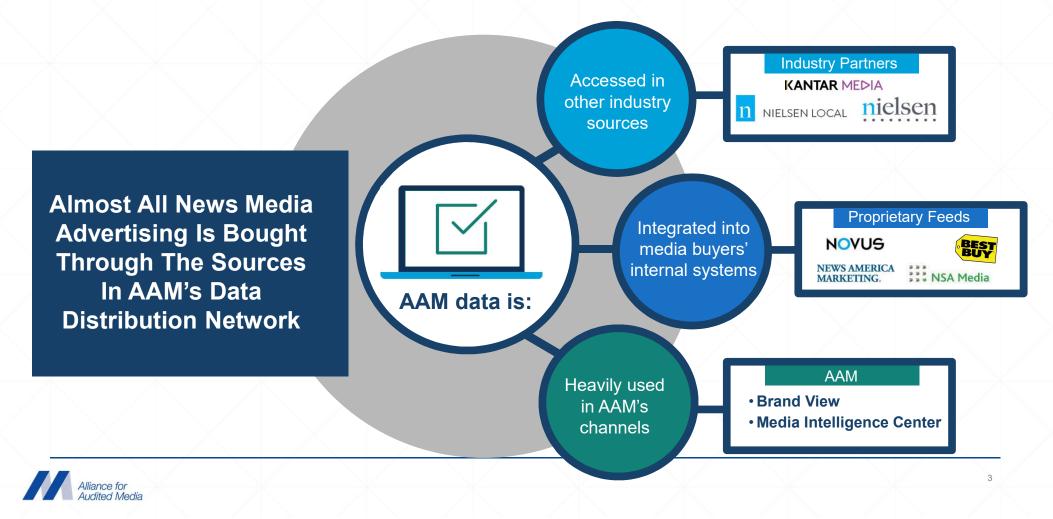


# AAM's Data Distribution Network



### Buyer Usage Is Strong In AAM's 2,981 Active MIC users Media Intelligence Center The Place For Verified Print And Digital Data **69%** From Premium Media Brands In North America Of users access at data at least monthly Increase in newspaper cross-media report downloads\*\* 20% Increase in usage since 2015\*

\*When comparing Jan-Sept 2017 to the same period in 2018



2

### These buyers are the heaviest users of your data



### Media Intelligence Center: Now and Then

					1/2					Previous Quarte	riy Data Rep 生 🖶
Quarter Q1 2015		HTRUST	port	7	Ar		wn N		s		
	Subject to Audit AUDIENCE SUMMARY										
READERSHIP	READERSHIP Print Readership: In Market			Online Readership: In Market		Net Combined Audience: In Market (unduplicated)		od)			
	Sun	Weekday	Saturday	Past 7 Days	Past 7 Days	Past 30 Days		Past 7 Days	Past 7 Days Print Past 30 Days Online		
DMA Readers	1,291,428		-	1,397,300	35,800		B DMA Audience	1,325,114	1,430,114		
Reach	51.9%	37.8%		65.1% 1.184.651	310	442		68.4% 1,206.840	70.0%		
NDM* Readers Reach	1,180,456			1,184,661	24.9%	40,59/	NDM* Audience	1,206,840	1,417,800		
Source: 2014 Release 2			opyright 2015,				- maxi	10.1.1			
CROSS-MED		RICS						l seres			
WEBSITE ACTIVITY				1	11-1-			Peri	1101		
						ue Browsers Impressions		5,000 Marc 0.000	12015		
AnytownYouthNews.or	un (web)					ue Browsers		0,900 Marc	n 2015		
								0,000			
AnytownYouthNews.co MunicipalNueva.com (					Page In	pressions					
					Uniqu	e Devices 141		5,000 Marc	h 2015		
MunicipalNueva.com ( m.ATN.com (mobile)	(web)				Uniqu			5,000 Marc 5,000	h 2015		
MunicipalNueva.com (	(web)	Aedia Metrix			Uniqu	e Devices 141			h 2015		
MunicipalNueva.com ( m.ATN.com (mobile)	(web) cs <sup>m</sup> comScore I	Aedia Metrix			Uniqu	e Devices 141					

