



Deviant Mobs of the Internet Bots, Trolls, and Misinformation

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Endowed Chair and Distinguished Professor

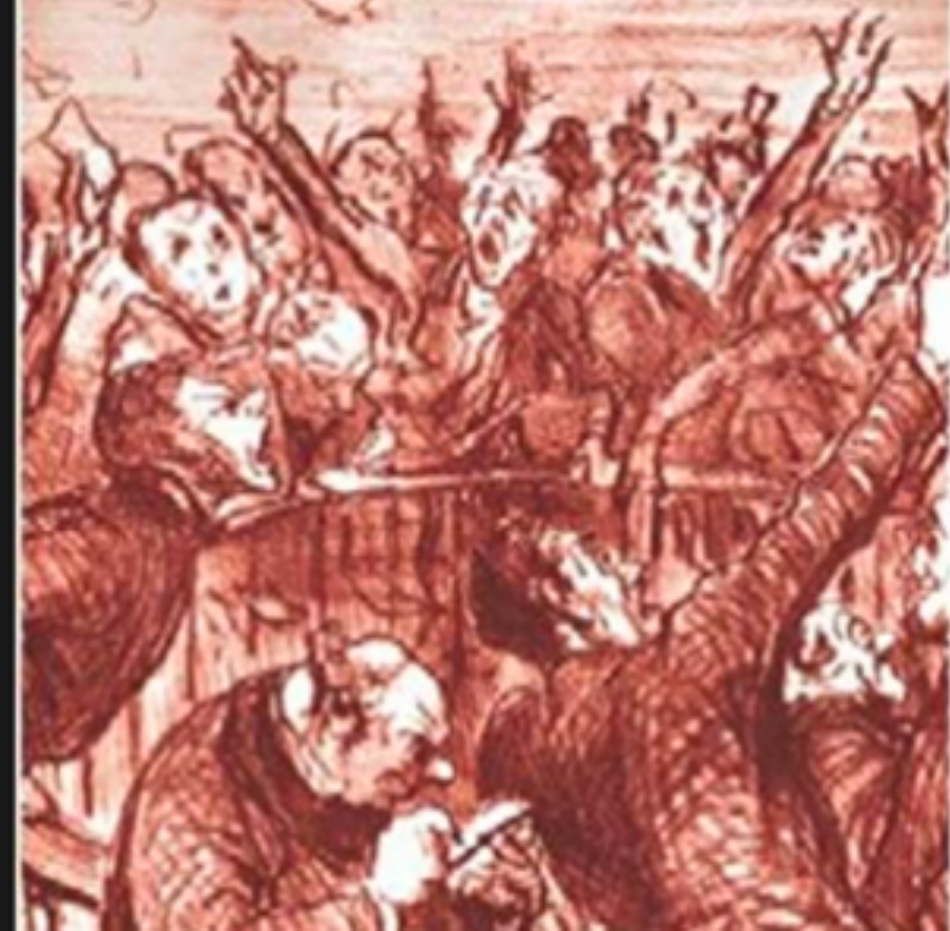
Collaboratorium for Social Media and Online Behavioral Studies (COSMOS)

University of Arkansas – Little Rock

THE CROWD

A Study of the
Popular Mind

Gustave Le Bon



The Crowd

- Gustav Le Bon (1895), *The Crowd: A Study of the Popular Mind*
- Expressed skepticism about the shift from an agrarian society to city living. Le Bon wrote, the urban crowd is marked by “impulsiveness, irritability, incapacity to reason” and “the exaggeration of the sentiments.” A man on his own “may be a cultivated individual,” but “in a crowd, he is a barbarian.”
- Now, we have “Twitter mobs”

Vicious “Online” Mobs

TIMOTHY MCLAUGHLIN BACKCHANNEL 12.12.18 07:00 AM

HOW WHATSAPP FUELS FAKE NEWS AND VIOLENCE IN INDIA

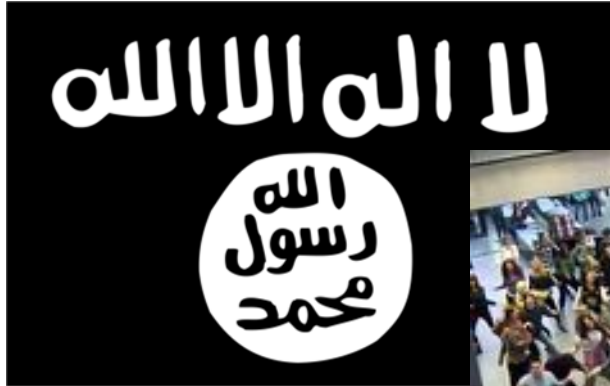
SHARE



BY THE TIME police arrived in the hamlet of Rainpada on July 1, 2018, the village council office was the scene of a massacre.



Online Deviant Groups



Terrorist & Extremist Gro



Anti-NATO Propagandist



Networks (DHNs)



Internet Trolls

Worst start to the year for measles in a quarter century

Confirmed measles cases in January and February of each year



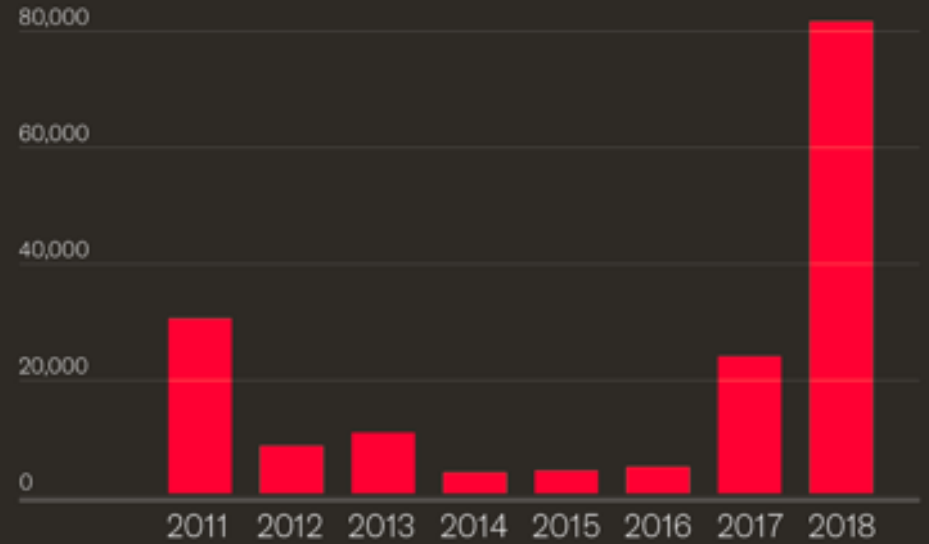
Note: Monthly data for 2004 is not available.

Source: Centers for Disease Control

THE WASHINGTON POST



Measles is storming back in Europe



It is **shocking** that people are still dying of measles in Europe in 2019.

SOURCE: ECDC

The 206 cases in January and February already surpass annual

figures from the past decade.

IFRC Europe Regional Director, Simon Missfeldt, said “vaccine refusal is a global

trend worldwide.”

Health & Wellness Misinformation

The New York Times

Dr. Google Is a Liar

Fake news threatens our democracy. Fake medical news threatens our lives.

By Haider Warraich
Dr. Warraich is a cardiologist.

Dec. 16, 2018




“Statins cause Cancer!”

Instagram

Search

PINK SALT VS. TABLE SALT



IG: CONFESSING CONSCIOUSNESS

- HAND-MINED IN THE HIMALAYAN MOUNTAINS, DYNAMITE USE IS FORBIDDEN
- CONTAINS 84 ESSENTIAL MINERALS REQUIRED BY THE HUMAN BODY
- A BENEFICIAL SOURCE OF MAGNESIUM
- PROMOTES HEALTHY PH BALANCE
- HELPS REGULATE BLOOD SUGAR LEVELS
- HELPS REGULATE BODY'S SLEEP CYCLE

- ZERO NUTRIENTS REMAIN AFTER HIGH HEAT PURIFICATION PROCESS
- INCLUDES ANTI-CAKING COMPOUNDS
- CONTAINS FLUORIDE
- BAD SALT = BAD SODIUM, LEADING TO HIGH BLOOD PRESSURE AND EVEN CANCER
- WEAKENS BONES & BLOOD CIRCULATION

SHARE IF YOU BELIEVE PEOPLE SHOULD KNOW THE DIFFERENCE!

Follow

I've been using pink salt for nearly 3 years and it's been such an upgrade. Fasting Tip: If you get hungry, put a pinch of pink salt under your tongue

Do You Get Himalayan Pink Salt?

Load more comments

Spakmcham 100% earth first.

kingi89

2,741 likes

OCTOBER 15, 2018

Add a comment...

Pink salt will “regulate your blood sugar and sleep cycle.”

Misinformation in Agriculture

THE WALL STREET JOURNAL

Russian Trolls Tweeted Disinformation Long Before U.S. Election

Tweets about contaminated water, tainted turkey look to security experts like practice for the political season

By Rob Barry | Graphics by Shane Shiflett
Published Feb. 20, 2018 at 3:30 p.m. ET



Numerous fake reports of contaminated turkey in Walmart before Thanksgiving 2015. Within hours several hundred claims were reported on Twitter. Walmart ignored it as a hoax. Many of the claims came from accounts linked to a pro-Kremlin propaganda agency charged by Special Counsel Robert Mueller's office.

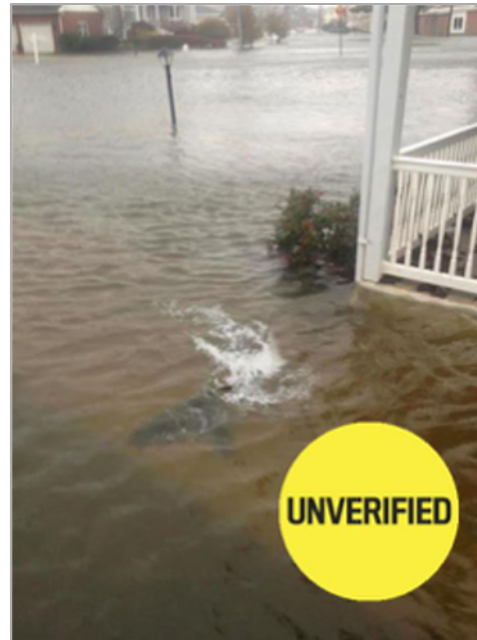
Anti-GMO articles tied to Russian sites, ISU research shows

Donnelle Eiler, deller@dmreg.com Published 8:42 p.m. CT Feb. 25, 2018



Genetically engineered crops are safe for humans and animals to eat and have not caused increases in cancer, obesity, gastrointestinal illnesses, kidney disease, autism or allergies, a report finds. USA TODAY

Misinformation in Disasters



During **Hurricane Sandy in 2012**, the following rumors were floating on social media.

- Sharks swimming through waterlogged suburban neighborhoods,
- Statue of Liberty engulfed in ominous clouds, and
- Floor of the New York Stock Exchange flooded.

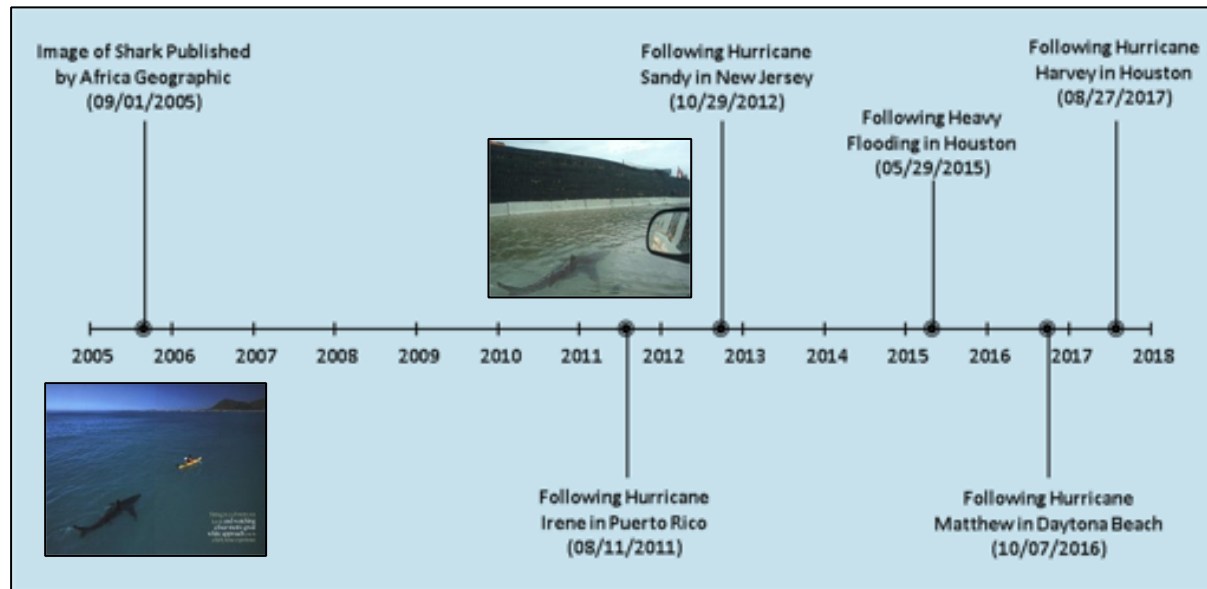
Source: <http://www.nytimes.com/2012/11/01/technology/on-twitter-sifting-through-falsehoods-in-critical-times.html>

During **Hurricane Harvey in 2017**, again the “shark on highway” hoax went viral.

Source: <https://www.washingtonpost.com/news/the-intersect/wp/2017/08/28/no-the-shark-picture-isnt-real-a-running-list-of-harveys-viral-hoaxes/>

“Shark on Highway” Hoax during Disasters

During crises events, misinformation is rampant. One of the most commonly spread hoaxes is “shark on highways”. Timeline below illustrates this hoax as it is propagated during various hurricanes in the U.S.



