



**MMA**  
**IMPACT**  
**INDIA**

SHAPE THE FUTURE OF MODERN MARKETING

# GLOBAL DIGITAL AD FRAUD

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Cybersecurity and Ad Fraud Investigator

**FOU**  
**ANALYTICS**





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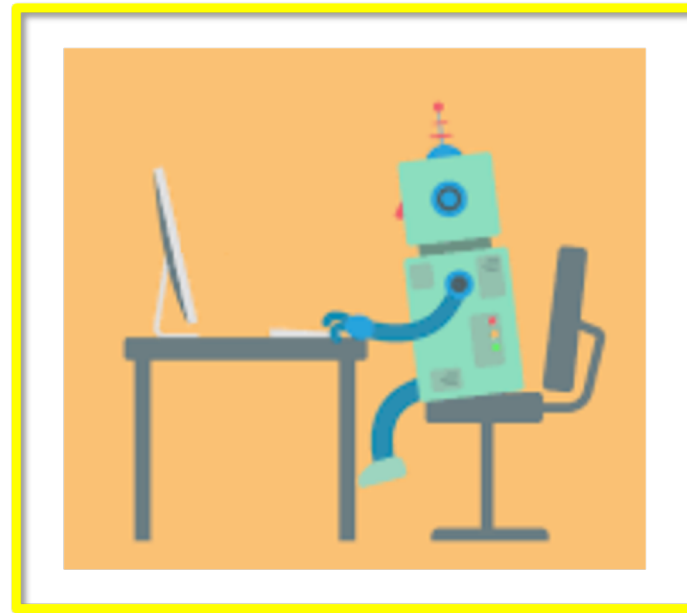
# WHAT IS AD FRAUD?





# What is digital ad fraud?

bots load webpages and  
cause ads to load – ad fraud



ad fraud



# Real billboards ... vs digital

In the physical world, there's only so many billboards you can stick by the highway.