#### BEFORE

This is a news media property that has not activated their profile



### Media Intelligence Center: Now and Then

- → C 1	🗅 🔒 b	randview.audi	tedmedia.com	/?memberN	umber=exeF	AO4ozY%3d&loginAA	MMemberNumber	=rs2FJ6xEQ30%	3d, 😭 🚺 🚟		D 🛛 🔛 🗧 :
Apps 🖊 A	AM 🕄 In	Site - Intranet	Office 365	CRM	DAX365	GoToMeetings Acc	GoToWebinar	🏷 Hubspot	Streaming		Other bookmarks
Tribu	ne Rev	view									Alliance for Audited Media
Overview	Audienc	e Print [	Distribution	Affiliate	d Publicatior	Distribution M	ap Digital	Learn More	Quarterly Reports	Reports Library	
My Output											

# TRIB TOTAL MEDIA

Trib Total Media delivers news, information and advertising to portions of Allegheny, Westmoreland, Armstrong and Butler counties in Southwestern Pennsylvania. We strive to meet the ever-changing needs of our subscribers, advertisers, and partners by delivering the news where, when, and how our readers would like to receive it. By offering a multimedia suite of products and services including daily and weekly newspapers and weekly shoppers along with websites, direct mail, digital marketing and media planning, we are the single source solution for all of your advertising needs. Visit us online at www.TribTotalMedia.com for more information.