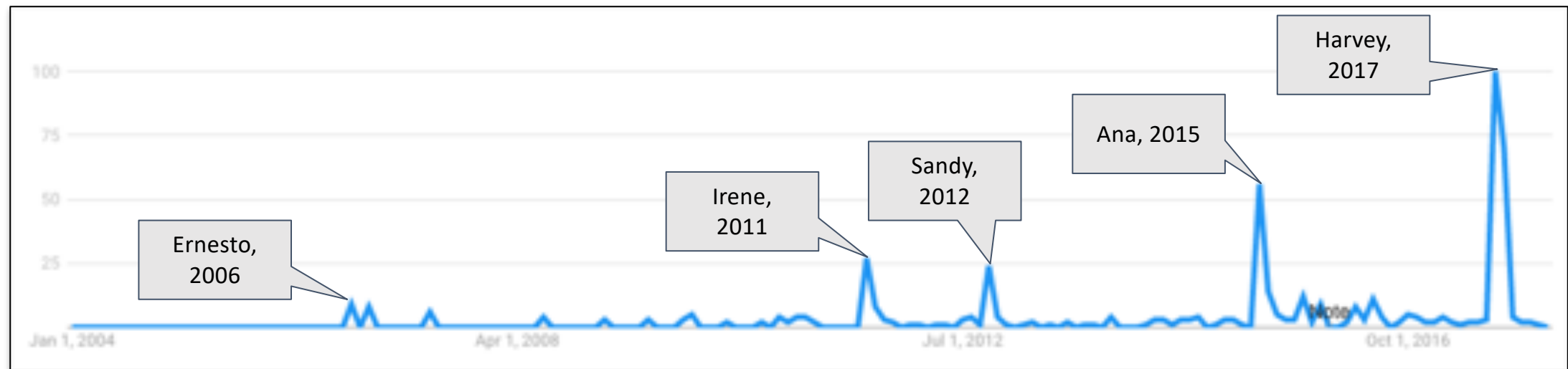
Original image was published in Africa Geographic magazine in September 2005.

Used as hoax during Hurricane Irene in 2011, Hurricane Sandy in 2012, Houston Flood in 2015, Hurricane Matthew in 2016, and finally in our collected datasets for Hurricane Harvey, Hurricane Irma, and Hurricane Maria in 2017.

A simple analysis about “shark on highways” using Google Trends shows the following... (next slide)

Shark Hoax over Time

Interest in the hoax, “shark on highways” has grown significantly over time. Illustrated below is the interest volume in the shark hoax over 2004 - 2017 period. Interestingly, spikes align with weather events, starting from Ernesto (2006) to Harvey (2017). Bigger spikes in the trend are observed in the recent years.



Computational (AI) Propaganda

New AI fake text generator may be too dangerous to release, say creators

The Elon Musk-backed nonprofit company OpenAI declines to release research publicly for fear of misuse



▲ The AI wrote a new passage of fiction set in China after being fed the opening line of *Nineteen Eighty-Four* by George Orwell (pictured). Photograph: Mandadori/Getty Images

The creators of a revolutionary AI system that can write news stories and works of fiction - dubbed "deepfakes for text" - have taken the unusual step of not releasing their research publicly, for fear of potential misuse.

OpenAI, an nonprofit research company backed by Elon Musk, Reid Hoffman, Sam Altman, and others, says its new AI model, called GPT2 is so good and the risk of malicious use so high that it is breaking from its normal practice of releasing the full research to the public in order to allow more time to discuss the ramifications of the technological breakthrough.

Fake text:

<https://www.youtube.com/watch?v=XMJ8VxgUzTc>

ThisPersonDoesNotExist.com uses AI to generate endless fake faces

Hit refresh to lock eyes with another imaginary stranger

By James Vincent | Feb 15, 2019, 7:38am EST

f t G+ Y F SHARE



A few sample faces — all completely fake — created by ThisPersonDoesNotExist.com

Fake images:

<https://thispersondoesnotexist.com/>

Buzzfeed Created a 'Deepfake' Obama PSA Video

By Ryan Whitwam on April 18, 2018 at 12:30 pm | 23 Comments

f t G+ Y F



We've seen **neural network** technology take off in recent years as companies like Google and IBM create ever-smarter machines. Computers can beat humans at Go and spot exoplanets now, but there's a potentially darker side to this technology. Several months ago, a group of developers released a power face-swapping neural network, which was, of course, used to make porn. Now, BuzzFeed has created a video that shows former President Barack Obama **saying things he never said**, and it looks surprisingly believable.

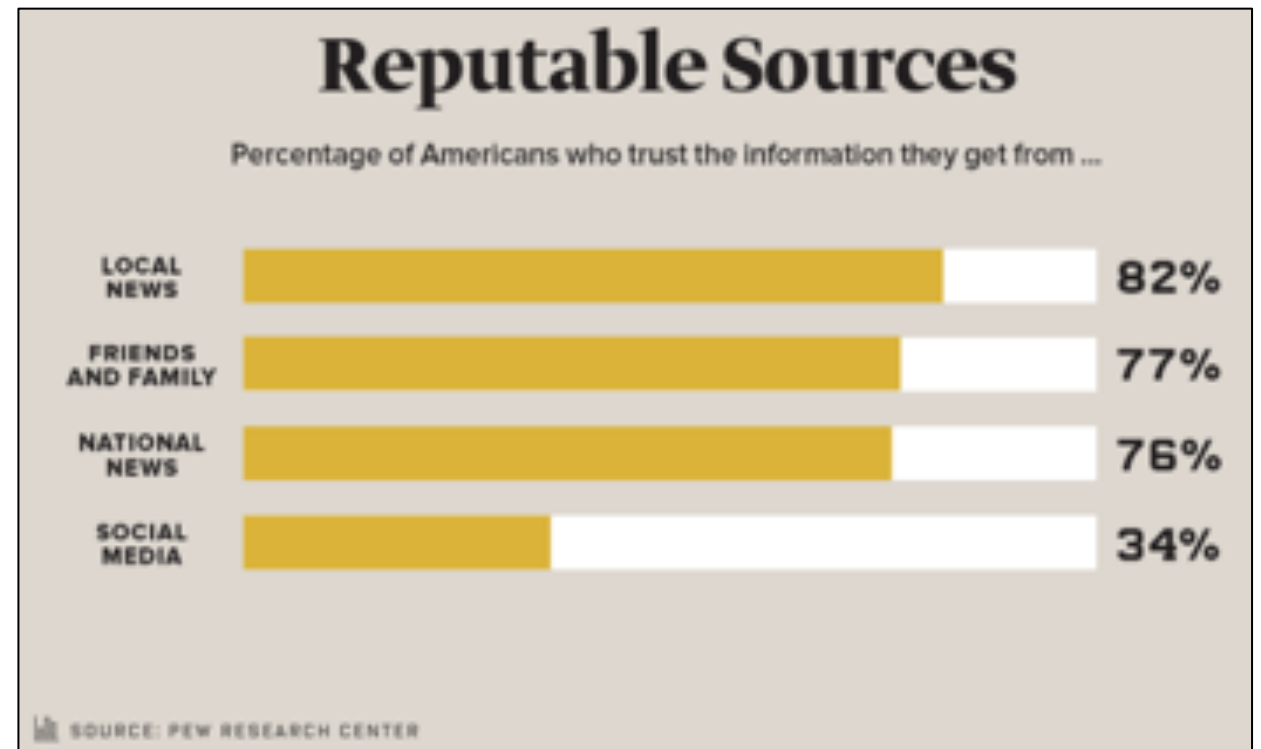
The tool is known as FakeApp, but the videos are usually called "Deepfakes" because that's the handle used by the original developer on Reddit. You can download the code freely all over the internet, but it's not easy to set up — you need to configure Nvidia's CUDA framework to run the FakeApp TensorFlow code, so the app requires a GeForce GPU. The video you want to alter has to be split into individual frames, and you need a large number of high-resolution photos of the face you want to insert. In the case of Obama, there are plenty of photos online that can be used to generate a model.

Fake videos:

<https://www.youtube.com/watch?v=cQ54GDm1eL0>

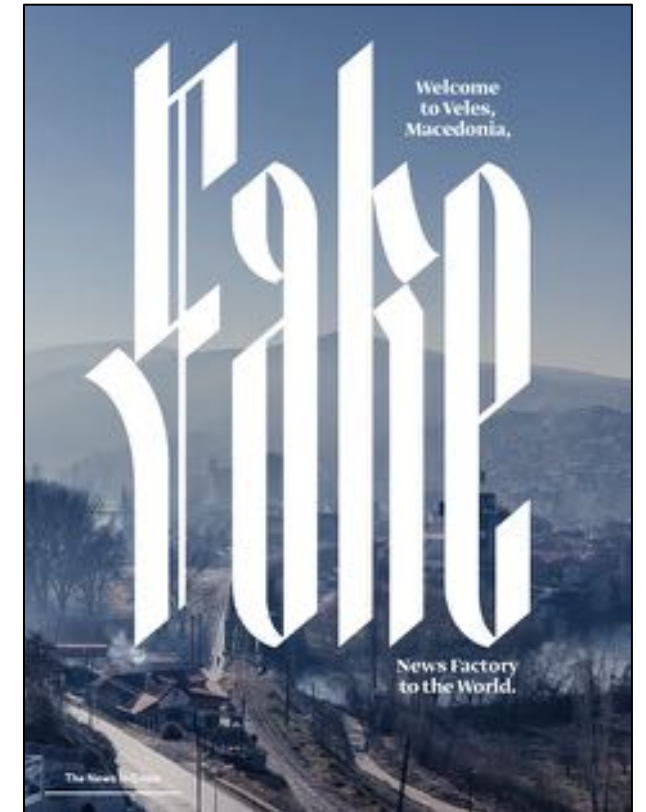
Manipulation & Monetization

- Many people trust news that comes from their friend circle on social media channels
 - 34% Americans trust the information from social media (Pew Research Center, 2016).
 - 14% Americans consider social media as the most important source of information (the National Bureau of Economic Research (NBER), 2017).



Manipulation & Monetization

- Running a fake-news campaign is cheap:
 - For \$55,000 you could discredit a journalist;
 - For \$200,000 you might instigate a street protest.
 - For \$30 an 800-word fake news article, written by *Chinese* content marketer Xiezuobang
 - For \$621 a video appears in YouTube's main page for two minutes, created by *Russian* firm SMOService
 - For \$25 to have 2,500 Twitter followers all retweet a link for you



Hysteria Propagation

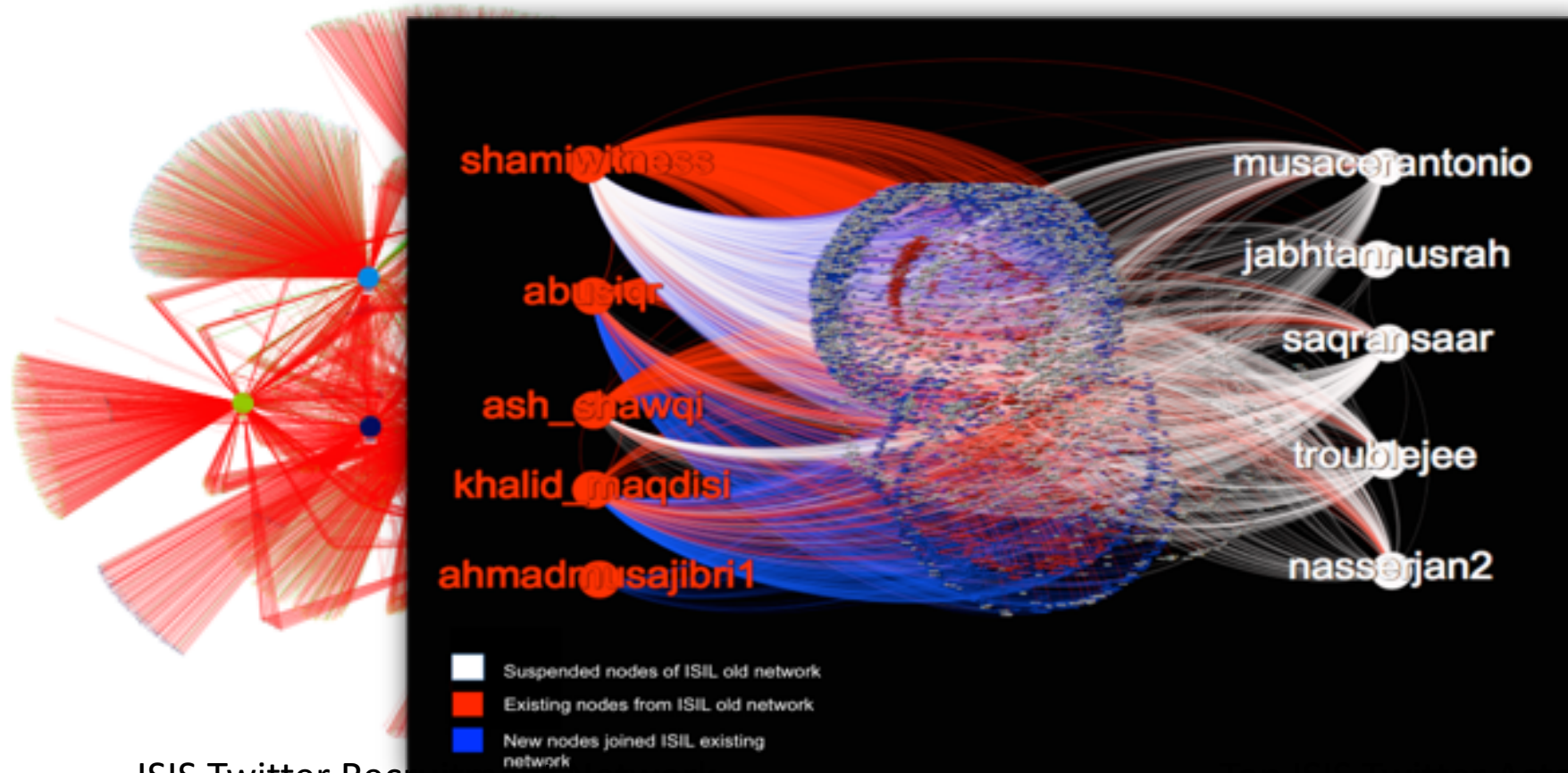
- Shawn Dawson, a prominent YouTuber released a 104-min documentary with bizarre hypotheses
 - Popular children's TV shows contain subliminal messages urging children to commit suicide
 - Recent string of deadly wildfires in California was set on purpose – to collect insurance or to test “directed energy weapon” by the military
 - Chuck E. Cheese recycles customers' uneaten pizza slices into new pizzas
- Over 30 million views in just one month

THE SHIFT

You Tube Unleashed a Conspiracy Theory Boom. Can It Be Contained?