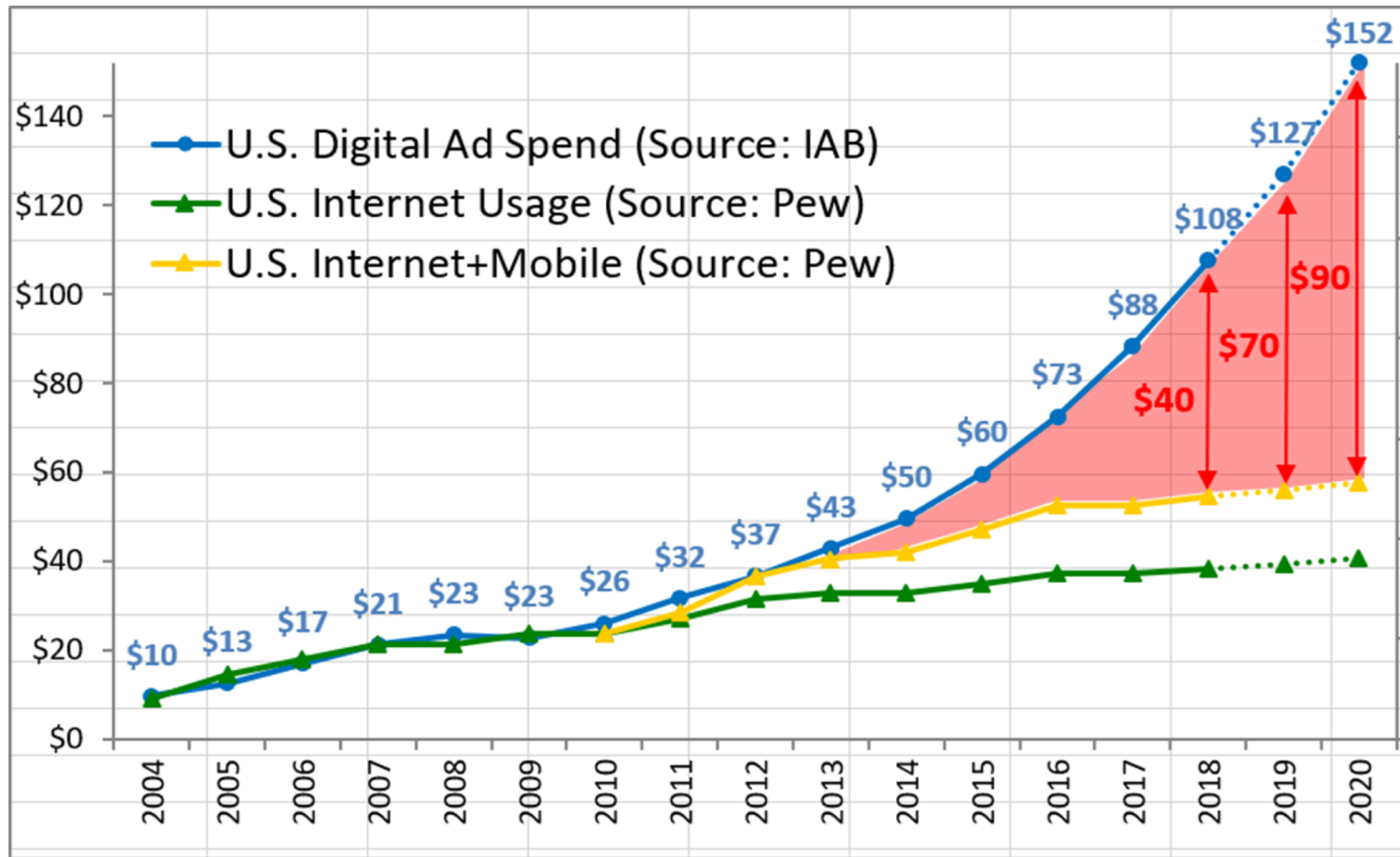


In the virtual world, unlimited sites can create unlimited ads (digital billboards)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



# Humans' usage plateaued



# Three-step process for ad fraud

1. set up  
**FAKE SITES**

A screenshot of a website with 10 numbered red boxes highlighting various ad placements and content:

- 1: BIG Commerce banner ad.
- 2: DIRECTV banner ad.
- 3: Women & Diversity Track banner ad.
- 4: Summer's Biggest Hit! ad.
- 5: Nutribullet ad.
- 6: Retargeting Rocks ad.
- 7: Surefire Messaging Strategies for Facebook ad.
- 8: Best Practices for Facebook, LinkedIn, and Twitter Ads ad.
- 9: SAVE 20% with Amazon Prime ad.
- 10: Best Practices for Increasing Earned Media ad.

2. buy  
**FAKE TRAFFIC**

See my emails with one of their sales reps:  
First I get accounts for various sources of traffic  
fraudulent traffic detection vendor, along with co

Shallin Dhar <adtechexpert@gmail.com>  
to [redacted]  
Awesome. Thanks [redacted]  
I wont be ready to run traffic until early next week.  
Can [redacted] bid landscapes for each filter?

IAS - \$0.007-0.012  
Forensiq - \$0.006-0.012  
Pixalate - \$0.004-0.012  
Double Verify - \$0.007-0.012  
MOAT - \$0.007-\$0.012

A red circle highlights the list of vendors and their rates. A red arrow points from this circle to the table on the right.

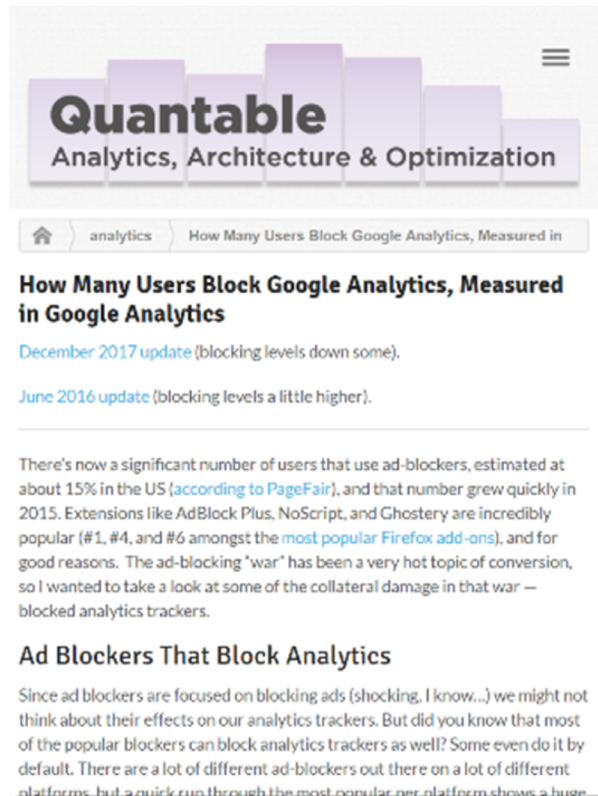
3. sell  
**FAKE ADS**

	Daily Impressions
yahoo.com	1,573,220,000
ebay.com	1,418,190,700
mail.yahoo.com	
App: [redacted]	946,783,800
App: [redacted]	898,917,300
App: [redacted]	890,426,300
App: [redacted]	815,993,800
dailymail.co.uk	604,394,900
App: [redacted]	521,436,100
diply.com	516,134,000
App: [redacted]	479,199,500
App: [redacted]	471,349,300
App: [redacted]	471,194,100
App: [redacted]	462,230,600
ebay.co.uk	457,168,400
drugreport.com	454,679,100
App: The Weather Channel: Forecast, Radar & Alerts (iOS)	447,622,700
[redacted]	395,372,400
[redacted]	380,852,000
App: [redacted]	373,749,000
thesaurus.com	348,222,600
App: [redacted]	341,057,600