Media Kit

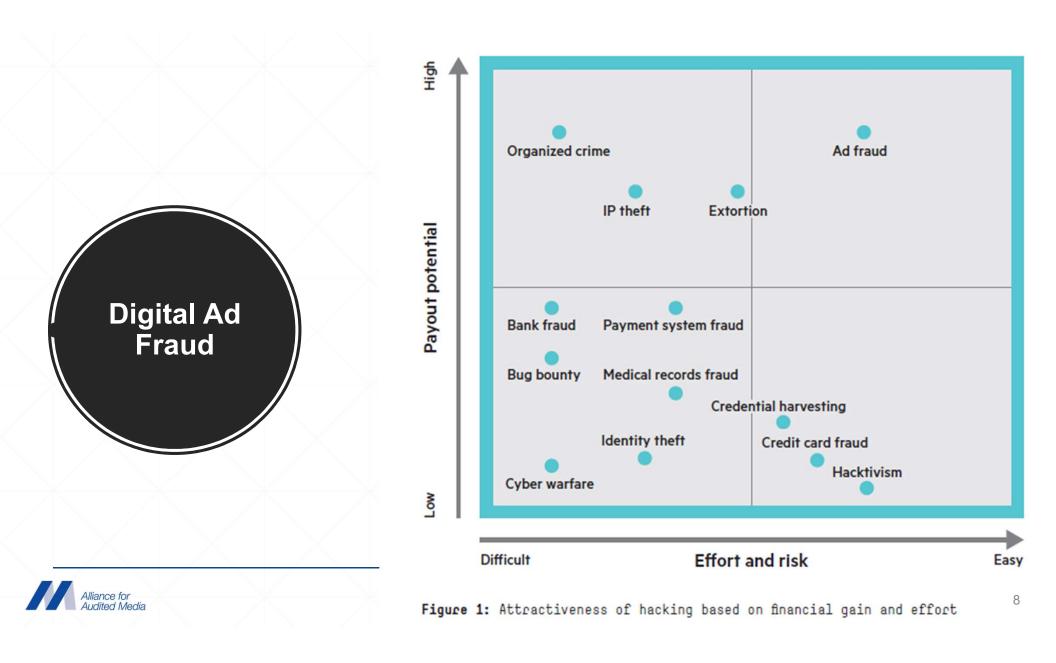


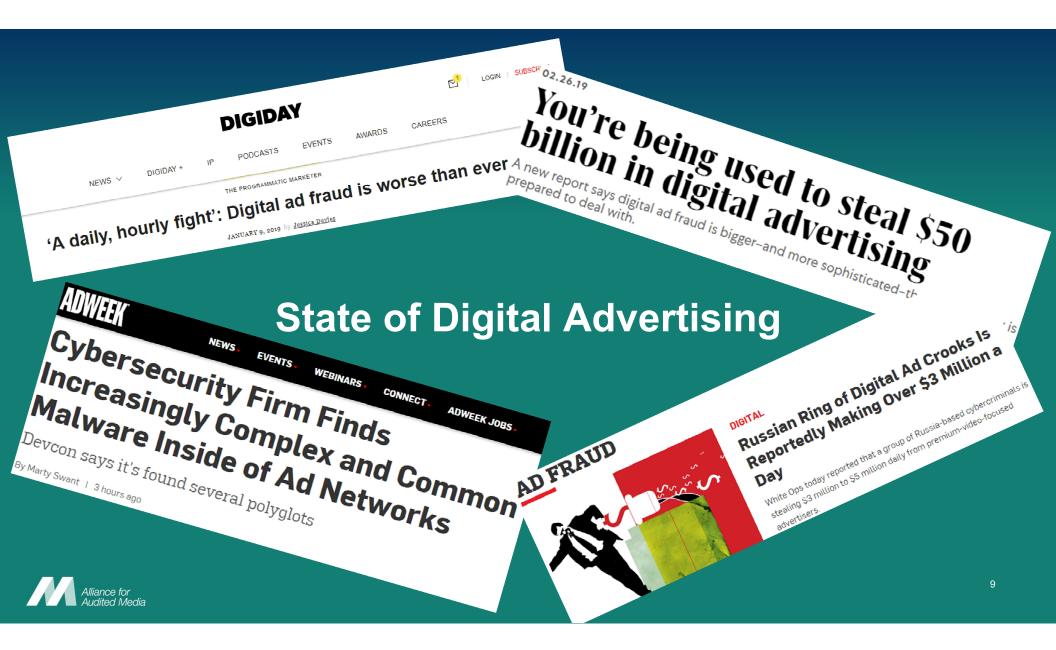






AAM does not endorse any promotional claims being made. Data may be subject to audit. There was no attempt to eliminate any duplication that may exist in gross data. 01-3990-0



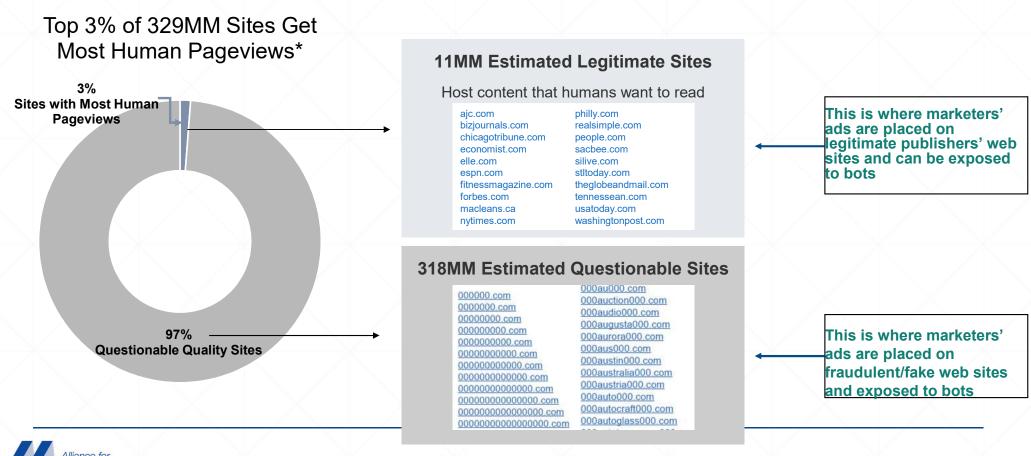


**Problem:** Marketers waste their digital ad spend, and quality publishers lose out on revenue.

### Digital ad fraud has serious consequences.

- **Marketers** pay for ads that cannot produce ROI, which limits growth opportunities.
- **Publishers** compete with fraudulent sites, which limits their investment in quality publishing.
- **Society** is harmed when ad dollars are directed to nefarious entities, which effects our democracy.





Alliance for Audited Media

\*Verisign Q4 2016 Doman Name Industry Brief, Marketing Science Consulting Group, 2017 research