Radicalization and Recruitment



ISIS Twitter Recruitment Network

Top ISIS Twitter Actors' Geolocation Map 15

A large, irregular red ink splatter or blotch is positioned on the left side of the slide, partially overlapping the title text. The splatter has a textured, watercolor-like appearance with varying shades of red and some darker spots.

Trends in Disinformation Campaigns

- Cross platform orchestration
 - Growing use of niche platforms
- Communities and coordination
 - Flash mob style coordination
 - Blogger communities
 - Blog farms (a.k.a. coordinated clickbait)
 - Computational (AI) propaganda – coordinated deep fakes
- Algorithmic manipulation

Ongoing Efforts

- Actively tracking anti-West, anti-EU, anti-NATO propaganda
- Participated in various NATO exercises to assist public affairs and social media monitoring



Dragoon Ride
2015



Trident Juncture
2015



Brilliant Jump
2016



Anakonda
2016



Trident Juncture
2018



Baltic Operations
2019

- Monitored groups like ISIS, deviant hacker networks
- Monitoring disinformation campaigns in the Asia Pacific region
- Monitoring 2019 Canadian Elections

Cross-Media Dissemination



A YouTube channel with several Anti-NATO propaganda videos. The channel is called, "ANTI NATO".



A blog using YouTube video to spread anti-NATO propaganda suggesting NATO's troops obstructing Russian operations in Syria thereby helping ISIS.

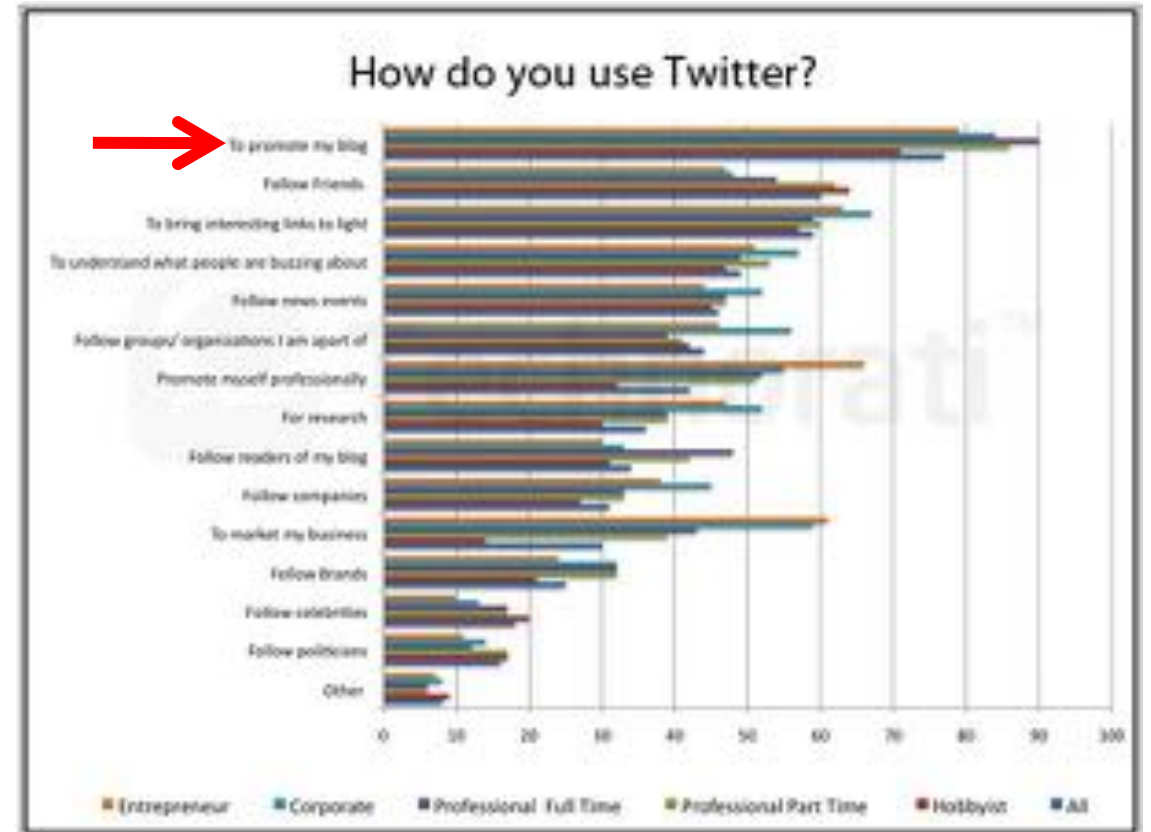


A blog using YouTube video to spread anti-NATO propaganda by suggesting NATO is waging war against Syrian refugees.

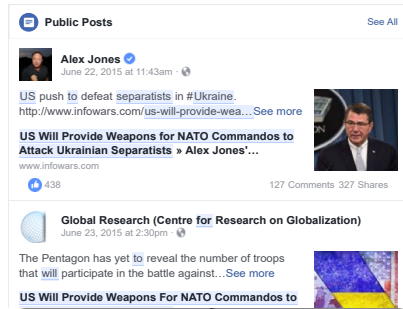


Why Blogs?

- Afford power and freedom to express opinion, frame narratives more effectively than any other social media platform
- No character limit
- No censorship
- Provide digital town halls



Cross Media Dissemination of Content



“US will provide weapons to NATO Commandos to attack Ukrainian separatists.”



Blogs, Fake News, and Influence Operations. *Digital Hydra: False Information Online as a Weapon*, NATO StratCom COE, November 2017.



Examining Strategic Integration of Social Media Platforms in Disinformation Campaign Coordination. *Defence Strategic Communications*, NATO StratCom COE, July 2018



Cross Media Campaign Network

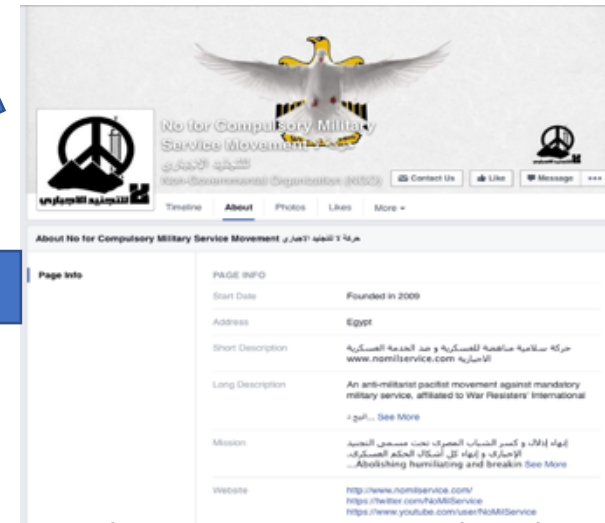


Founder of



@nomilservice

Founder of



No Military Service Facebook page

affiliated to

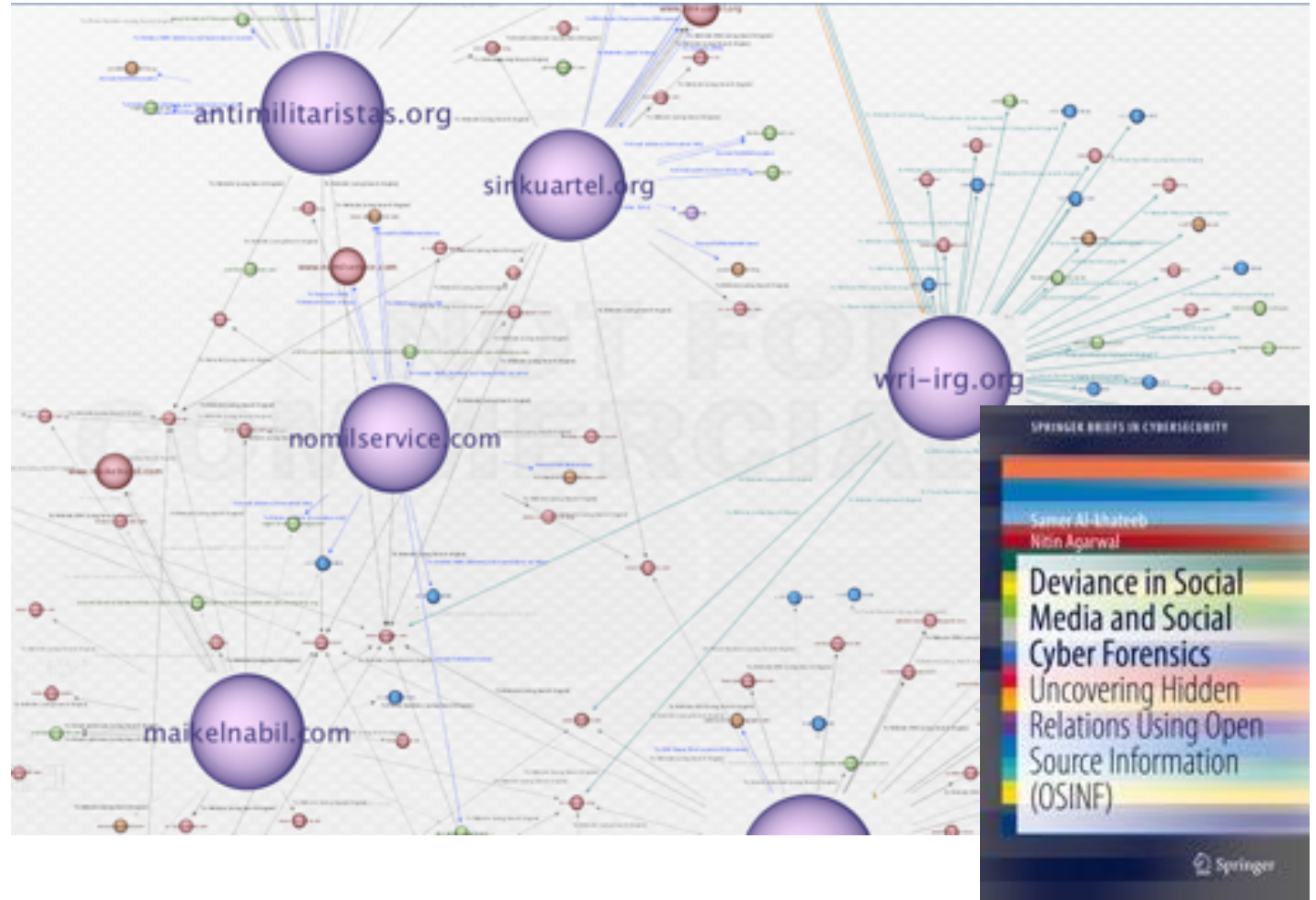


@warresistant

Social Cyber Forensics

Cyber forensic analysis helps extracting metadata, such as,

- Web traffic tracker codes (Google Analytics IDs)
- Email addresses
- IP address
- Contact details e.g., phone number
- Names under which the domain is registered
- Other digital/social presence e.g., Twitter handles, YouTube links, Facebook profile, other blogs, etc.



Helge Ingstad Collision – Cross Media Integration

 Jérôme
@JeromePio [Follow](#)

#TridentJuncture/ The situation is going bad to worse for Norwegian frigate #HelgeIngstad.

Picture at 11h35 from NRK live.

Propulsion system is now under waters...




2:38 AM - 8 Nov 2018


360 Retweets 230 Likes



Twitter


 YouTube | Servitutt

☆ Spoofing Attack -- Vlad Putin jamming the GPS of NATO ships Ingstad (F313) 🤖




TLat N 60° 37.877' TLon E 4° 50.834' Alt: 0f S Ring: 840m Ins Nav HdgUncert=0.29
Lat: N 60° 37.764' Lon: E 4° 50.256' Az: -85.5° El: -20.4° 08-Nov-2018 06:42:52Z

YouTube

 EXRUSSO
November 8 at 4:08 PM · 🌐

El mejor selfie del dia 😊

[See Translation](#)



Отряд боевых ведьм

Лучшее селфи дня.

👍🤔👎 47

9 Shares

VKontakte

Helge Ingstad Collision – Cross Media Integration

THE DRIVE | OPINION | THE WAR ZONE | MOTORCYCLES | SHOP | search... Q

THE WAR ZONE

Badly Damaged Norwegian Frigate Intentionally Ran Aground After Tanker Collision (Updated)

Reports state that the ship was sinking and grounding it was the only chance the skipper had at saving it.

