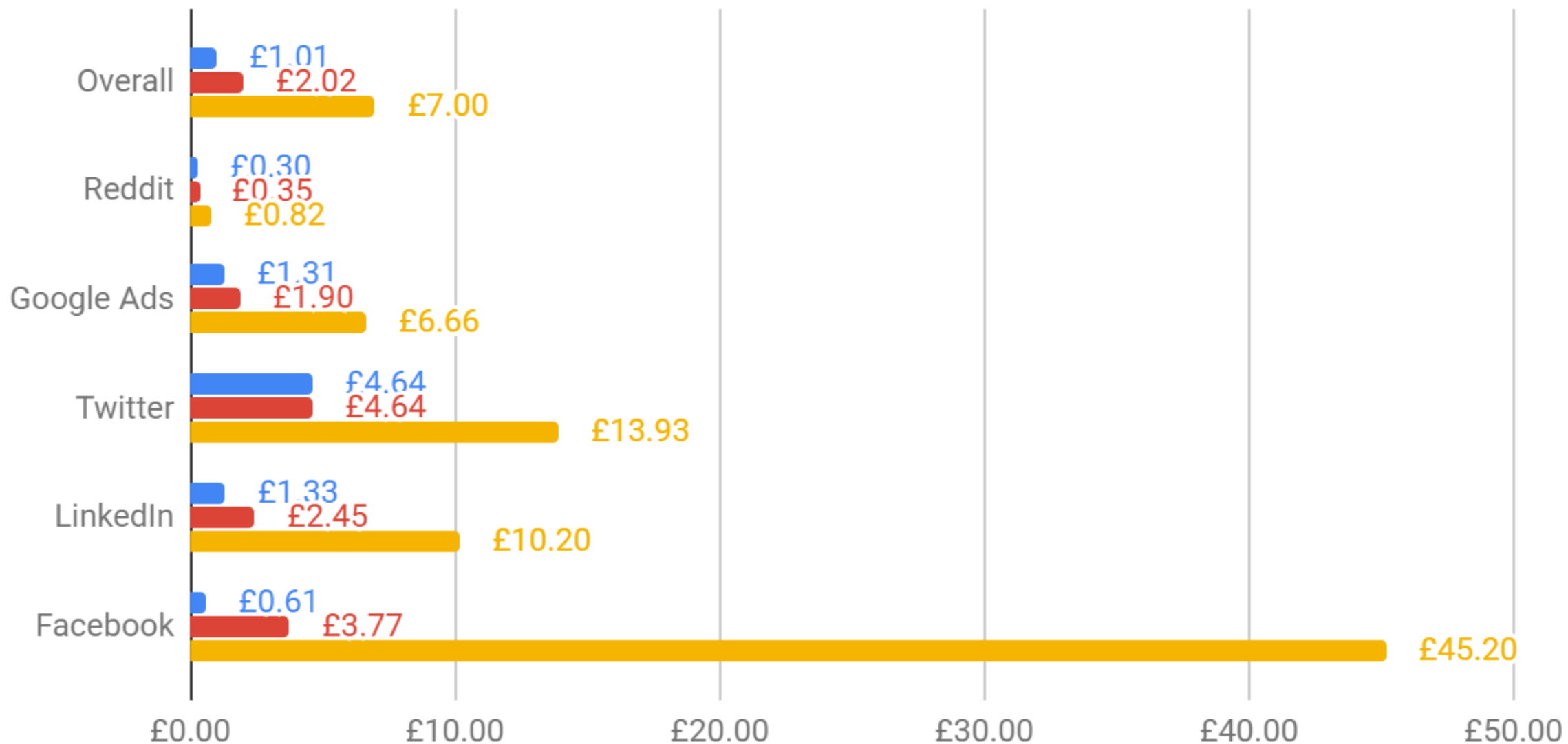
Cost per Click (CPC) vs Cost per Visit (CPV)

