The Fake News Machine

How Propagandists Abuse the Internet and Manipulate the Public

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Forward-Looking Threat Research (FTR)

A **TrendLabs** Research Paper

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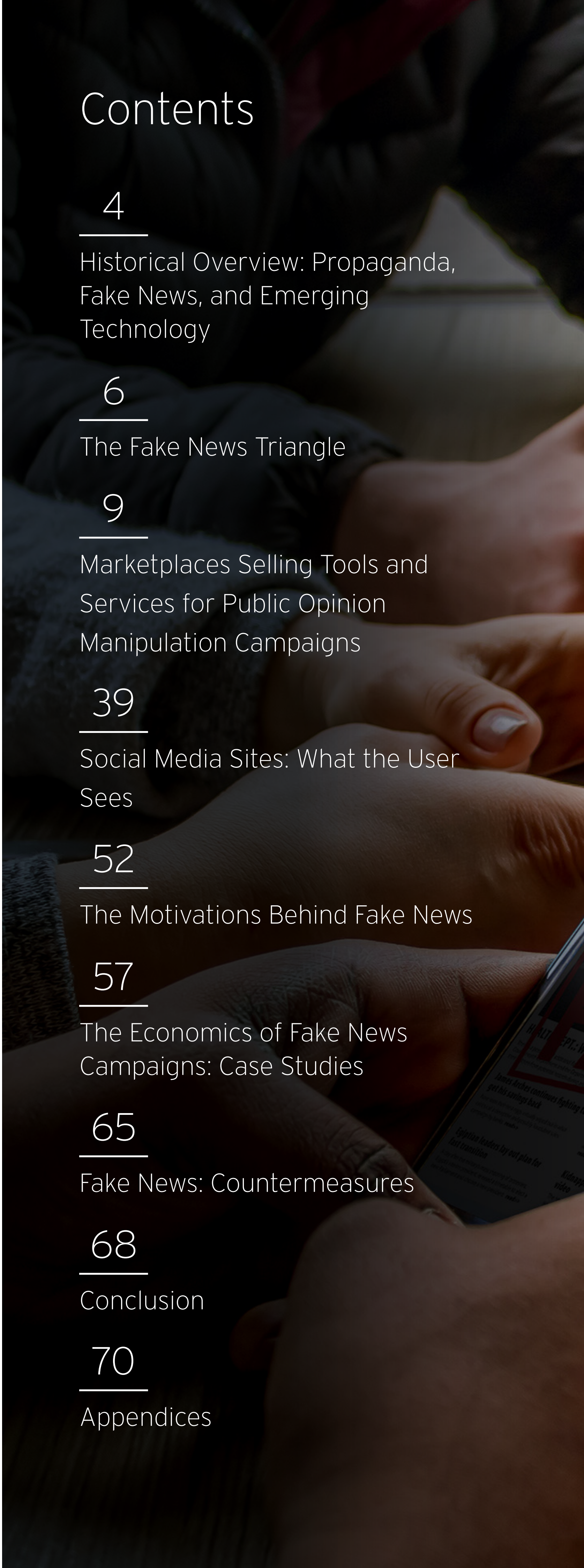


Contents

The term “fake news” became increasingly common during the past year. While this concept has many synonyms—disinformation campaigns, cyber propaganda, cognitive hacking, and information warfare—it’s just one facet of the bigger problem: the manipulation of public opinion to affect the real world. Thanks to the connectivity and digital platforms that make it possible to share and spread information, traditional challenges such as physical borders and the constraints of time and distance do not exist anymore. Unfortunately, it also makes it easier to manipulate the public’s perception of reality and thought processes, resulting in the proliferation of fake news that affects our real, non-digital environment. Each new incident shows how much impact the technological manipulation of public opinion can have on people’s daily lives.

This paper studies and explores the techniques and methods used by actors to spread fake news and manipulate public opinion to serve various motives ranging from personal and financial to political. It also discusses the three legs of the fake news triangle: the services that enable them, their appearance on social media sites, and the motivations behind these activities.

We demonstrate several techniques used to identify such campaigns by processing social media data and show how it is possible to trace those campaigns to the original perpetrators. Finally, we discuss how social media platforms and the general public can counter fake news.

Historical Overview: Propaganda, Fake News, and Emerging Technology

The phrase “fake news” may have been popularized in 2016, but the concept itself dates back millennia.

Technology makes the spread of ideas faster and more scalable, making it easier for propaganda material to reach more people. The printing press—invented around 1440—allowed more ideas to reach more people in less time, as was seen in the Reformation.

Photography was used to cover wars and events, but was also later used to disguise the presence of the politically inconvenient[1] in the Stalinist Soviet Union. Radio, used by Orson Welles, led listeners to think an alien invasion was underway. Mass media in all its forms was used by all sides in both World Wars.

How does new technology disrupt how information is spread? Simply put, each communication method has its associated societal norms and customs—i.e, the way things are “supposed to be done”.

However, new technology disrupts these norms, because none existed up to that point. Until society agrees to the norms—whether through government regulation or societal self-regulation—various parties will abuse it to serve their agendas. This results in false information reaching the public—deliberately or by accident. Either way, it results in what we know as fake news today.

The internet is only the latest communications technology used to spread propaganda. It allows a small number of individuals to influence and manipulate the opinions of a larger audience. In addition, the targeting and crowd dynamics created by social media allows for ideas—true or otherwise—to spread faster than ever before.

News management and opinion manipulation by itself is not necessary “evil”. Corporate communications and public relations departments often use certain propaganda techniques as a crisis management measure to prevent panic, additional financial and reputation damage, etc.

Before we discuss the topic any further, we need to first define what fake news is. In the context of this paper:

> Fake news is the promotion and propagation of news articles via social media. These articles are promoted in such a way that they appear to be spread by other users, as opposed to being paid-for advertising. The news stories distributed are designed to influence or manipulate users' opinions on a certain topic towards certain objectives.

For example, by manipulating the balance of how a particular topic is reported (whether that concerns politics, foreign affairs, or something more commercial), the views on that topic can be changed. This can be done either with inaccurate facts or with accurate ones twisted to favor a particular view or side.

The Fake News Triangle

While fake news campaigns are executed slightly differently on each media, in the context of social media and the internet these campaigns rely on three different components to be successful. We'll call this concept the fake news triangle. Similar to the fire triangle, fake news requires all three factors to be present in order to be successful. The absence of any one of the three factors will make the spread of fake news more difficult, if not impossible.

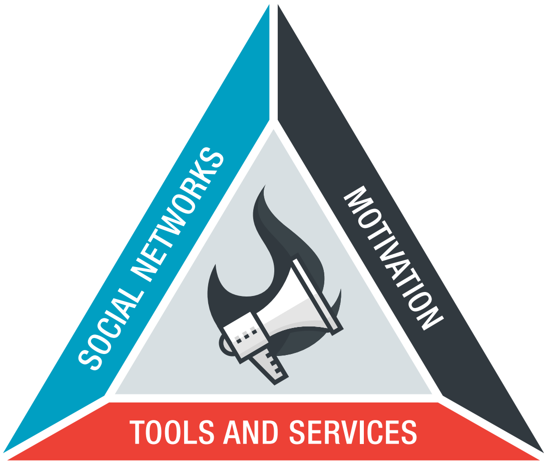


Figure 1. The Fake News Triangle

Online Markets and Services

The rapid growth of social networks caused them to become ideal platforms for spreading disinformation campaigns. Incidents over the past few years demonstrate how social networks are used to distribute fake news. To spread fake news, it is necessary to promote it to social media users. While the use of advertising or other legitimate promotional services might be sufficient for commercial efforts, these would be inadequate for spreading fake news, for several reasons:

- Cost. For the reach demanded of fake news campaigns, legitimate advertising is more expensive compared to the costs of fake news (which is important to smaller, less-funded actors)

- Anonymity. It is much easier to hide the origin of a fake news campaign compared to paid advertising.
- Credibility. News sources may prefer stories spreading “virally” from users, as opposed to spreading through advertisements.

Our research focused on the legitimate (abused) and gray market services used to promote and distribute fake news. The pricing models are generally simple: a fixed amount of money results in a fixed amount of actions and manipulations performed on a social media site (likes, favorites, etc.). Some of these services guarantee the quality of these actions as well (i.e., they will use humans instead of bots, etc.).

The services available in these markets extend beyond spreading fake news and often include the creation of the news stories and marketing these to the target users. Comments sections are also vulnerable to being manipulated; news articles can be flooded with comments designed to promote the objectives of a client, whatever these may be.

Social Media Sites

Fake news in its current incarnation would not be possible without social media sites, as these platforms allow users from various countries to connect with other users easily.

The services mentioned above require access to social media sites to spread fake news to actual users. The social media networks have a vested interest in not allowing this access; they would like to keep their sites free of the influence of spammers and propagandists as much as possible. (In extreme cases, social media sites can be fined[2] or even blocked[3] by countries who believe said sites are complicit in spreading fake news.)

Therefore, social media promoters making up the other leg of the fake news triangle resort to other means to maintain their social media activity, such as bots, or coopting actual users.

These social media posts *also* have to attract the target readers of the fake news operation. To do this, the fake news posts are crafted to appeal to its readers’ psychological desires—confirming biases, the hierarchy of needs, etc.

In addition, some services use crowdsourcing mechanisms to manipulate real users into doing the bidding of fake news promoters. For example, offer users free likes in exchange for a number of likes produced by the participating user. It would be nearly impossible for social media networks to distinguish such manipulated activity from actual or natural user actions.

Means and Motivation

Fake news is a means to an objective, not an objective in and of itself. The parties who commissioned the promotion of fake news sites do so with an objective in mind. While *any* media post can be considered biased to some extent, what differentiates fake news campaigns is that they are often generally based on fabricated, non-existent facts and often utilize shocking, clickbait titles in order to attract the reader's attention.

The importance of the title used for the headlines cannot be emphasized enough. In today's digital era, the attention span of a typical reader is very short. Fake news creators use this to manipulate the public. There's no need for an article to be sensible, complete, or factual; a sensational headline will achieve the objectives just as well.

In the current landscape, the objective is most commonly thought to be political. While this has been the dominant variety of fake news in some countries, other possible motives exist. Even if political fake news is the most commonly used today, the tools and techniques that enable them are becoming more available. It is inevitable that other motivations—such as profit—will come to the forefront in later years.

Marketplaces Selling Tools and Services for Public Opinion Manipulation Campaigns

Manufacturing fake news requires tools, and the online underground is rife with them. In principle, some of the services we identified can also be used legitimately, such as in content marketing, but like any potent tool we see them discussed on underground forums, abused, and leveraged to disseminate fake news and manipulate public opinion.

These offerings are available in online underground markets and in some ways can be considered an outgrowth of existing services such as Black Hat Search Engine Optimization (SEO), click fraud, and the sale of human and bot traffic.

Click fraud, however, has become less lucrative thanks to advances in click fraud detection technologies—and the growing number of businesses that use them. The online underground's purveyors countered this by redirecting their skills towards developing social media promotion services.

An examination of the Chinese, Russian, Middle Eastern, and English-based underground marketplaces will reveal a range of services available to anyone looking to distribute fake news and launch public opinion manipulation campaigns. Offerings vary and reflect regional differences in social and online culture. There are, however, common underlying trends with how they are sold: from creating and distributing content to silencing or even removing content if it serves the customer's purpose.

It's important to note that underground services aren't indispensable, as they are also available in gray and sometimes even legitimate markets. High-profile—or even state-sponsored operators—may have their own resources to mount a fake news campaign, but the underground offers a unique advantage: anonymity. Not only does it enhance the spread of fake or propaganda-driven content, but also helps shroud its instigators from accountability.

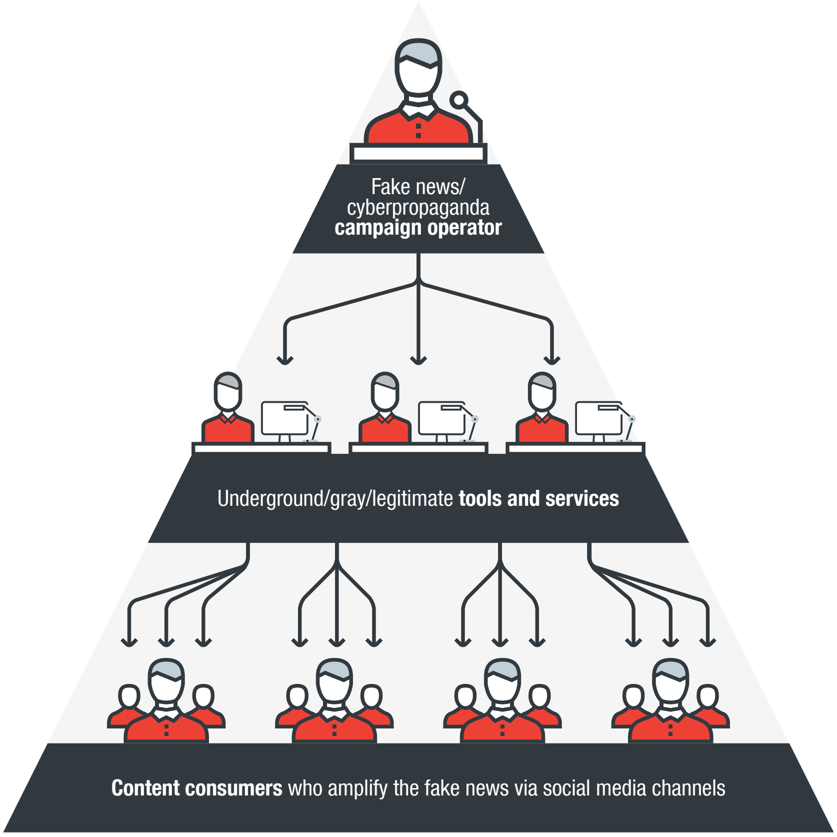

Fake news/
cyberpropaganda
campaign operator
Underground/gray/legitimate tools and services
Content consumers who amplify the fake news via social media channels

Figure 2. How an operator employs or abuses underground, gray, and legitimate marketplaces to disseminate fake news

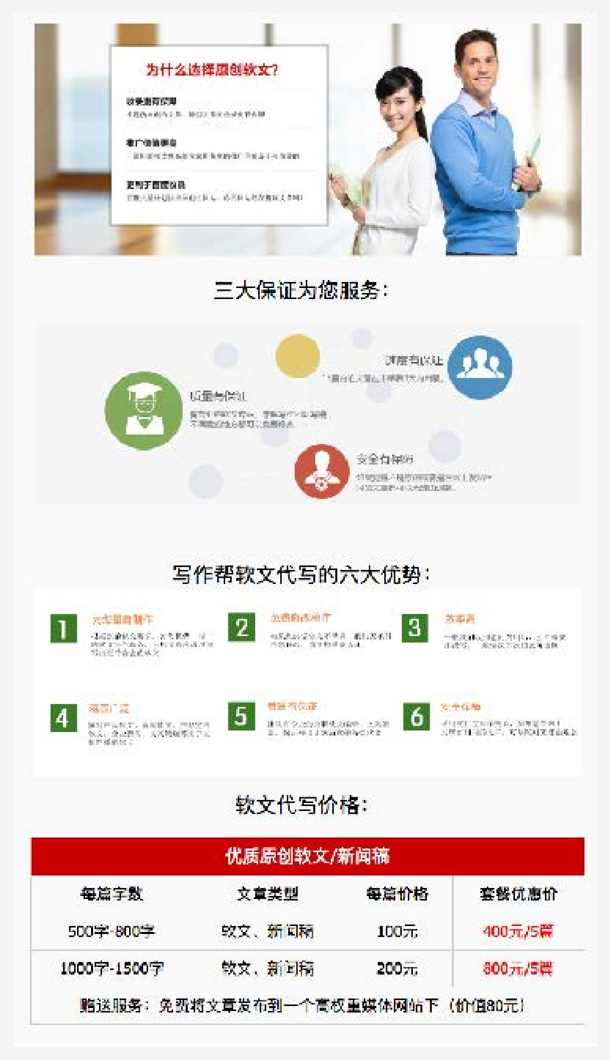
The Chinese Underground Mostly Caters to Its Own Market

Tools and services for spreading content in the Chinese underground unsurprisingly caters to the Chinese market, given the difficulty of accessing certain social media platforms outside the country.

One form of content marketing in China is known as 新闻软文, which translates to “News-Style Soft Article” (NSSA). They serve as advertorials, using viral news to hook readers. These advertorials would often use clickbait headlines, or phrases like “based on our journalist’s investigations”, to lend a factual tone or apparent credibility to the content. In reality, these articles are advertisements disguised as editorial or journalistic pieces.

Content Marketing Services

The same service is offered in the Chinese underground and gray marketplaces, which can be abused to distribute content for propaganda. One of them is Xiezuobang (写作帮), who charges 100 renminbi (RMB/CNY)—or approximately US$15—for a 500 to 800-word article, and RMB 200 ($30) for content with 1,000 to 1,500 words. Xiezuobang also offers the content's distribution, priced depending on the platform where the article will be published.



为什么选择原创软文?

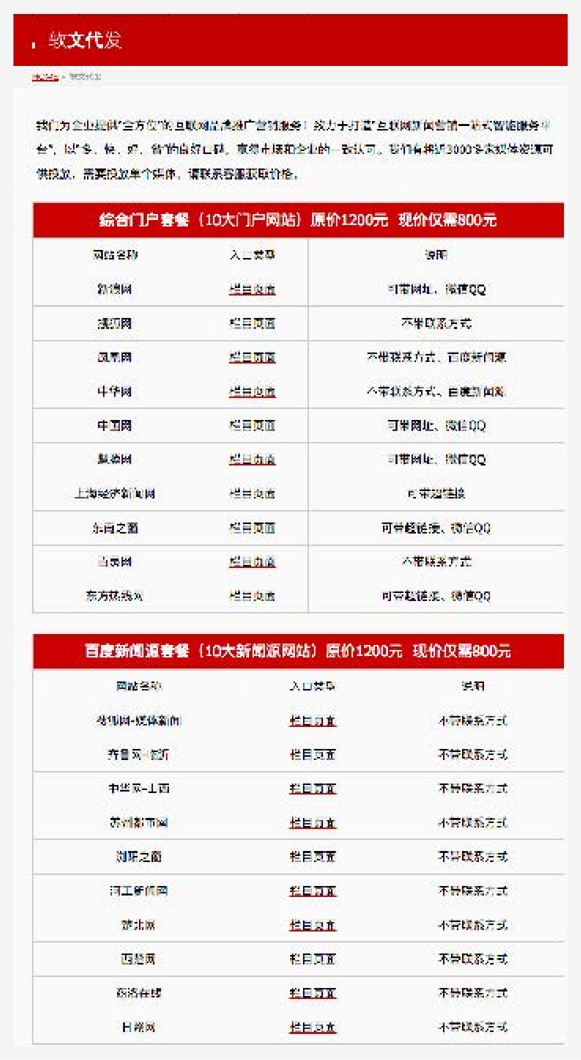
三大保证为您服务:

写作帮软文代写的六大优势:

软文代写价格:

优质原创软文/新闻稿			
每篇字数	文章类型	每篇价格	套餐优惠价
500字-800字	软文、新闻稿	100元	400元/5篇
1000字-1500字	软文、新闻稿	200元	800元/5篇

赠送服务：免费将文章发布到一个高权重媒体网站下（价值80元）



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综合门户套餐（10大门户网站）原价1200元　现价仅需800元		
网站名称	入口类型	说明
新浪网	栏目页面	可带网址、微信QQ
搜狐网	栏目页面	不带联系方式
凤凰网	栏目页面	不带联系方式、百度新闻源
中华网	栏目页面	不带联系方式、百度新闻源
中国网	栏目页面	可带网址、微信QQ
腾讯网	栏目页面	可带网址、微信QQ
上海经济新闻网	栏目页面	可带超链接
东南之窗	栏目页面	可带超链接、微信QQ
[illegible]	栏目页面	不带联系方式
东方热线网	栏目页面	可带超链接、微信QQ

百度新闻源套餐（10大新闻源网站）原价1200元　现价仅需800元		
网站名称	入口类型	说明
[illegible]网-媒体新闻	栏目页面	不带联系方式
齐鲁网-临沂	栏目页面	不带联系方式
中华网-山西	栏目页面	不带联系方式
苏州都市网	栏目页面	不带联系方式
[illegible]之窗	栏目页面	不带联系方式
河工新闻网	栏目页面	不带联系方式
黔北网	栏目页面	不带联系方式
西部网	栏目页面	不带联系方式
[illegible]	栏目页面	不带联系方式
[illegible]	栏目页面	不带联系方式

Figures 3 and 4. Homepage of Xiezuobang (left) and the pricing of their services on offer (right)

Type of News Site	Price per 10 sites
National news	RMB 800 ($116)
Site in Baidu news feed	RMB 800 ($116)
Provincial news	RMB 500 ($72)
IT news	RMB 1,200 ($174)
Real estate	RMB 900 ($131)
Fashion/entertainment	RMB 1,200 ($174)
Healthcare	RMB 1,300 ($189)
Finance/business	RMB 900 ($131)

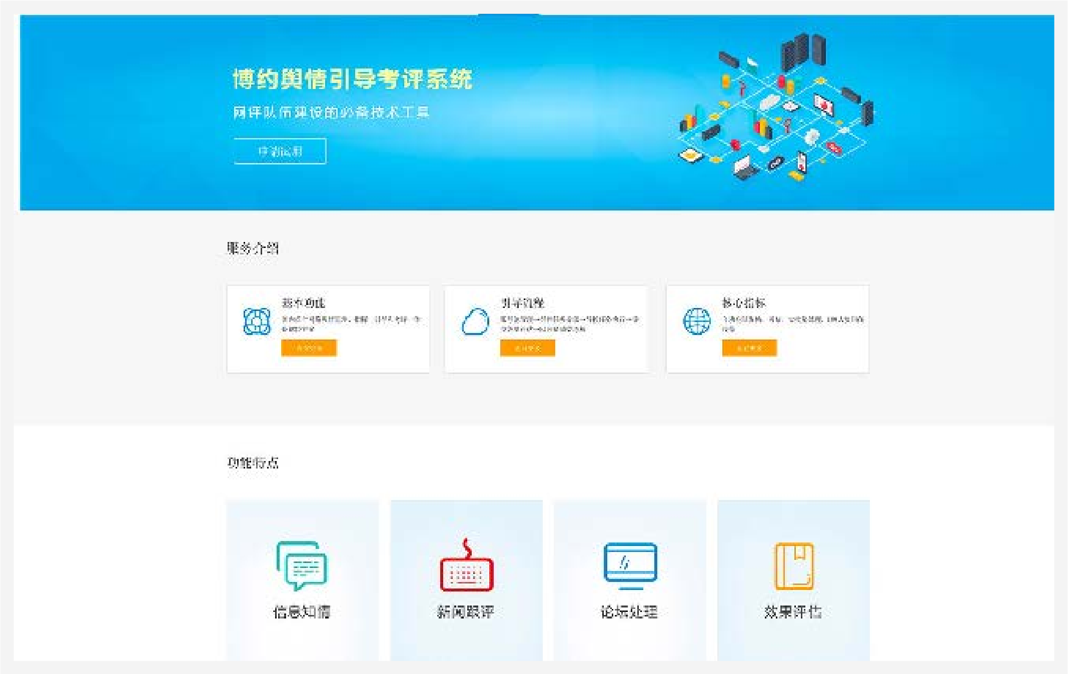
Table 1. Xiezuobang's pricing for content distribution

Analytics Services

Several sites also tout a “public opinion monitoring system” that can purportedly survey, research, and influence opinion in prominent forums and social media, depending on the customer’s topics of interest.

One of these services is Boryou Public Opinion Influencing System (博约輿情引导考评系统). The service claims it can monitor 3,000 websites and forums, and add manual and automatic posts or replies with a supposed capacity of 100 posts per minute. Boryou’s service has a certain workflow: an administrator would first dispatch tasks to its operators through a built-in instant messaging (IM) client. The operators then carry the tasks out, with Boryou’s software tracking and logging their completion. Key performance indicators (KPIs) are automatically measured and demonstrated to the customer in charts and tables. KPIs include post, click, and reply count, frequency analysis, timeline, and rate of positive/negative comments.

Boryou doesn’t have a price list in its site. A potential customer would have to directly contact Boryou and meet with its sales agents in person to get a quote.



博约舆情引导考评系统

网评队伍建设的必备技术工具

服务介绍

基本功能

[illegible]

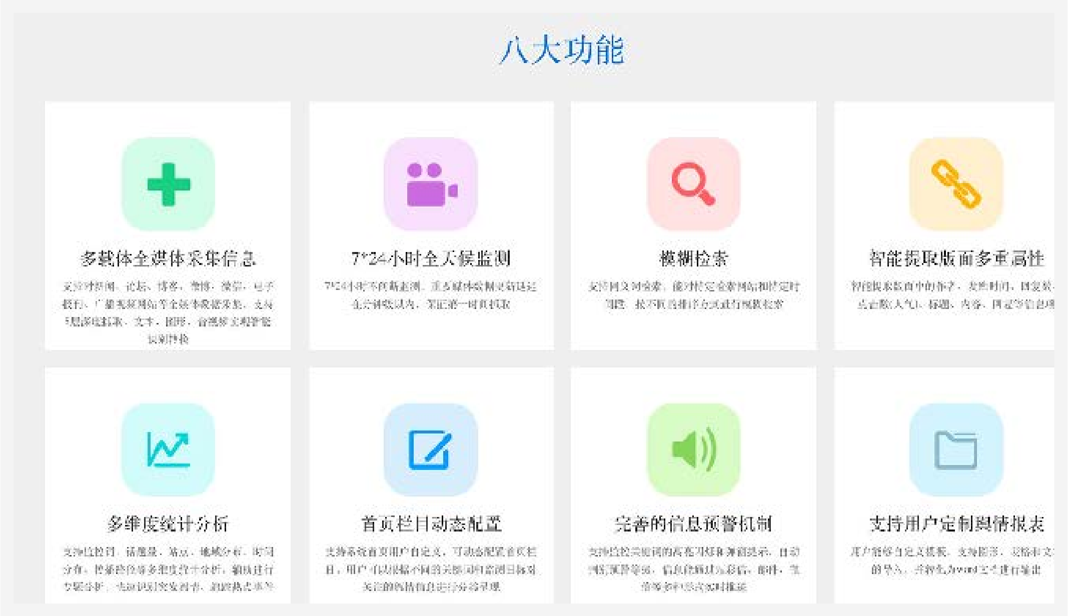
引导流程

[illegible]

核心指标

[illegible]

功能特点



八大功能

多载体全媒体采集信息

[illegible]

7*24小时全天候监测

[illegible]

模糊检索

[illegible]

智能提取版面多重属性

[illegible]

多维度统计分析

[illegible]

首页栏目动态配置

[illegible]

完善的信息预警机制

[illegible]

支持用户定制舆情报表

[illegible]

Figures 5 and 6. Boryou Public Opinion Influencing System advertising features of its services that include vast data sources, 24/7 support, fuzzy search, extraction of information from webpages, multiple notification channels, and customized reports

We didn’t directly interact with Boryou’s sales agents, but we can understand their pricing models by measuring it against a comparable service, the Yunjing Public Opinion Monitoring System (天互云镜舆情监测分析系统). Yunjing's service monitors news sites (Chinese and English), forums, blogs, search engines, and regional sites and applications like Weibo, a popular Chinese microblogging site, and WeChat, China’s prevalent social media platform. It claims to be capable of analyzing Weibo in order to find or create “opinion leaders” and provide customers information that include their region as well as post, repost, and comment count.

Yunjing charges its customer per keyword. The price ranges from RMB 12,800 ($1,850) for 10 keywords to RMB 28,800 ($4,175) for 20 keywords. The service comes packaged with analytics reports for WeChat, Weibo, and special or customer-defined topics.