# Bad guys actively evade detection

**Detection Tag Blocking** — analytics tags/fraud detection tags are accidentally blocked or maliciously stripped out



**Quantable**  
Analytics, Architecture & Optimization

analytics > How Many Users Block Google Analytics, Measured in Google Analytics

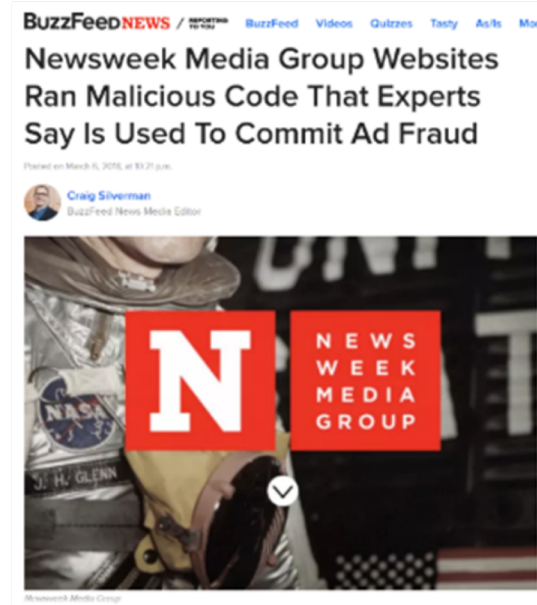
### How Many Users Block Google Analytics, Measured in Google Analytics

December 2017 update (blocking levels down some).  
June 2016 update (blocking levels a little higher).

There's now a significant number of users that use ad-blockers, estimated at about 15% in the US (according to PageFair), and that number grew quickly in 2015. Extensions like AdBlock Plus, NoScript, and Ghostery are incredibly popular (#1, #4, and #6 amongst the most popular Firefox add-ons), and for good reasons. The ad-blocking "war" has been a very hot topic of conversion, so I wanted to take a look at some of the collateral damage in that war — blocked analytics trackers.

#### Ad Blockers That Block Analytics

Since ad blockers are focused on blocking ads (shocking, I know...) we might not think about their effects on our analytics trackers. But did you know that most of the popular blockers can block analytics trackers as well? Some even do it by default. There are a lot of different ad-blockers out there on a lot of different platforms, but a quick run through the most popular per platform shows a huge



“malicious code **manipulated data** to ensure that otherwise unviewable ads showed up in measurement systems as valid impressions, which resulted in payment being made for the ad.”

Source: Buzzfeed, March 2018



# Numerous traffic sellers/resellers

Choose Your "Traffic Quality Level"

buy real human traffic

All Shopping Images Videos News More Settings Tools

About 161,000,000 results (0.59 seconds)

**Real Human Traffic Services | Our Experts Will Do The Job | fiverr.com**  
[www.fiverr.com/Top/Freelancers](https://www.fiverr.com/Top/Freelancers)  
 Don't Just Dream, Do. Freelance Services For The Lean Entrepreneur. Millions of Gigs. Money-Back Guarantee. 24H Delivery. +100,000 Sellers. Professional sellers. Unbeatable value. Services: Content Marketing, Website Building, Writing & Translation, Video Editing, Graphic Design, Branding.

**Buy 50,000 Visitors For 7 USD | Targeted Countries, 100% Real**  
[www.alexamaster.net/](https://www.alexamaster.net/)  
 Discount expires soon. Available unlimited traffic. No bots, 100% real traffic. Order Online. Modern Interface. Services: Advertising, Video Promotion, SEO.  
 Buy Now · Register Free · Traffic Stats · Contact Us

**Buy Human Traffic | Buy High Quality Traffic Here**  
[www.smartyads.com/Buy\\_traffic](https://www.smartyads.com/Buy_traffic)  
 Smart targeting and detailed reports. Multi-channel advertising and Retargeting. Precise audience target. 100% Brand Safety. Program Innovation & Leadership. Tailor-Made Service. Types: Mobile Advert

**Web Traffic Packages - 100% Real Human Traffic**  
<https://ultimatewebtraffic.com/web-traffic-packages/>  
 Buy Web Traffic | Choose from 400+ Niches on 60+ Countries  
 Traffic Support 24/7 Ready Order Now!

**TARGETED 10,000 real human visitors to your website**  
<https://www.seoclerk.com/Traffic/.../TARGETED-10-000-real-human-visitors-to-your-website>  
 ★★★★★ Rating: 5 - 265 votes - \$5.00 - In stock  
 100% Real human traffic from our long-standing advertising platform. Is it possible to buy visitors from Russian Federation?

**unlimited TARGETED real human Website TRAFFIC**  
<https://www.seoclerk.com/Traffic/.../unlimited-TARGETED-real-human-visitors-to-your-website>  
 ★★★★★ Rating: 5 - 1,837 votes - \$27.00 - In stock  
 unlimited TARGETED real human Website TRAFFIC for 6 months for your traffic as real and probably buy and also buy it for ...