CPC CPV



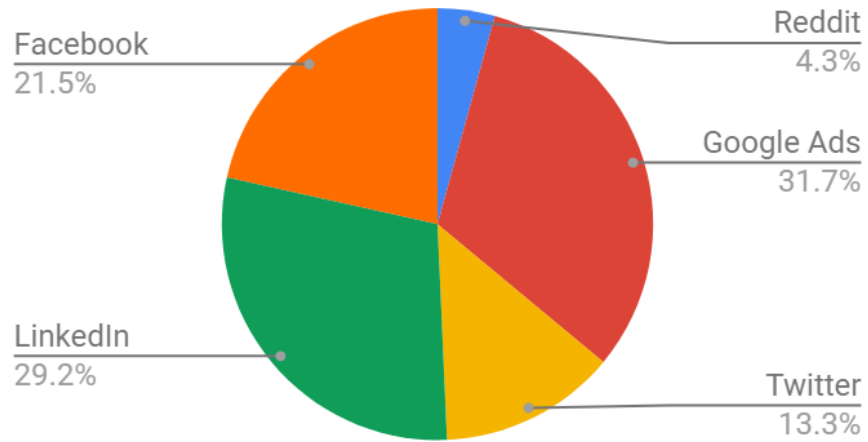
Including Cost per Engaged Visitor (CPEV)