为企业提供商情管理服务，为政府提供舆情管理服务

产品价格

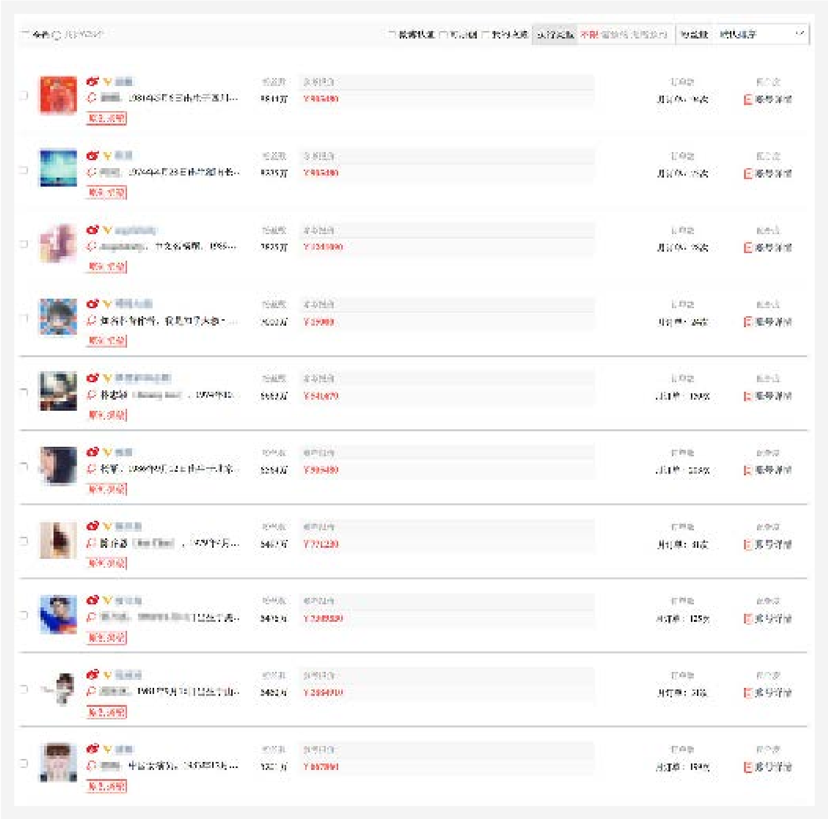
Figures 7 and 8. Snapshot of Yunjing's site (left) and a price list of its services (right)

Social Media Promotion

The Chinese underground also provides services that utilize social media to influence public opinion. A popular post or repost, for instance, can trigger a word-of-mouth effect where followers read and share the content that can even cascade into the real world. While this is normally leveraged in social media marketing, the online underground is riding this wave, too.

These brokers similarly offer paid posts and reposts in Chinese social media as a service (“付费发帖”, “付费转帖”). This includes contacting influential Weibo and WeChat users to promote the client’s content by posting or reposting them. The more popular the user, the higher the service’s price is.

A company called ftx9 (粉天下) offers this service, claiming that it can get prominent Chinese social media users to post the message. Content posted by a WeChat celebrity with 10.7 million followers, for instance, has a price tag of RMB 479,730 ($69,500), while a famous Weibo user with 78.25 million followers costs RMB 1,241,090 ($180,000). Buyers will bank on a celebrity’s visibility as a potent means to deliver their desired content to an expansive pool of audience.

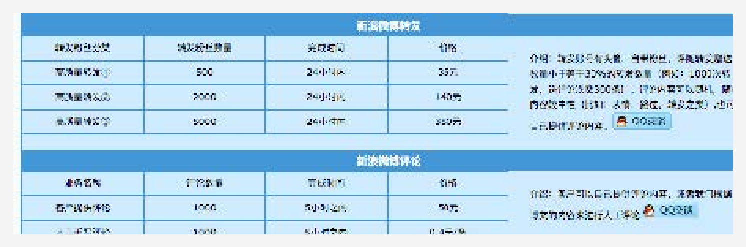


Figures 9 and 10. Snapshots of ftx9's website that shows subscription accounts, pricing for posts, and monthly orders

More modestly priced alternatives can also be bought. Weixinvips (伦桥平台) sells “views” on articles posted on WeChat, with RMB 1 translating to 40 views. For RMB 1.2, a customer can garner 1,000 WeChat likes. Shuafans (fans微传媒) sells 10,000 views to videos, with prices ranging between RMB 2 and RMB 20 depending on where the video is hosted (Youku, LeTV, Sohu, Tencent, and iQiYi).

There is also a lot of competition between services that sells “followers”. Weibosu (微博速) promises to increase a customer’s follower base on Sina Weibo within 24 hours. The price depends on how many followers a prospective client would want: RMB 25, 40, 180, and 300 will yield 500, 1,000, 5,000, and 10,000 followers, respectively. Weibosu’s customers are incentivized with a volume discount; it even promises to deliver 500 followers within an hour of order.

Weibosu's apparent competitor, Weibofans (微粉网), also offers WeChat followers. Weibofans' service is pricier though, with rates that depend on the social media platform—5,000 followers on Weibo costs RMB 455 ($66), whereas it costs RMB 700 ($103) on WeChat. Weixinvips (伦桥平台) is the most expensive—500 WeChat followers, delivered within 24 hours, cost RMB 100, while 5,000 and 10,000 followers are pegged at RMB 1,000 and 2,000, respectively.



新浪微博转发

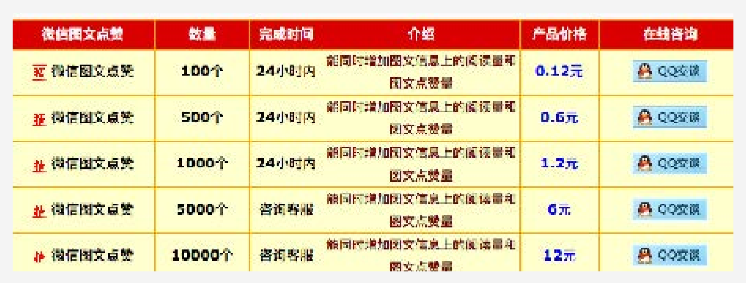
转发粉丝类型	转发粉丝数量	完成时间	价格
新浪微博转发	500	24小时内	35元
新浪微博转发	2000	24小时内	140元
新浪微博转发	5000	24小时内	350元

介绍：[illegible] QQ交谈

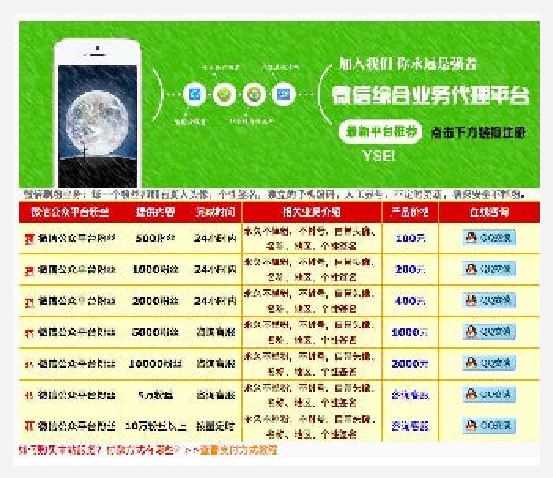
新浪微博评论

业务名称	评论数量	完成时间	价格
客户提供评论	1000	5小时之内	50元
[illegible]	1000	5小时之内	[illegible]

介绍：客户可以自己提供评论内容，[illegible] QQ交谈



微信图文点赞	数量	完成时间	介绍	产品价格	在线咨询
微信图文点赞	100个	24小时内	能同时增加图文信息上的阅读量和图文点赞量	0.12元	QQ交谈
微信图文点赞	500个	24小时内	能同时增加图文信息上的阅读量和图文点赞量	0.6元	QQ交谈
微信图文点赞	1000个	24小时内	能同时增加图文信息上的阅读量和图文点赞量	1.2元	QQ交谈
微信图文点赞	5000个	咨询客服	能同时增加图文信息上的阅读量和图文点赞量	6元	QQ交谈
微信图文点赞	10000个	咨询客服	能同时增加图文信息上的阅读量和图文点赞量	12元	QQ交谈



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微信公众平台粉丝	提供数量	完成时间	相关业务介绍	产品价格	在线咨询
微信公众平台粉丝	500粉丝	24小时内	永久不掉粉，不封号，自带头像，签名，地区，个性签名	100元	QQ交谈
微信公众平台粉丝	1000粉丝	24小时内	永久不掉粉，不封号，自带头像，签名，地区，个性签名	200元	QQ交谈
微信公众平台粉丝	2000粉丝	24小时内	永久不掉粉，不封号，自带头像，签名，地区，个性签名	400元	QQ交谈
微信公众平台粉丝	5000粉丝	咨询客服	永久不掉粉，不封号，自带头像，签名，地区，个性签名	1000元	QQ交谈
微信公众平台粉丝	10000粉丝	咨询客服	永久不掉粉，不封号，自带头像，签名，地区，个性签名	2000元	QQ交谈
微信公众平台粉丝	5万粉丝	咨询客服	永久不掉粉，不封号，自带头像，签名，地区，个性签名	咨询客服	QQ交谈
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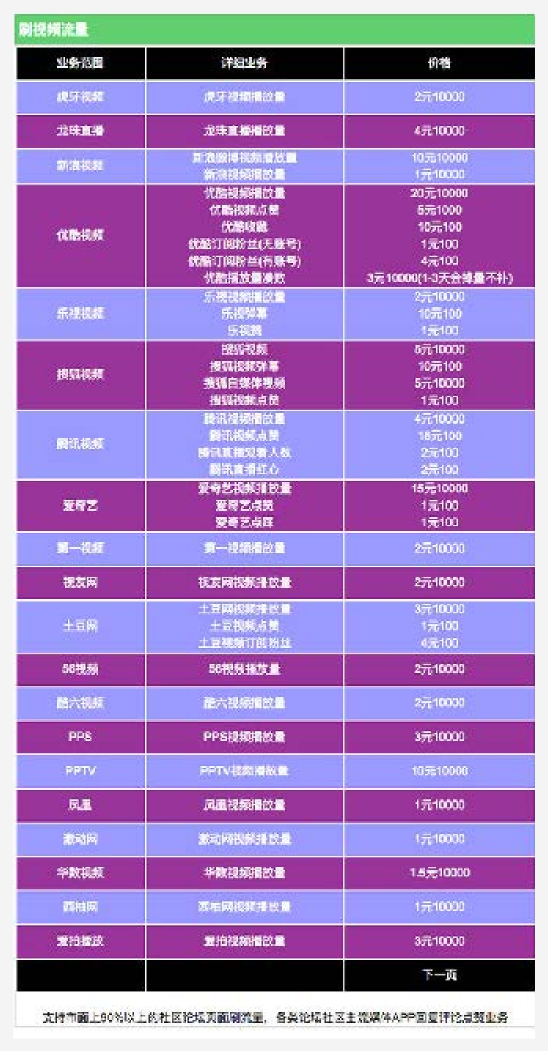


刷视频流量

业务范围	详细业务	价格
虎牙视频	虎牙视频播放量	2元10000
龙珠直播	龙珠直播播放量	4元10000
新浪视频	新浪微博视频播放量 新浪视频播放量	10元10000 1元10000
优酷视频	优酷视频播放量 优酷视频点赞 优酷收藏 优酷订阅粉丝(无账号) 优酷订阅粉丝(有账号) 优酷播放量爆款	20元10000 5元1000 10元100 1元100 4元100 3元10000(1-3天会掉量不补)
乐视视频	乐视视频播放量 乐视弹幕 乐视踩	2元10000 10元100 1元100
搜狐视频	搜狐视频 搜狐视频弹幕 搜狐自媒体视频 搜狐视频点赞	5元10000 10元100 5元10000 1元100
腾讯视频	腾讯视频播放量 腾讯视频点赞 腾讯直播观看人数 腾讯直播红心	4元10000 18元100 2元100 2元100
爱奇艺	爱奇艺视频播放量 爱奇艺点赞 爱奇艺点踩	15元10000 1元100 1元100
第一视频	第一视频播放量	2元10000
视友网	视友网视频播放量	2元10000
土豆网	土豆网视频播放量 土豆视频点赞 土豆视频订阅粉丝	3元10000 1元100 4元100
56视频	56视频播放量	2元10000
酷六视频	酷六视频播放量	2元10000
PPS	PPS视频播放量	3元10000
PPTV	PPTV视频播放量	10元10000
凤凰	凤凰视频播放量	1元10000
激动网	激动网视频播放量	1元10000
华数视频	华数视频播放量	1.5元10000
[illegible]	[illegible]视频播放量	1元10000
秒拍播放	秒拍视频播放量	3元10000
		下一页

支持市面上90%以上的社区论坛页面刷流量，各类论坛社区主流媒体APP回复评论点赞业务

Figures 11 to 14. Webpages and price lists of (clockwise from top left) Weibosu, Shuafans, Weixinvips, and Weibofans

Content Takedown

While some Chinese underground services offer the creation, distribution, and proliferation of fake news, some also offer to do the opposite—taking down content.

118t Negative News (大良造负面信息理) offers such a service. News or a post in a given URL would need one to five days to be taken down, and the fee depends on the content's popularity and where it's published.

Similar services have been available as early as 2012. In one of the advertisements we saw, taking down a single news article or post in a particular web portal costs RMB 2,500 to RMB 6,000. Pulling down one post in a popular forum like Tianya or bulletin board system (BBS) mop.com would net the service provider anywhere between RMB 2,500 and RMB 4,000.

In 2012, Beijing police clamped down[4] a group known as "Yage Times", which was found engaging in the business of taking down negative publicity or news stories deemed unfavorable to the customer. In 2011, the group reportedly earned RMB 50 million from this scheme. Yage Times's modus operandi included bribing the administrators of the website the story is published in, or hacking into the websites to delete the article.

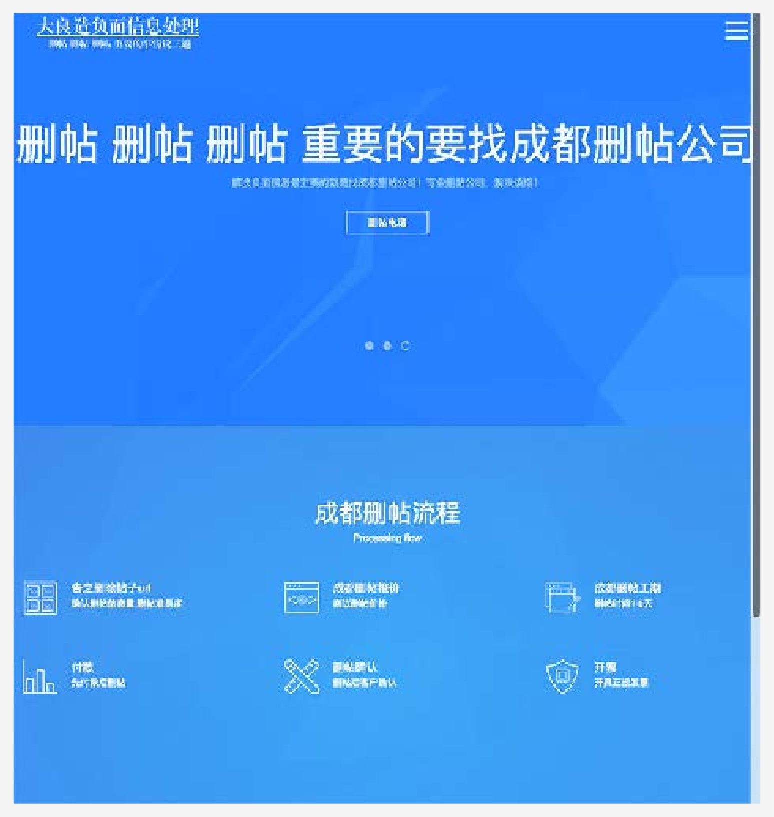
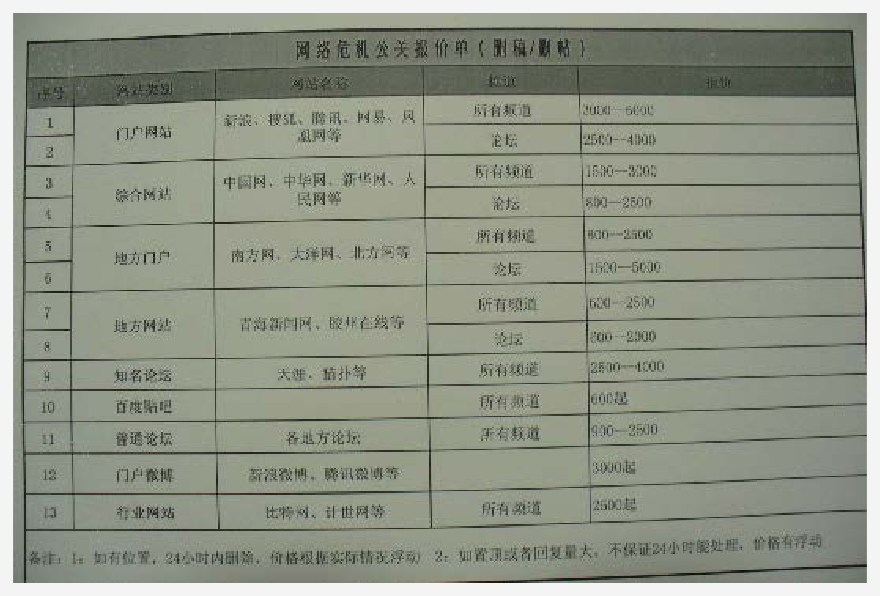


Figure 15. Website for content takedown services



网络危机公关报价单（删稿/删帖）

序号	网站类别	网站名称	频道	报价
1	门户网站	新浪、搜狐、腾讯、网易、凤凰网等	所有频道	2000—6000
2			论坛	2500--4000
3	综合网站	中国网、中华网、新华网、人民网等	所有频道	1500—3200
4			论坛	800—2500
5	地方门户	南方网、大洋网、北方网等	所有频道	800--2500
6			论坛	1500—5000
7	地方网站	青海新闻网、胶东在线等	所有频道	600--2500
8			论坛	800--2300
9	知名论坛	天涯、猫扑等	所有频道	2500--4000
10	百度贴吧		所有频道	600起
11	普通论坛	各地方论坛	所有频道	900—2500
12	门户微博	新浪微博、腾讯微博等		3000起
13	行业网站	比特网、计世网等	所有频道	2500起

备注：1：如有位置，24小时内删除，价格根据实际情况浮动 2：如置顶或者回复量大，不保证24小时能处理，价格有浮动

Figure 16. Advertisement for content takedown services

Vote Manipulation and Click Farms

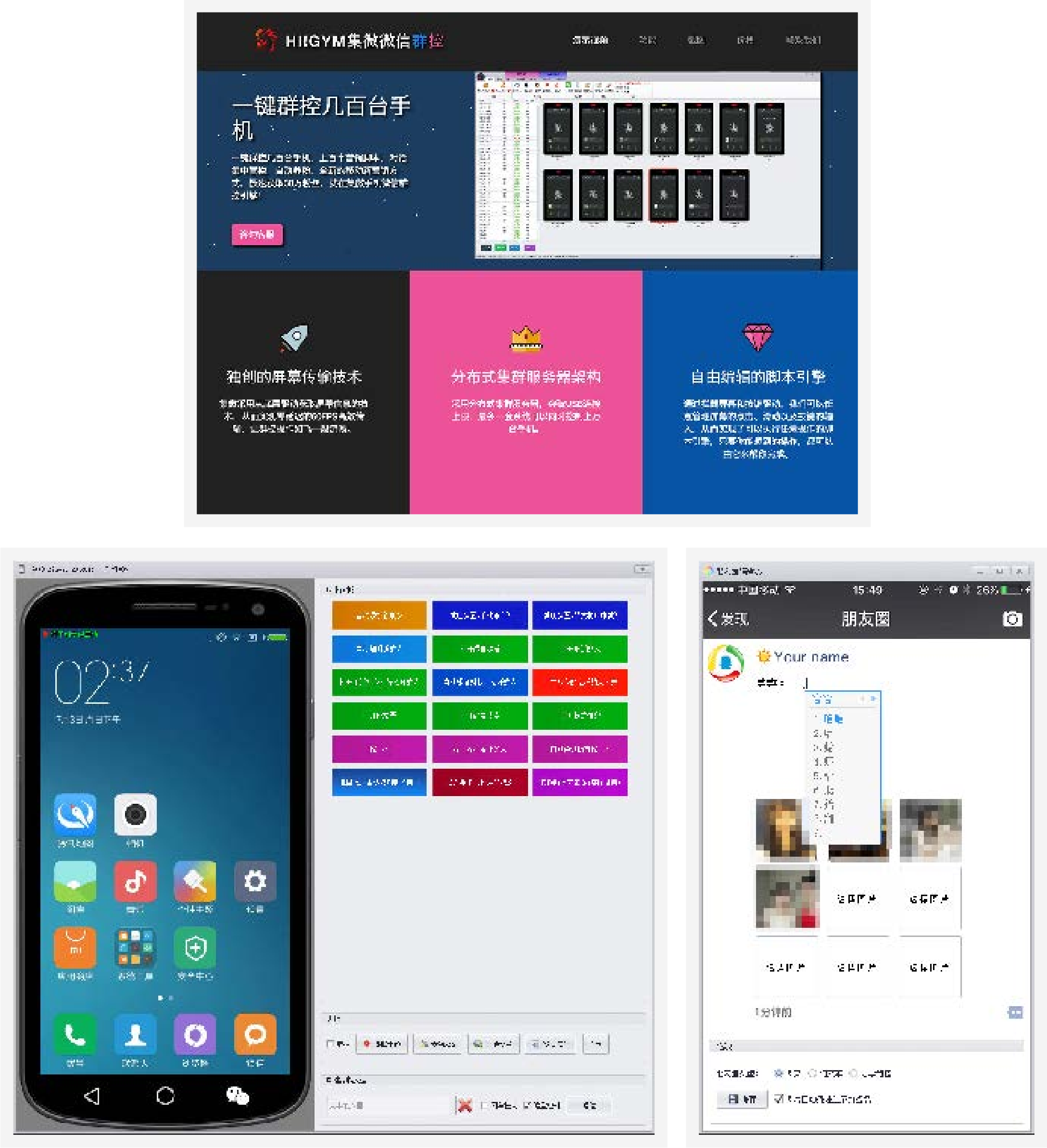
The Chinese marketplaces also offer services that can manipulate online polls or voting. Weibosu and Weixinvips offer them—5,000 votes on Weibo would amount to RMB 350 in Weibosu, while Weixinvips promises to provide 1,000 votes within 24 hours for RMB 200.

If the motive, however, is to exhaustively promote content or applications, generate social media likes, and bolster a profile or company ranking, click farms provide the scale and scope needed to mount such a campaign. A click farm typically comes with built-in scripts that can automatically do tasks such as following a WeChat profile; it can also serve as the infrastructure of services that sell social media followers.

Higym, a service we saw in the underground, purportedly provides an all-in-one solution for building click farms that can run as many as 10,000 devices. The service comes in a package consisting of a physical server, USB hubs that can connect to the phones as well as a web portal that serves as the console or dashboard for deploying and managing tasks. Higym also touts its service to have a screen mirroring feature that entails remote session framerates of 60 fps with 0.01-second delay. The service also claims to be able to spoof GPS, WiFi, and base station location, as well as automate the whole campaign (including clicking and typing) through scripts.

Service	Price
One server with remote control capacity of 30 phones	RMB 33,830 ($4,925)
One server with remote control capacity of 50 phones	RMB 53,680 ($7,815)
One server with remote control capacity of 100 phones	RMB 99,760 ($14,524)

Table 2. Higym's pricing for its services



HIGYM集微微信群控

一键群控几百台手机

独创的屏幕传输技术

分布式集群服务器架构

自由编辑的脚本引擎

Figures 17 to 19. Higym's homepage (top), a mobile device as shown in the portal (lower left), and a sample click farming operation (lower right)

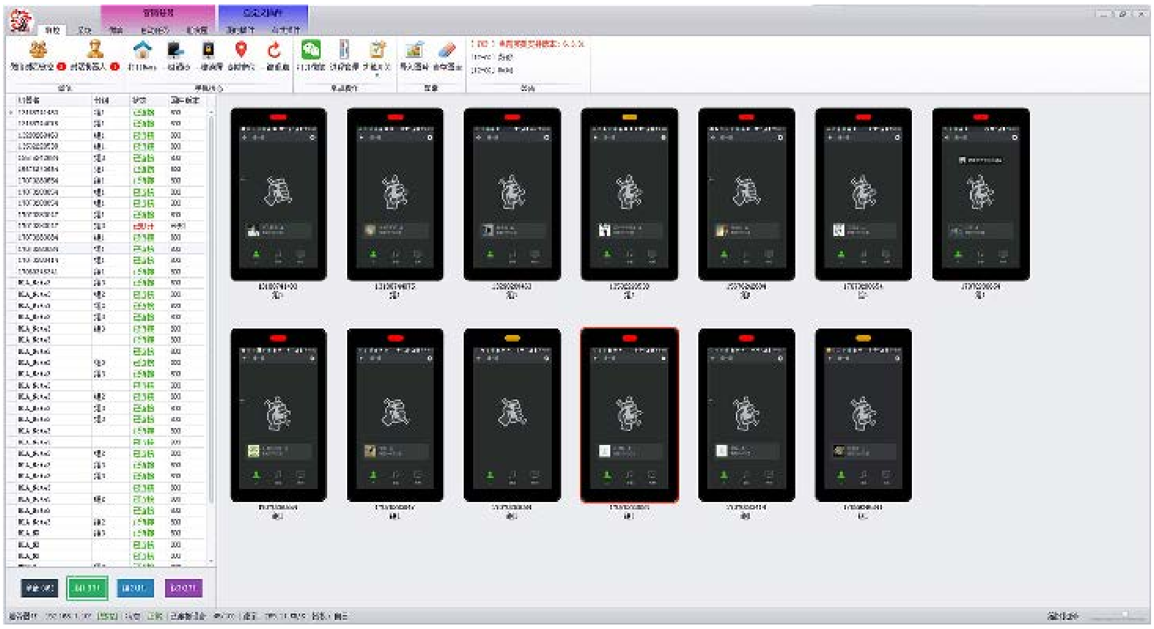


Figure 20. Portal that serves as the console for the mobile devices

The Russian Underground: a One-stop Shop for Fake News Distribution

While content marketing is a legitimate service in Russia and advertised on SEO boards and social media, they are also sold on Russian-speaking underground forums. The marketplace can be likened to a one-stop shop for creating, promoting, and manipulating stories and events, news, and profiles—real or imagined—that favors the clientele's motive.