**WebTrafficGeeks.org: Buy Website Traffic ⇒ Targeted**  
<https://webtrafficgeeks.org/>  
 Buy Site Traffic & Highest Quality of Visitors & 130+ Niches & 40+ Countries to ... will be Best service

to me

IAS - \$0.007-0.012

Forensiq - \$0.006-0.012

Pixalate - \$0.004-0.012

Double Verify - \$0.007-0.01

MOAT - \$0.007-\$0.012

**"Valid traffic" goes for higher prices**

HitLeap

Hits remaining: 0 AdtechShawn

UPGRADE TRAFFIC QUALITY

Account My Websites Earn Traffic Buy Traffic Referrals Support

Traffic Quality levels

	Regular	High	Ultra
	10s - 20s	20s - 40s	40s - 60s
	×	✓	✓
	×	✓	✓
	×	✓	✓
	×	×	✓
	×	×	✓
	0	10,000	30,000
	3	15	30
	→	←	↔



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# HOW BIG IS AD FRAUD?



# “Largest ever” botnets every year

2016

*“Methbot, steals \$2 billion annualized; and it avoided detection for years.”*

- Targeted video ad inventory \$13 average CPM, 10X higher than display ads
- Disguised as residential bots pretended to be from residential IP addresses

Source: [Dec 2016 WhiteOps Discloses Methbot Research](#)

2017

*“Hyphbot, targeted video ad inventory avoided detection.”*

- active through at least 14 different exchanges and SSPs
- generating up to **1.5 billion requests per day**
- generated fake traffic on more than **34,000 different domains, 600k IP addresses**

Source: [Adform, Nov 2017](#)

2018

*“3ve, 3+ billion daily ad bid requests made 3ve an extremely large ad fraud operation.”*

- controlled over 1 million IPs from both residential malware infections and corporate IP spaces



Source: [WhiteOps, Nov 2018](#)

2019

- 8 apps, more than 2 billion downloads
- Ad fraud in background, click flooding, stealing info



**These Hugely Popular Android Apps Have Been Committing Ad Fraud Behind Users' Backs**

Why isn't Google immediately dropping such apps from the Play store and advising users to uninstall them? ...  
Eight apps with a total of more than 1 billion downloads in the Google Play store have been exploiting user permissions as part of an ad fraud scheme that could earn stolen millions of dollars, according to research from BuzzFeed. An app analytics and attribution company that detected the scheme and shared its findings with BuzzFeed News.  
Some of the apps featured found engaging in this behavior are owned by [Quartz Media](#), a Chinese company listed on the New York Stock Exchange that had one was accused of [Facebook ad fraud](#) for a short while. [Liquor.com](#) is a Chinese company that [Facebook](#) reportedly accused. The other apps are owned by [EduCity](#), a Chinese company now headquartered in Silicon Valley that received a significant investment from [Chirba](#) to work. The researcher also notes that one million active users per month for these apps.

Source: [Buzzfeed News](#)

2020

*“IceBucket, the Largest Ever Connected TV Bot Attack”*

*“the bot operation impersonated more than 2 million people in over 30 countries, generating 2 billion impressions, targeting high value CTV inventory (\$20-\$30 CPM)”*

- More than 1,000 different user-agents
- More than 300 different appIDs
- At least 2 million spoofed IP addresses
- About 1,700 SSAI server IPs located in 9 countries

Source: [WhiteOps, April 2020](#)



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# “Largest ever” CTV fraud cases

Jan 2020 Mar 2020

“DiCaprio” “Monarch”

Apr 2020

“IceBucket”

Sep 2020

“MultiTerra”

Dec 2020

“StreamScam”

Jan 2021

“ParrotTerra”