■ CPC ■ CPV ■ CPEV

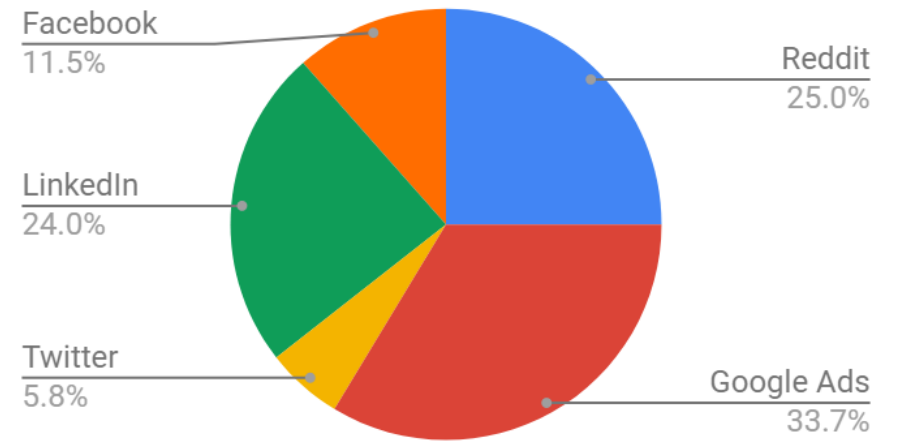




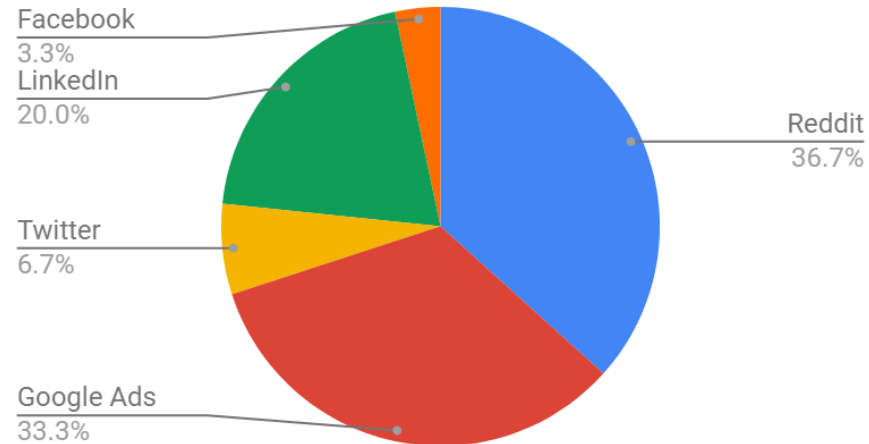
% of budget spent



% of total visitors



% of engaged visitors





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AVERAGE COST PER CLICK

£1.01

AVERAGE COST PER VISIT

£2.02

2





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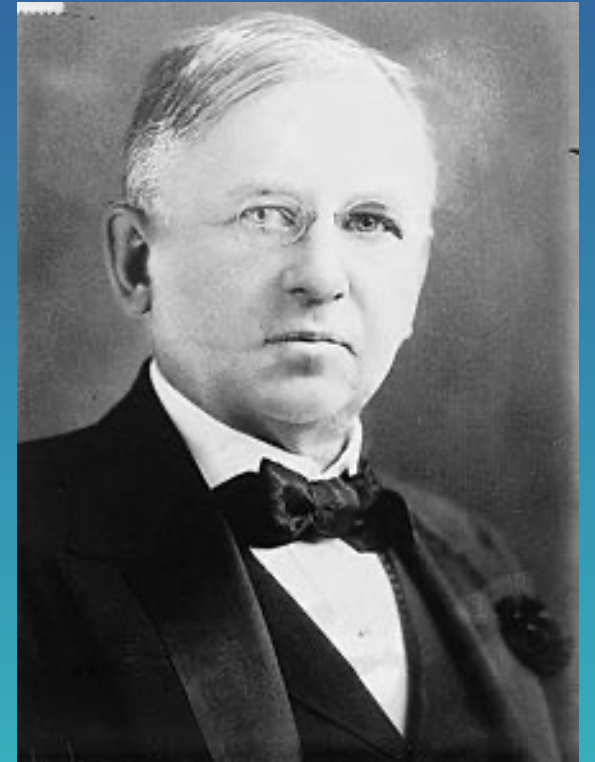
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So, what can you do about it?



“blocking on its own, without sampling bad traffic and finding the source of fraud, won’t work. A simple black-and-white binary system is too predictable and can be spoofed. Blocking systems can actually become a testing ground for fraudsters by showing them how to make their bot software invisible. It’s fairly easy for a fraudster to modify the IP address of a traffic source or manipulate when the interactions occurred to avoid suspicion.”

Forbes



The answer: continually evolving systems using AI and deep learning to detect and combat bots.



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Forbes -

1. Work With Trusted Internal And External Partners.
2. Monitor Your Campaigns Closely (Or Hire Someone Who Can).
3. Seek A Blockchain-Based Solution.
4. Know Your Metrics.
5. Employ Reverse IP Lookup.
6. Pay For Performance, Not Clicks.
7. Build A Strong Programmatic Tech Stack.
8. Increase Transparency And Data Sharing.

Beacon -

9. Use a distinct tracked URL for everything you send out. No exceptions.
10. Spend little at a time, measure, refine and do it again. Get better in stages.

March Paid Promotion

Archive Edit

☆☆☆☆ Traffic Received: Mar 14th 2019–Mar 23rd 2019 New ads for March

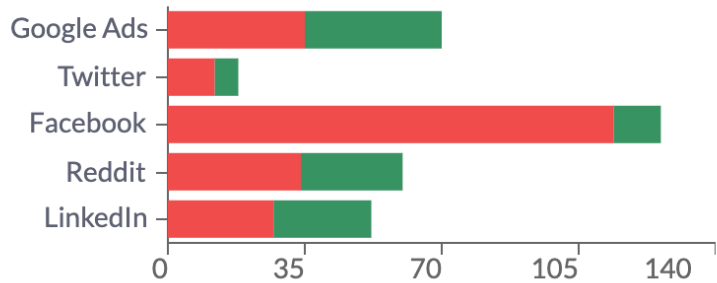
Analytics Channels Links Visits Details

Cost per Visit

£2.01

Avg. cost per human visitor £209.00 total spend

Bot Activity by Channel



Spend by Channel

- Google Ads - £66
- Twitter - £28
- Facebook - £45
- Reddit - £9
- LinkedIn - £61



Clicks by Channel

- Google Ads - 51
- Twitter - 6
- Facebook - 74
- Reddit - 30
- LinkedIn - 46



Visits by Channel

- Google Ads - 35
- Twitter - 6
- Facebook - 12
- Reddit - 26
- LinkedIn - 25



Help us make the first ever “state of ad fraud” report – from Leeds!

We ask that everyone who is attending using Beacon for a campaign in May; it doesn't matter if you are sending a bunch of emails, doing some promoted posts on Twitter, or running some PPC.

We will help you set-up and run the campaign in May and then I personally will come and talk you through the results, so that you can better understand what you are seeing so you can make improvements for the next campaign.





a lot of people never use their initiative
because no-one told them to