# How ad fraud works ... very simply

#### 1. Start with lots of bots

2X more data center browsers than malware on PCs at home



#### 3. Sell traffic to willing buyers

"Sites that carry ads" want to buy traffic to increase ad revenues



2. Launder using tech tools

Randomize referrer to look legit, user agent, and IP address location



#### 4. Sell low cost CPMs on exchanges

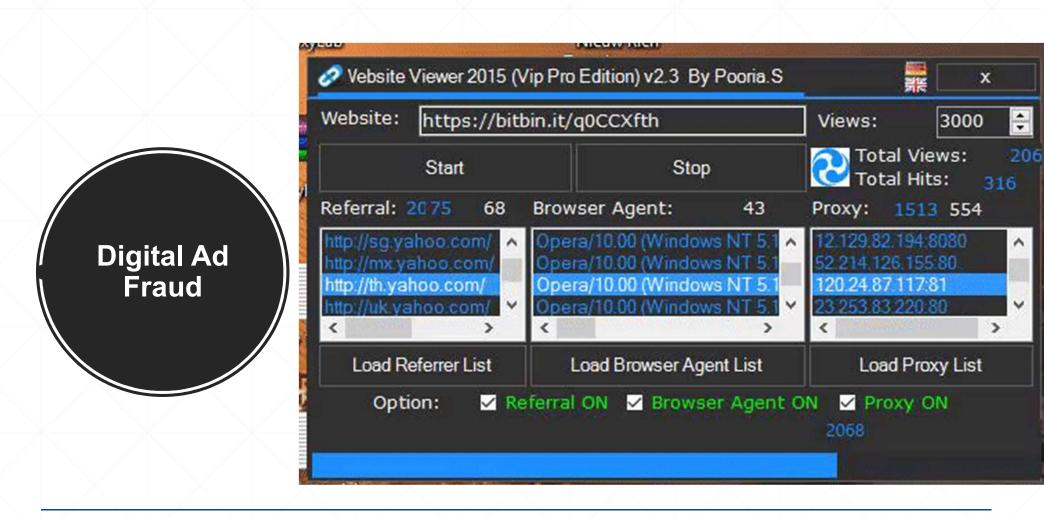
Massive quantities of low cost inventory sold to marketers, fully laundered

Website	1T	Impressions	% Total
8 .		8,571,135	100.00%
SmartRTB+		6,371,570	74.34%
ONE by AOL: Displa Admeta BidSwitch	er		want it
ONE by AOL: Video		514,481 67,907	0.79%
BrightRoll Exchange for Video from Yaho	!00	47,613	0.56%
		25,705	0.30%
PubMatic			



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# Ad fraud on such a massive scale...

BRANDS THAT APPEARED MULTIPLE TIMES ON THE MYSPACE TRENDING VIDEOS PAGE Myspace Looked Like It Was Back. Actually, It Was A Pawn In An Ad Fraud Scheme **:::**myspace NORDSTROM **Verizon** fios VICTORIA'S trendingvideos.myspace.com SECRET by verizon MySpace.com referral traffic CHASE 🗘 The percentage of referral traffic Blue to Myspace.com by referrer State Farm indeed GEICO 100% DIAMOND ( )SAMSUNG 80 AMERICAN Walmart 🔀 EXPRESS 60 PEAK ROCKET smartwater 40 LOWE'S HERSHEY'S ScreenRush HBO Now. peekyou.com /Arcade URLs 20 1 Dage en.wikipedia.org TOYOT 0 Sep 16 0ct Aua Sep IXI

marketing.science consulting group, inc.

# Ad fraud on such a massive scale...

AD INVENTORY SNAPSHOP: 2017.04.06		
Website .T	Impressions	% Total
publisherA.com	8,571,135	100.00%
SmartRTB+	6,371,570	74.34%
ONE by AOL: Display Market Place	967,144	11.28%
Admeta	551,531	6.43%
BidSwitch	514,481	6.00%
ONE by AOL: Video	67,907	0.79%
BrightRoll Exchange for Video from Yahoo!	47,613	0.56%
PubMatic	25,705	0.30%
StickyAdsTV	22,375	0.26%

**Spoofed Inventory** 

... but, PublisherA does NOT sell ads on open exchanges!

#### The FT warns advertisers after discovering high levels of domain spoofing

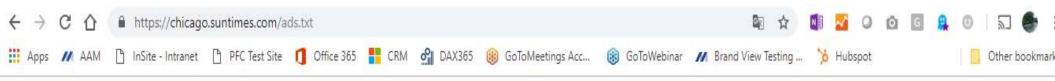


The Financial Times has investigated the scale of <u>domain</u> <u>spoofing</u> occurring against its site, and has been shocked by the results.