Mar 2021

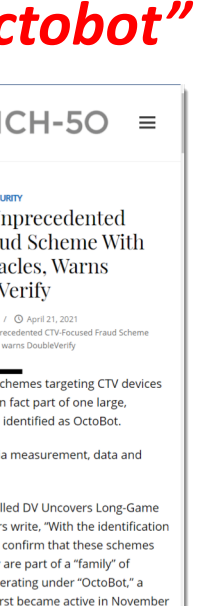
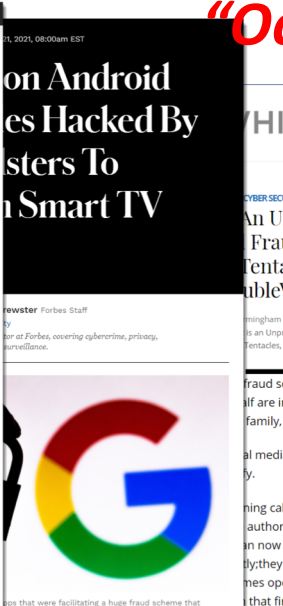
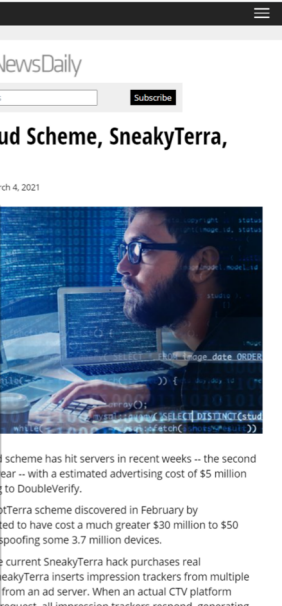
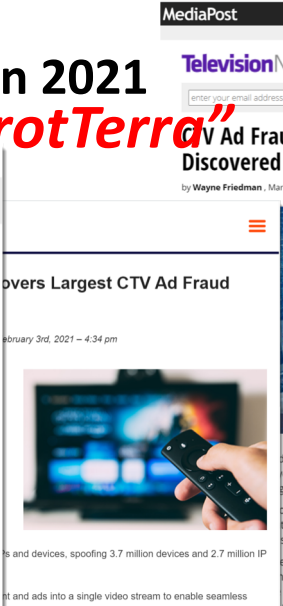
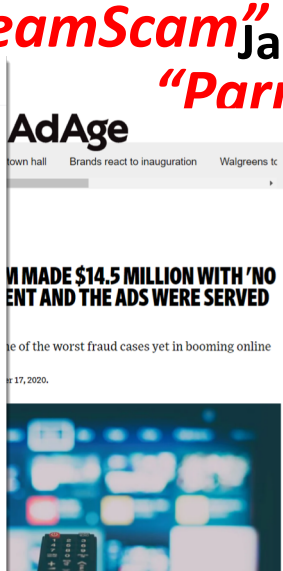
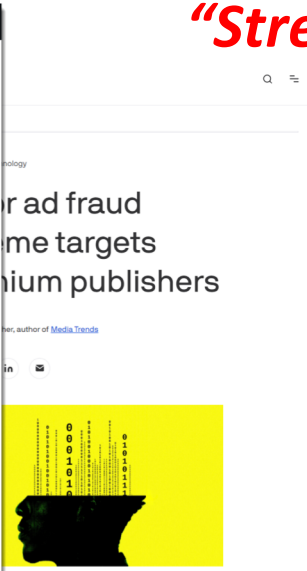
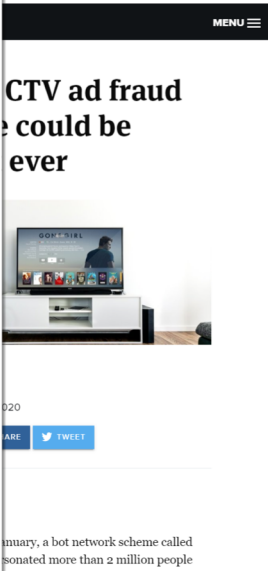
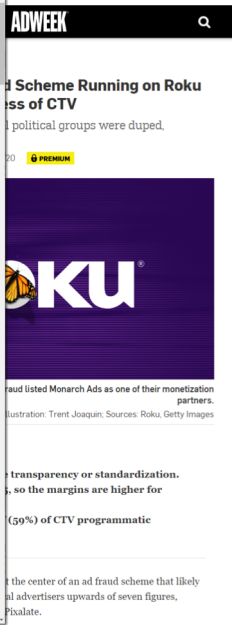
“SneakyTerra”

Apr 2021

“Pareto”

Apr 2021

“Octobot”



In the past three weeks, Grindr, the popular gay dating app, has been slammed by the Norwegian Consumer Council for exposing users' personal information, suspended from Twitter's ad network as a result of that investigation, and alleged to have been the way a Michigan hairstylist met the man who brutally murdered him.

Adding to those concerns is [new research](#) showing that the company's Android app

Marketers were led to believe their ads appeared against brand-safe content on the streaming service, such as [The Three Stooges](#), when in reality they were

In January, a bot network scheme called StreamScam targeted more than 2 million people with 9 billion ad requests — or 28% of total CTV programmatic ad requests (59% of CTV programmatic ad requests) from publishers.

The bot network scheme called MultiTerra, was stealing roughly \$1 million per month from publishers by spoofing their ad inventory.

The connected TV industry is trying to shut down what is being characterized as one of the biggest examples of ad fraud in the space; a scheme that led to \$14.5 million in missed advertising.

It was, however, the largest SSAI scheme since “StreamScam” in December, which spoofed more than 28.8 million US household IP addresses, including approximately 3,600 apps and 3,400 unique CTV device models. Oracle's Most Identified and Shut Down That Particular Scam, which cost advertisers and publishers \$14.5 million.