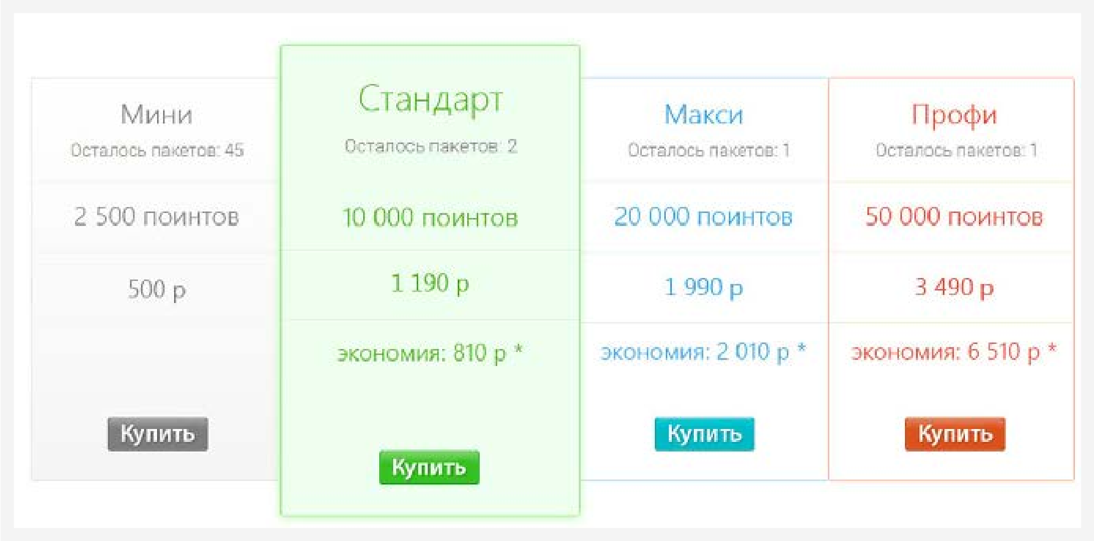
These forums offer services for each stage of the campaign—from writing press releases, promoting them in news outlets, to sustaining their momentum with positive or negative comments, some of which can be even supplied by the customer in a template. Advertisements for such services are frequently found in both public and private sections of forums, as well as on banner ads on the forums themselves.

Crowdsourcing the Promotion of Content

What's notable in the Russian underground, however, is how it leverages crowdsourcing to manipulate public opinion. It works just like any crowdsourcing effort would—funding projects by sourcing them from the contributions of a sizeable number of people—except that the contributions amount to the promotion of profiles, subscribers, and likes. By adopting this model, the barriers of entry for disseminating fake news and manipulating public opinion are practically lowered to completing tasks and promoting other content with little to no monetary capital involved.

Case in point: VTope—a multiparty, online collaborative system with a throng of over 2,000,000 mostly real users and support for platforms such as VKontakte (VK), Ok.com, YouTube, Twitter, Ask.fm, Facebook, and Instagram. Its workflow comprises implementing tasks (liking or following a profile or a post, joining a group, etc.) that incentivizes users with points, which they can resell or use for self-promotion.

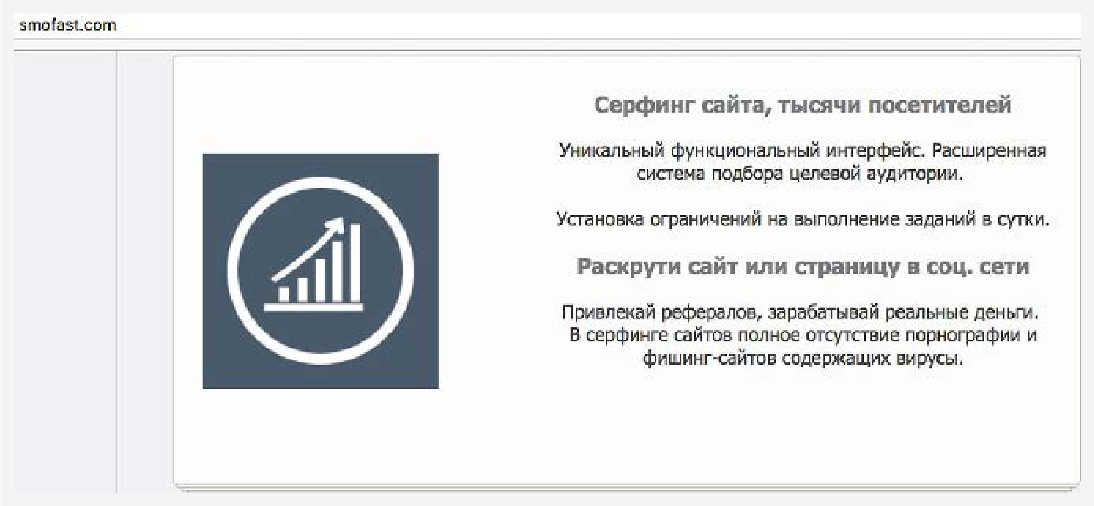
VTope's service is initially free of charge, and participants can earn points by completing tasks. Points can also be purchased as coupons that can be bought on-site, but they are also widely available in underground marketplaces where they're often cheaper than on VTope. For instance, a coupon worth 10,000 points is sold for RUB 1,190 ($21) on VTope, and RUB 500 ($8) in the underground. A coupon worth 50,000 points costs RUB 3,490 ($62).



Мини Осталось пакетов: 45	Стандарт Осталось пакетов: 2	Макси Осталось пакетов: 1	Профи Осталось пакетов: 1
2 500 поинтов	10 000 поинтов	20 000 поинтов	50 000 поинтов
500 р	1 190 р	1 990 р	3 490 р
	экономия: 810 р *	экономия: 2 010 р *	экономия: 6 510 р *
Купить	Купить	Купить	Купить

Figure 21. VTope's pricing for point coupons

The same sourcing model is adopted by competitors, with varying degrees of selling points. Among them is SMOFast, so named likely as a reference to Social Media Optimization (SMO), an online marketing strategy that leverages social media to promote a product or brand. SMOFast allows contributors to promote internet sites and pages, flaunting a 500,000-strong registered user base that can provide traffic (and statistics) from real visitors to supported platforms. It uses a coin system, which is also available in the underground.



smofast.com

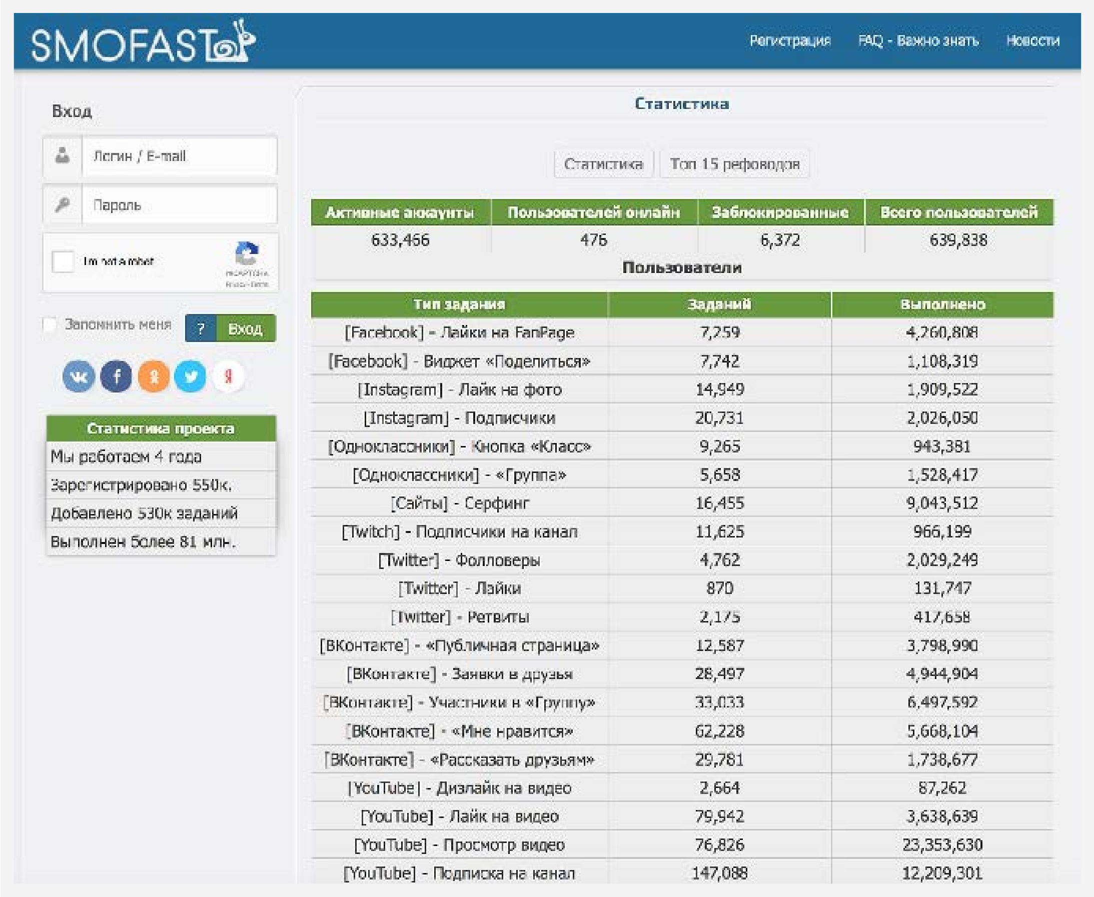
Серфинг сайта, тысячи посетителей

Уникальный функциональный интерфейс. Расширенная система подбора целевой аудитории.

Установка ограничений на выполнение заданий в сутки.

Раскрути сайт или страницу в соц. сети

Привлекай рефералов, зарабатывай реальные деньги. В серфинге сайтов полное отсутствие порнографии и фишинг-сайтов содержащих вирусы.



Статистика проекта

Мы работаем 4 года

Зарегистрировано 550к.

Добавлено 530к заданий

Выполнен более 81 млн.

Статистика

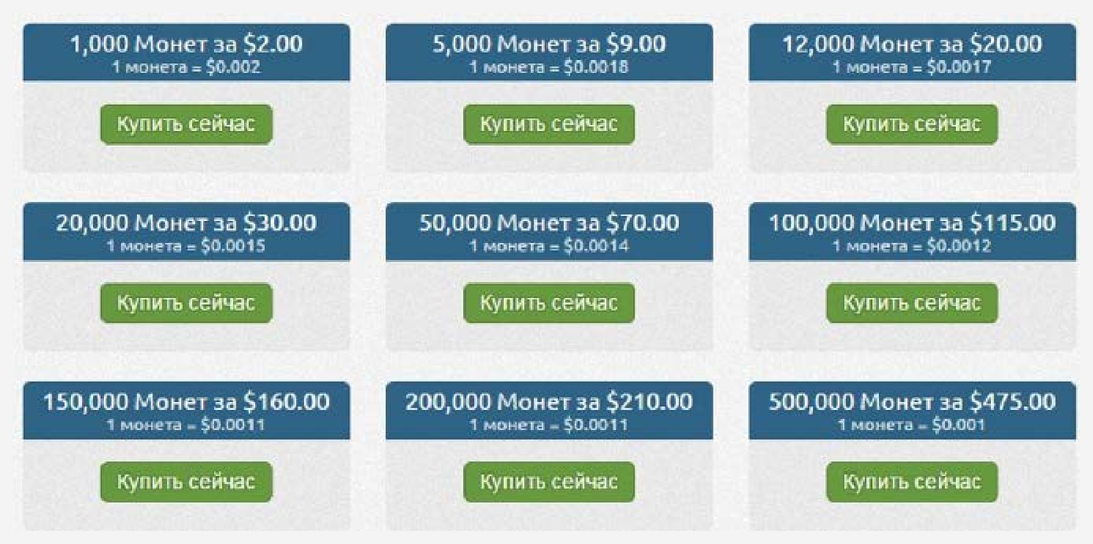
Статистика | Топ 15 рефоводов

Активные аккаунты	Пользователей онлайн	Заблокированные	Всего пользователей
633,466	476	6,372	639,838

Пользователи

Тип задания	Заданий	Выполнено
[Facebook] - Лайки на FanPage	7,259	4,260,808
[Facebook] - Виджет «Поделиться»	7,742	1,108,319
[Instagram] - Лайк на фото	14,949	1,909,522
[Instagram] - Подписчики	20,731	2,026,050
[Однокласcники] - Кнопка «Класс»	9,265	943,381
[Одноклассники] - «Группа»	5,658	1,528,417
[Сайты] - Серфинг	16,455	9,043,512
[Twitch] - Подписчики на канал	11,625	966,199
[Twitter] - Фолловеры	4,762	2,029,249
[Twitter] - Лайки	870	131,747
[Twitter] - Ретвиты	2,175	417,658
[ВКонтакте] - «Публичная страница»	12,587	3,798,990
[ВКонтакте] - Заявки в друзья	28,497	4,944,904
[ВКонтакте] - Участники в «Группу»	33,033	6,497,592
[ВКонтакте] - «Мне нравится»	62,228	5,668,104
[ВКонтакте] - «Рассказать друзьям»	29,781	1,738,677
[YouTube] - Дизлайк на видео	2,664	87,262
[YouTube] - Лайк на видео	79,942	3,638,639
[YouTube] - Просмотр видео	76,826	23,353,630
[YouTube] - Подписка на канал	147,088	12,209,301

Figures 22 and 23. One of SMOFast's homepages (top) and a webpage showing statistics of promoted content (bottom)



1,000 Монет за $2.00
1 монета = $0.002
Купить сейчас

5,000 Монет за $9.00
1 монета = $0.0018
Купить сейчас

12,000 Монет за $20.00
1 монета = $0.0017
Купить сейчас

20,000 Монет за $30.00
1 монета = $0.0015
Купить сейчас

50,000 Монет за $70.00
1 монета = $0.0014
Купить сейчас

100,000 Монет за $115.00
1 монета = $0.0012
Купить сейчас

150,000 Монет за $160.00
1 монета = $0.0011
Купить сейчас

200,000 Монет за $210.00
1 монета = $0.0011
Купить сейчас

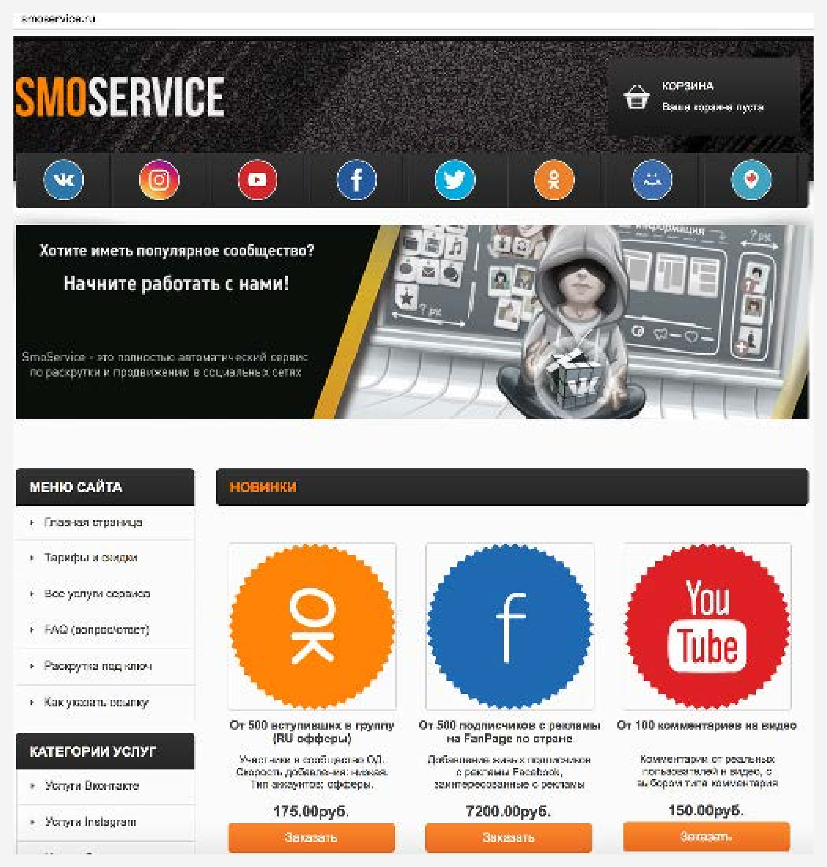
500,000 Монет за $475.00
1 монета = $0.001
Купить сейчас

Figure 24. SMOFast coins sold in Russian underground

SMOService offers a wide range of services that can also come with bulk discounts (up to 55%) and all-in-one VIP bundles. Some of its notable features include populating groups with live accounts and bots, support for more platforms (Telegram, Periscope, and MoiMir), friend requests, dislikes, making a video trend on YouTube, hidden services for VIP users, geolocation-specific services, and 24/7 customer support.

Service	Price
Make a video appear in YouTube's main page for two minutes	RUB 35,000 ($621)
Make 20 videos trend on YouTube's main page for two minutes (up to six minutes, upon request)	RUB 450,000 ($7,992)
VIP services for social media	RUB 5,990–6,990 ($106–$124)
Press release distribution to news outlets	RUB 45,200 ($802)
10,000 site visitors	RUB 1,000 ($17)
100 dislikes on a YouTube video	RUB 100 ($1.7)
100 comments on a YouTube video	RUB 150 ($2.6)
1,000 group joins	RUB 650 (11)

Table 3: SMOService's price list



smoservice.ru

SMOSERVICE

КОРЗИНА

Ваша корзина пуста

Хотите иметь популярное сообщество?

Начните работать с нами!

SmoService - это полностью автоматический сервис по раскрутки и продвижению в социальных сетях

МЕНЮ САЙТА

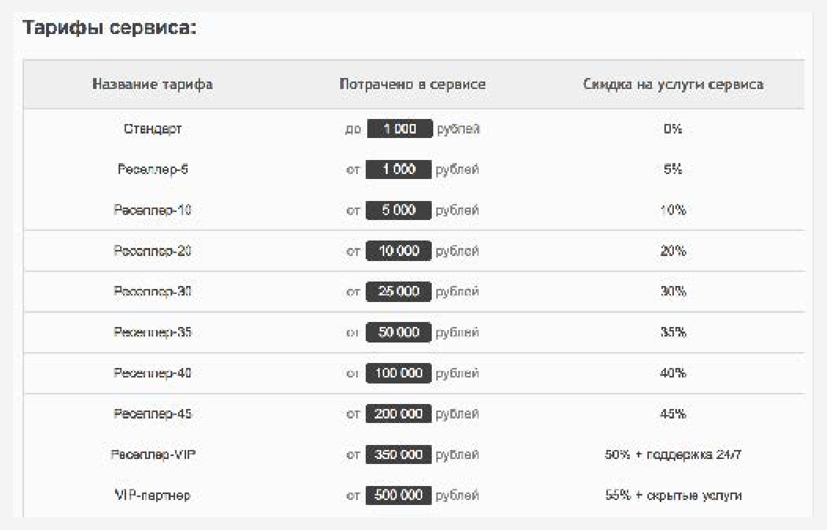
- Главная страница
- Тарифы и скидки
- Все услуги сервиса
- FAQ (вопрос/ответ)
- Раскрутка под ключ
- Как указать ссылку

КАТЕГОРИИ УСЛУГ

- Услуги Вконтакте
- Услуги Instagram

НОВИНКИ

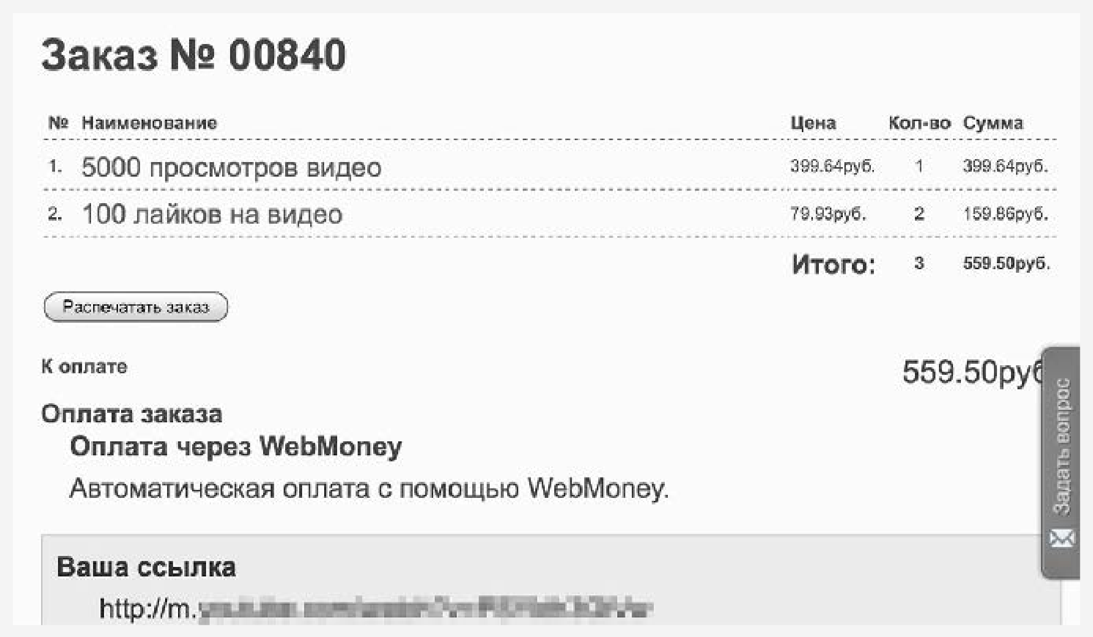
От 500 вступивших в группу (RU офферы)	От 500 подписчиков с рекламы на FanPage по стране	От 100 комментариев на видео
Участники в сообщество ОД. Скорость добавления: низкая. Тип аккаунтов: офферы.	Добавление живых подписчиков с рекламы Facebook, заинтересованные с рекламы	Комментарии от реальных пользователей к видео, с выбором типа комментария
175.00руб.	7200.00руб.	150.00руб.
Заказать	Заказать	Заказать



Тарифы сервиса:

Название тарифа	Потрачено в сервисе	Скидка на услуги сервиса
Стандарт	до 1 000 рублей	0%
Реселлер-5	от 1 000 рублей	5%
Реселлер-10	от 5 000 рублей	10%
Реселлер-20	от 10 000 рублей	20%
Реселлер-30	от 25 000 рублей	30%
Реселлер-35	от 50 000 рублей	35%
Реселлер-40	от 100 000 рублей	40%
Реселлер-45	от 200 000 рублей	45%
Реселлер-VIP	от 350 000 рублей	50% + поддержка 24/7
VIP-партнер	от 500 000 рублей	55% + скрытые услуги

Figures 25 and 26. SMOService offering volume discounts and all-in-one VIP service



Заказ № 00840

№	Наименование	Цена	Кол-во	Сумма
1.	5000 просмотров видео	399.64руб.	1	399.64руб.
2.	100 лайков на видео	79.93руб.	2	159.86руб.
		Итого:	3	559.50руб.

Распечатать заказ

К оплате 559.50руб

Оплата заказа

Оплата через WebMoney

Автоматическая оплата с помощью WebMoney.

Ваша ссылка

http://m.[redacted]

Figure 27. A sample purchase order from SMOService

Competing services also come in the form of Kwoki, like4u, TopSoc, and ZiSMO. Kwoki extends its platform support to SoundCloud, Vimeo, Vine, Ask, DailyMotion, Pinterest, and RuTube, along with a guarantee of fully viewing videos that are shorter than 10 minutes (for up to 90% of the views ordered by the customer).

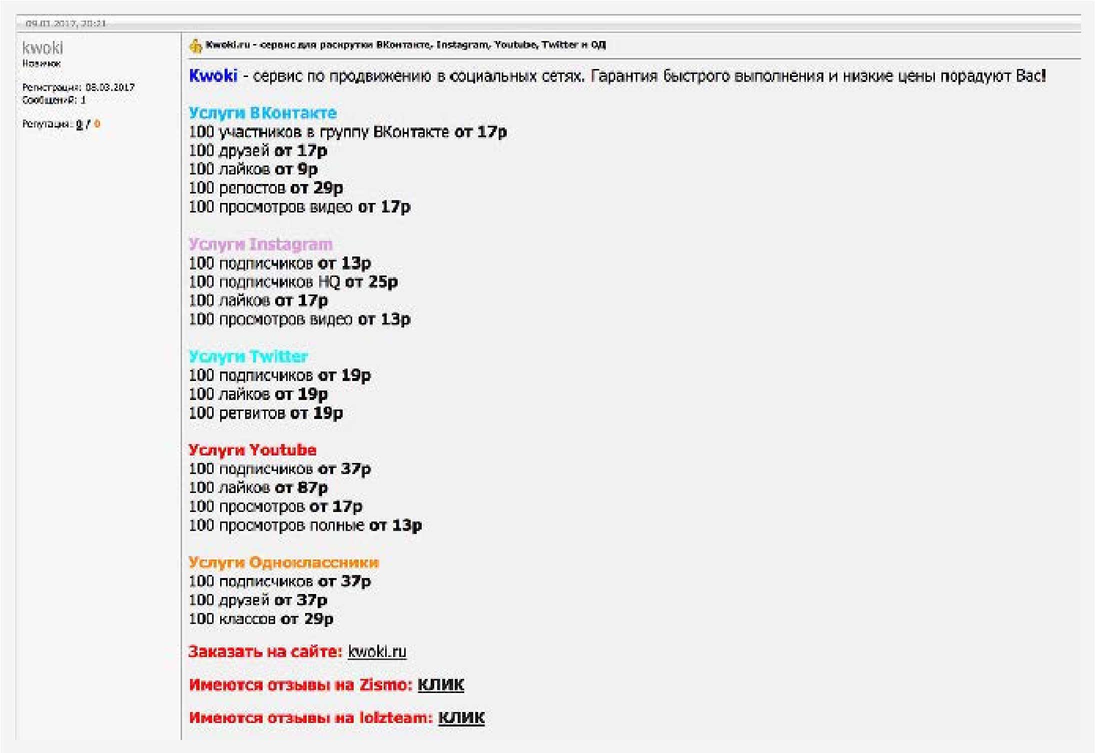
like4u takes crowdsourcing up another notch by touting its capability to control the speed of promotion and set up time limits for tasks, which helps avoid bans from the media. Such tasks per time limits come in a choice of 5 or 15 minutes, or 1, 4, or 24 hours. like4u's customers can also decide between using dedicated bots or real people for their promotional efforts. It similarly uses a point system, which can be bought from RUB 11 to RUB 4,500. ($0.2 to $80).

TopSoc claims to support Google+, with video views of up to 600,000 per day, and 500,000 likes, followers, and retweets. Their "live views" can also supposedly be filtered by geographical location, age range, and sex.

ZiSMO is a forum that caters to social media promotion services. ZiSMO is home to a number of shops related to media distribution, and features adverts with a range of advanced features such as buying and selling social media accounts, and the ability to use brute-forced and live/real accounts as well as active bots. Social media accounts cost as low as RUB 2 apiece, while RUB 1,000 will translate into a million Instagram likes. For RUB 800, customers can spam VK users or groups with a thousand personal messages, accompanied with a KPI report to the service buyer.

Service	Price
100 VK.com group subscribers	starts at RUB 17 ($0.3)
100 Instagram subscribers, friends, likes or video views	starts at RUB 13–25 ($0.23–$0.4)
100 Twitter followers, likes, and retweets	starts at RUB 19 ($0.34)
100 YouTube subscribers	starts at RUB 37 ($0.66)
100 YouTube likes, video views, and full video views	starts at RUB 87, RUB 17, and RUB 13, respectively ($1.55, $0.3, $0.23)

Table 4. Price list of some of Kwoki's services



09.03.2017, 20:21

kwoki
Новичок

Регистрация: 08.03.2017
Сообщения: 1

Репутация: 0 / 0

Kwoki.ru - сервис для раскрутки ВКонтакте, Instagram, Youtube, Twitter и ОД

Kwoki - сервис по продвижению в социальных сетях. Гарантия быстрого выполнения и низкие цены порадуют Вас!