The publisher has found display ads against inventory masquerading as FT.com on 10 separate ad exchanges and video ads on 15 exchanges, even though the FT doesn't even sell video ads programmatically, with 300 accounts selling inventory purporting to be the FT's. The scale of the fraud uncovered is vast — the equivalent of one month's supply of bona fide FT.com video inventory was fraudulently appearing in a single day. The FT has

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#AdSupply Addroplet.com, 4770, DIRECT pubmatic.com, 51616, RESELLER, 5d62403b186f2ace #Amazon aps.amazon.com, 4062b6d1-6b16-44d6-91e2-dfdb6287ba53, DIRECT #display openx.com, 540191398, RESELLER, 6a698e2ec38604c6 #display pubmatic.com, 157150, RESELLER, 5d62403b186f2ace #display districtm.io, 100962, RESELLER #display appnexus.com, 1908, RESELLER, f5ab79cb980f11d1 #display yldbt.com, 5b522cc167f6b300b89dc6d3, RESELLER, cd184cb30abaabb5 #display coxmt.com, 2000068024302, RESELLER #display #Arkadium google.com, pub-1995032544933848, RESELLER, f08c47fec0942fa0 exponential.com, 151520, DIRECT, afac06385c445926 indexexchange.com, 184999, DIRECT rubiconproject.com, 17214, DIRECT aps.amazon.com, 661990cc-08cb-45bb-9ee2-90c2a9034640, DIRECT adtech.com, 10469, DIRECT sovrn.com, 239073, DIRECT, fafdf38b16bf6b2b appnexus.com, 7541, DIRECT openx.com, 537120530, RESELLER, 6a698e2ec38604c6 tremorhub.com, f401x-dal6y, RESELLER, 1a4e959a1b50034a #AOL Oath coxmt.com, 2000067907202, RESELLER pubmatic.com, 156078, RESELLER #banner pubmatic.com, 156377, RESELLER, 5d62403b186f2ace openx.com, 537143344, RESELLER #banner openx.com, 537126269, RESELLER, 6a698e2ec38604c6 nubmatic com 156138 DESELLED #hanner



# Anti-fraud tool Ads.txt looks vulnerable in botnet scam revelation

DoubleVerify identified an Ads.txt exploit that could have cost advertisers millions.

Robin Kurzer on February 8, 2019 at 1:20 pm

#### How it worked

- Bad actors spoofed legitimate websites
- Created bot network to inflate page views
- Opened accounts with resellers as approved resellers

Fix

- Ask that publishers be vigilant of their Ads.txt lists
- Require through contract that you only buy via direct relationship or max 'one-hop' relationship



### Meet DrainerBot, the Ad-Fraud Operation That Could Be Stealing Your Mobile Data

Oracle claims it was distributed via hundreds of apps

By Ronan Shields | February 20, 2019



Per Oracle, the DrainerBot code appears to have been distributed via infected software integrated into hundreds of popular consumer Android apps, such as Draw Clash of Clans and Solitaire: 4 Seasons, that deliver fraudulent, invisible video ads to the device. The infected apps then report back to the ad network that each video advertisement has appeared on a legitimate publisher site, but the sites are spoofed, not real.



### Word Link

#### Worzzle Games Word

E Everyone

Contains Ads · Offers in-app purchases On the second second

Add to Wishlist

Install

No.

\\_\_\_\_\_ @₿

\* \* \* \* \* 492,688 💄





#### REVIEWS



### 4 3 1

### ADDITIONAL INFORMATION

Updated February 19, 2019

**Current Version** 2.5.6

VInteractive Elements Digital Purchases

Report Flag as inappropriate **Requires Android** 4.1 and up

Size

31M

In-app Products \$0.99 - \$49.99 per item

Offered By Worzzle Games



**Content Rating** Everyone Learn More

Permissions View details

#### Developer

wordlink@boooea.com Privacy Policy Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, Cayman Islands

Alliance for Audited Media

Revi

### **Uber Sues Mobile Agency Alleging Ad Fraud**

Lawsuit also accuses Fetch Media of not returning rebates and misrepresenting effectiveness of mobile ads

#### How attribution fraud works... just a few examples

#### **Fat Finger Fraud**

TATA OOO

5:08 PM

abovethecrowd.com/v

RE

Ads that try to trick users to click on them so that the device has a recorded click

#### **Click Injection**

silently.