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# Limitless fake sites and apps

## Fake sites/apps that got through

When auditing, we see fake sites/apps that got through despite IVT tech

### Fake sites

1221e236c3f8703.com  
62b70ac32d4614b.com  
a6f845e6c37b2833148.com  
da60995df247712.com  
d869381a42af33b.com  
a1b1ea8f418ca02ad4e.com  
1de10ecf04779.com  
2c0dad36bdb9eb859f0.com  
a6be07586bc4a7.com  
fe95a992e6afb.com  
42eed1a0d9c129.com  
da6fda11b2b0ba.com  
afa9bdfa63bf7.com  
739c49a8c68917.com  
baa2e174884c9c0460e.com  
d602196786e42d.com  
153105c2f9564.com  
8761f9f83613.com  
20a840a14a0ef7d6.com  
31a5610ce3a8a2.com  
5726303d87522d05.com  
3ac901bf5793b0fccff.com  
b014381c95cb.com  
2137dc12f9d8.com

### Fake sites

06f09b1008ae993a5a.com  
fbfd396918c60838.com  
97ff623306ff4c26996.com  
b1f6fe5e3f0c3c8ba6.com  
23205523023daea6.com  
6068a17eed25.com  
b1fe8a95ae27823.com  
f4906b7c15ba.com  
eac0823ca94e3c07.com  
1f7de8569ea97f0614.com  
21c9a53484951.com  
24ad89fc2690ed9369.com  
efd3b86a5fbddda.com  
34c2f22e9503ace.com  
0926a687679d337e9d.com  
6a40194bef976cc.com  
33ae985c0ea917.com  
02aa19117f396e9.com  
f8260adb8f558d6.com  
9376ec23d50b1.com  
pushedwebnews.com  
a0675c1160de6c6.com  
0f461325bf56c3e1b9.com  
850a54dbd2398a2.com

### Fake apps

com.dxnxbgj.mkridqxviiqaogw  
com.obugnijhe.fptvznqwhmcm  
com.bpo.ksuhspsdkgvbtls  
com.rlcznwgouw.vvtextsbfttngc  
com.kasbgf.sbwzwtgpcbjxi  
com.bprlgl.vbze  
com.zka.lzhsoueil  
com.alxsvx.mizzucnlb  
com.jxknvk.lrwdfirdzpsw  
com.twwwqbt.wbshaguqy  
com.iwnxtpahcu.leyuehdwdbb  
com.okf.rhvemtykfibzpxj  
com.obpmirzste.lidsjpv  
com.zmm.shmxvjxnsagndui  
com.nqzwr.leusrmpmsq  
com.rced.zcdsglptdlwpu  
com.kerms.ehlsngc  
com.cmia.iabhhelmt  
com.skgyntmx.tyjinwpefvqtll  
com.kgdtitnuv.hayvfhub  
com.tztsiqg.dyajlxdsxws  
com.xlwuqe.ddrdhsuosbn  
com.rkrhmzee.vjcoznxu  
com.ebhz.bhzvomzpcctovj

April 2021

Page 0

## Fake Apps for loading ads

Millions of fake or cloned apps, making money via ads



April 2021

Page 1



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# Pop-unders, forced redirects



1.25  
BILLION!  
per MONTH



Source: <https://www.buzzfeed.com/craigsilverman/remember-tom>





# Ad fraud is more than just bots

bot detection sees this

↓  
1.3% +

fake traffic  
(bots)

bot detection misses all these



57%

other fraud  
(sites/apps)

severely  
under-reported

= 58%

overall fraud





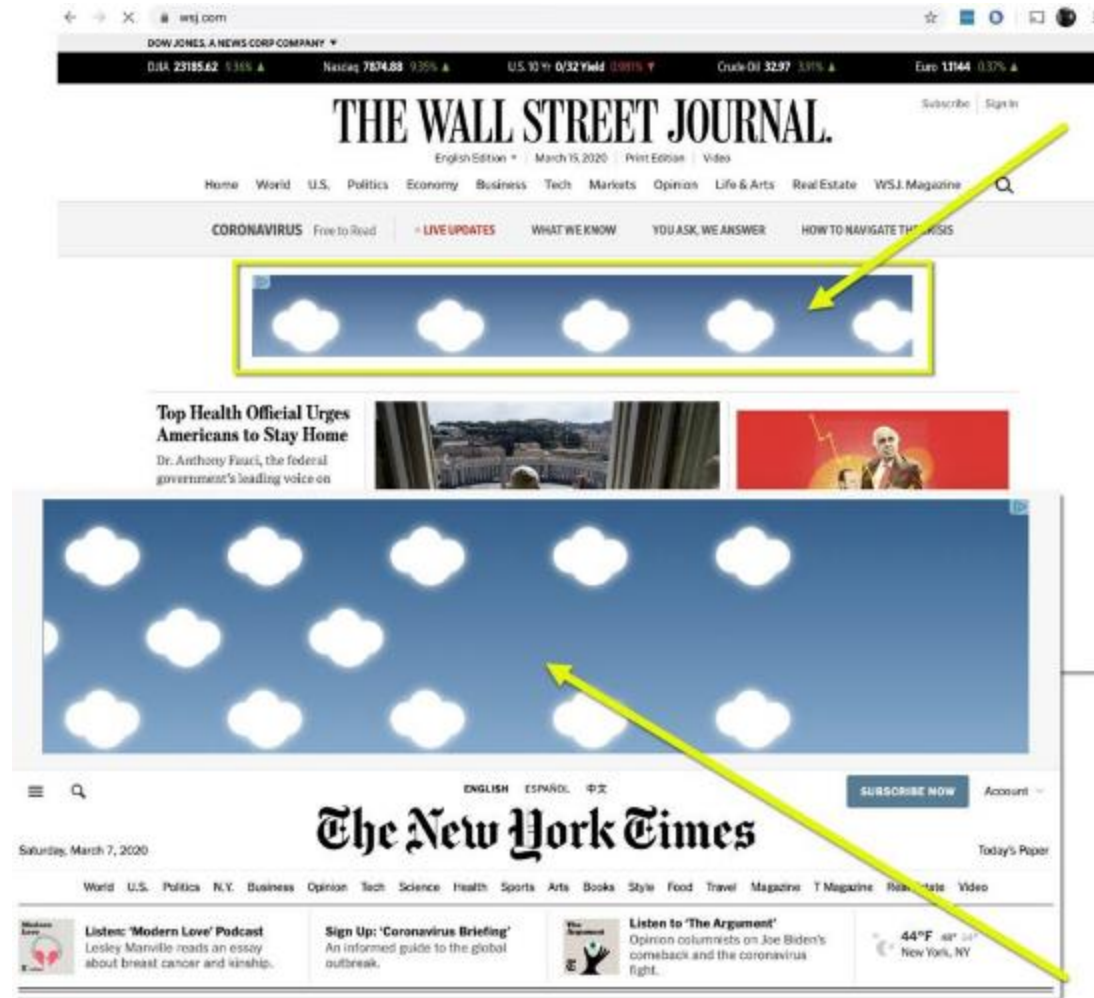
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# BRAND SAFETY CONSIDERATIONS