Услуги ВКонтакте
100 участников в группу ВКонтакте **от 17р**
100 друзей **от 17р**
100 лайков **от 9р**
100 репостов **от 29р**
100 просмотров видео **от 17р**

Услуги Instagram
100 подписчиков **от 13р**
100 подписчиков HQ **от 25р**
100 лайков **от 17р**
100 просмотров видео **от 13р**

Услуги Twitter
100 подписчиков **от 19р**
100 лайков **от 19р**
100 ретвитов **от 19р**

Услуги Youtube
100 подписчиков **от 37р**
100 лайков **от 87р**
100 просмотров **от 17р**
100 просмотров полные **от 13р**

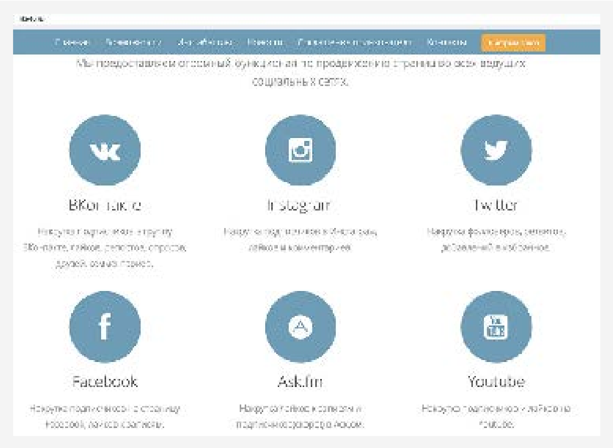
Услуги Одноклассники
100 подписчиков **от 37р**
100 друзей **от 37р**
100 классов **от 29р**

Заказать на сайте: kwoki.ru

Имеются отзывы на Zismo: КЛИК

Имеются отзывы на lolzteam: КЛИК

Figure 28. Kwoki advertised on an underground forum



Мы предоставляем огромный функционал по продвижению страниц во всех ведущих социальных сетях.

ВКонтакте

Накрутка подписчиков в группу ВКонтакте, лайков, репостов, опросов, друзей, голосов.

Instagram

Накрутка подписчиков в Инстаграм, лайков и комментариев.

Twitter

Накрутка фолловеров, ретвитов, добавлений в избранное.

Facebook

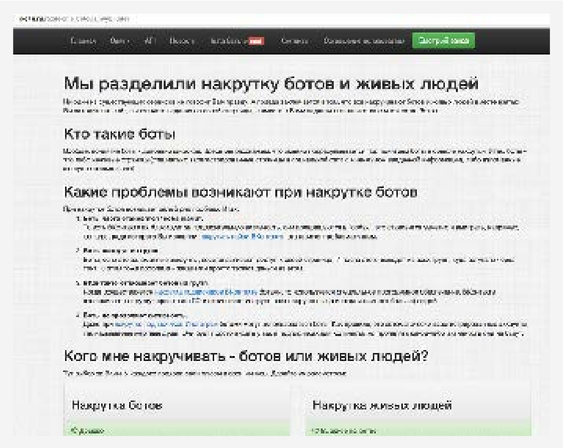
Накрутка подписчиков на страницу Facebook, лайков записи.

Ask.fm

Накрутка лайков к записям и подписчиков [illegible]

Youtube

Накрутка подписчиков и лайков на Youtube.



Быстрый заказ

Мы разделили накрутку ботов и живых людей

[illegible]

Кто такие боты

[illegible]

Какие проблемы возникают при накрутке ботов

[illegible]

Кого мне накручивать - ботов или живых людей?

[illegible]

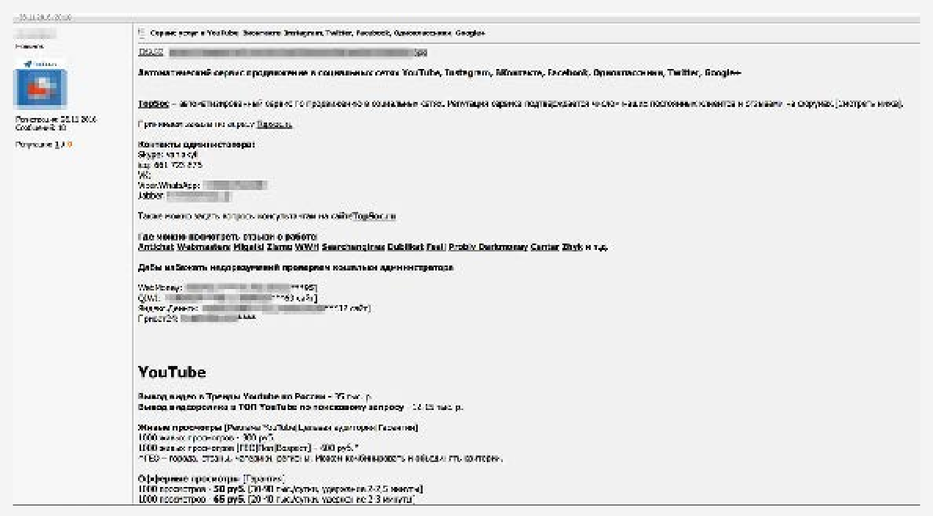
Накрутка ботов

Накрутка живых людей

Figures 29 and 30. Like4u's webpages describing the difference of using bots and real people for promoting content (left), and offering point coupons (right)

Service	Price
1,000 video views	RUB 50–240 ($0.89–$4.26)
10 comments	RUB 160 ($2.84)
1,000 “high-quality” channel subscribers	RUB 2,800 ($50)
Make a video trend for a particular search query	RUB 12,500–15,000 ($222–$266)
1,000 “high-quality” fan page likes	RUB 1,000–1,750 ($17–$31)
1,000 Instagram subscribers (depends on total volume, speed and quality)	RUB 190–850 ($3–$15)

Table 5: Price list for some of TopSoc's services



Сервис услуг в YouTube, ВКонтакте, Instagram, Twitter, Facebook, Одноклассники, Google+

[redacted]

Автоматический сервис продвижения в социальных сетях YouTube, Instagram, ВКонтакте, Facebook, Одноклассники, Twitter, Google+

TopSoc – автоматизированный сервис по продвижению в социальных сетях. Репутация сервиса подтверждается числом наших постоянных клиентов и отзывами на форумах (смотреть ниже).

Принимаем заказы по адресу: [illegible]

Контакты администратора:
Skype: [illegible]
icq: 661 725 875
VK:
Viber/WhatsApp: [redacted]
Jabber: [redacted]

Также можно задать вопрос консультантам на сайте TopSoc.ru

Где можно посмотреть отзывы о работе:
Antichat Webmasters [illegible] и т.д.

Дабы избежать недоразумений проверяйте кошельки администратора

WebMoney: [redacted]***195]
QIWI: [redacted]
Яндекс.Деньги: [redacted]
Приват24: [redacted]

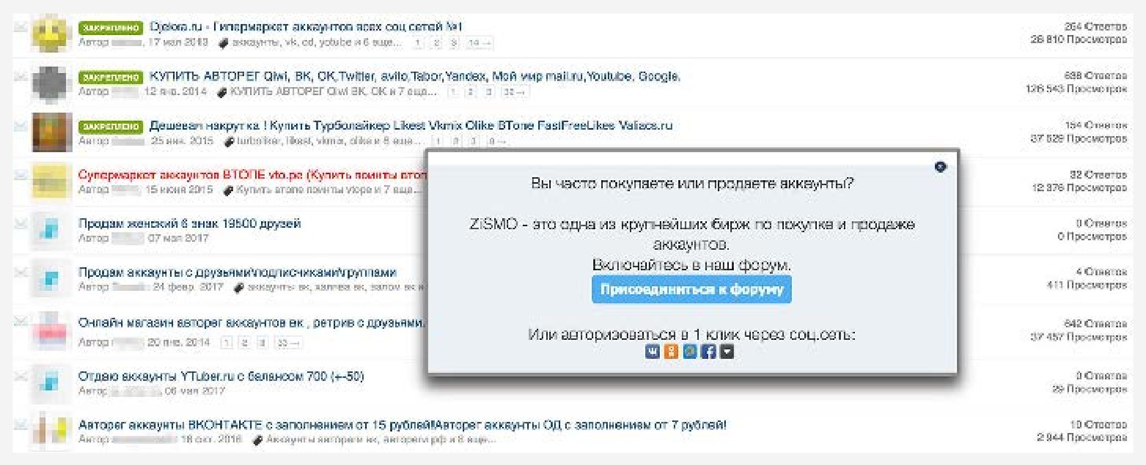
YouTube

Вывод видео в Тренды Youtube по России - 25 тыс. р.
Вывод видеоролика в ТОП YouTube по поисковому запросу - 12-15 тыс. р.

Живые просмотры [Реклама YouTube|Целевая аудитория|Гарантия]
1000 живых просмотров - 300 руб.
1000 живых просмотров [ГЕО|Пол|Возраст] - 400 руб.*
*ГЕО – города, страны, [illegible]. Можно комбинировать [illegible]

Офферные просмотры [Гарантия]
1000 просмотров - **50 руб.** [30-90 тыс./сутки, удержание 2-2,5 минуты]
1000 просмотров - **65 руб.** [20-40 тыс./сутки, удержание 2-3 минуты]

Figure 31. TopSoc promoted in an underground forum



ЗАКРЕПЛЕНО Djekxa.ru - Гипермаркет аккаунтов всех соц сетей №1
Автор [redacted], 17 мая 2013 аккаунты, vk, od, youtube и 6 еще... 1 2 3 14 → 264 Ответов 26 810 Просмотров

ЗАКРЕПЛЕНО КУПИТЬ АВТОРЕГ Qiwi, ВК, ОК,Twitter, avito,Tabor,Yandex, Мой мир mail.ru,Youtube, Google.
Автор [redacted] 12 янв. 2014 КУПИТЬ АВТОРЕГ Qiwi ВК, ОК и 7 еще... 1 2 3 32 → 638 Ответов 126 543 Просмотров

ЗАКРЕПЛЕНО Дешевая накрутка ! Купить Турболайкер Likest Vkmix Olike BTone FastFreeLikes Valiacs.ru
Автор [redacted] 25 янв. 2015 turboliker, likest, vkmix, olike и 8 еще... 1 2 3 9 → 194 Ответов 37 529 Просмотров

Супермаркет аккаунтов ВТОПЕ vto.pe (Купить поинты втоп
Автор [redacted] 15 июня 2015 Купить втопе поинты vtope и 7 еще... 32 Ответов 12 376 Просмотров

Продам женский 6 знак 19500 друзей
Автор [redacted] 07 мая 2017 0 Ответов 0 Просмотров

Продам аккаунты с друзьями/подписчиками/группами
Автор [redacted] 24 февр. 2017 аккаунты вк, халява вк, залов вк и 4 Ответов 411 Просмотров

Онлайн магазин авторег аккаунтов вк , ретрив с друзьями.
Автор [redacted] 20 янв. 2014 1 2 3 33 → 842 Ответов 37 457 Просмотров

Отдаю аккаунты YTuber.ru с балансом 700 (+-50)
Автор [redacted] 06 мая 2017 0 Ответов 29 Просмотров

Авторег аккаунты ВКОНТАКТЕ с заполнением от 15 рублей!Авторег аккаунты ОД с заполнением от 7 рублей!
Автор [redacted] 18 окт. 2016 Аккаунты автореги вк, автореги рф и 8 еще... 10 Ответов 2 944 Просмотров

Вы часто покупаете или продаете аккаунты?

ZiSMO - это одна из крупнейших бирж по покупке и продаже аккаунтов.
Включайтесь в наш форум.

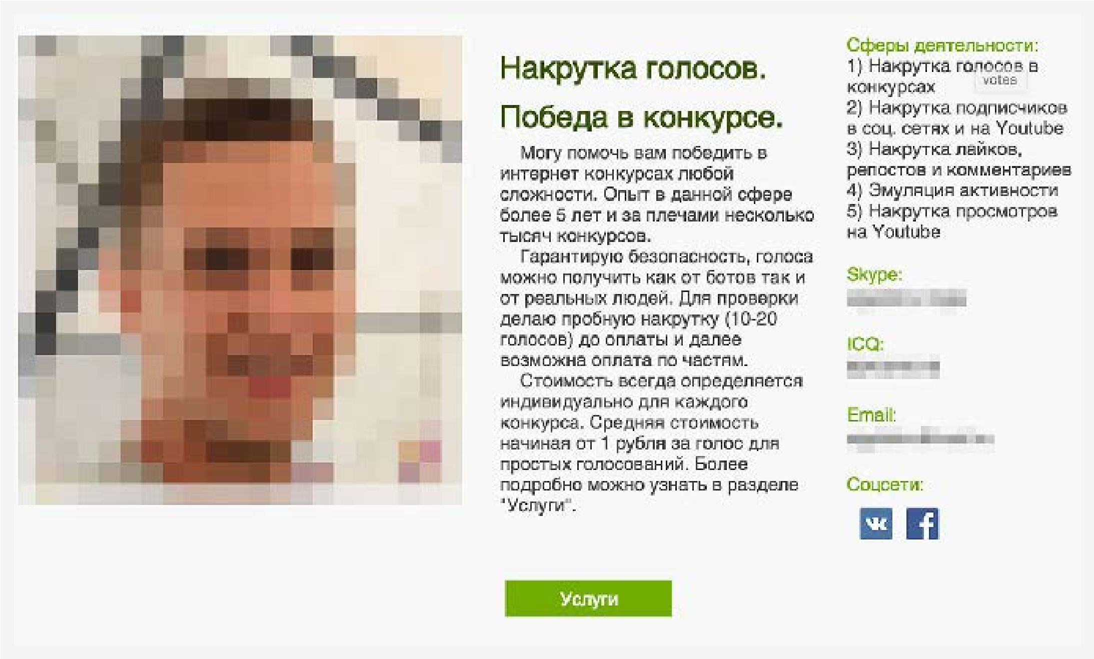
Или авторизоваться в 1 клик через соц.сеть:

Figure 32. A buy-and-sell section on ZiSMO's site

Online Vote and Petition Manipulation Services

Manipulating votes, competition, and polls on social media and other online platforms can be one of the most effective means to influence public opinion, and this service is also offered in the Russian underground. Siguldin markets itself to be capable of manipulating almost any voting system in the Internet and bypassing security checks such as source IP address, Captcha, and authentication mechanisms in social media, SMS, and email as well as on-site registration among others. Would-be customers are given a free trial of 10 to 20 votes; payment starts on the 50th vote.

Siguldin's fees depend on how votes are validated. A vote that bypasses IP address, Captcha or other simple authentication costs RUB 1 to RUB 1.5. Voting systems that require authentication via social media will cost RUB 2 to RUB 3, while those requiring detailed online registration cost RUB 3 to RUB 4. For voting systems that require SMS confirmation and more complex authentication methods, the customer is imposed with RUB 5 per vote.



Накрутка голосов.

Победа в конкурсе.

Могу помочь вам победить в интернет конкурсах любой сложности. Опыт в данной сфере более 5 лет и за плечами несколько тысяч конкурсов.

Гарантирую безопасность, голоса можно получить как от ботов так и от реальных людей. Для проверки делаю пробную накрутку (10-20 голосов) до оплаты и далее возможна оплата по частям.

Стоимость всегда определяется индивидуально для каждого конкурса. Средняя стоимость начиная от 1 рубля за голос для простых голосований. Более подробно можно узнать в разделе "Услуги".

Услуги

Сферы деятельности:
1) Накрутка голосов в конкурсах
2) Накрутка подписчиков в соц. сетях и на Youtube
3) Накрутка лайков, репостов и комментариев
4) Эмуляция активности
5) Накрутка просмотров на Youtube

Skype:
[redacted]

ICQ:
[redacted]

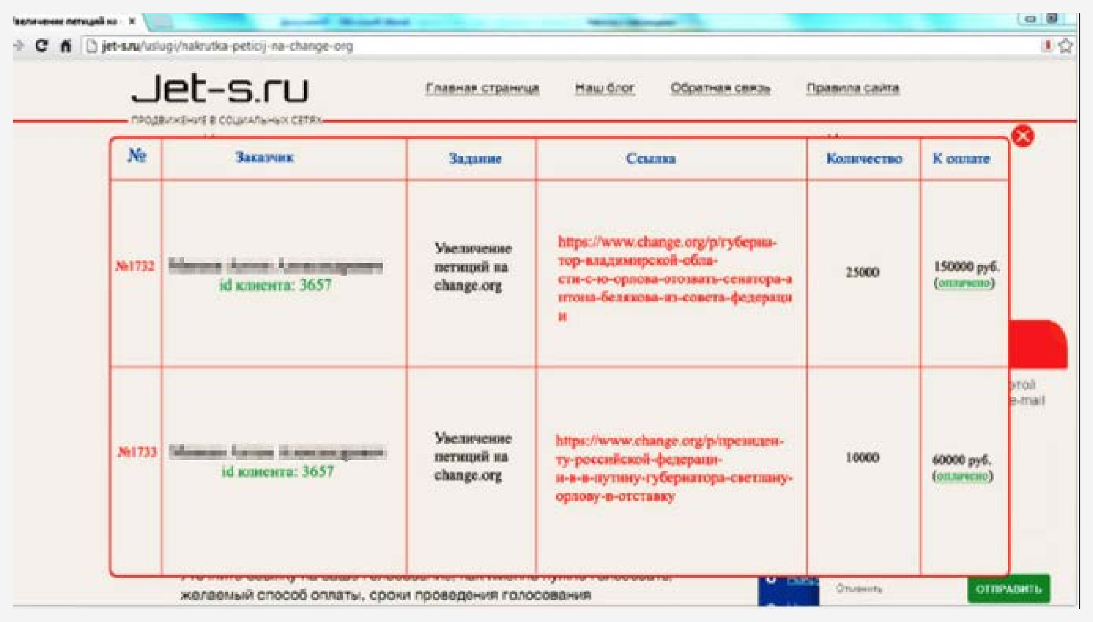
Email:
[redacted]

Соцсети:

Figure 33. Siguldin's homepage touting his vote manipulation services

Similar services abound in Russian marketplaces. Jet-s can purportedly manipulate petitions on platforms like change.org. Its prices vary: RUB 60,000 ($1,065) will turn into 10,000 votes or petition signatures, while RUB 150,000 ($2,664) will give customers 25,000. A vying service, Slavavtope, offers more platforms.

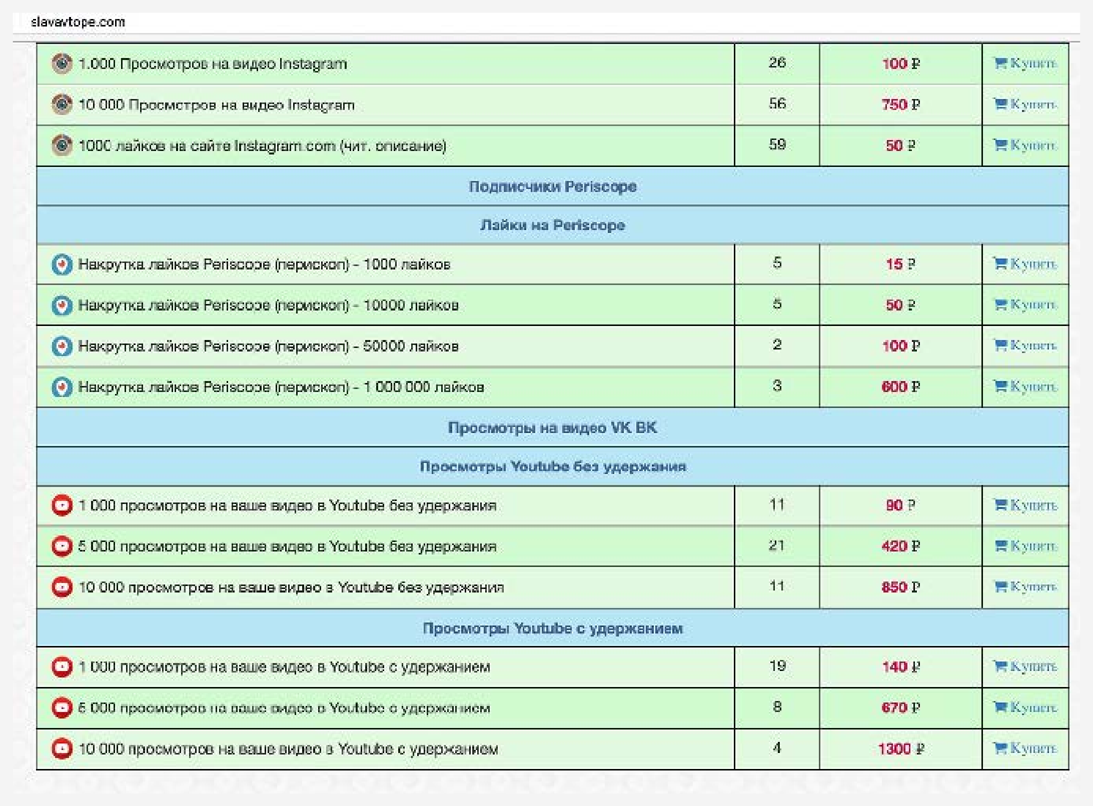
As its name implies, Weberaser—whose website has an English version—focuses on taking down and removing undesirable (and ironically, fake) content or information from the internet, or removing top results from search engines. Its costs depend on the complexity of the task and available time, which starts from RUB 3,000 ($50) if the customer can read Russian or use a machine translator. Curiously, English-speaking patrons are levied with double the amount.



jet-s.ru/uslugi/nakrutka-peticij-na-change-org
Jet-s.ru
продвижение в социальных сетях
Главная страница
Наш блог
Обратная связь
Правила сайта
желаемый способ оплаты, сроки проведения голосования
ОТПРАВИТЬ

№	Заказчик	Задание	Ссылка	Количество	К оплате
№1732	[redacted] id клиента: 3657	Увеличение петиций на change.org	https://www.change.org/p/губернатор-владимирской-области-с-ю-орлова-отозвать-сенатора-антона-белякова-из-совета-федерации	25000	150000 руб. (оплачено)
№1733	[redacted] id клиента: 3657	Увеличение петиций на change.org	https://www.change.org/p/президенту-российской-федерации-в-в-путину-губернатора-светлану-орлову-в-отставку	10000	60000 руб. (оплачено)

Figure 34. Jet-s's price list for manipulating online petitions



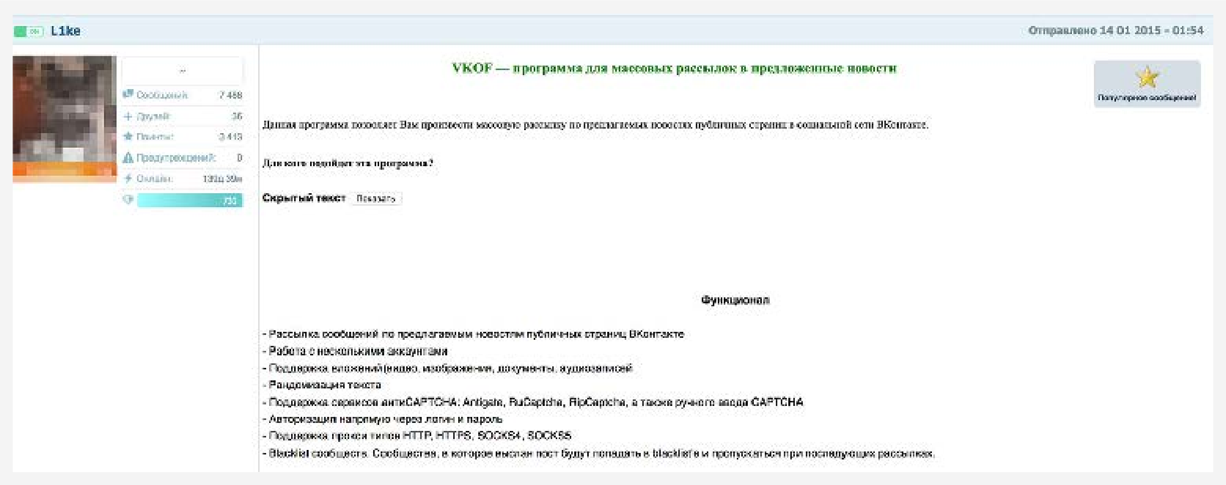
slavavtope.com

1.000 Просмотров на видео Instagram	26	100 ₽	Купить
10 000 Просмотров на видео Instagram	56	750 ₽	Купить
1000 лайков на сайте Instagram.com (чит. описание)	59	50 ₽	Купить
Подписчики Periscope			
Лайки на Periscope			
Накрутка лайков Periscope (перископ) - 1000 лайков	5	15 ₽	Купить
Накрутка лайков Periscope (перископ) - 10000 лайков	5	50 ₽	Купить
Накрутка лайков Periscope (перископ) - 50000 лайков	2	100 ₽	Купить
Накрутка лайков Periscope (перископ) - 1 000 000 лайков	3	600 ₽	Купить
Просмотры на видео VK ВК			
Просмотры Youtube без удержания			
1 000 просмотров на ваше видео в Youtube без удержания	11	90 ₽	Купить
5 000 просмотров на ваше видео в Youtube без удержания	21	420 ₽	Купить
10 000 просмотров на ваше видео в Youtube без удержания	11	850 ₽	Купить
Просмотры Youtube с удержанием			
1 000 просмотров на ваше видео в Youtube с удержанием	19	140 ₽	Купить
5 000 просмотров на ваше видео в Youtube с удержанием	8	670 ₽	Купить
10 000 просмотров на ваше видео в Youtube с удержанием	4	1300 ₽	Купить

Figure 35. Slavavtope's offerings

The aforementioned promotion-as-a-service offerings aren't the only options available for running a fake news campaign. Russian marketplaces also have do-it-yourself (DIY) kits in the form of software that can perform activities such as automated social media spamming. Running such a tool on a single machine under a user's control may take some time for it to have noticeable impact for their campaign. Nevertheless, if the campaign's operator has access to a malware-backed botnet on which they can install the software, its effectiveness increases tremendously.

And as reported[5] by a Russian multimedia outfit, even mainstream newspapers can apparently play a role. This, however, entails huge financial investment for the customer. For RUB 15,000 ($266), an article can be put out in a publication of dubious repute or in the newspaper's classifieds section. Publishing an article without it being marked as an advertorial or paid content has the hefty price tag of as much as RUB 1.5 million ($21,641). Publishing articles with four to six thousand characters on commercial news sites can cost between RUB 300,000 ($5,328) and RUB 550,000 ($9,768).



VKOF — программа для массовых рассылок в предложенные новости

Данная программа позволяет Вам произвести массовую рассылку по предлагаемых новостях публичных страниц в социальной сети ВКонтакте.

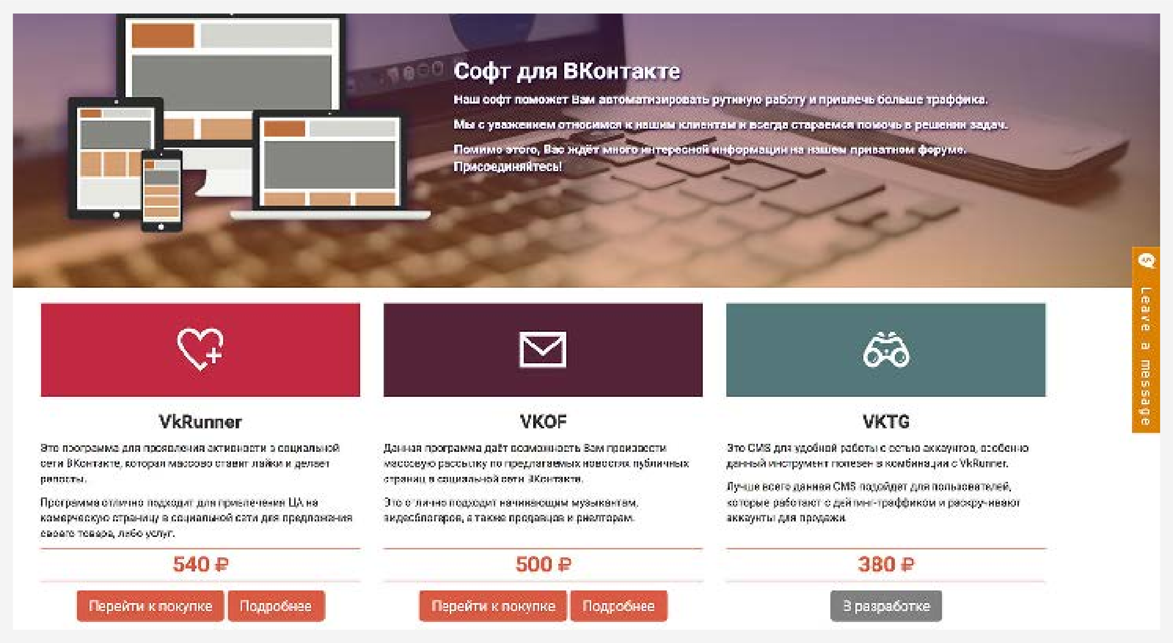
Для кого подойдет эта программа?