BY TYLER ROGOWAY NOVEMBER 8, 2018

THE WAR ZONE | AEGIS | COLLISION | FRIDTJOF NANSEN CLASS | FRIGATE | HELGE INGSTAD

NORWAY | NORWEGIAN SEA | OIL TANKER | RAN AGROUND | ROYAL NORWEGIAN NAVY | SINKING

TRIDENT JUNCTURE

Blog

INSIDER INTELLIGENCE | TECH | MONEY & MARKETS | BRIEFING | IDEAS | EXECUTIVE LIFE

BRIEFING

Finland and Norway are telling airline pilots to be ready to fly without GPS, and some think Russia is up to something

CHRISTOPHER WOODY
JULY 10, 2018, 8:53 AM

f FACEBOOK | TWITTER | REDDIT | in LINKEDIN | EMAIL

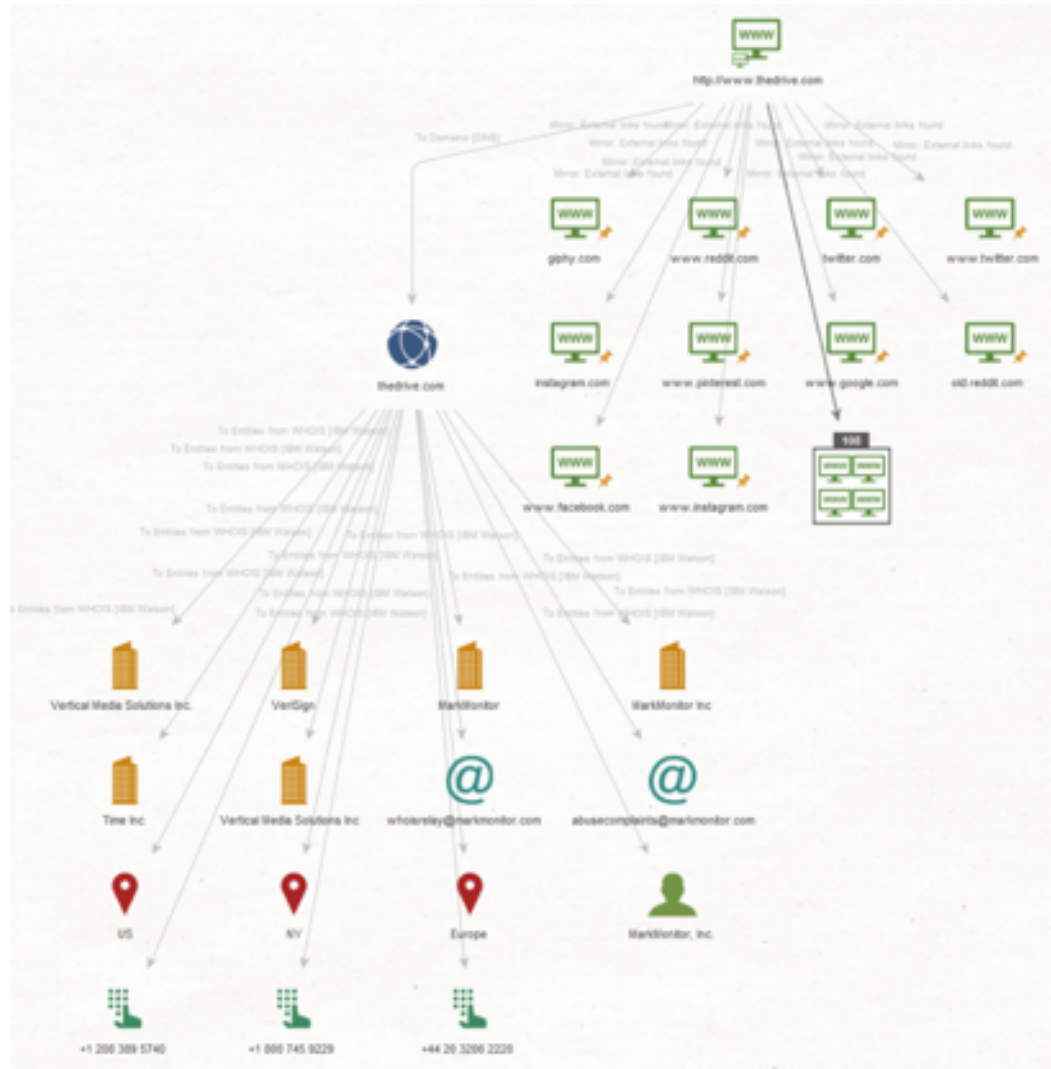
US Marine Corps pilots fly a MV-22B Osprey during Exercise Trident Juncture near northern Norway, November 6, 2018.

- Norway and Finland have both reported problems with GPS signals in their northern regions this month.
- Both countries have been taking part in NATO's exercise Trident Juncture, which has irked Russia.
- Reports of GPS interference related to Russian military activities have been reported in the past.

Disruptions to Global Positioning System signals have been reported in northern Norway and Finland this month, overlapping with the final days of NATO's exercise Trident Juncture, a massive military exercise that has drawn Russia's ire.

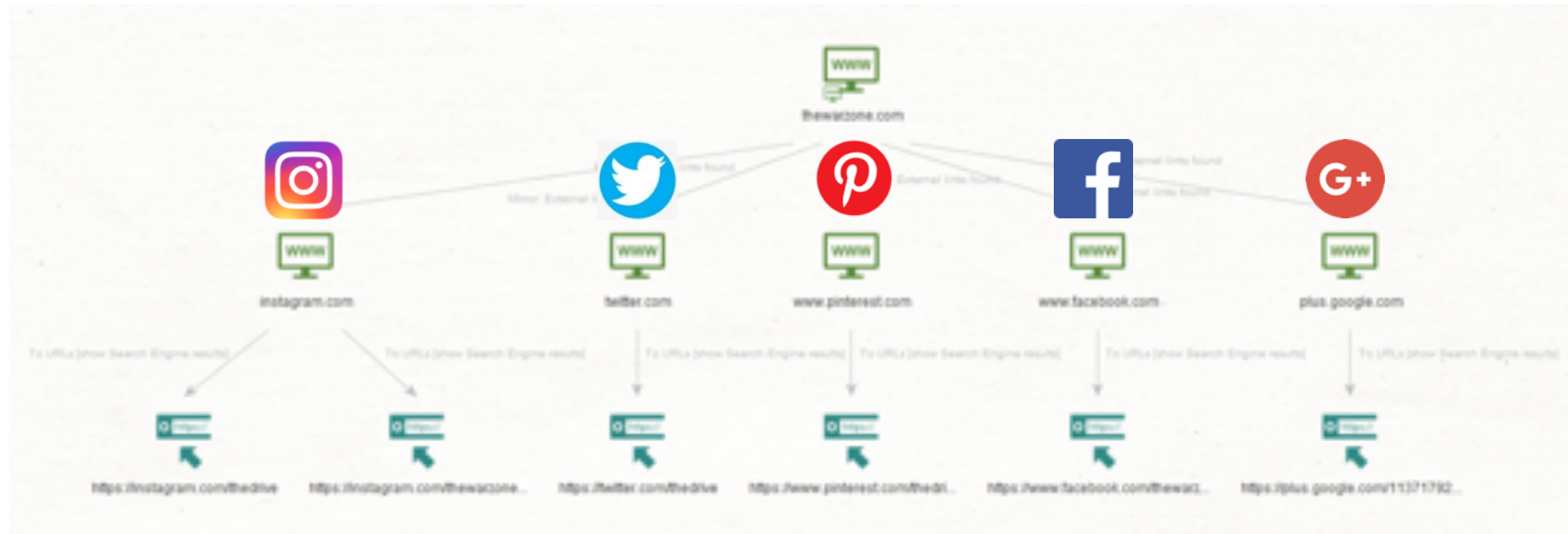
Other News Media

Cyber Forensic Analysis - The Drive Blog



Location	IP address
United States	72.52.10.14
Phone Numbers	Location
+44 20 3206 2220	UK
+1 208 389 5740	USA
+1 800 745 9229	USA

Social Media Footprint – The Warzone Blog



Social Media	URL/Account handle
Twitter	@thewarzonewire [https://twitter.com/thewarzonewire] @thedrive [https://twitter.com/TheDrive]
Facebook	https://www.facebook.com/thedrive https://www.facebook.com/thewarzonewire
Google	https://plus.google.com/+Thedrive-online
Instagram	https://instagram.com/thedrive https://instagram.com/thewarzonewire
Pinterest	https://www.pinterest.com/thedrive0042

Communities and Coordination



Focal Structure Analysis

Bi-level Optimization

Node-level optimization

$$\max \sum_{i=1}^n \delta_i \quad (1)$$

Subject to

$$\delta_i = \{d\bar{c}_1 \leq d\bar{c}_2 \leq d\bar{c}_3 \leq \dots \leq d\bar{c}_i\} - \overline{dc_j^Q} \quad \forall i, j \quad (2)$$

$$d_i^c = \sum_j m_{ij} \quad \forall i \quad (3)$$

$$d_i^c \geq 2 \quad \forall i \quad (4)$$

$$D_G^L = \frac{1}{n} \sum_{i=1}^n d_i^c \quad (5)$$

$$D_G^L < \hat{d}_i^c \leq D_G^U \quad \forall i \quad (6)$$

$$a_i^c = \frac{(\# \text{ of Triangles}) \times 3}{\# \text{ of Connected Triples of Nodes}} \quad \forall i, j, z \quad (7)$$

$$AC_G^L = \frac{1}{n} \sum_{i=1}^n a_i^c \quad (8)$$

$$AC_G^L < a_i^c \leq AC_G^U \quad \forall i \quad (9)$$

$$\bar{C}_v = \{\bar{c}_1, \bar{c}_2, \bar{c}_3, \dots, \bar{c}_i\} - \overline{c_j^Q} \quad \forall i, j \quad (10)$$

$$\bar{c}\delta_i = \bar{C}_{\delta_i} \quad \forall i \quad (11)$$

$$F = \{c_1, c_j^Q, c_{j+1}^Q, \dots, c_k^Q\} \quad \forall j, k \quad (12)$$

Network-level optimization

$$\max \sum_{j=1}^n e_j^M \quad (13)$$

Subject to

$$e_j^M = \{e_1, e_2, e_3, \dots, e_j\} \quad \forall j \quad (14)$$

$$\delta_j = \{\bar{c}_1, \bar{c}_2, \bar{c}_3, \dots, \bar{c}_n\} - \bar{c}\delta_i \quad \forall j \quad (15)$$

$$B = A_{ij} - \frac{dd^T}{2m} \quad \forall i, j \quad (16)$$

$$\xi_j = \{\bar{c}\delta_i \cup \delta_j \mid \bar{c}\delta_i \neq \delta_j\} \quad \forall j \quad (17)$$

$$e_j = \frac{1}{2m} \text{Tr}(\xi_j B \xi_j^T) \quad \forall j \quad (18)$$

$$e^l \leq e_j \leq e^U \quad \forall j \quad (19)$$

Power of Key Coordination Structures

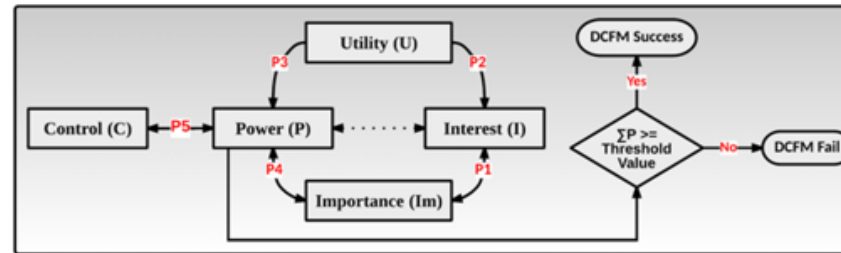
P1.
 Importance(I) → Interest(I)
 Interest(I) → Importance(I)
 ∴ Importance(I) ↔ Interest(I)

P2.
 Utility(U) → Interest(I)

P3.
 Utility(U) → Power(P)

P4.
 Power(P) → Importance(I)
 Importance(I) → Power(P)
 ∴ Power(P) ↔ Importance(I)

P5.
 Power(P) → Control(C)
 Control(C) → Power(P)
 ∴ Power(P) ↔ Control(C)



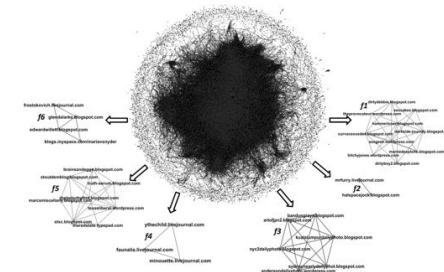
*Published in SBP, SNAM, AAAI, CASON

Model showing all the factors that help in determining the outcome of a collective action, i.e., Success or Failure.

$$\begin{aligned} \therefore \text{Power}(P) &= f(C, Im) \\ \therefore \text{Importance}(Im) &= f(\text{Interest}) \\ \therefore \text{Interest}(I) &= |U_{\text{outcome1}} - U_{\text{outcome0}}| \\ \therefore \text{Power}(P) &= f(C, |U_{\text{outcome1}} - U_{\text{outcome0}}|) \end{aligned}$$