# Brand Safety Tech Works Poorly

poor detection technology is defunding mainstream sites



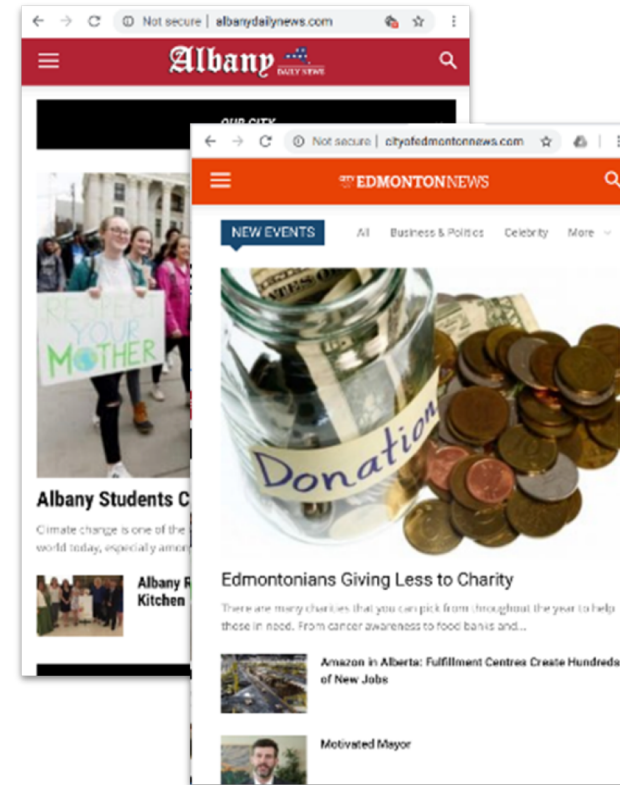
# Defunding real sites; funding fake

established sites  
marked “unsafe”

fake news / disinfo  
not caught

<input type="checkbox"/>	A domain	% percent unsafe	% percent safe
1	vice.com	51.7%	48.3%
2	hannity.com	39.2%	60.8%
3	euronews.com	34.6%	65.2%
4	washingtontimes.com	31.0%	69.0%
5	nytimes.com	30.3%	67.8%
6	townhall.com	30.3%	69.7%
7	wsj.com	30.2%	69.8%
8	cosmopolitan.com	21.5%	76.9%
9	economist.com	21.4%	78.6%
10	popularmechanics.com	19.9%	78.4%
11	esquire.com	19.6%	78.9%
<input type="checkbox"/>	theatlantic.com	19.1%	78.1%

Source: adalytics.io



<https://www.buzzfeednews.com/article/craigsilverman/fake-local-news-sites-albany-edmonton>



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# WHAT TO DO?