Скрытый текст

Функционал

- Рассылка сообщений по предлагаемым новостям публичных страниц ВКонтакте
- Работа с несколькими аккаунтами
- Поддержка вложений(видео, изображения, документы, аудиозаписей
- Рандомизация текста
- Поддержка сервисов антиCAPTCHA: Antigate, RuCaptcha, RipCaptcha, а также ручного ввода CAPTCHA
- Авторизация напрямую через логин и пароль
- Поддержка прокси типов HTTP, HTTPS, SOCKS4, SOCKS5
- Blacklist сообществ. Сообщества, в которое выслан пост будут попадать в blacklist'в и пропускаться при последующих рассылках.

Figure 36. Social media spamming software for sale in the Russian underground



Софт для ВКонтакте

Наш софт поможет Вам автоматизировать рутинную работу и привлечь больше траффика.

Мы с уважением относимся к нашим клиентам и всегда стараемся помочь в решении задач.

Помимо этого, Вас ждёт много интересной информации на нашем приватном форуме. Присоединяйтесь!

VkRunner

Это программа для проявления активности в социальной сети ВКонтакте, которая массово ставит лайки и делает репосты.

Программа отлично подходит для привлечения ЦА на коммерческую страницу в социальной сети для предложения своего товара, либо услуг.

540 ₽

Перейти к покупке | Подробнее

VKOF

Данная программа даёт возможность Вам произвести массовую рассылку по предлагаемых новостях публичных страниц в социальной сети ВКонтакте.

Это отлично подходит начинающим музыкантам, видеоблогеров, а также продавцов и риелторам.

500 ₽

Перейти к покупке | Подробнее

VKTG

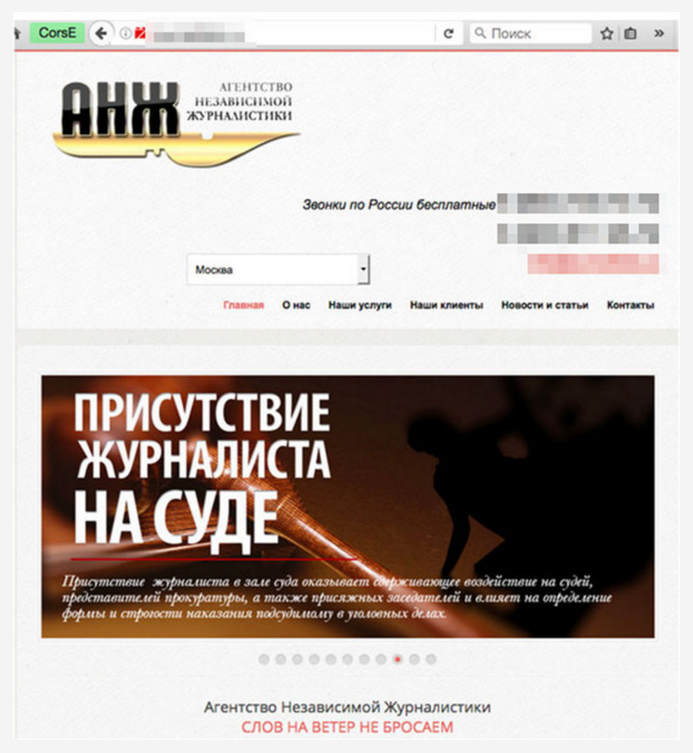
Это CMS для удобной работы с сетью аккаунтов, особенно данный инструмент полезен в комбинации с VkRunner.

Лучше всего данная CMS подойдет для пользователей, которые работают с дейтинг-траффиком и раскручивают аккаунты для продажи.

380 ₽

В разработке

Figure 37. Underground website selling a program that distributes content on VK's public pages



[redacted]

АНЖ АГЕНТСТВО НЕЗАВИСИМОЙ ЖУРНАЛИСТИКИ

Звонки по России бесплатные [redacted]

Москва

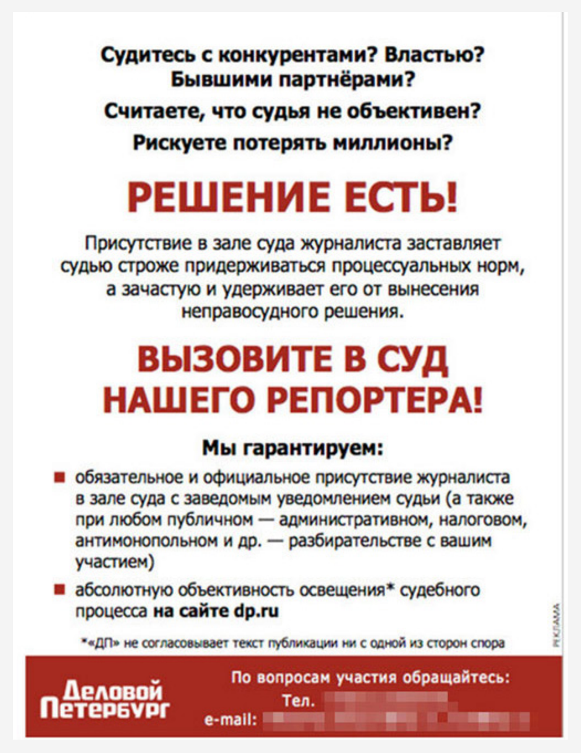
Главная | О нас | Наши услуги | Наши клиенты | Новости и статьи | Контакты

ПРИСУТСТВИЕ ЖУРНАЛИСТА НА СУДЕ

Присутствие журналиста в зале суда оказывает сдерживающее воздействие на судей, представителей прокуратуры, а также присяжных заседателей и влияет на определение формы и строгости наказания подсудимому в уголовных делах.

Агентство Независимой Журналистики

СЛОВ НА ВЕТЕР НЕ БРОСАЕМ



Судитесь с конкурентами? Властью? Бывшими партнёрами?

Считаете, что судья не объективен?

Рискуете потерять миллионы?

РЕШЕНИЕ ЕСТЬ!

Присутствие в зале суда журналиста заставляет судью строже придерживаться процессуальных норм, а зачастую и удерживает его от вынесения неправосудного решения.

ВЫЗОВИТЕ В СУД НАШЕГО РЕПОРТЕРА!

Мы гарантируем:

- обязательное и официальное присутствие журналиста в зале суда с заведомым уведомлением судьи (а также при любом публичном — административном, налоговом, антимонопольном и др. — разбирательстве с вашим участием)
- абсолютную объективность освещения* судебного процесса **на сайте dp.ru**

*«ДП» не согласовывает текст публикации ни с одной из сторон спора

РЕКЛАМА

Деловой Петербург

По вопросам участия обращайтесь:

Тел. [redacted]

e-mail: [redacted]

Figures 38 and 39. Advertisements for getting an article published in a Russian news outfit, including a reporter-for-hire service where a journalist will supposedly cover court news

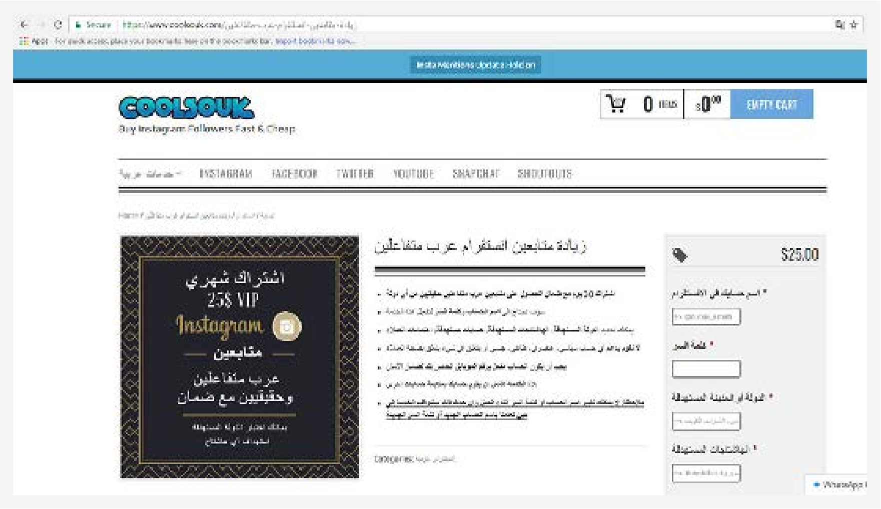
The Middle Eastern Underground: a Budding Market for Fake News

The Middle East's burgeoning underground scene offers similar services but with a regional variance. CoolSouk, for instance, offers the capability to make real/live or bot followers. Likes and comments from specific Middle Eastern countries are pricier. Fees also vary depending on the social media platform, and if they will be carried out by bots or real people. CoulSouk prohibits the promotion of racist, pornographic, and illegal content.

Promoting content on YouTube starts at $3 for the first 1,000 views, which can surge by up to $999 for a million views. On Instagram, clients have to give the operators their login credentials as well as customer-defined preferences—from tags to targeted locations. Additionally, CoolSouk doesn't guarantee the exact number of real/human followers. The service, which goes for $25, promises at least 500 followers. A monthly subscription of promotional services on Twitter ranges from $30 to $150.

Dr.Followers is another service provider that offers automated promotional services on social media platforms Twitter, Facebook, YouTube, and Instagram. The rate for Twitter followers is interesting in that it charges $2 for 500 retweets done by a foreign-based bot, but $130 if done by real Arabic/Middle East-based followers.

Auto-likes on Facebook has a monthly subscription of $25; 2,200 auto-likes from Arabic/Middle East-based users fetch $150 per month, which can go for as much as $800 for a maximum of 10,000 auto-likes. Dr.Followers also has a customizable auto-comment function, with templates of comments customers can choose from. Prices vary, from $45 per month for eight comments per day, to $250 for 1,000 comments in a month.



زيادة متابعين انستقرام عرب متفاعلين

$25.00

اشتراك شهري
25$ VIP
Instagram
متابعين
عرب متفاعلين
وحقيقيين مع ضمان

اسم حسابك في الانستقرام *

الدولة أو المدينة المستهدفة *

الهاشتاقات المستهدفة *

Figure 40. CoolSouk's website; promotional services on Instagram are offered (sidebar)

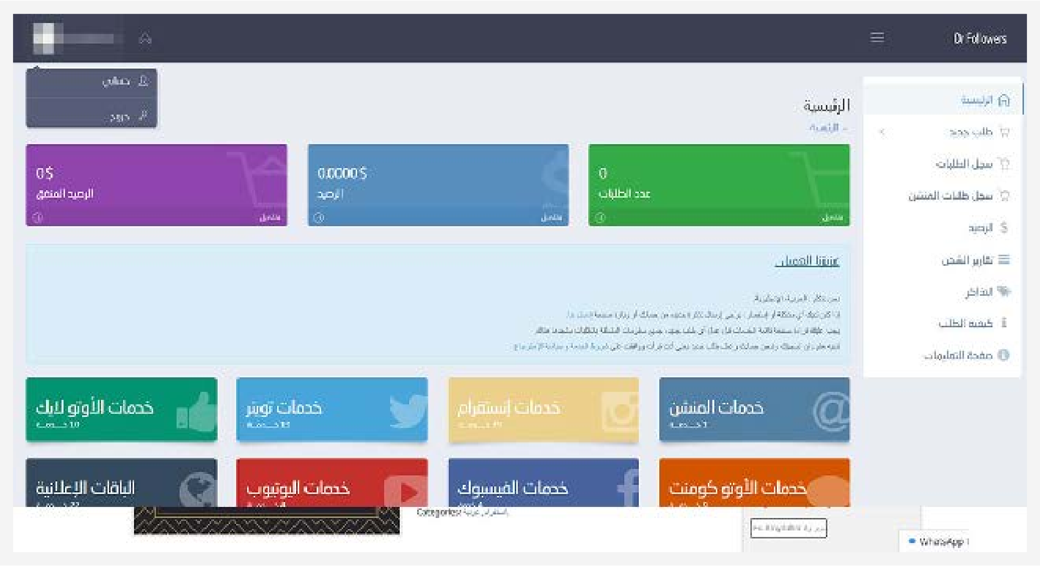
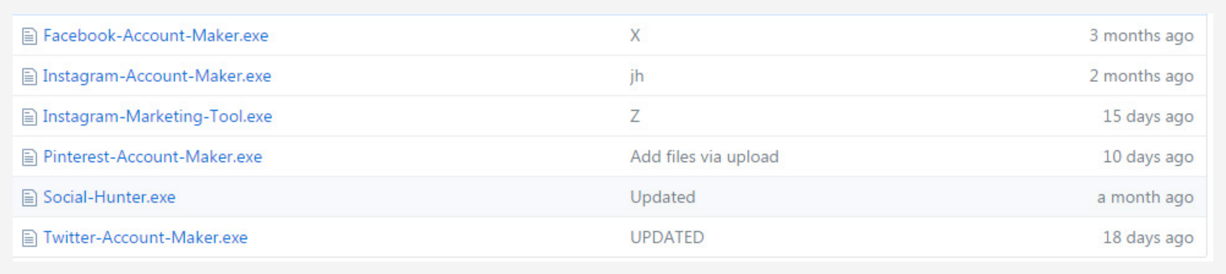


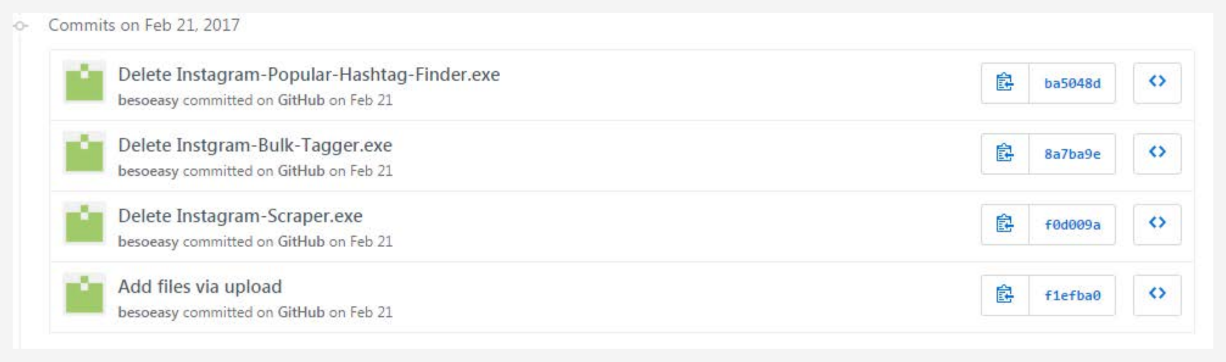
Figure 41. Dr.Followers' site offering promotional services on social media platforms

Fake News Tools and Services in Other Marketplaces and Websites

There are also offerings in other countries, especially in the English-speaking expanse of the internet. In India, there is a marketplace where tools and services for online marketing are offered. An example is a one-man company BeSoEasy that sells both automation bots and services including an account generator for social networking sites Facebook, Instagram, Pinterest, and Twitter. His tools are also hosted on Github.



Facebook-Account-Maker.exe	X	3 months ago
Instagram-Account-Maker.exe	jh	2 months ago
Instagram-Marketing-Tool.exe	Z	15 days ago
Pinterest-Account-Maker.exe	Add files via upload	10 days ago
Social-Hunter.exe	Updated	a month ago
Twitter-Account-Maker.exe	UPDATED	18 days ago



Commits on Feb 21, 2017

Delete Instagram-Popular-Hashtag-Finder.exe
besoeasy committed on GitHub on Feb 21
ba5048d

Delete Instgram-Bulk-Tagger.exe
besoeasy committed on GitHub on Feb 21
8a7ba9e

Delete Instagram-Scraper.exe
besoeasy committed on GitHub on Feb 21
f0d009a

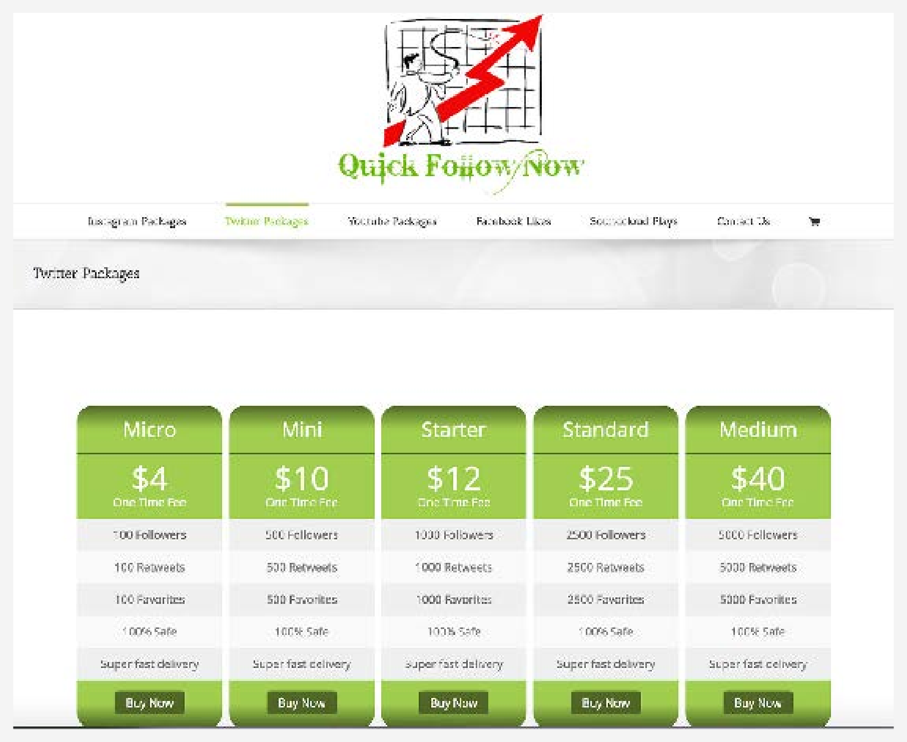
Add files via upload
besoeasy committed on GitHub on Feb 21
f1efba0

Figures 42 to 44. Snapshots of BeSoEasy's website (above), and the tools being sold (center), which are also hosted on GitHub (below)

Quick Follow Now is another English-based site whose services are bundled by followers, retweets, and favorites on Instagram, Twitter, YouTube, Facebook, and Soundcloud. Subscribing to a premium YouTube package, which goes for a one-time fee of $3,150, will earn the prospective customer a million "high-quality" views, and 50,000 likes. Another is 100kfollowers, which sells social media followers and YouTube video views. These services abuse Twitter by creating fake accounts and mass postings. Their use of URL shorteners is very common, as these URLs also serve as their doorways for self-promotion. It is also employed as a measure to prevent their accounts from being suspended. Some of the related self-promoting URLs we observed in spam messages are:

- hxxp://am[.]bobofollowers[.]ml/useful
- hxxp://hy[.]bobofollowers[.]ml/count
- hxxp://ja[.]bobofollowers[.]ml/input
- hxxp://mg[.]bobofollowers[.]ml/given
- hxxp://sr[.]bobofollowers[.]ml/used
- hxxp://to[.]bobofollowers[.]ml/that

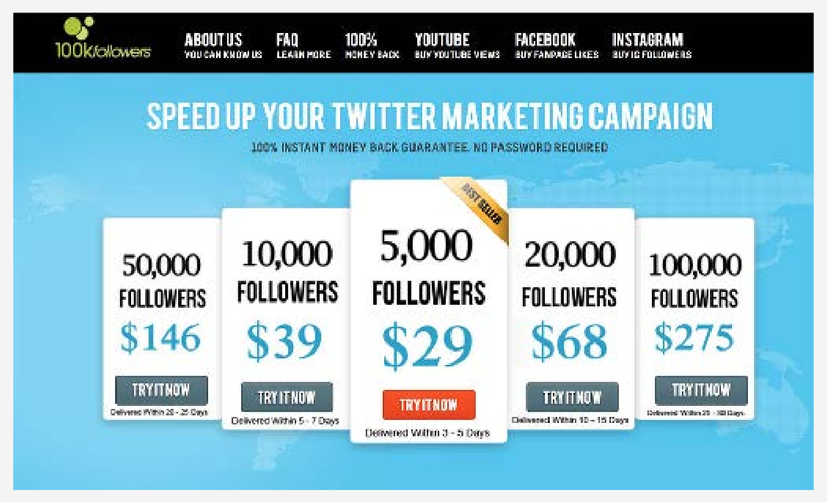
Services are also offered for particular social media platforms, especially Twitter. One that we saw promises to have 63,000 followers in tow, at least two promotional tweets per day, and a listing in their directory.



Twitter Packages

Micro	Mini	Starter	Standard	Medium
$4 One Time Fee	$10 One Time Fee	$12 One Time Fee	$25 One Time Fee	$40 One Time Fee
100 Followers	500 Followers	1000 Followers	2500 Followers	5000 Followers
100 Retweets	500 Retweets	1000 Retweets	2500 Retweets	5000 Retweets
100 Favorites	500 Favorites	1000 Favorites	2500 Favorites	5000 Favorites
100% Safe	100% Safe	100% Safe	100% Safe	100% Safe
Super fast delivery	Super fast delivery	Super fast delivery	Super fast delivery	Super fast delivery
Buy Now	Buy Now	Buy Now	Buy Now	Buy Now

Figure 45. A snapshot of Quick Follow Now's Twitter packages

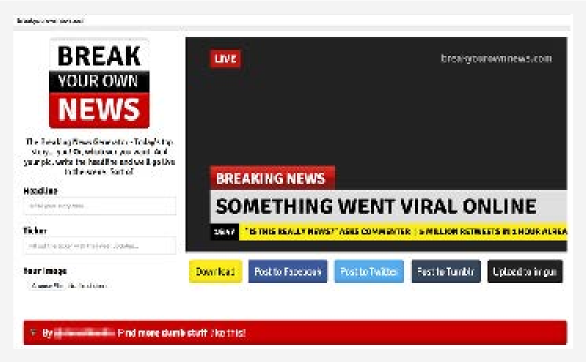


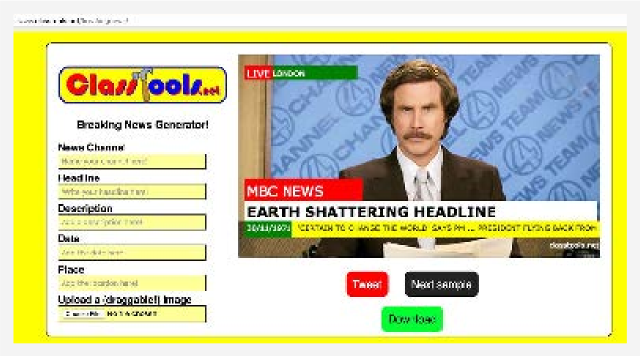
SPEED UP YOUR TWITTER MARKETING CAMPAIGN

100% INSTANT MONEY BACK GUARANTEE. NO PASSWORD REQUIRED

50,000 FOLLOWERS	10,000 FOLLOWERS	5,000 FOLLOWERS	20,000 FOLLOWERS	100,000 FOLLOWERS
$146	$39	$29	$68	$275
TRY IT NOW	TRY IT NOW	TRY IT NOW	TRY IT NOW	TRY IT NOW
Delivered Within 20 - 25 Days	Delivered Within 5 - 7 Days	Delivered Within 3 - 5 Days	Delivered Within 10 – 15 Days	Delivered Within 25 - 30 Days

Figure 46. Webpage of 100Kfollowers showing its offerings





Figures 47 and 48. Websites that let users create their own "breaking news": Break Your Own News (left) and ClassTool's Breaking News Generator (right)

There are also sites that let users generate their own breaking news for free, such as Break Your Own News and ClassTool's Breaking News Generator. While these types of websites are only meant for personal recreation and must be taken with a grain of salt—when combined with these underground services, they can be very effective in manipulating a story and leading the public into believing it's actually authentic.

Social Media Sites: What the User Sees

Other observers have noted that the biggest factor behind the success of fake news operations in 2016 was their high level of social engagement. A Buzzfeed News review[6] noted that total Facebook engagement for fake news was higher than mainstream news during the three months before the US elections in November 2016. (A Facebook spokesperson said at the time that "[t]here is a long tail of stories on Facebook," adding that "it may seem like the top stories get a lot of traction, but they represent a tiny fraction of the total.")

This can be attributed to the use of interesting headlines that are designed to get users to engage with the content—read, like, share, etc. How do they do this?

The modern internet user is overloaded with information and generally shows a very short attention span[7]. This influences how headlines and images are created and used in fake news—they're designed to grab a user's attention at glance. This is essential and is in line with the theories of public opinion manipulation, explained in detail in the Appendix section. The headlines are designed to supposedly inform the user of same significant fact in as sensational a manner as possible. These facts also happen to conform to the mindsets of their reader, making them feel like they're part of a tribe and reinforcing/confirming their ideas and biases.

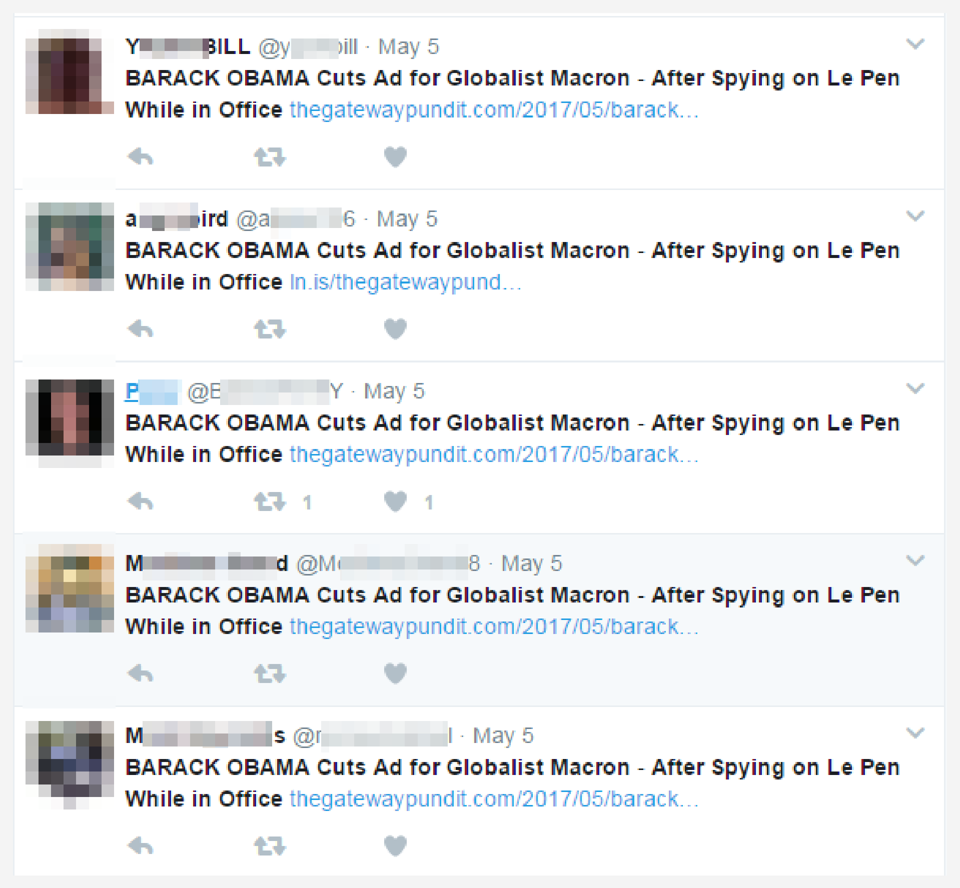
In the realm of political opinion manipulation, this tends to be in the form of highly partisan content. Political fake news tends to align with the extremes of the political spectrum; "moderate" fake news does not really exist.