Malicious apps that generate clicks in the background sometimes sending users to the app store, other times in the

#### **Stacking Ads**

A user clicks on a single ad, but "underneath" it are many ads -- each for a different advertiser, many clicks sent to MMP

#### **Click Spamming**

Sending clicks for known device IDs or IP ranges to fool the attribution system (human hasn't clicked on ad).

Taking credit for installs that would have happened anyway by generating "clicks" on as many devices as possible



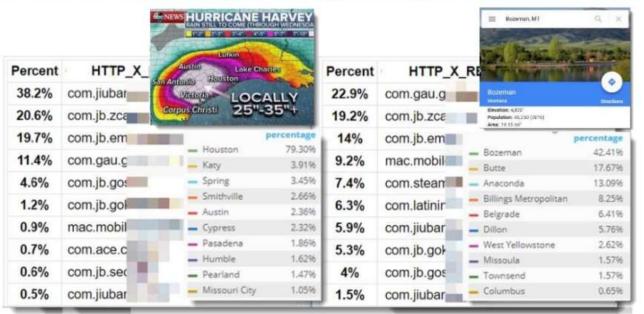
# Ad fraud on such a massive scale...

Refine Results		COUNTRY BASED	TOP GRADE WEB TRAFFIC PROVIDER - SINCE 2012	Exclusively on FIVERR	LOW BOUNCE
All Categories	(636)	USA, CANADA, JUK, AUSTRALIA, BRAZIL, GERMANY, FRANCE, ITALY, EGYPT,	200+ TARGETED BY NICHE REAL INTERESTED PEOPLE	1000 to 1200	Traffic
Web Traffic	(578)	RUSSIA, JAPAN, INDIA, SAUDI ARABIA, UAE, INDONESIA, VIETNAM, THAILAND	VISITORS	DAILY TRAFFIC	Par 30 Days
SEO	(12)	30 SEC. LONGER VISIT PURATION	for 30 days positive ratings	🎯 for 20 days 🍣	MULTIPLE KEYWORDS   SUB PAGE VISITORS
Influencer Marketing	(11)	trafficsocial3	amazesolutions	traffic_killer	smmdealer
Social Media Marketing	(11)	Level 2 Seller	Top Rated Seller	Level 2 Seller	Level 1 Seller
Other	(9)	I will bring unlimited web traffic	I will bring real visitors,	I will drive real web traffic	I will bring targeted web traffic,
Web Analytics	(3)	targeted from	targeted web traffic		visitors from usa,europe
Your Message On	(2)	🚖 5.0 (1k+)	<b>1</b> 5.0 (1k+)	🚖 <b>4.9</b> (357)	<b>* 4.9</b> (159)
E-Commerce Marketing	(2)	starting at \$5	starting at \$5	STARTING AT \$5	STARTING AT \$20
Other	(1)				
Delivery Time		USA, EUROPE, AUSTRALIA TRAFFIC	Boost Your Website 100 000+ Unique REAL Visitors	LOW BOUNCE RATE	UNLIMITED TRAFFIC
Up to 24 hours		20000	High Quality Traffic     SEO Friendly	TRAFFIC	25.000
Up to 3 days		LOWER BOUNCE RATE " SUB PAGE VISITORS	Entirely trackable     Low Bounce Rate	USA, Europe Visitors   Lower bounce rate Sub page visitors   Longer visit duration	vithin 30 Days
Up to 7 days		LONGER VISIT DURATION	Best Packages	Multiple traffic sources	✓100% ADSENSE SAFE ✓ MONEY BACK GUARANTEE
<ul> <li>Any</li> </ul>		parina124 Level 2 Seller	warhim Level 1 Seller	trafficsocial3 Level 2 Seller	traffic_killer Level 2 Seller
Price Range		I will bring real usa,uk,aus	I will drive real web traffic to	I will drive real organic	I will provide real web traffic
to \$	>	targeted web traffic	your website for 30 days	targeted web traffic	
x	<i>*</i>	<b>5.0</b> (448)	🛨 4.8 (132)	🚖 4.9 (231)	<b>± 4.9</b> (109)

I TO OT OUD TO OUTS TOT THEM MAILING

# Ad fraud on such a massive scale...

### Paid extra for geotargeting, but it's faked



#### Not Normal - in both campaigns

- 1. 100% mobile apps; 100% Android; same top 15 apps in both markets
- 2. 100% of impressions generated between 4a 5a local time
- 3. 100% fake devices; 15 unique devices generated top 95% impressions
- 4. 100% data center traffic, randomized through residential proxies

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### What does ad fraud look like?