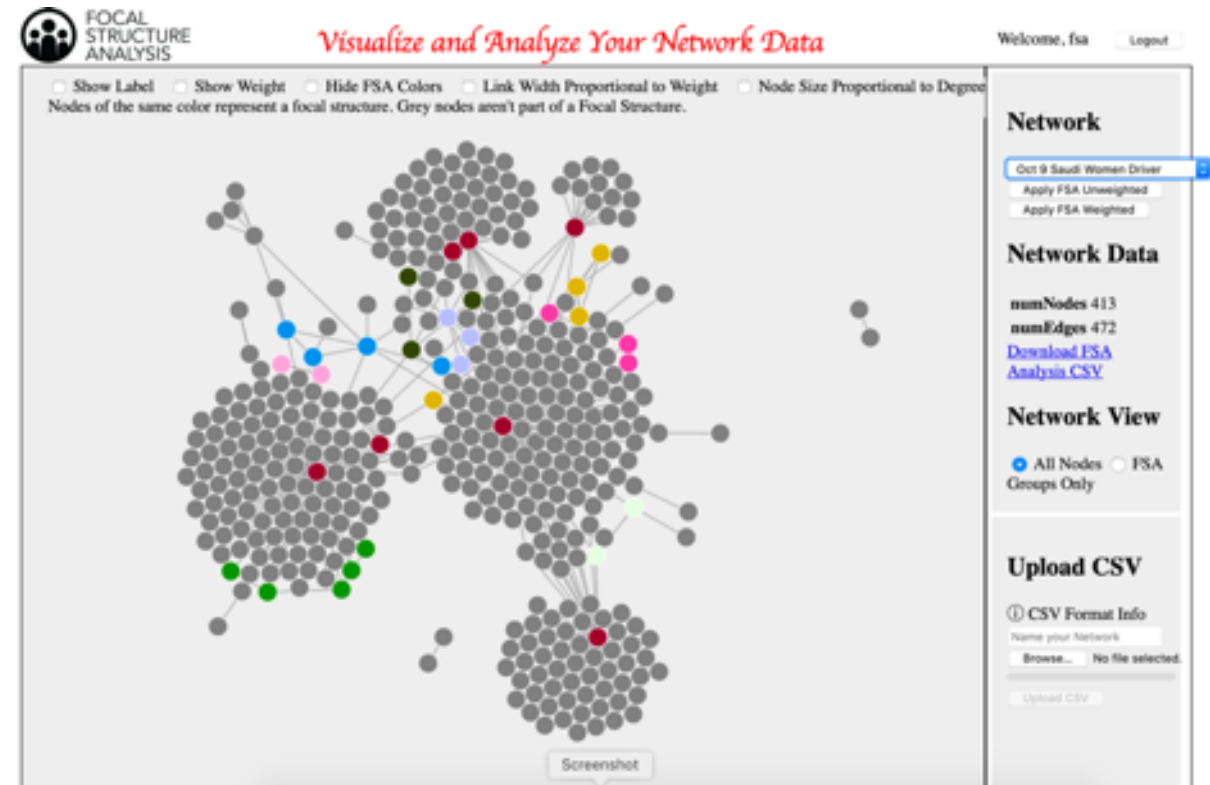
Or

$$\therefore \text{Power}(P) = f(C, I)$$



Focal Structure Analysis

- Web-based application
- No installation needed
- Upload network in csv format
- Identifies focal structures and extract/export



<http://blogtrackers.host.ualr.edu/fsa/>

Key Coordinating Group of Actors during Ukraine-Russia Conflict

- Graham W. Phillips is a British journalist and blogger.
- He went to Ukraine to cover the voice of Ukrainians during Euromaidan.
- He reported that Ukrainians are “happy” with the previous pro-Russian government of Ukraine.
- He used Vlogging to cover the events.
- His Vlogs made him an influential blogger & an enemy to the current Ukrainian government so they banned him from entering Ukraine for three years.
- Once he was banned from entering Ukraine he went to Russia instead of going back to England.



The image is a screenshot of a BuzzFeed News article. At the top left, there is a 'WORLD' category tag. The main headline reads 'How A British Blogger Became An Unlikely Star Of The Ukraine Conflict — And Russia Today'. Below the headline is a sub-headline: 'Graham Phillips has become a fixture on Kremlin television and a micro-celebrity on the streets of Ukraine.' The article is dated 'Posted on May 20, 2014, at 12:00 p.m.' and is written by 'Max Seddon', identified as a 'BuzzFeed News World Correspondent'. A row of social media sharing icons (Facebook, Twitter, Email, Print, Tumblr, and a 'More' dropdown) is visible. The main image shows a man, Graham Phillips, in a blue jacket standing in front of a sign that says 'ПЛАВЯНСЬК' (Plavchynsk). Below the image, there is a caption: 'Graham Phillips has won internet notoriety for his glib and field reports from eastern Ukraine for Kremlin TV. Via Facebook: sunshariv'.

Blogger Communities

Green – AsiaPacific Blog (357 Bloggers)

Blue – Mondalisation Blog (4320 Bloggers)

Red – GlobalResearch Blog (9219 Bloggers)

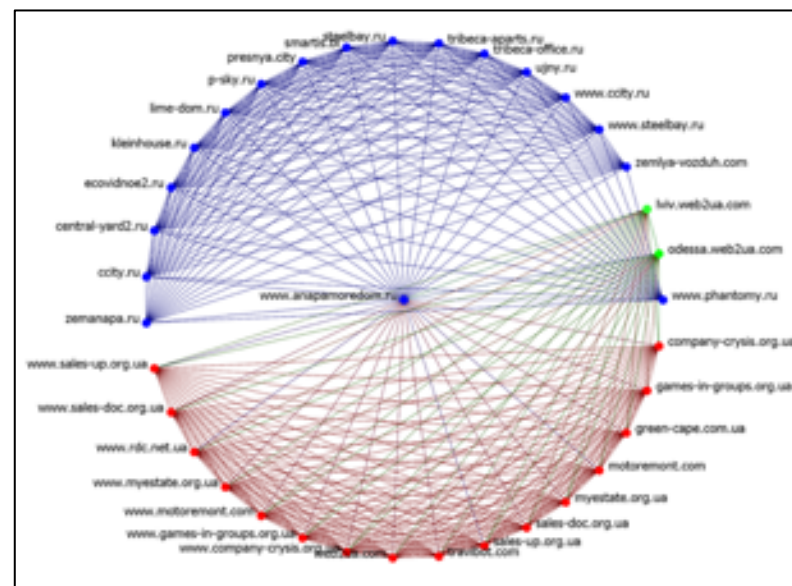
Common Bloggers from 3 communities - 98

Some of the APAC bloggers are also members of the GlobalResearch and Mondalisation blogging communities. These communities are known to espouse anti-West, anti-EU, anti-NATO viewpoints.



Coordinated Clickbait (a.k.a. *Blog Farms*)

- Blog farms identified based on web traffic tracker codes
- Fabricate perception of a viral content
- Hypertargeting
- Search engine manipulation by traffic amplification
- Financing the operation

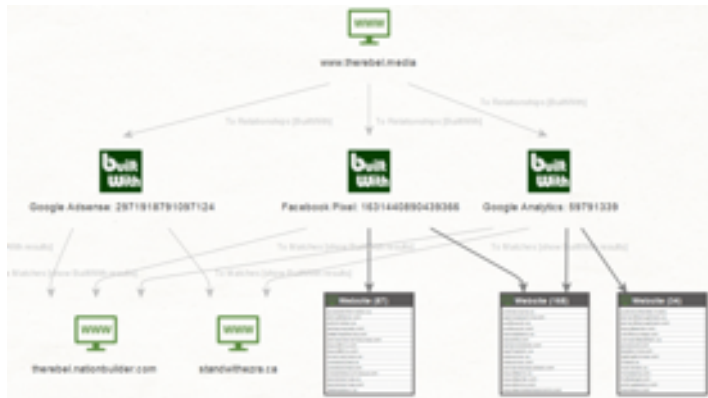


“At least six Swedish sites have received financial backing through advertising revenue from a Russian- and Ukrainian-owned auto-parts business based in Berlin, whose online sales network oddly contains buried digital links to a range of far-right and other socially divisive content.”

NYTimes, August 10, 2019

Coordinated 'Fake' Websites

Canadian elections 2019 - 291 fake websites created using "Built with API" service with anti-Trudeau narrative.



One such fake website "weresorryindia.com" amplifies anti-Trudeau narrative suggesting he is not a friend of the Canadian-Indian community. The website tops the results in search engines.

Website (87)	Website (168)	Website (34)
judicialchasey.com	andrewcoyne.ca	australia.thesorbet.media
judicialbanks.com	approveagamine.com	bernardtheroughneck.ca
judicialbanks.com	auditsucks.ca	bernardtheroughneck.com
leadersdebate.ca	backstabbers.ca	boycottandc.com
letsreport.com	barabilla.com	callforyoungs.com
letswrite.ca	barbariansbook.com	comenandtakehem.ca
margaretmccullag-boyd.ca	beerfreedom.ca	corneliant.com
mlbgs.ca	beerfreedom.ca	tablefornest.com
nocelebrating.com	bolwanner.ca	fightingforreal.com
onecarler.com	bolwanner.com	freed.ca
otawamurders.com	bombardierpayback.com	freemedia.ca
protectourkids.ca	boycottandc.ca	freestasha.com



Coordinated YouTube Campaigns

- These channels have similar/same video content
- Have similar/same robotic voice narration
- Appear in each others subscribed lists
- Suggested by YouTube as related channels



Coordinated YouTube Campaigns



China vs US The War in the South China Sea already Start
714,564 views 4.7K 586 SHARE SAVE ...



SUBSCRIBE 43K

<https://www.youtube.com/watch?v=OM5vaF2kzPA>



#china #usin #trump
China vs US The War in the South China Sea already Start
571,751 views 2.4K 295 SHARE SAVE ...



SUBSCRIBE 116K

<https://www.youtube.com/watch?v=G5CmudyXY2o>



China vs. America: How a W.a.r in the South China Sea Could Start
727 views 7 1 SHARE SAVE ...



SUBSCRIBE

<https://www.youtube.com/watch?v=e5WvJHG6aB4>

- Videos belong to different channels
- Similar/Same titles
- Same/Similar audio
- Same/Similar Robotic narration

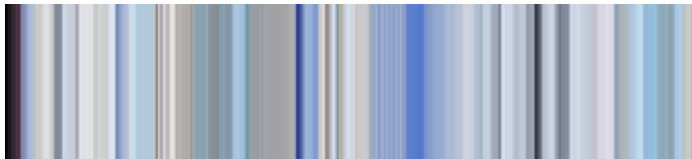
Color Theory Based Detection

Channels coordinate content amplification by repurposing portions of a video and producing multiple videos

Video ID: OM5vaF2kzPA

Title: China vs US The War in the South China Sea already Start

Channel: Breaking News TV



Video ID: GsCmudyXY2o

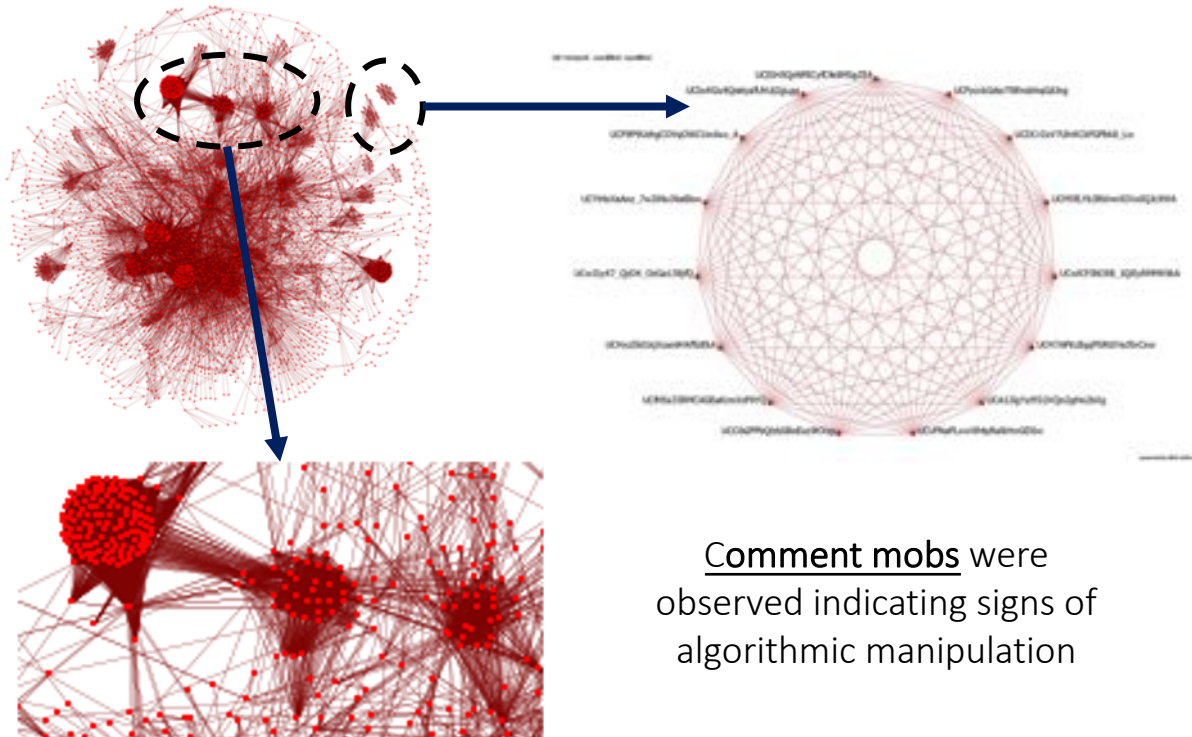
Title: China vs US The War in the South China Sea already Start