There are some differences in the operation on Twitter and Facebook, as we can see below.

Twitter

On Twitter, the preferred strategy is to make the story appear to be spread by as many users as possible. Twitter posts are often ranked by the number of retweets, quotes, and likes, and Twitter bots are often used to retweet or quote messages. In other cases, bots simply post the same message without much variance in the text: the same text can be used in all the tweets. Such patterned behavior makes it easy to identify them, and Twitter is successfully using these patterns to block some abusive accounts.

Here is one example. Before the French elections, we found multiple cases where various accounts tweeted news stories with identical text—a telltale sign of bot activity. Since it is unlikely that users would actually be following these accounts, these tweets would be spread primarily by users looking for information about specific news or events via keywords or hashtags. Twitter bots successfully exploit this by saturating Twitter searches with the right words at the right time, driving web traffic towards the site in question.



Y[redacted]BILL @y[redacted]ill · May 5
BARACK OBAMA Cuts Ad for Globalist Macron - After Spying on Le Pen While in Office thegatewaypundit.com/2017/05/barack…

a[redacted]ird @a[redacted]6 · May 5
BARACK OBAMA Cuts Ad for Globalist Macron - After Spying on Le Pen While in Office ln.is/thegatewaypund…

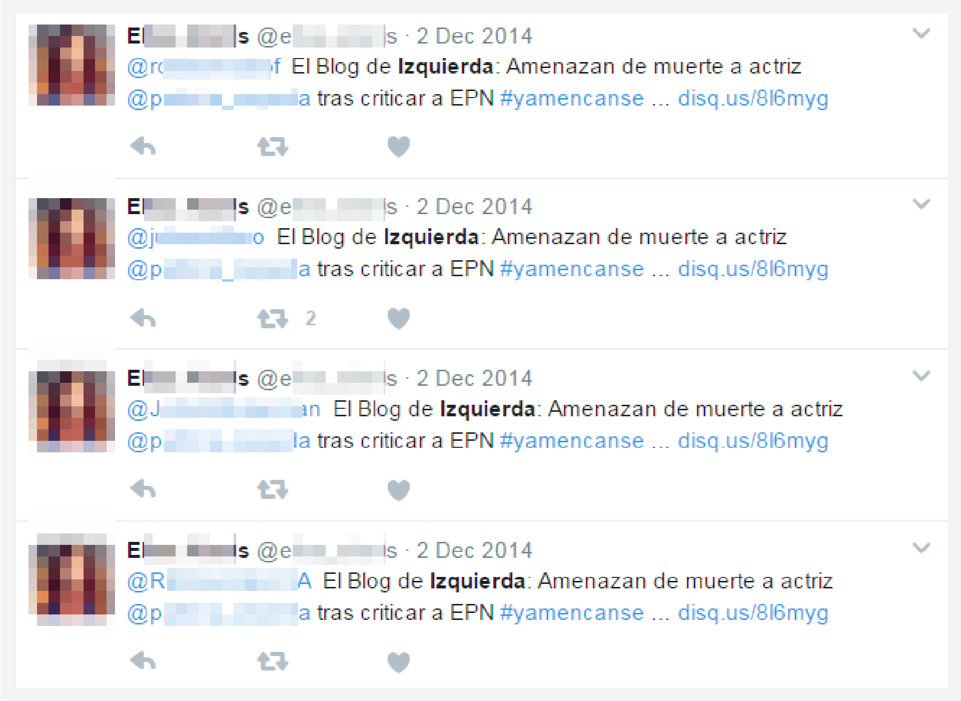
P[redacted] @E[redacted]Y · May 5
BARACK OBAMA Cuts Ad for Globalist Macron - After Spying on Le Pen While in Office thegatewaypundit.com/2017/05/barack…
1 1

M[redacted]d @M[redacted]8 · May 5
BARACK OBAMA Cuts Ad for Globalist Macron - After Spying on Le Pen While in Office thegatewaypundit.com/2017/05/barack…

M[redacted]s @r[redacted]l · May 5
BARACK OBAMA Cuts Ad for Globalist Macron - After Spying on Le Pen While in Office thegatewaypundit.com/2017/05/barack…

Figure 49. Tweets with identical text

Another variation of Twitter bot campaigns posts the same message and mention different users, perhaps to try to catch their attention:



El[redacted]s @e[redacted]s · 2 Dec 2014
@r[redacted]f El Blog de **Izquierda**: Amenazan de muerte a actriz @p[redacted]a tras criticar a EPN #yamencanse ... disq.us/8l6myg

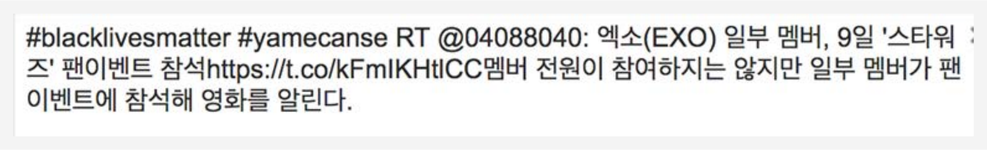
El[redacted]s @e[redacted]s · 2 Dec 2014
@j[redacted]o El Blog de **Izquierda**: Amenazan de muerte a actriz @p[redacted]a tras criticar a EPN #yamencanse ... disq.us/8l6myg

El[redacted]s @e[redacted]s · 2 Dec 2014
@J[redacted]an El Blog de **Izquierda**: Amenazan de muerte a actriz @p[redacted]a tras criticar a EPN #yamencanse ... disq.us/8l6myg

El[redacted]s @e[redacted]s · 2 Dec 2014
@R[redacted]A El Blog de **Izquierda**: Amenazan de muerte a actriz @p[redacted]a tras criticar a EPN #yamencanse ... disq.us/8l6myg

Figure 50. Tweets mentioning different users

Another interesting way Twitter's search system is manipulated is by including hashtags of trending topics. This retweet of a news post promoting a South Korean media star "rides" two hashtags, which were part of the topics that trended during recent events in the United States and Mexico:



#blacklivesmatter #yamecanse RT @04088040: 엑소(EXO) 일부 멤버, 9일 '스타워즈' 팬이벤트 참석https://t.co/kFmIKHtlCC멤버 전원이 참여하지는 않지만 일부 멤버가 팬이벤트에 참석해 영화를 알린다.

Figure 51. Text of tweet using trending topics

This is not the only way to spread misinformation on Twitter, of course. Another useful strategy involves taking a legitimate-looking account, creating a post with the misinformation, then using other accounts to retweet or quote it.

To find out how big this problem was, we looked at all accounts that posted tweets that used keywords related to the French presidential election. By itself, this would include many prominent sites, as they were also (legitimately) discussing the election. We graphed the relationship between all these accounts to see which accounts retweeted or replied to which accounts, and how else they interacted.

The goal was to find isolated communities of accounts that largely interacted with the same accounts, but less so with each other or with other accounts in the greater Twitter community. In short, these communities of accounts are actually bots, created to boost the numbers of those who purchased traffic.

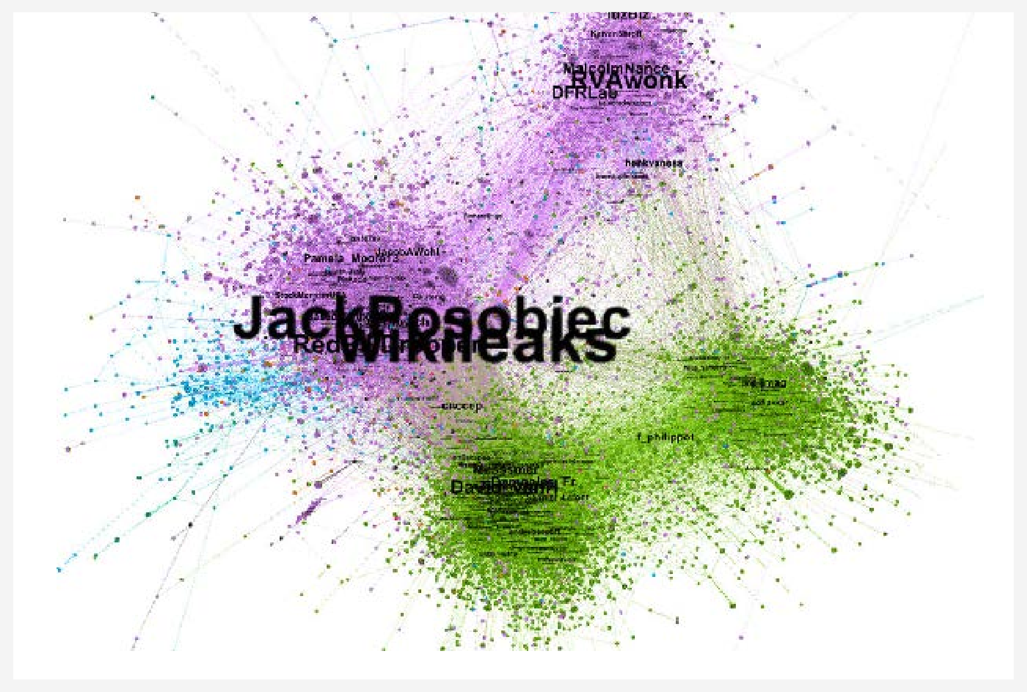


Figure 52. Twitter network diagram for #Macronleaks hash tag

The diagram above illustrates the #Macronleaks discussion during the French election. Each of the Twitter accounts are colored based on the account's primary language. We can see two distinct main communities here: Francophone (in green) and Anglophone (purple). However, we can also see small satellite communities that only talk to, repost and retweet each other and not anyone else. These smaller satellite communities are typically the ones we are interested in—especially if they exhibit the same behavior across multiple social events.

These communities would often have one or two accounts that actively post messages (we call them "gurus") and often followed by a large number of users who actively repost and retweet messages by the active accounts (the "sect followers"). We deliberately do not call them bots here: these accounts often exhibit behaviors of real humans, and could be just very devoted fans of a particular online personality.

Let us zoom in and examine some of these in more detail.

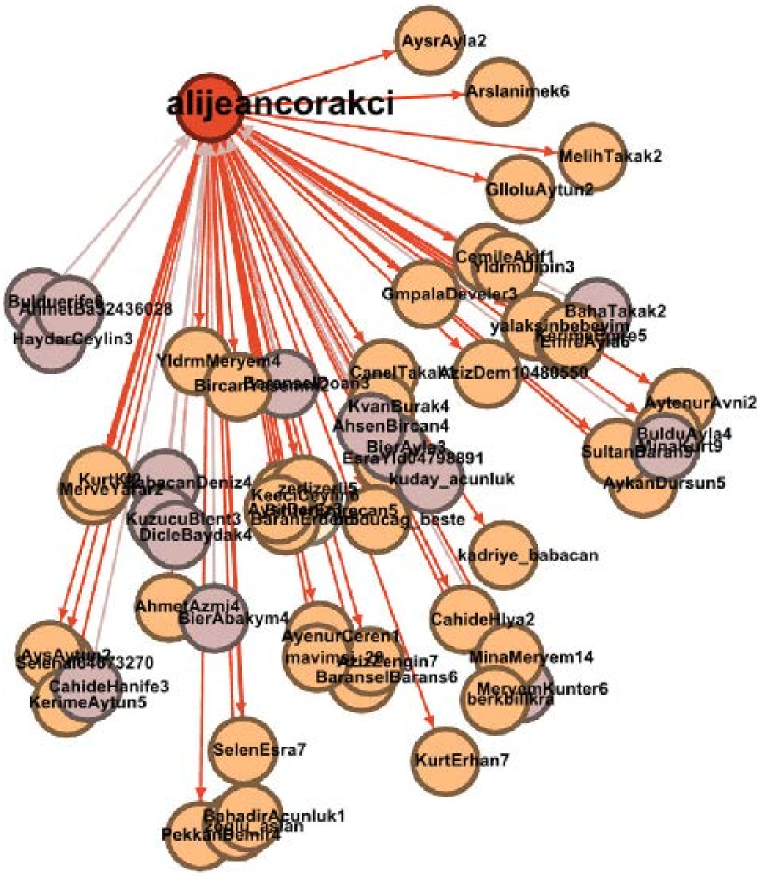
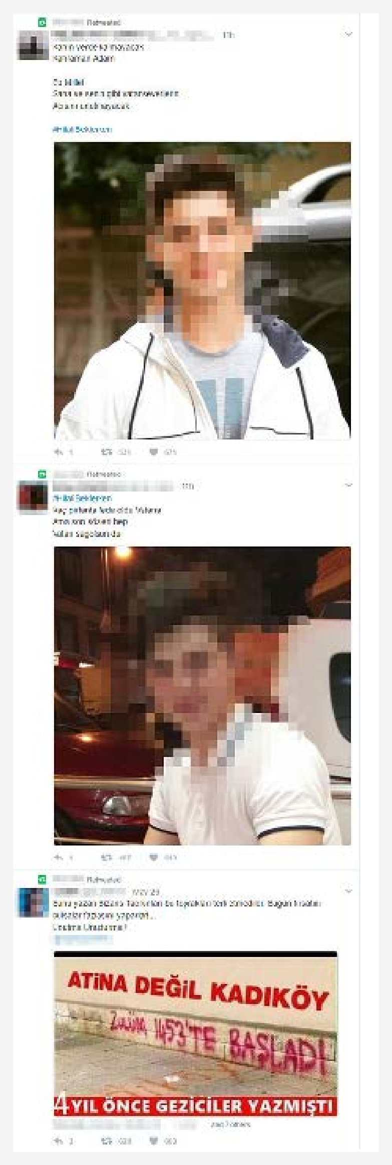


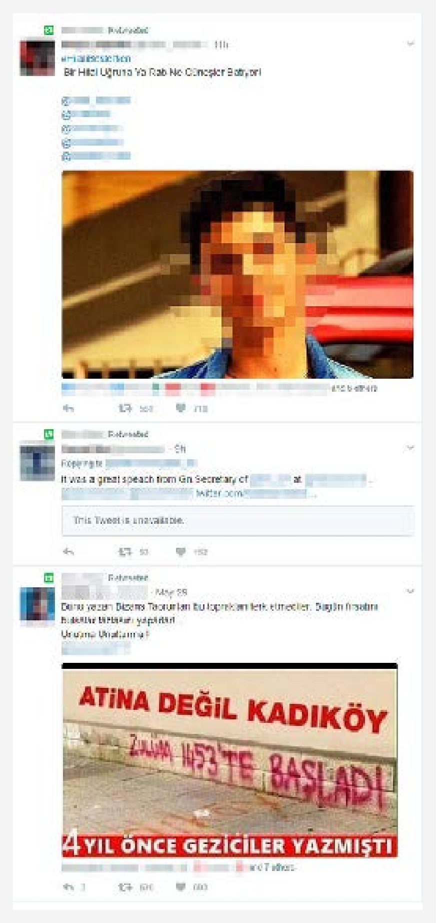
Figure 53. Guru-follower structure of Twitter users

We can obviously see the guru-followers structure here. The “guru” is typically a real human account. We noticed a very interesting tendency among the followers of the guru account: all of these accounts post and retweet the same messages or the same Twitter users in varying order.


Retweeted

Retweeted

Retweeted · May 29


Retweeted · 11h

Bir Hilal Uğruna Ya Rab Ne Güneşler Batıyor!

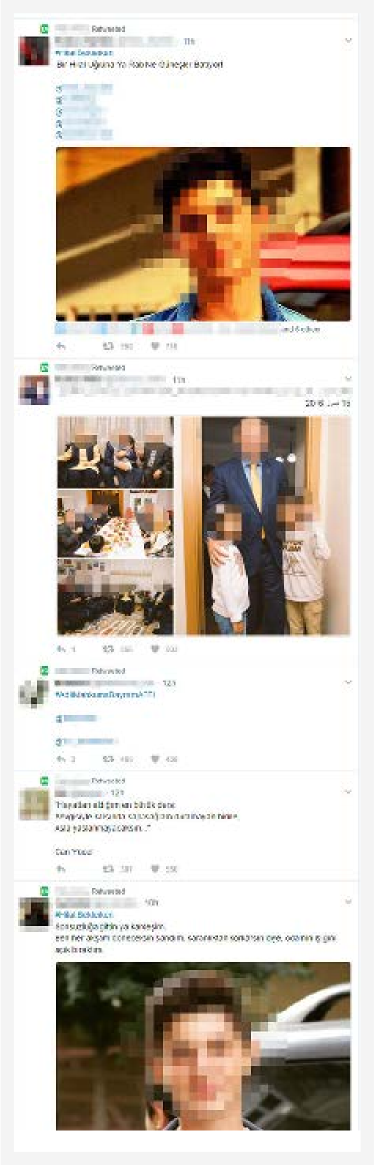
Retweeted · 5h

It was a great speach from Gn Secretary of at

twitter.com/

This Tweet is unavailable.

Retweeted · May 29


Retweeted · 11h

Bir Hilal Uğruna Ya Rab Ne Güneşler Batıyor!

Retweeted

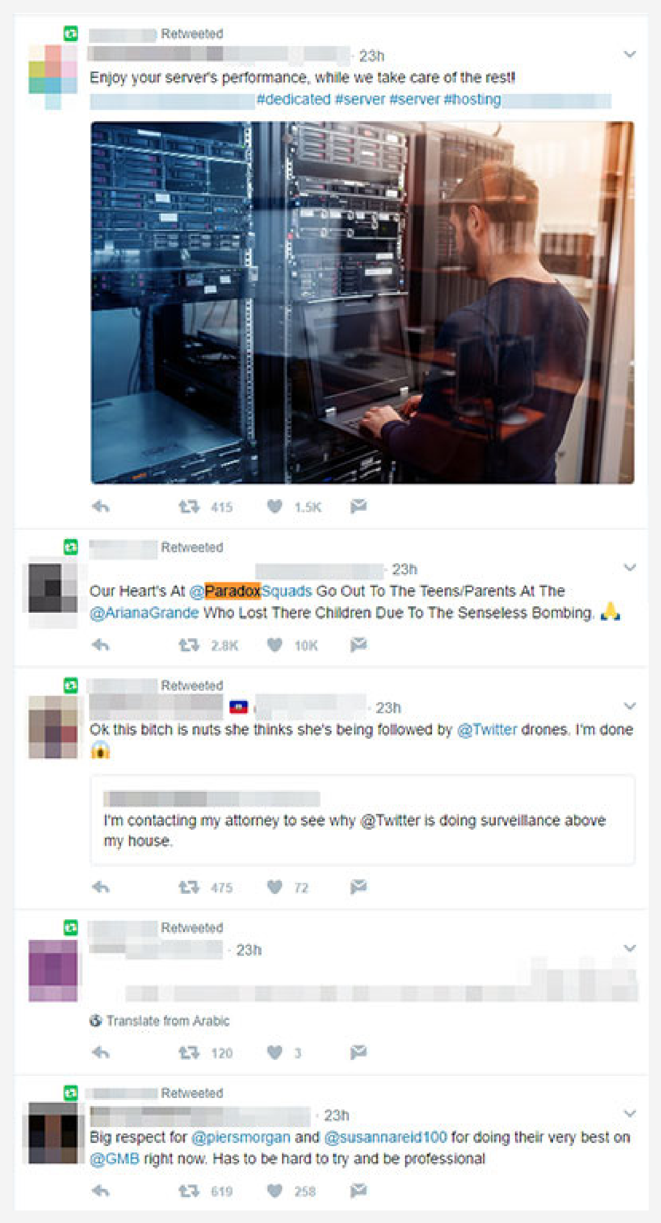
Retweeted

Retweeted

Retweeted

Figures 54 to 56. Same tweets from different users

These timelines would consist exclusively of retweets, with no original content of their own. A sign of accounts that are part of the same operation would be if they retweeted the same tweet, consisted of the same group of users, or used the same hashtag, although not necessarily in the same order. The screenshots of timelines from two different Twitter accounts show an example of this.



[redacted] Retweeted

[redacted] · 23h

Enjoy your server's performance, while we take care of the rest!
[redacted] #dedicated #server #server #hosting [redacted]

415 1.5K

[redacted] Retweeted

[redacted] · 23h

Our Heart's At @ParadoxSquads Go Out To The Teens/Parents At The @ArianaGrande Who Lost There Children Due To The Senseless Bombing. 🙏

2.8K 10K

[redacted] Retweeted

[redacted] · 23h

Ok this bitch is nuts she thinks she's being followed by @Twitter drones. I'm done 😱

[redacted]

I'm contacting my attorney to see why @Twitter is doing surveillance above my house.

475 72

[redacted] Retweeted

[redacted] · 23h

[redacted]

Translate from Arabic

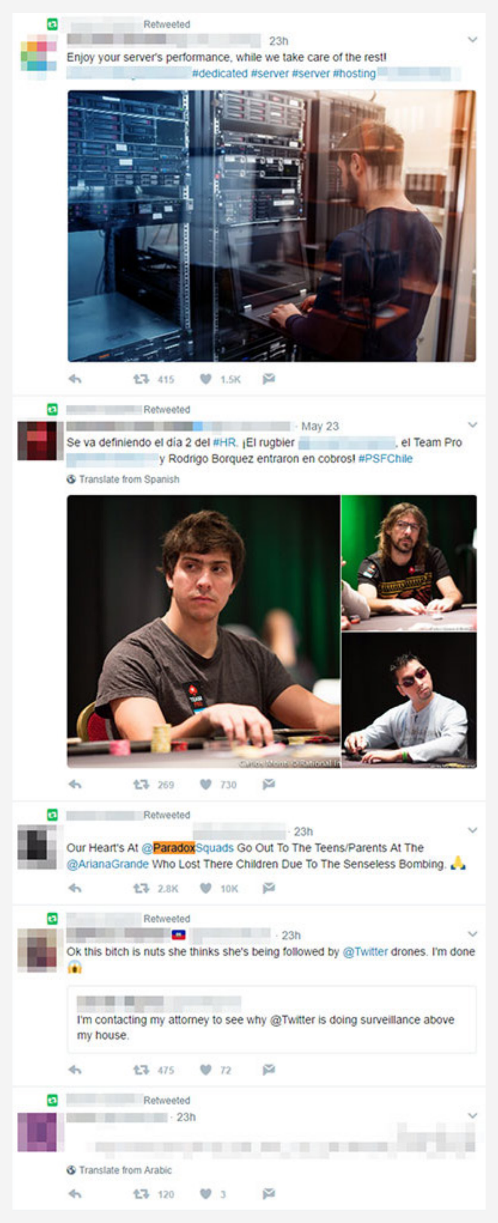
120 3

[redacted] Retweeted

[redacted] · 23h

Big respect for @piersmorgan and @susannareid100 for doing their very best on @GMB right now. Has to be hard to try and be professional

619 258



[redacted] Retweeted

[redacted] · 23h

Enjoy your server's performance, while we take care of the rest!
[redacted] #dedicated #server #server #hosting [redacted]

415 1.5K

[redacted] Retweeted

[redacted] · May 23

Se va definiendo el dia 2 del #HR. ¡El rugbier [redacted], el Team Pro [redacted] y Rodrigo Borquez entraron en cobros! #PSFChile

Translate from Spanish

269 730

[redacted] Retweeted

[redacted] · 23h

Our Heart's At @ParadoxSquads Go Out To The Teens/Parents At The @ArianaGrande Who Lost There Children Due To The Senseless Bombing. 🙏

2.8K 10K

[redacted] Retweeted

[redacted] · 23h

Ok this bitch is nuts she thinks she's being followed by @Twitter drones. I'm done 😱

[redacted]

I'm contacting my attorney to see why @Twitter is doing surveillance above my house.

475 72

[redacted] Retweeted

[redacted] · 23h

[redacted]

Translate from Arabic

120 3

Figures 57 and 58. Timeline of possible bot accounts

Breaking down the followers of the guru accounts into a 3D space (using date of registration for the 3rd dimension) reveals another interesting picture—groups of bots that follow and retweet the same guru. They tend to group into layers due to closer registration dates, with some bots actively following and reposting tweets from two or more gurus at a time.

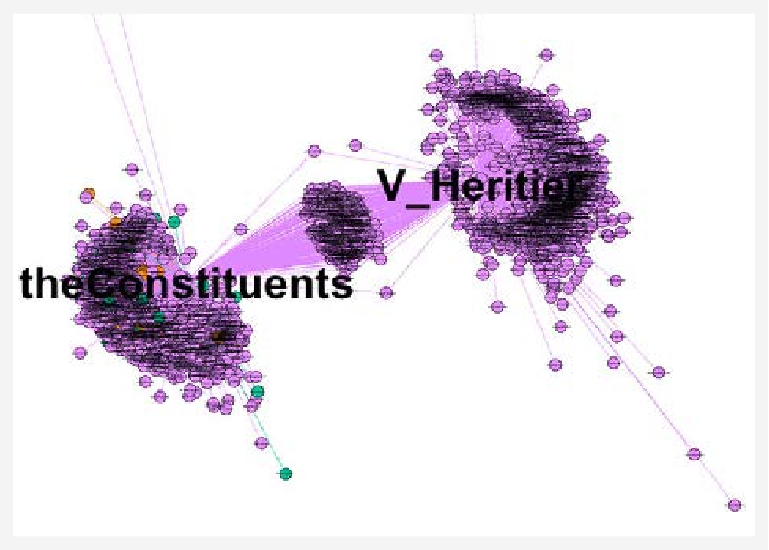
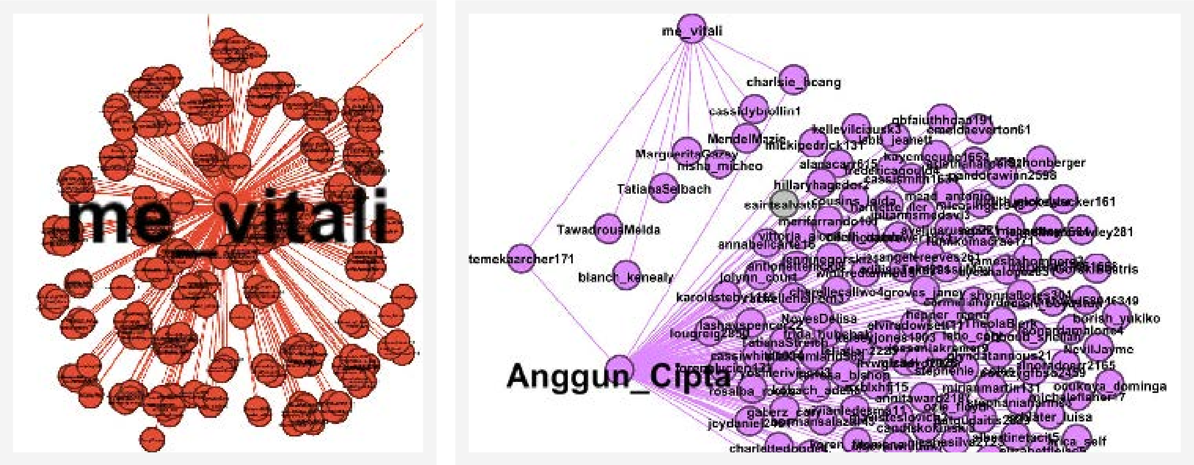


Figure 59. Twitter network diagram of shared bots

How big were these campaigns? For the French presidential election, we identified more than 5,400 suspicious accounts similar to the ones above. Our research indicates that the recent Manchester bombing saw similar suspicious Twitter activity as well, but with less activity.