- **3VE** (pronounced 'Eve')
  - Infected computers with malware
  - Spoofed fraudulent domains
  - Faked websites
  - \$33MM stolen from quality publishers
  - 8 charged, 3 arrested
    - Russia, Malaysia, Kazakhstan, Ukraine



Peak metrics, including ad traffic volumes and other volumes observed over the course of 3ve's investigation.





#### What does ad fraud look like?

# Sergey Ovsyannikov, 30, Kazakhstan

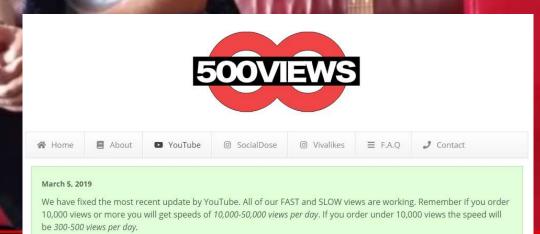
- Operated "Adzos" and "Clicklandia" as front companies
- Created "Octmedia LP" to receive ad revenue; paid \$10,000 USD/month "for technical support services"
- Avg monthly salary in Kazakhstan = \$441 USD
- After arrest, sued vendors to recapture seized assets

#### The New Hork Times

TECHNOLOGY

# The Flourishing Business of Fake YouTube Views

Plays can be bought for pennies and delivered in bulk, inflating videos' popularity and making the social media giant vulnerable to manipulation.







# Ad fraud on such a massive scale...

## Chase: 99% reach had no impact

### "99% reduction in 'reach' ... Same Results."



"JPMorgan had already decided last year to oversee its own programmatic buying operation.

Advertisements for JPMorgan Chase were appearing on about 400,000 websites a month. [But] only 12,000, or 3 percent, led to activity beyond an impression.

[Then, Chase] limited its display ads to about 5,000 websites. We haven't seen any deterioration on our performance metrics," Ms. Lemkau said."

Source: NYTimes, March 29, 2017

### (because it wasn't real, human reach)



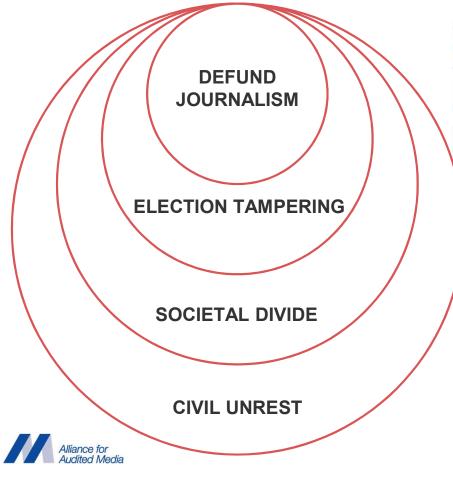
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## Where the \$19B stolen is reinvested by bad actors...



NATIONAL SECURITY

New Reports Detail Expansive Russia Disinformation Scheme Targeting U.S.

December 17, 2018 - 12:55 PM ET Heard on All Things Considered

# How Russia used social media to divide Americans

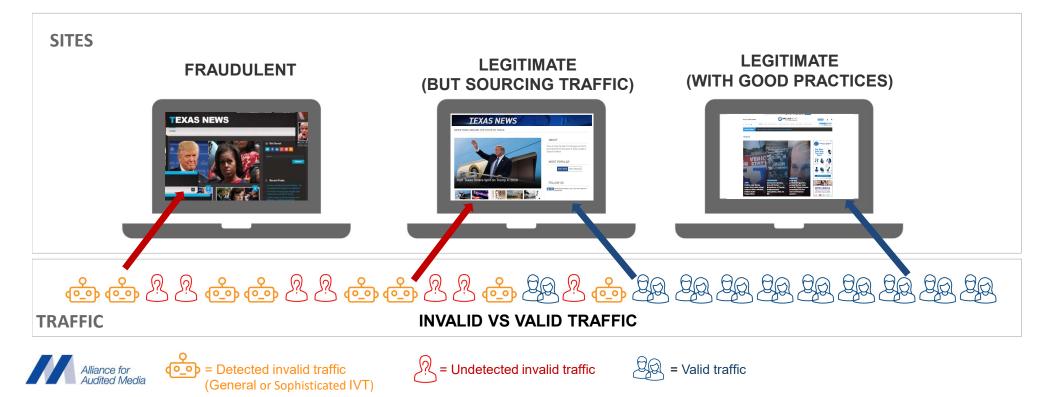
Russian trolls and bots focused on controversial topics in an effort to stoke political division on an enormous scale – and it hasn't stopped, experts say