Channel: DOT COM US



YouTube 'Commenter' Flash Mobs

SBP-BRiMS 2019



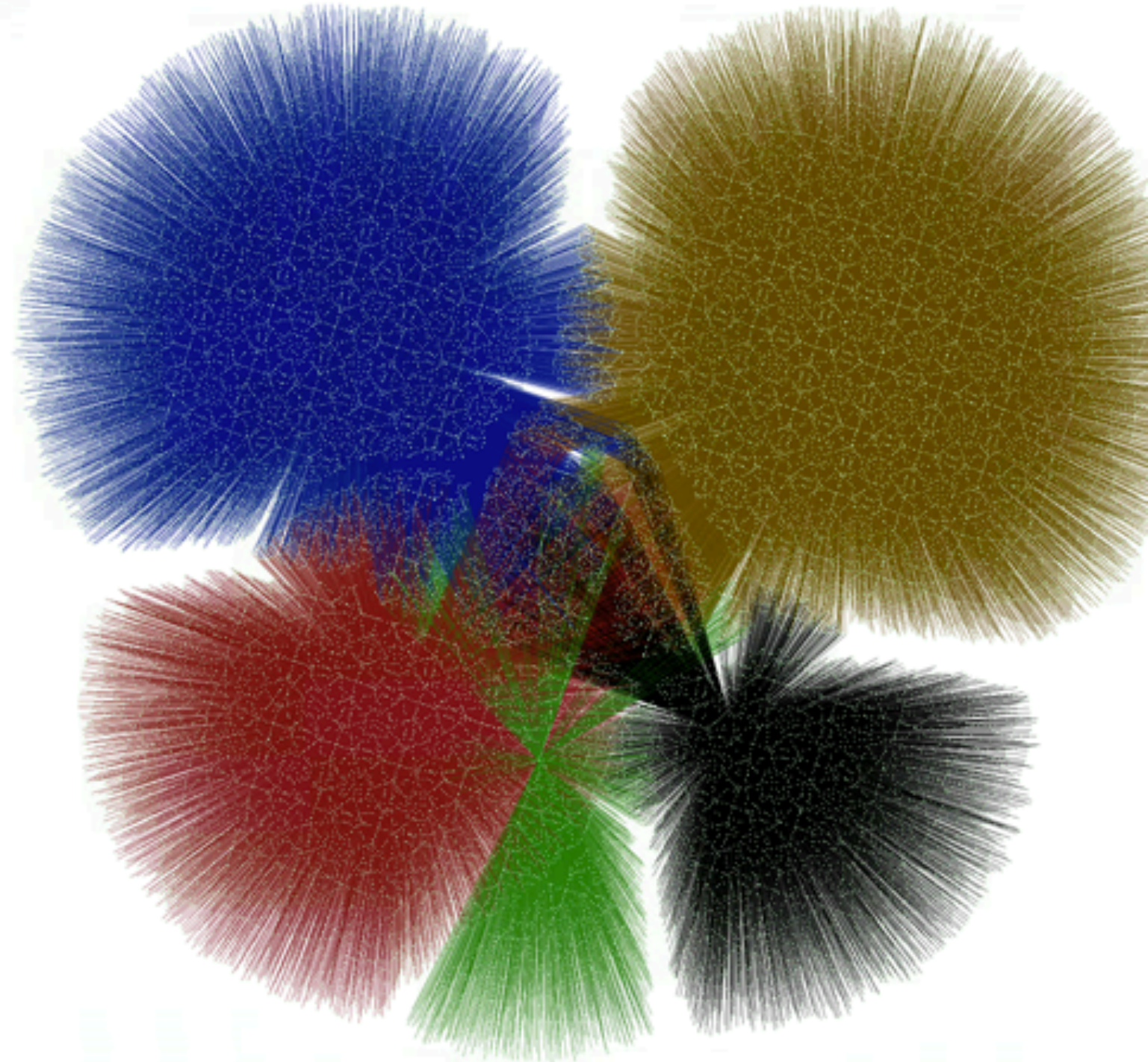
Comment mobs were observed indicating signs of algorithmic manipulation



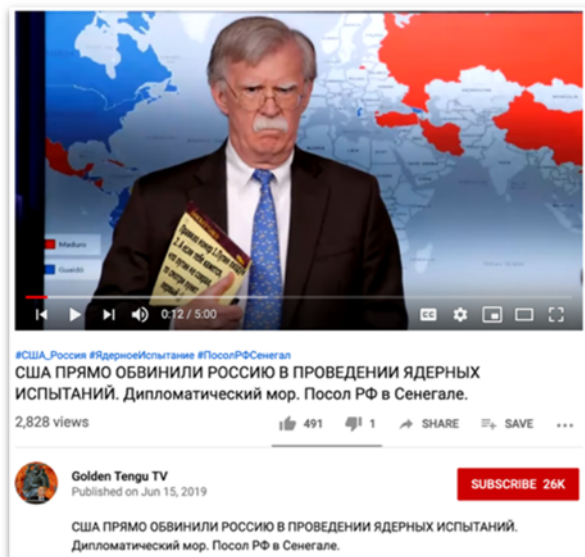
Exploiting biases of the recommendation algorithms

Commenter Mobs Across Channels

- Hot news – 8,477 commenters
- US Military – 11,817 commenters
- DOT COM US – 2,340 commenters
- PH TV – 14,263 commenters
- Ultimate US Military – 5,369 commenters
- 104 core commenters



Youtubers Conducting Botnet Operated Twitter Campaigns

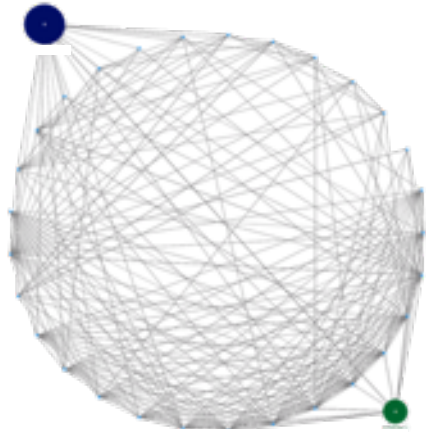


Pro-Russian YouTube channel named “**Golden Tengu TV**” also has a Twitter account. Tweets from its Twitter account are merely links to its YouTube videos, posted in a robotic style.

People who like these tweets (such as @Blackdo52395065, @nLqLGPh8F7JiHG9) are also robots.

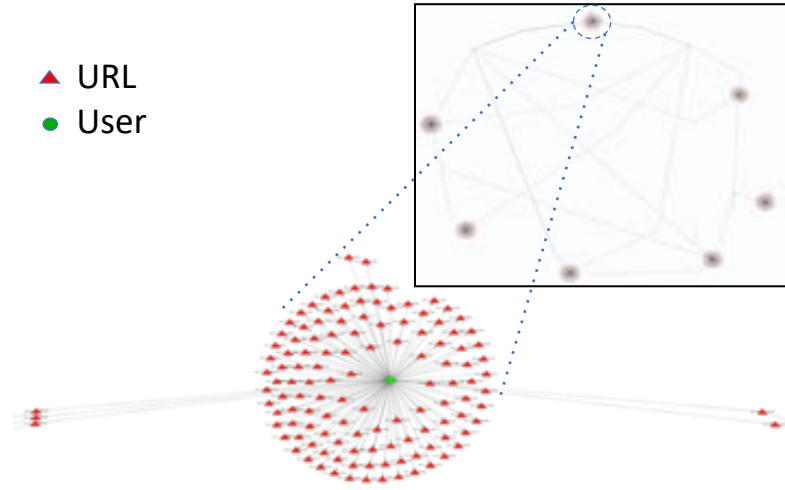
It is a small botnet.

Botnets – Evolution and Dissemination

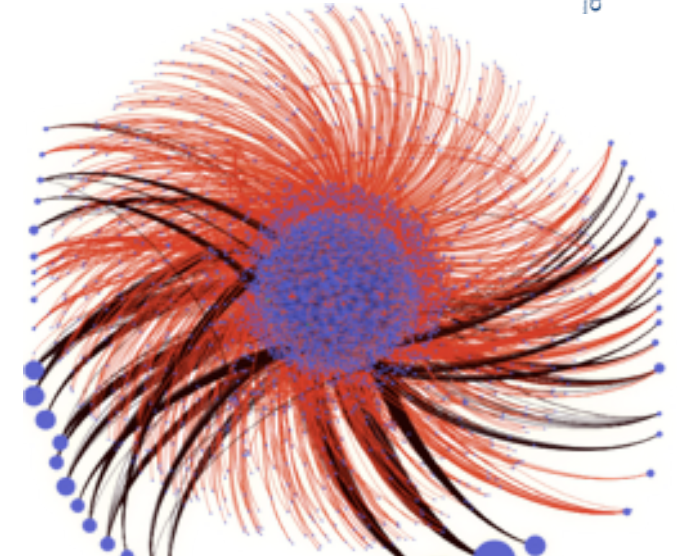


Mutual reciprocity.
IFYFM & FMIFY

▲ URL
● User



No mutual reciprocity.
Coordination in information network



Organizational hierarchy.
Core and peripheral bots

COORDINATION/BEHAVIOR COMPLEXITY



Crimean Invasion 2014



Dragon Ride 2015



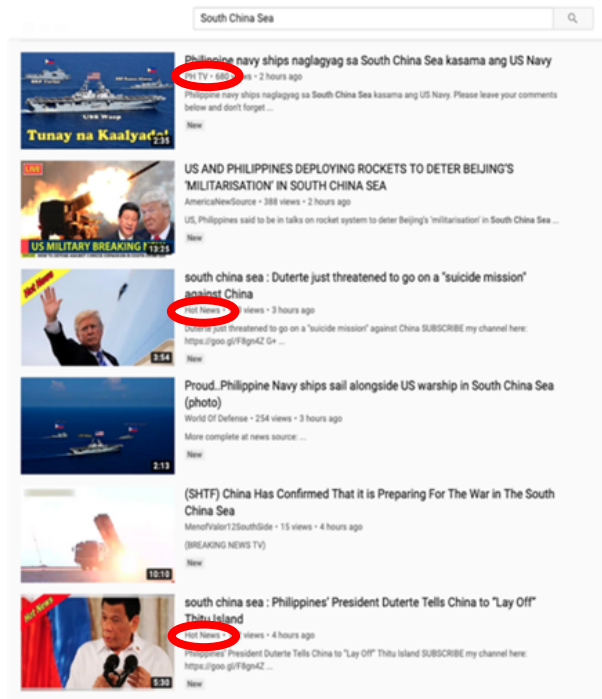
Trident Juncture 2015



ISIS Propaganda 2016

Algorithmic Manipulation

“Hot News” a prominent channel disseminating videos related “South China Sea” conflict.



Videos have robotic voice/narration

Top Content

- 1** **BREAKING** Norwegian navy frigate collides with oil tanker in Nord...
Reasons Of The World • 521K views • 1 month ago
An oil tanker and a Norwegian navy KHM Hjelte frigate collided near the coast of western Norway. The 100m Hjelte...
- 2** This is How U.S. Marines Will Take the Fight to Russia in the Arctic
US Defense News • 225K views • 1 month ago
About 50 Marines from the 2nd Marine Expeditionary Unit from Camp Lejeune landed out a mock air assault in Iceland last week...
- 3** CC harvåner! Plasser viktige innledende oppsett på prosessen...
Trident Juncture
R/D NEWS - Historie, sport, kultur • 27K views • 2 weeks ago
Trident Juncture er nå på plass. https://www.dn.no/nyheter/2020/09/10/...
https://www.dn.no/nyheter/2020/09/10/...
https://www.dn.no/nyheter/2020/09/10/...
- 4** News Alert: Massive Allied Forces Arrived in Norway, Joint NATO Response Force
YouTube Mania • 138K views • 1 month ago
News Alert: Massive Allied Forces Arrived in Norway, Joint NATO Response Force...
https://www.youtube.com/watch?v=...
- 5** During Exercise Trident Juncture 18 NORWAY (3/4)
MGA Military • 136K views • 1 month ago
Trident Juncture 18 er nå på plass. https://www.dn.no/nyheter/2020/09/10/...
https://www.dn.no/nyheter/2020/09/10/...
https://www.dn.no/nyheter/2020/09/10/...
- 6** De siste Trident Juncture 2018 - Bundeswehr
Bundeswehr • 112K views • 2 weeks ago
De siste Trident Juncture 2018 er nå på plass. https://www.dn.no/nyheter/2020/09/10/...
https://www.dn.no/nyheter/2020/09/10/...
https://www.dn.no/nyheter/2020/09/10/...
- 7** High Alert: Massive Warships Heading To NATO's Largest Exercises Near Russia
New Russia
YouTube Mania • 100K views • 1 month ago
High Alert: Massive Warships Heading To NATO's Largest Exercises Near Russia. Allow warships underway to participate in...
- 8** A "Norsk" "vogn" i GPS duette i Trident Juncture 2018
Høg ra Mando Miller • 80K views • 2 weeks ago
VOTE A NORDA (USA) https://www.dn.no/nyheter/2020/09/10/...
Quarantine i nord? https://www.dn.no/nyheter/2020/09/10/...
- 9** News Alert: NATO U.S. Abrams Tanks Takes To The Streets, Show Of Force To Russia
YouTube Mania • 62K views • 1 month ago
News Alert: NATO U.S. Abrams Tanks Takes To The Streets, Show Of Force To Russia. A regular member 1000+ views take part...
- 10** Welcome to Trident Juncture 18
Forvarene • 60K views • 5 months ago
NATO's exercise Trident Juncture takes place in Norway this autumn. We welcome all participants.

← Top 10 most watched videos contain more adversarial content

Comments on most watched video contain anti-NATO sentiments

Boy I hope the Russians don't have any of those advanced Oil Tankers in their navy, or we're doomed.
73 REPLY

The Russians did it. That will be the chorus in the west. LOL

It was so stealth the tanker never saw it
190 REPLY

This is not funny at all. In my expert opinion, this is a very cunning norwegian plot to kill as many Russians as possible... by making them laugh to their deaths.
80 REPLY

Competent NATO.
29 REPLY

Influential Posts

Stop NATO

Against militarization, rehabilitation and Norwegian participation in NATO's terrorist war

actions NATO militarization weapons industry Civil war in Ukraine Worldwide

Home > Events, Militarization, NATO > Opposition to Trident Juncture on May 1st

Resistance to Trident Juncture on May 1st

May 2, 2018 h5332

Rate This

In both Bergen and Oslo, Stop NATO and other peace activists showed resistance to the forthcoming military exercise Trident Juncture 2018. In Oslo, posters bearing the endorsement "Stop NATO's forthcoming war exercise in Norway" and the "Norway out of NATO" parable were clearly visible. In Stavanger and Sandnes, NATO stopped spreading notes. In Bergen, Stop NATO held an appeal on an event organized by the May 1 alliance, where military exercise and Norwegian servility towards the United States and NATO were generally affected.