Many of the guru accounts repeatedly demonstrate very similar behavior on Twitter across multiple social events. For example, here is activity of the same guru during (a) French election #MacronLeak and (b) Manchester bombing incident. Both diagrams show the guru account's activity within 24 hours of the incident.



Figures 60 and 61. Twitter network diagrams of same guru

Two things to note: Twitter has already identified and suspended some of the accounts identified as followers. Secondly, once a particular campaign succeeds, we observed tighter interaction of independently developing campaigns within the main cloud, as illustrated below:

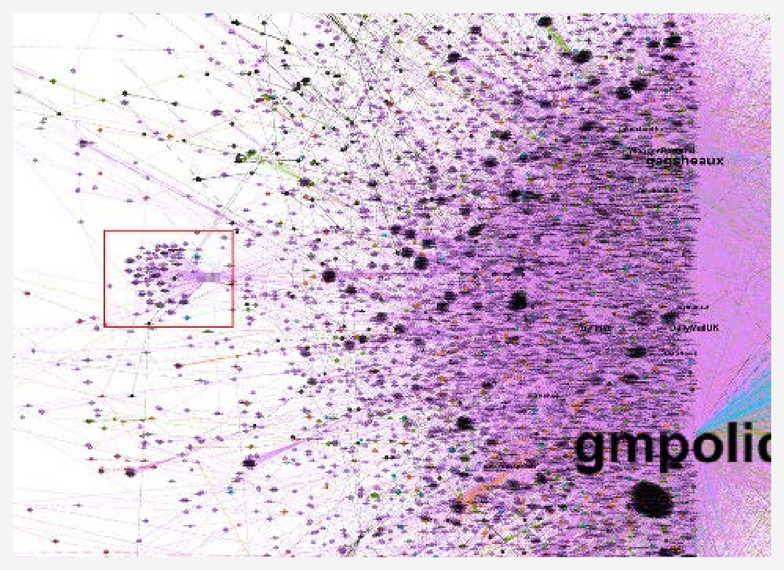
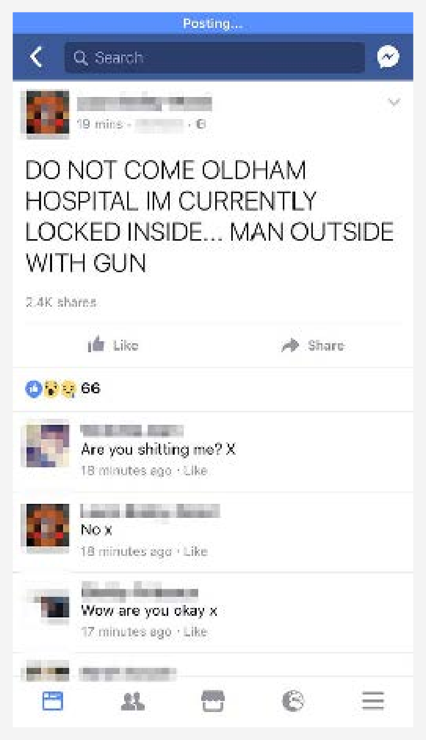


Figure 62. Campaigns interacting with main Twitter cloud

This tendency is extremely obvious, when such campaign developments are monitored over fixed time intervals (for example, hourly slices).

While these may not be part of any organized operations, we also note that social media is home to many sources of inaccurate information about certain incidents. Again, we will use the Manchester bombing as an example.

There were initial reports during the hours after the incident that a local hospital was locked down due to the presence of a gunman outside:



[redacted]
19 mins · [redacted] ·

DO NOT COME OLDHAM HOSPITAL IM CURRENTLY LOCKED INSIDE... MAN OUTSIDE WITH GUN

2.4K shares

66

[redacted]
Are you shitting me? X
18 minutes ago · Like

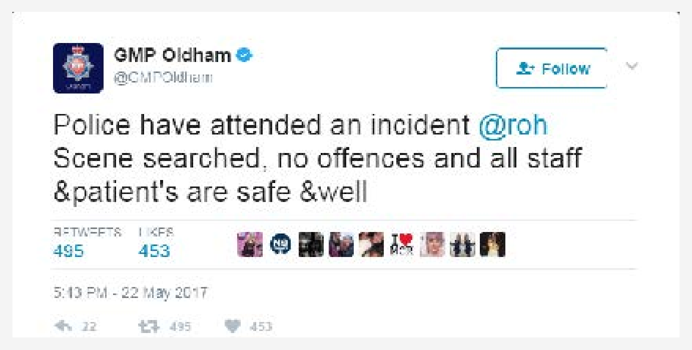
[redacted]
No x
18 minutes ago · Like

[redacted]
Wow are you okay x
17 minutes ago · Like

[redacted]

Figure 63. Screenshot of Facebook post

This was later denied by police:



GMP Oldham
@GMPOldham

Police have attended an incident @roh
Scene searched, no offences and all staff &patient's are safe &well

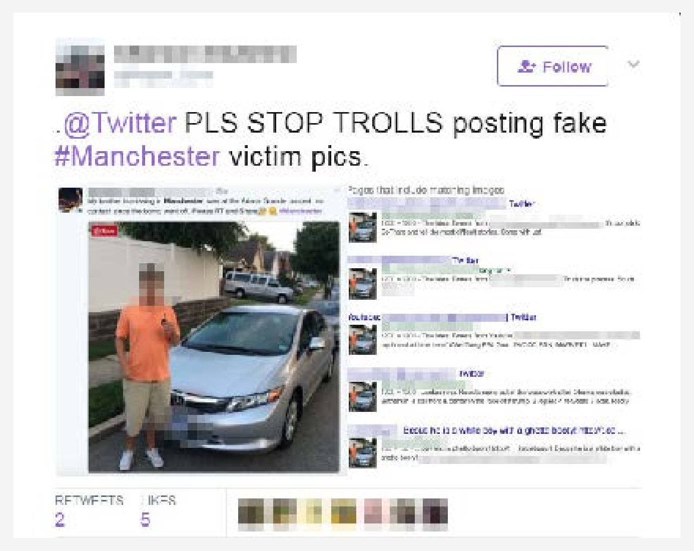
RETWEETS 495 LIKES 453

5:13 PM - 22 May 2017

22 495 453

Figure 64. Tweet from local police department[8]

In addition to this, multiple pleas for help finding family or friends who had been separated during the attack were made. While some of these were genuine, it was clear that in at least some cases these pleas were false:

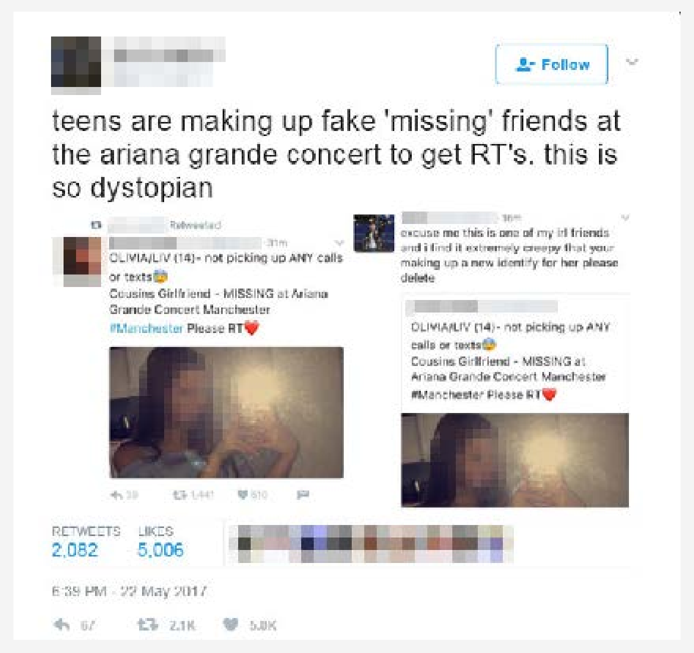


.@Twitter PLS STOP TROLLS posting fake #Manchester victim pics.

Pages that include matching images

RETWEETS 2 LIKES 5

Figure 65. Tweet exposing one fake victim picture[9]



teens are making up fake 'missing' friends at the ariana grande concert to get RT's. this is so dystopian

Retweeted

OLIVIA/LIV (14)- not picking up ANY calls or texts😨
Cousins Girlfriend - MISSING at Ariana Grande Concert Manchester
#Manchester Please RT❤️

excuse me this is one of my irl friends and i find it extremely creepy that your making up a new identify for her please delete

OLIVIA/LIV (14)- not picking up ANY calls or texts😨
Cousins Girlfriend - MISSING at Ariana Grande Concert Manchester
#Manchester Please RT❤️

RETWEETS 2,082 LIKES 5,006

6:39 PM - 22 May 2017

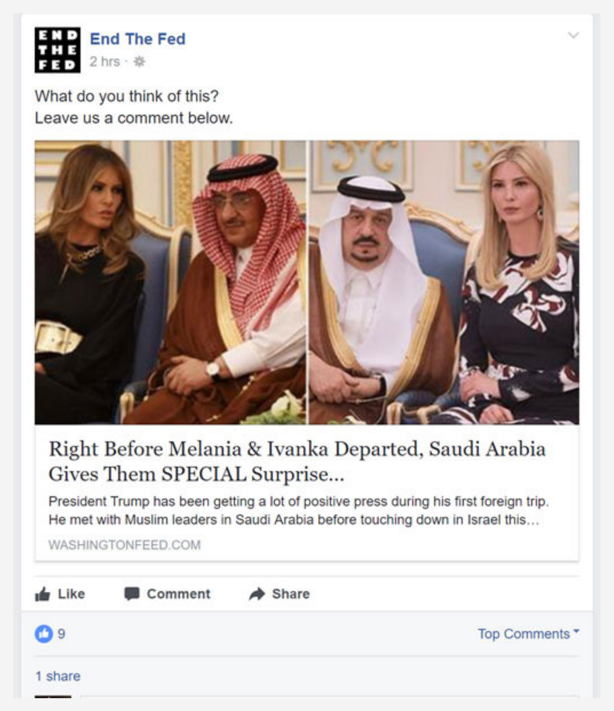
Figure 66. Tweet exposing another fake victim picture[10]

While these specific tweets may not have been part of any organized campaign, these are similar to the types of tweets that could be used as part of one. We urge users to be wary of such posts.

Facebook

Broadly speaking, the themes used in Facebook are similar to those found elsewhere. There are some differences, however, because of the difference in the host platform.

Because Facebook's algorithm is driven by engagement, articles with high numbers of likes and shares are more likely to appear in news feeds. As a result, articles are even more likely to be designed to be liked and shared based on headlines and photos, as seen below:



End The Fed
2 hrs ·

What do you think of this?
Leave us a comment below.

Right Before Melania & Ivanka Departed, Saudi Arabia Gives Them SPECIAL Surprise...

President Trump has been getting a lot of positive press during his first foreign trip. He met with Muslim leaders in Saudi Arabia before touching down in Israel this...

WASHINGTONFEED.COM

Figure 67. Typical Facebook post of End the Fed

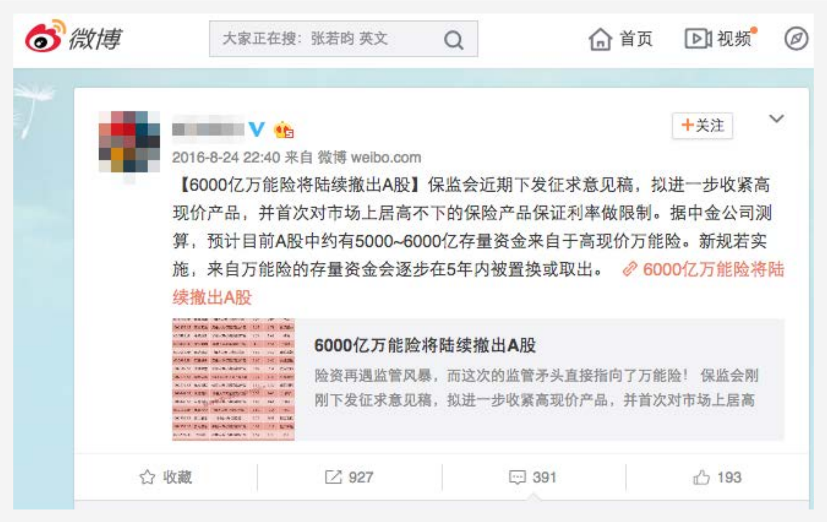
The above screenshot is from the Facebook profile of End the Fed, a website identified as a purveyor of fake news[11]. Note how the headline and photo is designed quickly engage readers of a particular ideological orientation, but doesn't reveal the entire story. It still serves as a hook for the article itself.

In addition to this, fake news on Facebook are more likely to feature consistent branding. On this particular Facebook page, the links generally go to the same domain (washingtonfeed.com), and the name of the site was also prominently displayed on the posts.

Other Social Media Platforms

As we noted earlier, social media platforms in China are similarly used for misinformation. However, the principles are still the same: grab attention and conform to the norms of the social media platform.

The following examples are all from August 2016, when false reports indicated that an insurance fund would be delisted from the Shanghai stock exchange:



[redacted]

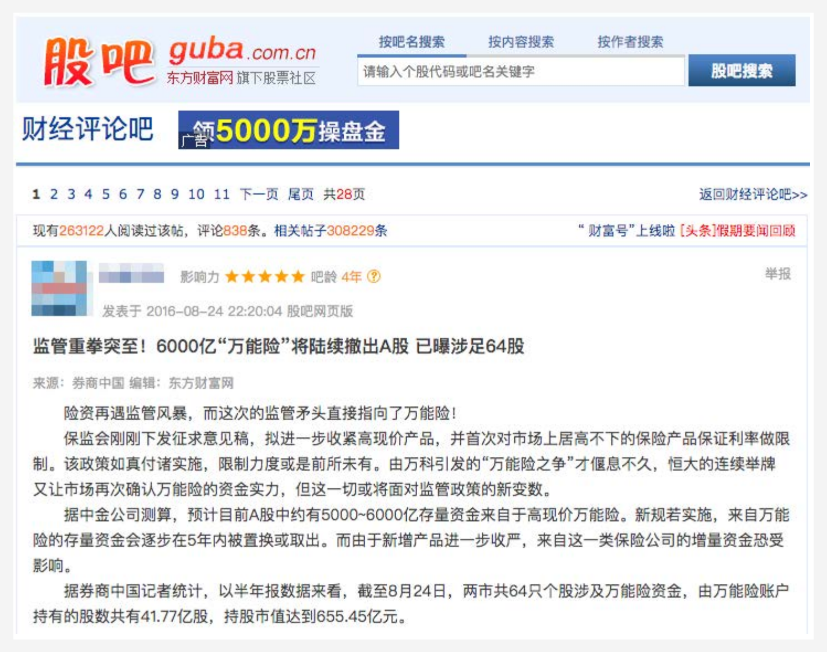
2016-8-24 22:40 来自 微博 weibo.com

【6000亿万能险将陆续撤出A股】保监会近期下发征求意见稿，拟进一步收紧高现价产品，并首次对市场上居高不下的保险产品保证利率做限制。据中金公司测算，预计目前A股中约有5000~6000亿存量资金来自于高现价万能险。新规若实施，来自万能险的存量资金会逐步在5年内被置换或取出。 6000亿万能险将陆续撤出A股

6000亿万能险将陆续撤出A股

险资再遇监管风暴，而这次的监管矛头直接指向了万能险！ 保监会刚刚下发征求意见稿，拟进一步收紧高现价产品，并首次对市场上居高

Figure 68. Weibo post containing news about insurance fund being delisted



现有263122人阅读过该帖，评论838条。相关帖子308229条

[redacted] 影响力 ★★★★★ 吧龄 4年

发表于 2016-08-24 22:20:04 股吧网页版

监管重拳突至！6000亿“万能险”将陆续撤出A股 已曝涉足64股

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险资再遇监管风暴，而这次的监管矛头直接指向了万能险！

保监会刚刚下发征求意见稿，拟进一步收紧高现价产品，并首次对市场上居高不下的保险产品保证利率做限制。该政策如真付诸实施，限制力度或是前所未有。由万科引发的“万能险之争”才偃息不久，恒大的连续举牌又让市场再次确认万能险的资金实力，但这一切或将面对监管政策的新变数。

据中金公司测算，预计目前A股中约有5000~6000亿存量资金来自于高现价万能险。新规若实施，来自万能险的存量资金会逐步在5年内被置换或取出。而由于新增产品进一步收严，来自这一类保险公司的增量资金恐受影响。

据券商中国记者统计，以半年报数据来看，截至8月24日，两市共64只个股涉及万能险资金，由万能险账户持有的股数共有41.77亿股，持股市值达到655.45亿元。

Figure 69. Post in Guba stock forum regarding the delisting of insurance fund

The Motivations Behind Fake News

We have covered *how* fake news and propaganda can be created, but the ultimate question is: what is it for? Is it done to advance political agendas or business interests? Is it to drive traffic to traffic farms?

The answer, to some degree, is yes to all of the above. Various factors come into play, but there is no single answer for *why* fake news is created and spread.

Political Motivations

Based on recent events, the most obvious motivation behind fake news is politics, but in some cases, it's *too* obvious. While many articles categorized as fake news involve political stories, it does not mean the objective is political. The real goal might be completely apolitical altogether.

However, when there *is* an unceasing flow of fake news with a uniform agenda, then one cannot rule out the possibility of political motives.

Political propaganda is designed to get people to change their mind about their political beliefs or some other opinion. Consider how we form our own opinions in the first place:

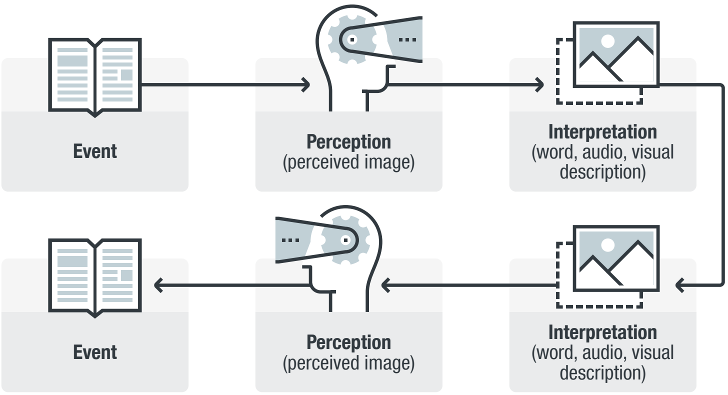


Figure 70. Ideal opinion formation process

An event occurs, which is processed through someone else's perception (with all the biases it entails), producing an interpretation of the event. If another individual was given this description of the event, it would pass through their own perception, but the event would then be "effectively" recovered—although how similar this is to the actual event itself is debatable.

Now, how does a would-be political actor change this? Consider a modified version of the above diagram:

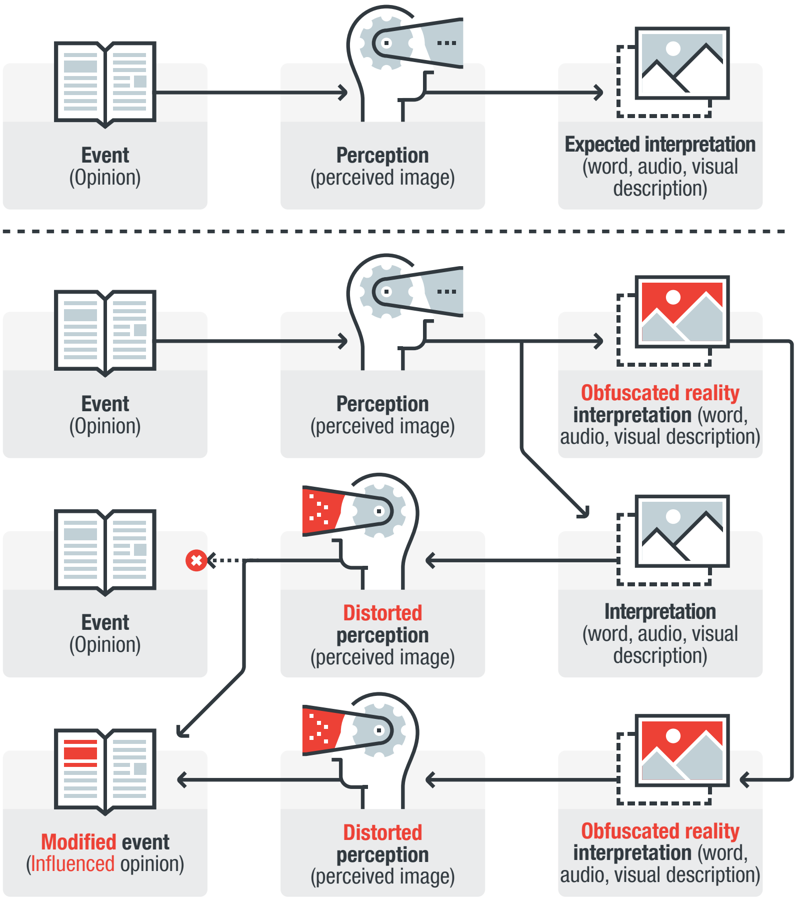


Figure 71. Opinion process formation, with propaganda

By changing the perception of events, an actor is able to change the opinion of (some) users to their desired political objectives.

Broadly speaking, the above is applicable to any description of public opinion manipulation. It can be considered a form of cognitive hacking[12]—except that the modification of a user's perception is the goal of the operation, not a means for gaining access to a network.

Financial Motivations

There are a nearly infinite number of ways to profit from fake news. The most common method might be the same beast that powers most of the internet: advertising.

Fake news sites have gotten very good at directing social media users to their sites. While the descriptions and headlines they use are charitably described as *clickbait*, it can't be denied that they work.

Some sites that publish misleading information or content considered as fake news sees a significant amount of traffic. Infowars.com, a site that pushes conspiracy theories, reportedly has the same internet presence[13] (i.e., page views and visitors) as the *Chicago Tribune*. Even though the ads on these sites are cheaper on an individual basis than that of regular news sites, the accumulated revenue for these purveyors is significant.

Advertising represents only the most obvious method of profiting from fake news, however. It is also possible to attempt to profit from the reaction to fake news.

It's well-known that stock prices can be heavily influenced by Twitter[14]. For example, shares in the American ultra-low-cost carrier (ULCC) Spirit Airlines fell 5% the day after videos of passenger fist fights due to cancelled flights[15] made the rounds on social media. When United Airlines forcibly removed[16] a passenger from a flight in April 2017, its stock price fell[17] as well.

Therefore, it's no big stretch of the imagination to think that fake news could be used to influence stock prices. This is particularly true for stocks with low prices and those that are infrequently traded, which makes their price easier to manipulate. For more established companies, a campaign could lower the image and reputation of a target company, affecting their earnings and stock price.

Simply put, any publicity about a company may have an effect on it as a business. This may be due to its earnings or its stock price. As a result, the ability to influence public opinion regarding a company can have multiple consequences, very few of which are completely predictable.

Character Assassination and Data Leaks

While character assassination and other forms of black propaganda can be categorized as political and non-political motivations, it's worth calling this out specifically due to its prevalence and the unique damage it can cause to its targets when timed correctly.

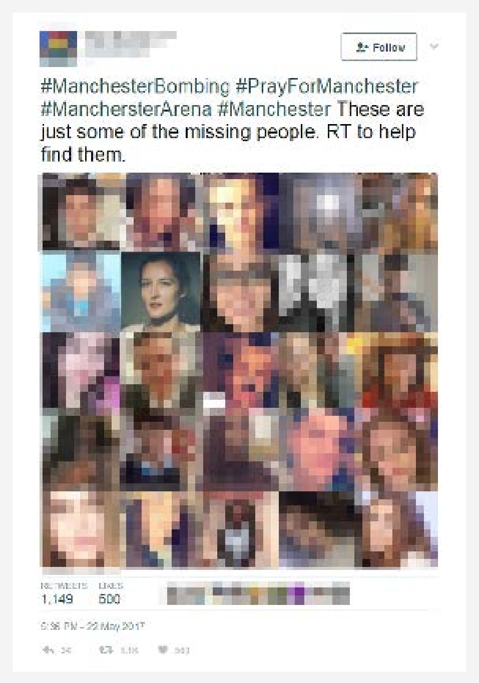
In the political sphere, data leaks and dumps are widely used in cyber propaganda efforts. In 2016, the most high-profile usage of this technique was the leak of emails of the Democratic National Committee

(DNC)[18] via the *dcleaks.com* page, which took place just before the party's nominating convention. The leaks were sufficiently damaging that numerous party officials were forced to resign due to the contents of their emails.

This year, the campaign of French presidential candidate Emmanuel Macron was rocked by a leak[19] of their own email messages. The archives were leaked just hours before a moratorium on campaign coverage in French news media began. In the end, the timing or the content of the leaks might have rendered it ineffective: Macron won anyway.

The popular perception of politicians as dishonest people makes leaking emails and other sensitive documents from politicians quite effective. After all, if a voter believes that a politician is already lying to them, they may be more willing to believe claims supposedly found in his email, holding these up as his true beliefs. Loud protestations about how he was hacked only make any salacious claims *more* believable, not less.

Private individuals are also at risk. For example, Mexican journalists are routinely harassed by Twitter bots under the control of drug cartels[20]. Death threats are a part of this; in a country known to be one of the most dangerous in the world[21] for reporters, such threats have to be taken seriously. It should not be a surprise, then, that the picture of one prominent Mexican journalist (Andrea Noel) was added to a gallery[22] of victims of the Manchester bombing. The image was widely accepted as authentic, and distributed by a number of followers and media sites, unaware of the addition.



#ManchesterBombing #PrayForManchester #ManchersterArena #Manchester These are just some of the missing people. RT to help find them.

RETWEETS 1,149 LIKES 600

5:36 PM - 22 May 2017

Figure 72. Tweet with inaccurate victim gallery[23] (picture of reporter not blurred)

Data leaks are also very effective tools for public opinion manipulation. The very fact a leak occurred validates all of the leaked data as legitimate in the eyes of the general population. Let us suppose a leak occurs and 99% of the documents are legitimate, but 1% was tampered to help the leaker's agenda. The victim organization will have a hard time proving that any tampering did occur, let alone which documents were modified. The very fact that a leak occurred also undermines the target's security and credibility.

There's nothing to stop the same from affecting individuals as well. "Doxing" has long been used as a means of public shaming on the internet. Interestingly, China also has developed a phenomena called "Human Flesh Search[24]" (人肉搜索), where online personalities are searched, and often shamed or punished in the real world for their online misdeeds.

Public shaming has become common on the internet, affecting companies (see the previously mentioned United Airlines cases) as well as individuals. The author Jon Ronson had documented this phenomenon[25] as early as 2015, but little, if anything, has changed since. It is entirely possible to abuse social media to make false accusations; what more if the tools documented earlier were used as well?

The Economics of Fake News Campaigns: Case Studies

The ubiquity of social media and the muddled political landscape both affect how fake news or stories can spread and distort public opinion to the point of driving action. Publishing fake content—including advertisements—that can be monetized is also gaining traction, thanks to their scalability and ease of access.