by Tom McCarthy

# The Industry Has A Media Quality Crisis

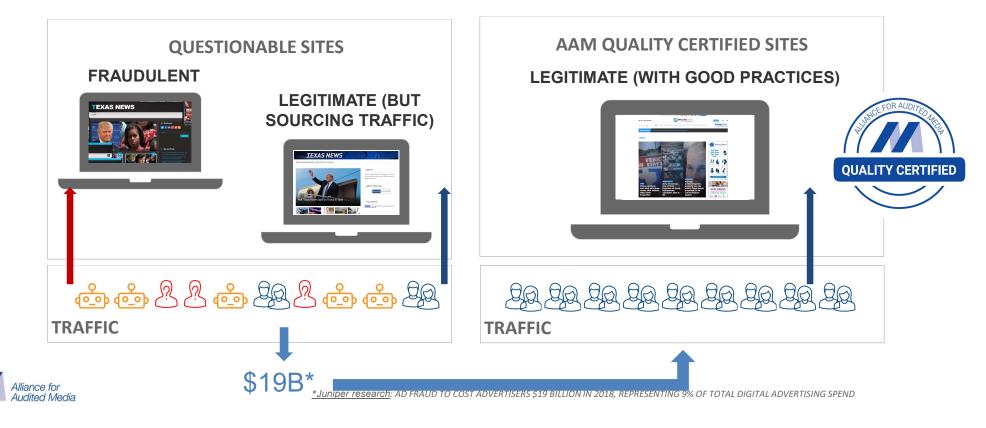
#### Billions are lost to ad fraud annually.

There is currently no way of distinguishing good publishers that make significant investments in maintaining high-quality advertising environments from bad sites that make no investments



### New Assurance Solution: Differentiate Quality Publishers with a Third-Party Audit

Publisher audits separate the universe of quality sites that invest in high-quality advertising environments from others, redirecting billions back to quality publishers



#### AAM Publisher Audits and MRC-Accredited Measurement Are Complementary



AAM Publisher Audit Pre-measurement traffic and site verification Provides upstream assurance Validates legitimate sites with human audiences Focuses on site traffic

#### **MRC-Accredited Measurement**

Measurement

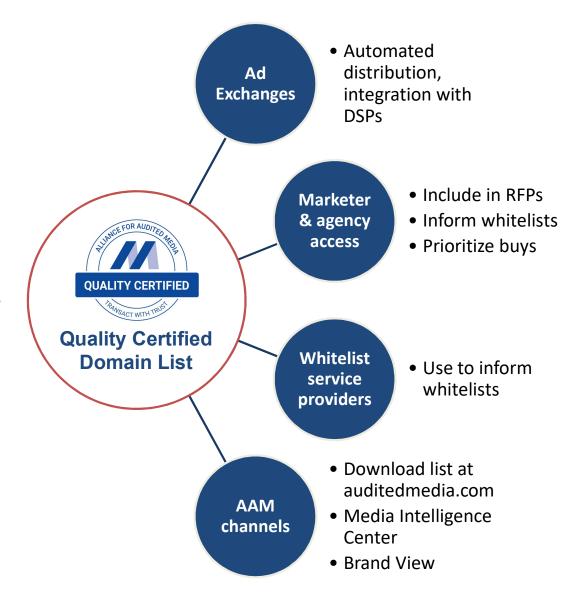
Provides downstream assurance

Validates ad campaigns

Focuses on measurement of ad delivery

### Quality Certification Activation

AAM Quality Certified publishers are prioritized throughout the buying ecosystem through an expanded distribution network





### What can you do about digital advertising fraud?



Alliance for Audited Media Don't be shy in bragging about the quality of your audience.



# Thank you

# Kevin.Rehberg@auditedmedia.com



auditedmedia.com