NATO Exercise Trident Juncture and the Environment

October 6, 2018 h5332

Go to comments Leave a comment

Rate This 1 Vote

By Steinar Eraker, Stop NATO

In these days, political parties, peace organizations and individuals are in full swing to focus on the forthcoming NATO Trident Juncture exercise (TRJ18). It will find a town in the period from 15 October to 7 November and will cover large parts of the Nordic region with main weight in Norway. A total of 40000 soldiers from all NATO countries and close Allies will participate.

There is resistance to this exercise. People are rightly afraid that, by virtue of their great play, it will increase excitement in our area and lead to additional upgrading.

There are many in the area of peacekeeping slavery that is occupied by the environmental aspect of this kind of military activity.

Our belief is that TRJ18 will lead to extensive damage to land, forests and pastures, and not least to land, air and water. Fredsråslåta is afraid that the environmental issue will be glimpse of all logistics problems.

What we know is that 40000 soldiers will attend. It is a crowd of great size with Bodo city. 8000 racing animals are going out on the road. From experience, we know that it's mostly lorries and heavy traffic noise that make large wounds in nature and not at least large emissions to air.

8000 kjoyrety is a 92km column, the distance Oslo - Kongsvinger.

So, use of large amounts of loose ammunition, which means heavy metal emissions to nature that nobody is in control of.

In these days, NATO drives what they call deployment - deployment of heavy equipment and machines.

The Alliance is a fuss on the environmental front. And with one state that has terminated the Paris agreement in the driver's seat, it does not promise the best.

Increased militarization will put more pressure on climate and the environment. And we know that the military is unnoticed by the climate forces, because they are responsible for a good

Military exercises do not make peace

September 19, 2018 h5332

Go to comments Leave a comment

Rate This

By Ivar Jordre, Action Committee against Trident Juncture in Bergen

NATO has long had one policy to fight for its imperialist interests far beyond the NATO area. The out-of-area strategy (newer NATO doctrine of operating outside of its geographical area) came for the first time in practical use in the Kosovo war in 1999. This page then has this NATO's main line. Warriors in Afghanistan, Iraq and Libya are typical deeds of this policy. These are real aggression warriors. Dei has nothing in defense of td Norway to do. But it is this kind of business that is the backbone of Norway's military doctrine. This and more is the "new-NATO" role.

A shocking and robust die on a NATO country such as Norway say participation in NATO's out of area strategy is the bombing of Libya in 2011 (another death is the bombing of Serbia in 1999). From a UN resolution on airbag zone in northern Libya for full bombing and regime-change tactics, the road was short. Unhappy cards! When the stormy United States with Norway is changing its intention, "over night" without enough debate in the whole of the Storting, our defense doctrine is hosted: From land defense to suppliers of lesson soldiers in imperialism si teneste.

Great NATO Leia Military Exercises

Nor is there any big debate about the consequences of major military exercises in the mainstream media. In September 2017, the military force Aurora 17 was in Sweden, the largest Swedish military force since 1993. More than 19,000 Swedish soldiers practiced war with 2000 soldiers from the United States, Finland, France, Norway, Denmark, Lithuania and Latvia. Sweden has recently entered into official partner status with the NATO Alliance. Suddenly, Russia had practice Zapad, which had larger dimensions than the Swedish. Zapad (which indicates "West") is a repetitive exercise with years of space. Here, Russarane simulates defense against a mild undertaking from the West against Russia or border states.

In October-November this year, a great practice, this middle-eastern gambler, may have as many as 40,000 soldiers and thousands of lyricets and will operate 150 aircraft and 70 ships, land and water. This giant call called Trident Juncture 18 hosts the largest exercise in Central Norway in at least 15-20 years. One minor part of the exercise will be in Sweden, Finland, Iceland and in the Baltic Sea.

Leading Anti-NATO Narratives

Environmental Impact

Disturbs Local Economy

**Mistreatment by NATO
Troops**

Mocking/ridiculing NATO

**NATO is a joke – Not a real
threat**

**'Stop NATO'
Protests/Astroturfing**

Threatening Stability

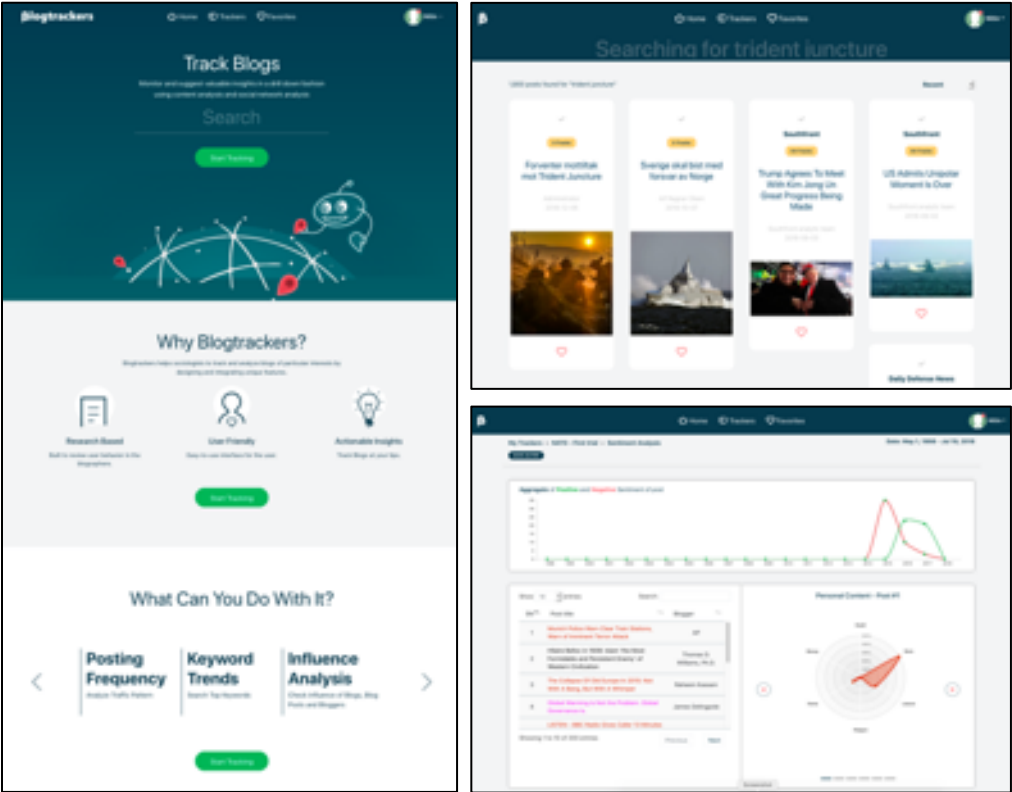
NATO poking 'Russian Bear'

NATO is aggressive

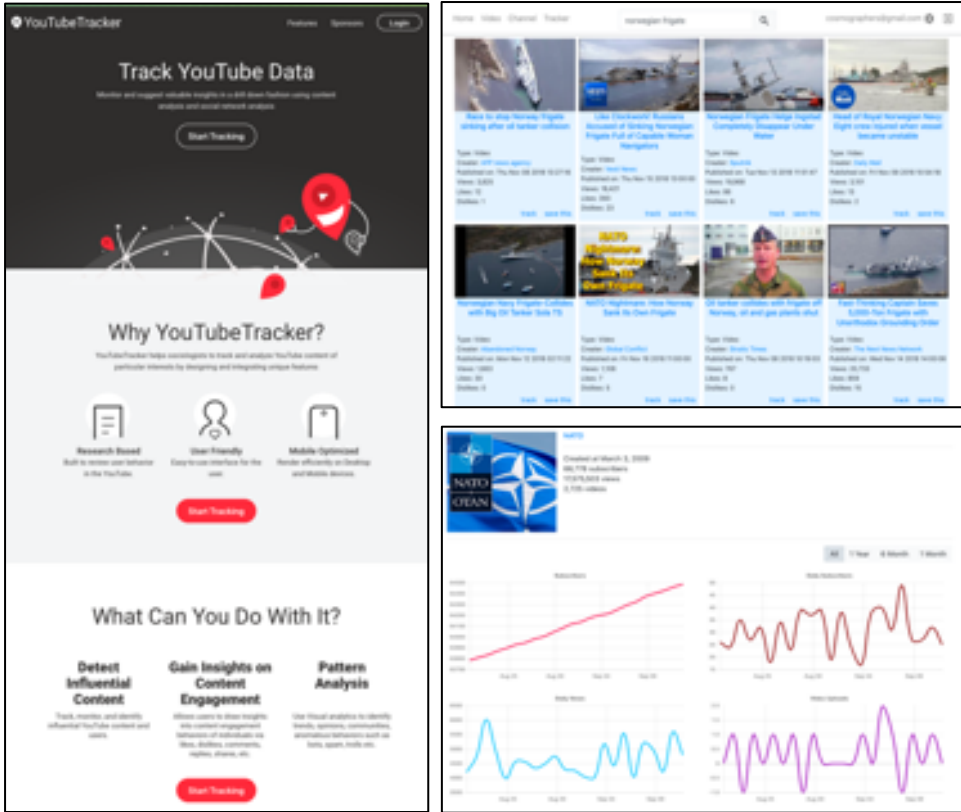
Anti-NATO Imagery



Technologies Used



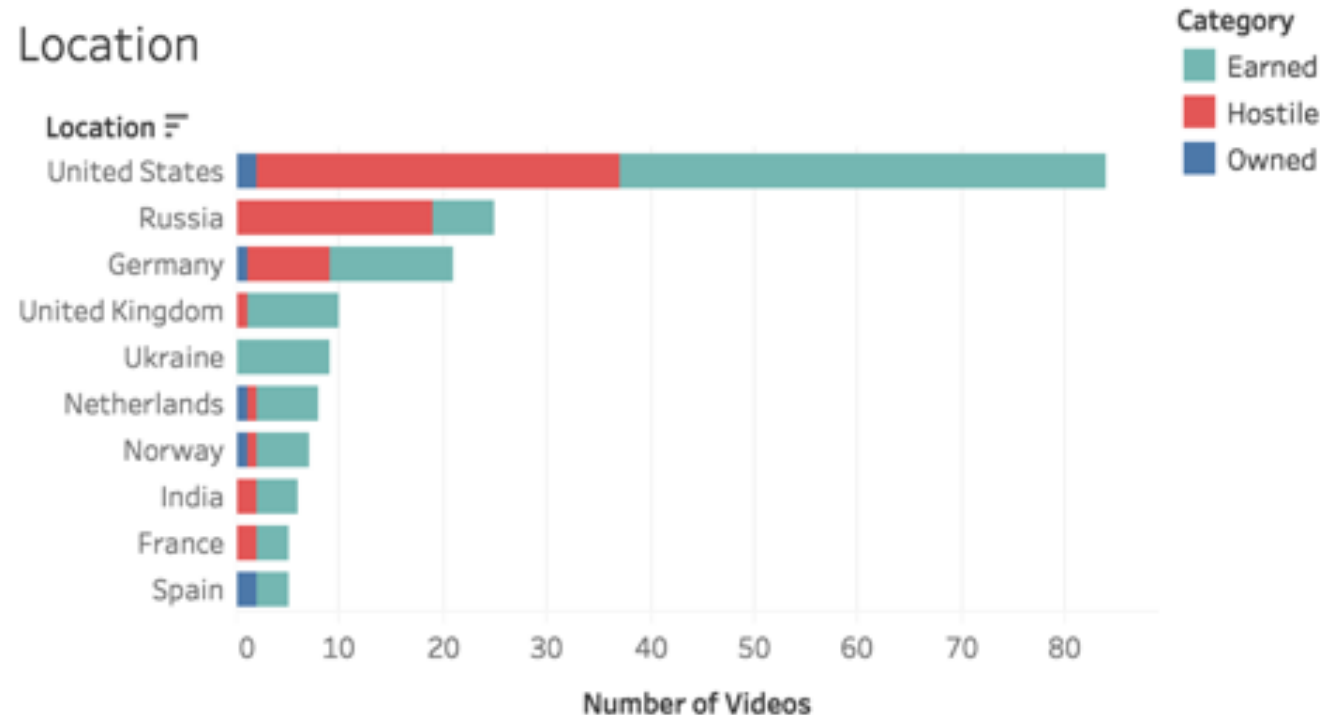
Blogtrackers



YouTubeTracker

YouTube Content – Location Analysis

- Most of the content was published from the United States
- Russian hosted content was mostly hostile.