# Inspect analytics; common sense

... lots of clicks but not from humans

9.4% avg click rate

Website URL	CTR (%)
emedicalhealth.com	100.0%
telepresencestore.com	100.0%
surgeryloan.com	100.0%
21centuryoncology.com	100.0%
ww1.ginedis.com	100.0%
bettereducationknowledge.co	100.0%
pudmed.org	100.0%
telepresenceconference.com	100.0%
directory.wfaa.com	100.0%
texasurologycenter.com	100.0%
echorockmedia.com	100.0%
healthtestreturn.com	100.0%
15tk.com	100.0%
funcookies.com	100.0%
healthycurls.net	100.0%
bedwettingtreatments.info	100.0%
demandproductknowledge.co	100.0%
bestsearchonearth.com	100.0%
valleyroboticsurgery.com	100.0%
ads4india.net	100.0%
search.flipora.com	100.0%

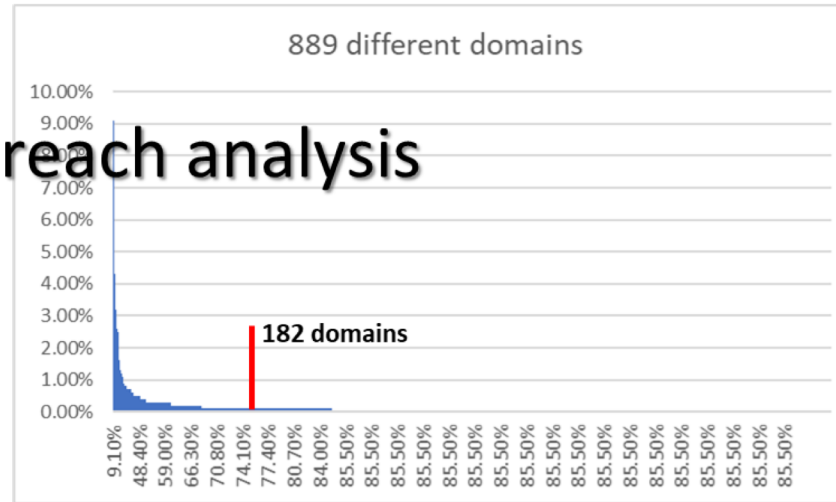
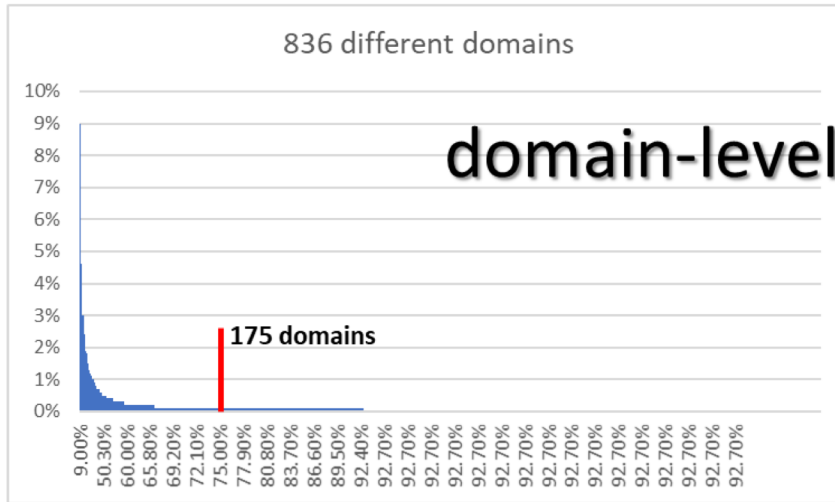
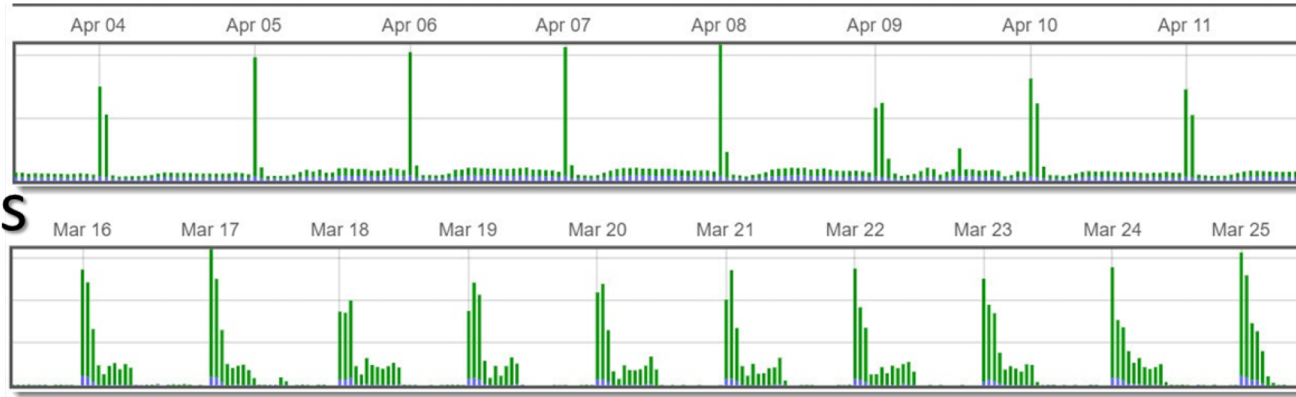
line-item details



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# As for more detailed reporting

hourly details





**THANK YOU**

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