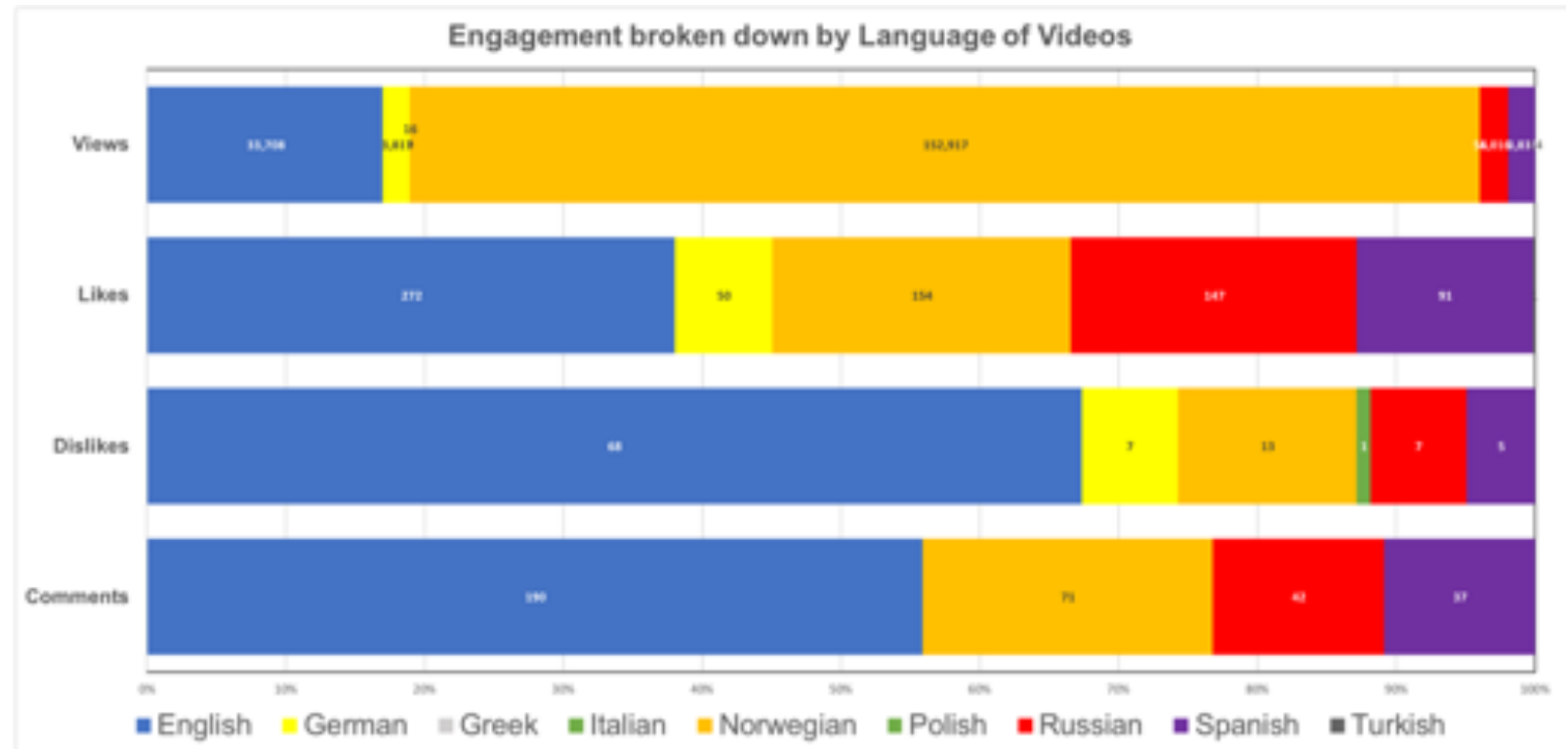


YouTube Content – Target Audience

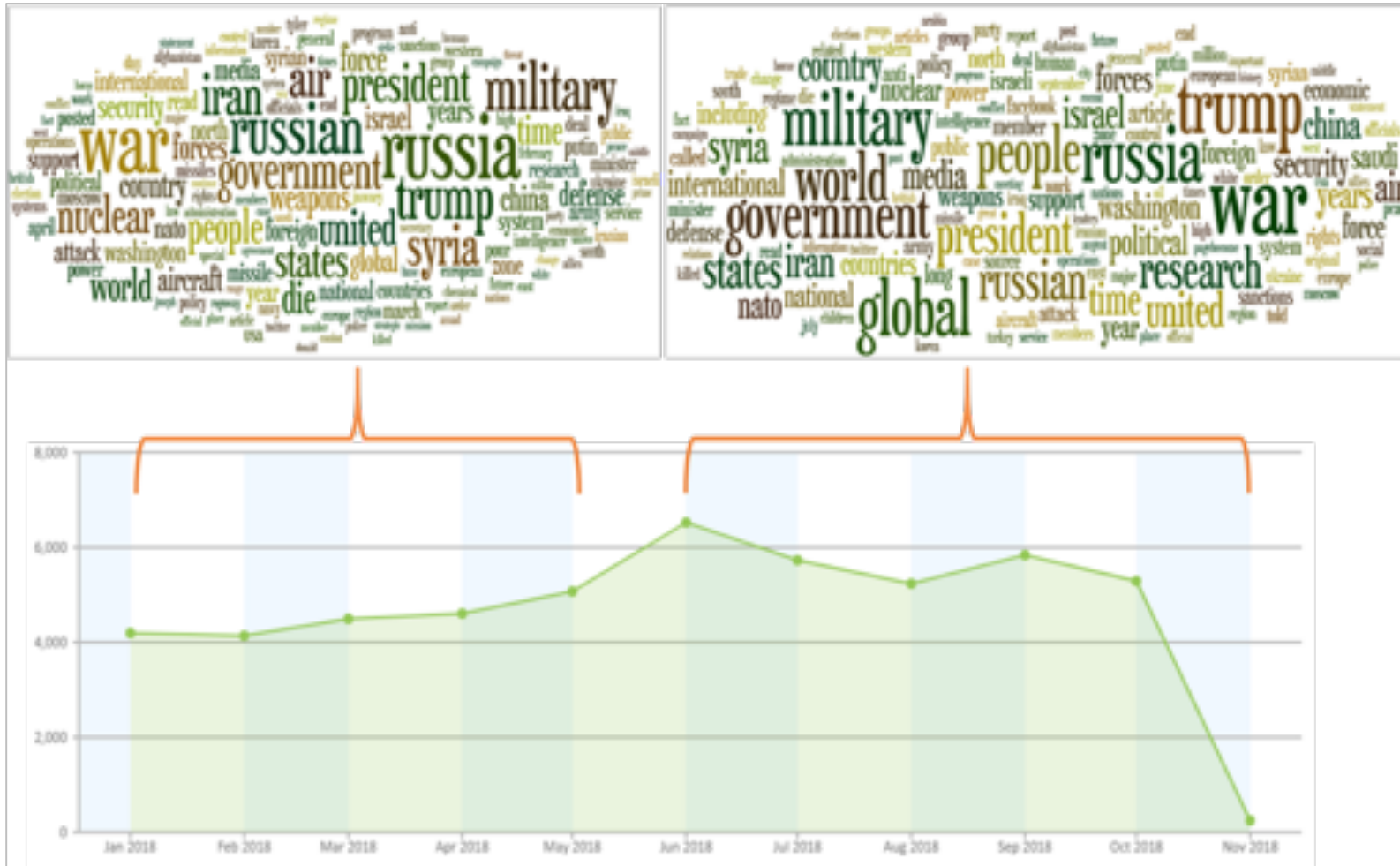
Target audience

- English
- Norwegian
- Russian
- Spanish
- German

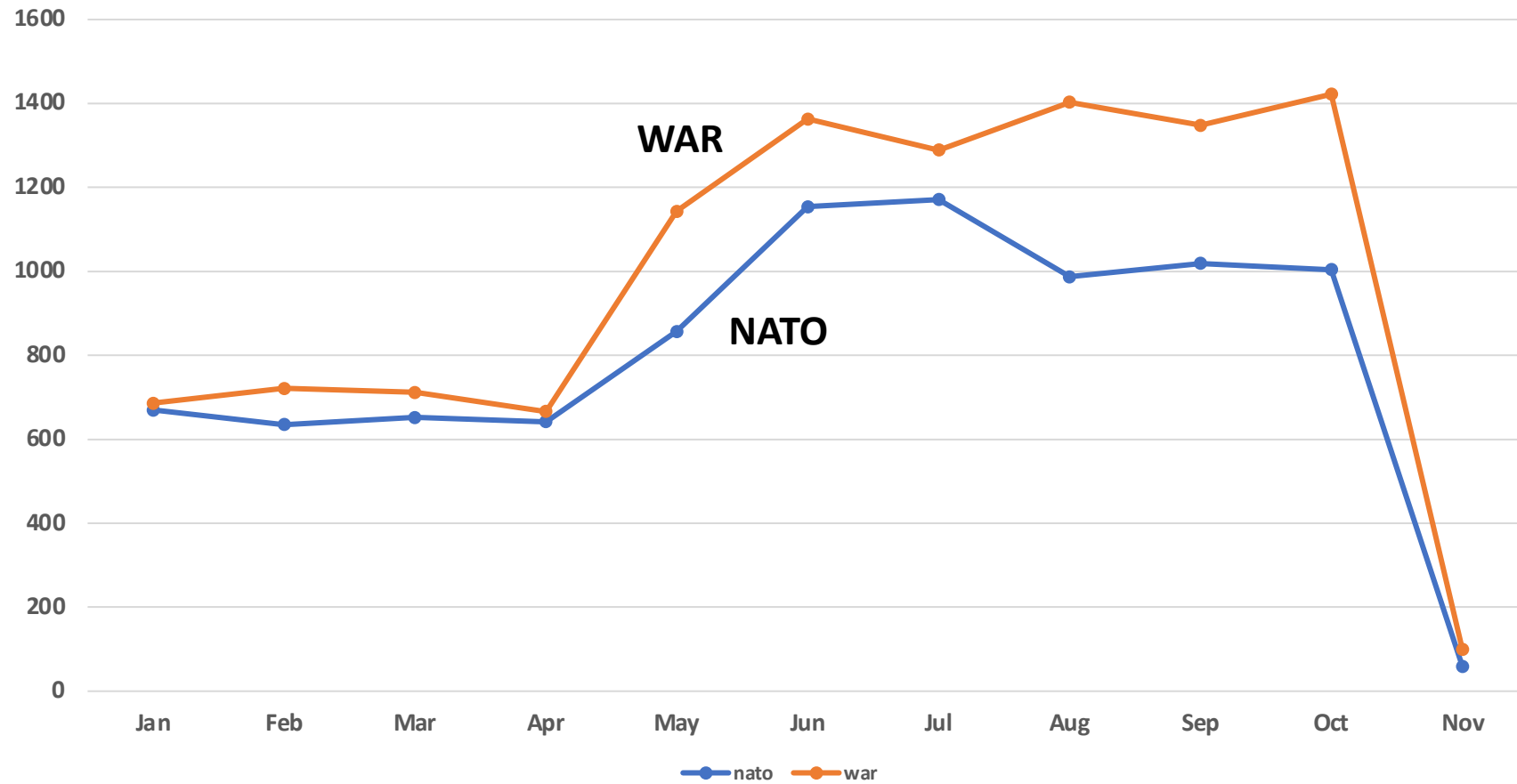
speaking populations



Blog Analysis – Posting Trend



Blog Analysis – Keyword Trend



Resources

Botnet research published by Army University Press, in 7 volume book set on *Large-Scale Combat Operations*, in the book titled “Perceptions are Reality: Information Operations” (2018)



Resources

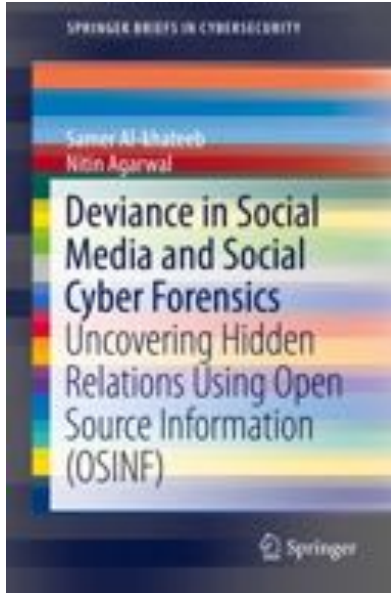


Samer Al-khateeb, Nitin Agarwal, Rick Galeano, and Rebecca Goolsby. Examining the Use of Botnets and their Evolution in Propaganda Dissemination. *Journal of NATO Defence Strategic Communications*, Vol. 2, pp. 87-112. 2017.



Nitin Agarwal and Kiran Kumar Bandeli. Blogs, Fake News, and Influence Operations. *Digital Hydra: False Information Online as a Weapon*, NATO StratCom COE, November 2017.

Resources



Samer Al-khateeb and Nitin Agarwal. **Deviance in Social Media and Social Cyber Forensics**. Springer Briefs in Computer Science. Spring 2019.



Nitin Agarwal, Nima Dokoochaki, Serpil Tokdemir. **Emerging Research Challenges and Opportunities in Computational Social Network Analysis and Mining**. Lecture Notes in Social Networks. Fall 2018.

Social Media Training Course

- NATO Strategic Communications Center of Excellence. 25-29 March 2019.
- Marine Expeditionary Forces (2MEF). 28-31 August 2018 in CMU, Pittsburgh.
- NATO Strategic Communications Center of Excellence. 20-25 March 2017 in Riga, Latvia.
- US CyberCommand's CyberSchool, 3-6 August 2016.



Social Cyber Security Research Infrastructure Development

- US Dept. of State (Global Engagement Center – GO2Tech Fighting Foreign Disinformation)
- American Cyber Alliance (AR-based)



AR Gov. Asa Hutchinson



US Senator John Boozman



Little Rock Mayor Frank Scott Jr.

Social Computing Conference, Washington D.C.

- Social Computing, Behavioral-Cultural Modeling and Prediction Conference, Washington D.C., July 9-12, 2019.
- Supported by several other federal agencies.
- <http://sbp-brims.org/>



Social Cyber Security Working Group

- Supported by NSF Big Data program
- Over 30 member institutions worldwide including researchers, policy makers, journalists, cyber security professionals
- Outcomes of the working group include
 - Policy briefs laying out the research agenda
 - Collective catalog of resources to spark innovation among researchers



Looking Ahead

- Develop publicly available technologies and solutions
- Social media companies need to be more proactive, [Algotransparency.org](https://algotransparency.org)
- Emerging technologies like blockchain for content validation, decentralized social media platforms
- Build collaborative networks of practitioners, researchers, policy makers to address this problem together
- Strengthen media literacy programs
- Need to advance the dialog on cyber security and cyber diplomacy

Acknowledgments

Over 20 grants from:

- Air Force Research Lab (AFRL)
- Arkansas Research Alliance (ARA)
- Army Research Office (ARO)
- DARPA
- Department of State (DOS)
- Department of Homeland Security (DHS)
- Jerry L. Maulden/Entergy Endowment
- National Science Foundation (NSF)
- NATO
- Office of Naval Research (ONR)



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Thank You!

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