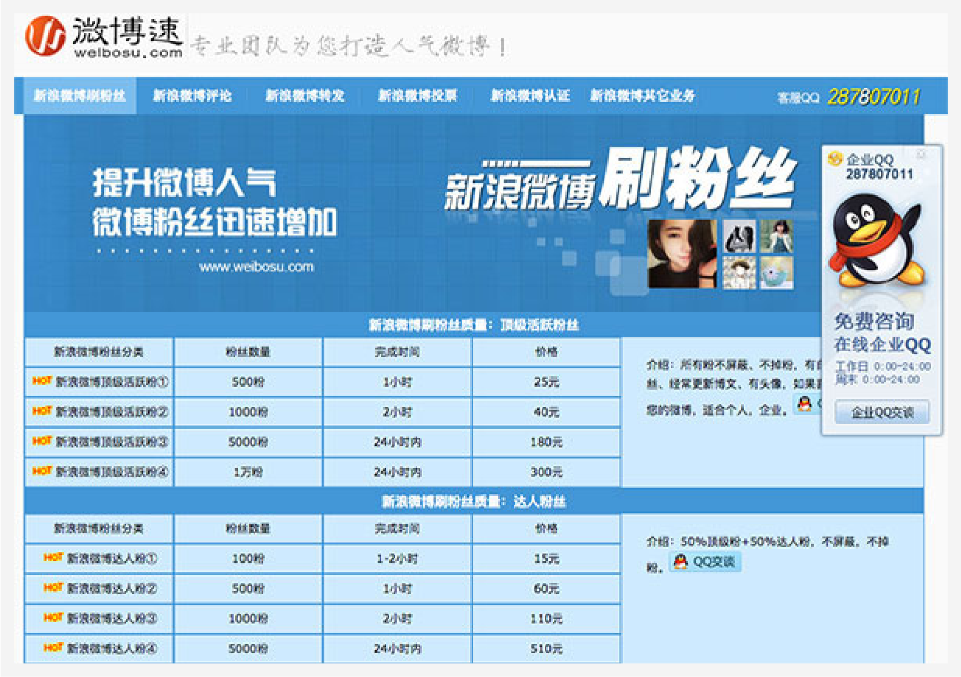
Indeed, the real-world implications of fake news and cyber propaganda are starting to rear its head—in the political mainstream[26], financial markets[27], and businesses[28], down to their readers themselves, which can all filter down into the real world. Bolstered by the services available in gray and underground marketplaces, we've also found that the repercussions also extend to the inner workings that drive the proliferation of fake news—and in particular, its economy.

This section will discuss different scenarios, inspired by real-world incidents, on how fake news and cyber propaganda campaigns can be launched, as well as the economics behind them.

Create a Celebrity with 300,000 Followers in a Month for $2,600

Popularity is the name of the game in social media. The more visible a social media profile is, the more it will have a semblance of authority, which in turn can amplify the effect of everything posted from the profile. Employing the services available in the Chinese underground and using them in a widely used platform like Weibo can make it scalable enough to launch a campaign.

But what does it take to turn a social media account into an exceptionally famous profile? Suppose a "celebrity" profile is created in Weibo with the aim of bringing in a quarter of a million followers within a month. Naturally, it will appear too conspicuous if the profile immediately reflects a high volume of fans, so the campaign must be done in phases. Spending RMB 490 in total in the Chinese underground will garner the profile 500 followers on the first day, and an additional 1,000 on the second day. Incrementally increasing it by 1,000 per day (i.e. 1,000 on day 4, 2,000 on day 5) will result into 11,500 followers within a week, excluding organic followers (real people who subscribed to the profile for their own reasons).



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新浪微博刷粉丝质量：顶级活跃粉丝

新浪微博粉丝分类	粉丝数量	完成时间	价格
HOT 新浪微博顶级活跃粉①	500粉	1小时	25元
HOT 新浪微博顶级活跃粉②	1000粉	2小时	40元
HOT 新浪微博顶级活跃粉③	5000粉	24小时内	180元
HOT 新浪微博顶级活跃粉④	1万粉	24小时内	300元

介绍：所有粉不屏蔽、不掉粉，有
丝、经常更新博文、有头像，如果
您的微博，适合个人、企业。

新浪微博刷粉丝质量：达人粉丝

新浪微博粉丝分类	粉丝数量	完成时间	价格
HOT 新浪微博达人粉①	100粉	1-2小时	15元
HOT 新浪微博达人粉②	500粉	1小时	60元
HOT 新浪微博达人粉③	1000粉	2小时	110元
HOT 新浪微博达人粉④	5000粉	24小时内	510元

介绍：50%顶级粉+50%达人粉，不屏蔽，不掉粉。 QQ交谈

Figure 73. A service in a Chinese marketplace that sells followers on Weibo

The second phase can focus on quickly increasing the profile's followers and introducing reposts and online voting. Using the same strategy to increase followers but starting with a baseline of 5,000 purchased followers, it can tally up to 44,500 by the end of second week. This can be complemented by 500 reposts of content per day, which can be bought as a service for at least RMB 35 per day, or roughly around RMB 245 ($36) for a week. A further 100 votes per day, priced at RMB 70 ($10) for the week, can also be bought. The result is approximately over 55,000 followers for around RMB 2,450 ($543).

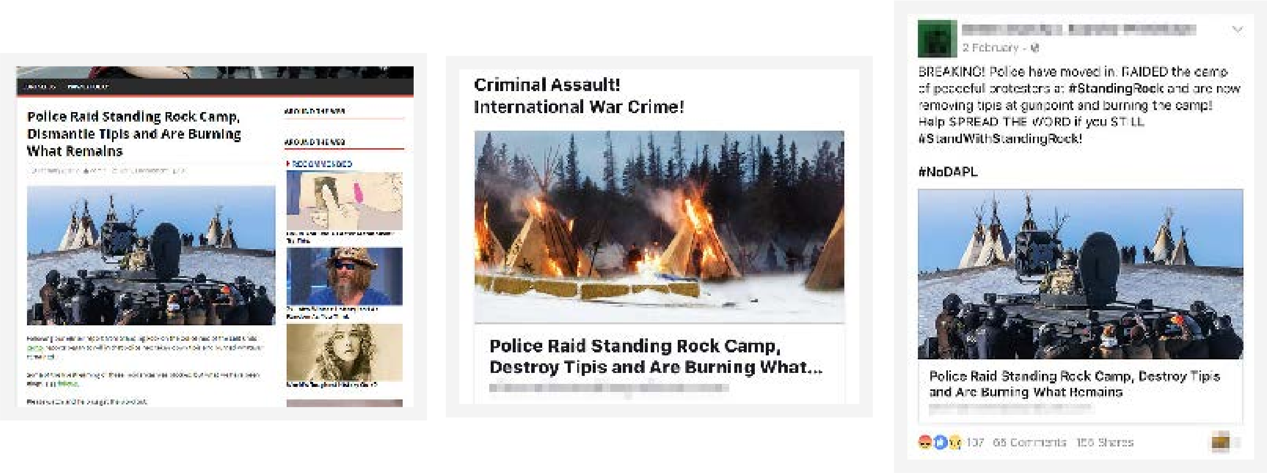
The third and fourth phases can focus on getting regional fans, and increasing the volume of services to further expand the reach of the profile. The campaign operator can secure 125,000 more followers on the third week by buying 10,000 fans per day, which goes for RMB 2,100 ($305) for a week. This will be enhanced with the purchase of 2,000 reposts per day, pegged at RMB 980 ($142) for a week, and an additional 500 votes per day, priced at RMB 280 ($41).

By the fourth week, the operator can further broaden the extent of the profile's popularity with the help of services available in the Chinese underground. The overhead possibly needed to successfully mount this phase includes: purchasing 20,000 fans at RMB 300 per day (RMB 2,100, or $305); buying 5,000 regional fans at RMB 450 per day (RMB 3,150, or $450); and ordering 5,000 reposts at RMB 350 per day (RMB 2,450, or $355). The result is over 300,000 followers by the end of the month.

For around RMB 16,000, or less than $2,600 spent on services in the Chinese underground, a social media profile can easily fetch more than 300,000 followers in a month. This can be sustained by keeping the profile active. A bulk service of fans, reports, and comments, which goes for RMB 8,000 monthly ($1,160), and organizing weekly polls that employ voting as a service (priced at RMB 1,400 or $203) are just some of the options available to the operator.

Help Instigate a Street Protest for $200,000

Helping sway public perception to spark protests with an inundation of misinformation is actually already a real-world problem. In February, 2017, a doctored photo of burning teepees and a caption that sternly criticizes the police for setting a protest group's camp on fire caused[29] a misguided uproar over social media. In May 2017, boycotts from a number of students at a college in Minnesota, U.S. were incited[30] by a fake message.



Police Raid Standing Rock Camp, Dismantle Tipis and Are Burning What Remains

RECOMMENDED

Criminal Assault!
International War Crime!

Police Raid Standing Rock Camp, Destroy Tipis and Are Burning What...

2 February

BREAKING! Police have moved in. RAIDED the camp of peaceful protestors at #StandingRock and are now removing tipis at gunpoint and burning the camp! Help SPREAD THE WORD if you STILL #StandWithStandingRock!

#NoDAPL

Police Raid Standing Rock Camp, Destroy Tipis and Are Burning What Remains

137 65 Comments 156 Shares

Figures 74 to 76. Snapshot of fake news (left) reporting a protest group's camp being set on fire; note that the altered image[31] (center) that accompanied the headline was taken and modified from a still frame of a popular movie. It has since been updated with another doctored photo. The fake news was also promoted over social media (right).

With the tools available in the underground and legitimate services that can be abused, manipulating public perception to provoke a protest can be a scalable campaign. Pulling it off, however, entails financial resources. The instigator can first create and populate social media groups that discuss sensitive topics and ideologies he wants to fuel with fake news. In the underground, a service like this would cost around $40,000, which is broken down to populating 20 groups with 1,000 "high-quality" members.

Promotional services for fake content that further incites the group's ideologies can also be bought in the underground. To maximize the content's reach to its intended audience, it would cost $6,000 to have around 40,000 high-quality likes. Comments, which in the underground come in templates that a customer can choose from, cost $5,000 for 20,000 comments ($250 per 1,000 comments). The instigator can further promote his "cause" by ordering at least 10 news stories promoted with 50,000 retweets and likes from 100,000 visitors. The underground offers this service for $2,700 per news story. Placements of at least 50 related videos on YouTube and making them go viral can further elevate the instigator's ulterior motive; this service costs $2,500 for every five videos.

A service that can be misused to announce and promote a protest over social media can have a price tag of around $10,000. Buying promotional services to propagandize it on a bigger venue would entail an expense of $30,000. The instigator can then run the protest's upkeep with logistics, paraphernalia, medical support, and other provisions, all of which can cost around $20,000, and a further $10,000 for dispersing the protest after the instigator's objective has been accomplished.

The overhead for this campaign would tally around $200,000. Even a 1% turnout from a reached audience of around two million from a desired or targeted region, for instance, can still have an impact. Note, however, the key ingredient required to make the campaign a success: fake news fabricated as truth that panders to its audience's ideologies and promises an illusion of the future—enough to compel people to join an imagined cause.

Discredit a Journalist for $55,000

If an attacker aims to silence a journalist from speaking out or publishing a story that can be detrimental to an attacker's agenda or reputation, he can also be singled out and discredited by mounting campaigns against him. Social media carries a significant effect on campaigns such as this, given how quickly fake news can affect its target. This was exemplified[32] by a journalist in Mexico who became a target of false, damaging, and abusive content on Twitter.

But what kind of campaign does it take to discredit a journalist? Let's suppose a popular journalist of interest, like many others in his profession who are digital-savvy, has a Twitter account with 50,000 followers, a Facebook account with 10,000 friends, and a blog that publishes at least three articles a week that garners around 200 comments per post.

An attacker can mount a four-week fake news campaign to defame the journalist using services available in gray or underground marketplaces. Fake news unfavorable to the journalist can be bought once a week, which can be promoted by purchasing 50,000 retweets or likes and 100,000 visits. These cost around $2,700 per week. Another option for the attacker is to buy four related videos and turn them into trending videos on YouTube, each of which can sell for around $2,500 per video.

The attacker can also buy comments; to create an illusion of believability, the purchase can start with 500 comments, 400 of which can be positive, 80 neutral, and 20 negative. Spending $1,000 for this kind of service will translate to 4,000 comments.

After establishing an imagined credibility, an attacker can launch his smear campaign against his target. Poisoning a Twitter account with 200,000 bot followers will cost $240. Ordering a total of 12,000 comments with most bearing negative sentiment and references/links to fake stories against the journalist will cost around $3,000. Dislikes and negative comments on a journalist's article, and promoting them with 10,000 retweets or likes and 25,000 visits, can cost $20,400 in the underground.

The result? For around $55,000, a user who reads, watches, and further searches the campaign's fake content can be swayed into having a fragmented and negative impression of the journalist. A more daunting consequence would be how the story, exposé or points the journalist wanted to divulge or raise will be drowned out by a sea of noise fabricated by the campaign.

Manipulate a Decisive Course of Action for $400,000

Influencing the choices to be made in critical junctures in a decision-making process is something that governments and businesses continuously contend with—from elections[33], trade agreements[34], and referendums[35] down to personal financial decisions[36].

Whether from underground or gray—even legitimate—marketplaces, services can be employed to further streamline a campaign that seeks to manipulate decisions at crucial events. But what resources does it entail? A campaign operator, for instance, can buy news websites focused on his targeted region and topic of interest. This service can cost around $3,000 per website. At least five websites that cross-references each other can be bought to provide a semblance of reliability to the reader.

A campaign operator would then start populating these websites with fake news masquerading as trustworthy sources of information. This is available as a service for $5,000. Maintaining these websites with more fake content and incorporating features such as account support and moderation will cost around $5,000 per month, which means the overhead of the websites' upkeep will be $60,000 in a year.

These websites can then be promoted on social media with a targeted focus group in mind. Including promotional efforts in platforms like YouTube, this service can cost around $36,000 (or $3,000 per month). To further distort the readers' perception, the campaign can buy reposts on social media, positive comments on its own content, and biased comments on stories that can be unfavorable to the campaign.

The campaign can then initiate the distribution of legitimate news in order to get an online footprint or aggregator from which fake content can be further circulated. A network can be built to serve as a distribution channel between the fake websites and reputable media, blurring the line between fact and fiction. This will eventually allow fake news to creep its way into those supposedly legitimate news stories in the form of quotes or reference. This service can cost around $10,000 per month.

Once the juncture for the decision to be made approaches, the campaign can aggressively push fake news and promote the content using live/real people. To amplify the effect, posts and comments from a targeted region, age, and focus group can be bought in the underground for $35,000. This will ultimately compel the audience to actually believe and support the campaign. At least 20 videos that push the campaign's agenda can also be promoted on YouTube's trending feed; this will cost around $10,000. For $27,000, the campaign can also buy a distribution service that can disseminate at least 10 fake news stories that can be cited in major news outlets.

A 12-month campaign with a budget of $400,000 should be able to at least attract a multitude of people whose perception and belief are aligned with the campaign's preferred agenda. The deciding factor for this campaign's success, however, is the timing, or how quickly fake content can be spread before the actual decision is made.

Manipulating the Public: the Public Opinion Cycle

Fundamentally, the manipulation of public opinion can be broken down into several steps, which can be described as the Public Opinion Cycle. In an ideal scenario, all of these steps would be performed in a logical and organized manner. In reality, not all of them will necessarily be performed as part of an operation.

The following cycle is loosely based on the traditional cyber kill chain as described by Lockheed Martin[37], as well as on other theories and studies on manipulating public opinion. A summary of these theories can be found in Appendix A.

The steps of the Public Opinion Cycle are as follows:

- **Reconnaissance**
    - Gather information and analyze the target audience.
    - Gauge their level of loyalty, acceptance, and maturity of knowledge regarding the topic of interest.
- **Weaponization**
    - Prepare the Key Story (i.e., the version of facts that is to be spread to the target audience). Work out background stories supporting this key story.

    - Create variations or “alternative versions”. These are “secondary” side stories that are also “planted” so that when more informed readers do not fully believe the key story, their curiosity leads them down a prepared path to these side stories, which are also false.
    - Set metrics for success and expected reach.
- **Delivery**
    - Spread the above activity using specific services (traditional media, social media, etc.).
    - The underground services discussed in this paper can be used effectively during this stage.
- **Exploitation**
    - Controlled targeted promotion (distribution of ideas) among small but active groups of supporters (activists or fans of the promoted ideas).
    - Social networks could be manipulated using services (such as those discussed in the paper) to speed up and amplify this process.
- **Persistence (enforcement of the original idea)**
    - To increase the visibility of the Key Story, there is a need to reach critical volumes of supporters
    - The goal is to achieve persistence by having the target audience actively promote the story on their own (snowball/viral effect).
    - Use supportive activist groups and create positive and negative feedback.
- **Sustainment**
    - After establishing the key story, add supporting stories, keep activity on outstanding level, and prepare the crowd for changes.
    - Assess metrics to see if the operation was successful, and examine lessons learned to help increase the success of future campaigns.
- **Actions on object**
    - Choose or prepare to carry out actions as a result of the changed public opinion.
- **Remove traces**
    - Distract the public to get them to switch their attention to another topic, blurring what happened, and minimizing civil disturbance.
    - Ensures full control over the situation, while moving in a new direction; start the cycle once more if desired.

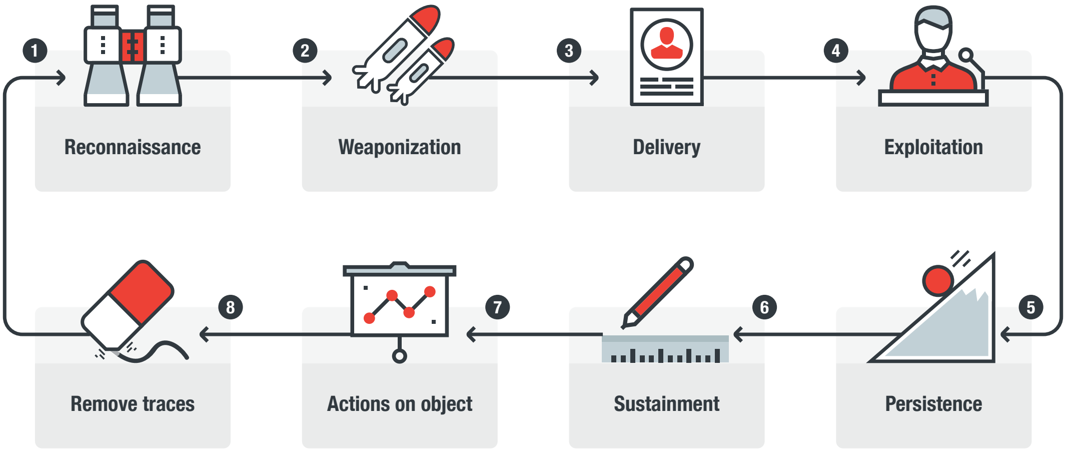


Figure 77. The Public Opinion Cycle

Fake News: Countermeasures

Fake news has become such a pervasive global problem that governments and organizations are now undertaking initiatives to mitigate its further proliferation.

Russia's Ministry of Foreign Affairs, for instance, set up a website[38] that lists and debunks publications that contain false information about the country. Conversely, the same is available in the website[39] of the European Union's External Action Service (EEAS), where content considered as misinformation campaigns are reviewed every week.

Germany is shoring up its defenses against misinformation campaigns ahead of an upcoming election by introducing a bill[40] that seeks to curb the spread of fake news. It will also fine social networking sites as much as EUR 50 million for failing to comply with rules such as promptly removing fake content on their feeds. A similar initiative is also run by independent organizations in the United Kingdom (UK), where a team of fact-checkers monitor for and debunk fake, election-related news stories.

Countries in Europe, Latin America, and Asia Pacific are reeling under the impact of fake news, which in turn is setting off[41] a series of inquiries, policies, and other countermeasures.

Social Networking Services are Taking Steps to Curb Fake News

Social media is arguably the lifeblood of any successful cyber propaganda and fake news campaign, and social networking services like Facebook, Google, and Sina's[42] Weibo as well as WeChat are taking strides to police the content they host.

Google, for instance, rolled out[43] a feature where fact check can be tagged on the blurbs or snippets of news articles posted on its News search page. It is one of Google's many strategies for ridding its services of fake content—including rewriting the algorithm of its search engine.

Facebook's response included the suspension[44] of 30,000 fake accounts in France, an awareness campaign through advertisements[45] in the UK's major newspapers, and improvements[46] to mechanisms that filter and flag hyperbolic and fake stories in its News Feed. In general, Facebook's efforts[47] are aimed at making fake news less profitable, adding new technology to curb its spread, and providing users better tools when they *do* encounter fake news.

Twitter, on top of their general rules and guidelines for end users, has provided third-party application developers policies[48] related to tweet automation. Some of these policies include one that prohibits the creation of multiple accounts that post duplicate or redundant information. As fake news and stories may be created and spread in the platform through automated services, these policies can help in tracking and reporting accounts that attempt to circumvent them. Indeed, it appears that Twitter has also been aggressive in shutting down such abusive accounts; some of the bot accounts we previously noted have been either suspended or temporarily restricted by the time of publication of this research.

Weibo and WeChat also have similar mechanisms, such as a credibility rating, that allow[49] its users to flag specious content on its platforms and suspend them if they're found posting fake content.

Indeed, what we're seeing is the advent of self-rectification that happens each time a technology in communications significantly outpaces its previous standard. As the effect of fake news becomes more palpable, society is responding by establishing benchmarks from shared information that are grounded in fact, and would also better arm people with the ability to determine and unmask it for themselves.

What can Readers Do?

Ultimately, users are the first line of defense against fake news. In a post-truth era where news is easy to manufacture but challenging to verify, it's essentially up to the users to better discern the veracity of the stories they read and prevent fake news from further proliferating.

Here are some signs users can look out for if the news they're reading is fake:

- Hyperbolic and clickbait headlines
- Suspicious website domains that spoof legitimate news media
- Misspellings in content and awkwardly laid out website
- Doctored photos and images
- Absence of publishing timestamps
- Lack of author, sources, and data

Apart from identifying red flags, readers should also exercise due diligence such as:

- Reading beyond the headline
- Cross-checking the story with other media outlets if it is also reported elsewhere
- Scrutinizing the links and sources the article uses to back up its story, and confirming those aren't spreading misinformation themselves
- Researching the author, or where and when the content is published
- Cross-referencing the content's images to see if they've been altered
- Reviewing the comments, checking their profiles (if they're real or bots), and observing the timestamps between comments (i.e. see if a paragraph can be written and posted in a minute or less, or if previous comments were posted verbatim, etc.)
- Reading the story thoroughly to see if it's not satire, a prank, or hoax
- Consulting reputable fact checkers
- Getting out of the "filter bubble" by reading news from a broader range of reputable sources; stories that don't align with your own beliefs don't necessarily mean they're fake

Conclusion

By now it should be very clear that social media has very strong effects on the real world. It can no longer be dismissed as “things that happen on the internet”. What goes on inside Facebook, Twitter, and other social media platforms can change the course of nations. Neither does it help that social media is driven by subjective factors (i.e., the emotions and feelings of users), instead of objective things like facts. Everyone now has their own truth, which is based on their personal knowledge and experience and not much else.

Idealists would have us believe that the internet is a utopian paradise where everyone can connect with anyone else, where information can be exchanged until the truth came out. Things haven’t quite turned out that way as there’s little to no proof that the information being passed around online was properly vetted and verified. It turned out that a lie could get around the world much faster than the truth—if the lie played to the lesser, baser instincts of the audience.

Combining the internet and applying public opinion manipulation theory has proven to be remarkably effective. In the past, elections were a contest between a country’s political parties, with each trying to get their own message out to the electorate. It was difficult, if not impossible, for external actors to influence an election. This is no longer the case, and political campaigns and parties now have to plan accordingly. They need to understand that parties outside of the political sphere have their own agenda and can use cyber propaganda and misinformation to influence campaigns and elections as well; this is something that political parties need to understand and defend against, if needed.

Businesses and individuals face similar challenges. The specifics for them are different, but the problem is the same: false or unfair information about them, when made public, can damage their reputations and cause real-world consequences. Alternately, groups or persons without much in the way of scruples could use these techniques to improve their reputations.

A fire dies when any single component of the fire triangle is removed. Similarly, if any of the components of the fake news triangle are removed, then fake news becomes more difficult to execute.

Social media networks are grappling with the problem and trying a variety of techniques to help deal with the fake news problem. However, this can only go so far: with so much user-generated content, isolating and finding fake news is bound to be difficult. The norms of what is and isn't permissible on social media have yet to be decided on. Eventually, however, society will come to some form of agreement on what is possible and perhaps the power of fake news will be lessened by then—at least until the next standard-changing technology or communications platform arrives.

That leaves the targets of fake news: the general public. Ultimately, the burden of differentiating the truth from untruth falls on the audience. The pace of change has meant that acquired knowledge and experience is less useful in finding the truth on the part of the public. Our hope is that by becoming aware of the techniques used in opinion manipulation, the public will become more resistant to these methods. Awareness of these techniques can also help institutions such as governments and credible media outlets determine how to best counteract these techniques. Applied critical thinking is necessary not only to find the truth, but to keep civil society intact for future generations.

Appendices

Appendix A: Psychology of Fake News and Propaganda

Let’s return to the Public Opinion Cycle, which one can use to describe how propaganda campaigns are designed and made operational. Since the goal is to change minds, psychology naturally comes into play.

We do not claim that this is a complete selection of the psychological tools and concepts used in propaganda. However, some of the steps of the cycle align very well with these. This appendix is intended to show how these concepts translate to the campaigns we see in the public sphere. Let’s study this from the perspective of the would-be manipulator—what does he have to understand to carry out a successful propaganda campaign?

Reconnaissance

The reconnaissance step can be summarized with several questions: What are my objectives? Who is my audience? Do I understand my audience?

One such framework that can be used for this purpose is the *Sufficiently General Control Theory* (SGCT), also known as DOTU, after its Russian acronym. SGCT categorizes what it calls the “means of ruling” into general groups, which range from most effective but least immediate, to the least effective but most immediate. In the context of persuasion, the goal is to either influence or change what the target believes in that category.

In slightly simplified terms from the original theory, these categories are shown below. These categories start from the most effective (but most time intensive/difficult to carry out), to the least effective (but most immediate/easy to do).

1. Information about someone’s worldview. This category includes the fundamental methods by which someone views the events going on around an individual, essentially reflecting someone’s view of how the world works.

2. Information about someone’s historical view. This category includes how someone views events in terms of history; i.e. as a chronological series of events: if they view these events as linked, if they view events as having a pattern, etc.

3. Descriptive information. This category is relatively simple: it includes factual information about what is going on in the world today.

4. Economic influence. This category is for information (or acts) designed to influence the reader economically.

5. Long-term/multi-generational threats. This is for acts that affect the target's long-term health and well-being, including those of their descendants.

6. Immediate threats to the target's well-being.

Public opinion manipulation generally lies in the third category. It is fairly effective, but requires fewer resources. The other categories either require too much time or active acts of persuasion, which can be difficult to conceal.

In addition, well-crafted propaganda will often be tailored to suit the user's existing views from the higher categories (i.e., world and historical views), reinforcing any views that the user may already have. In short: the target audience must be understood and spoken to on their own terms. One cannot convince someone who believes that all alcohol is evil to share a drink with you—at least not right away.

One must remember that something called the "time law" also applies here. The time law relates to the effects of the increasing speed of technological change on opinion making. Simply put, consider that the typical generation is 25 years. In the past, new technology was invented and introduced at a slower pace, with a major change in communication technology only occurring after a few generations. This meant that the accumulated knowledge and experience from previous generations was accepted and still highly valuable, making efforts to manipulate opinions more difficult.

Because the pace of change is much faster today (with multiple changes in communication technology within a single generation), knowledge from previous generations is less useful—or is perceived to be so. As a result, more decisions will have to be made with unclear facts and no relevant previous experience, except perhaps the biases that come with one's worldview. This makes a well-crafted propaganda campaign more effective.

Weaponization

Now that the goals of the campaign and the target audience are both clear, it's time to "weaponize" the campaign and decide what fake news story to spread. Any propaganda campaign is designed to distort how opinions are formed, as we originally showed in Figure 71.

One thing that has to be kept in mind is the level of knowledge and maturity of the target audience with regard to the subject matter, as well as any pre-existing biases they already possess. This can influence the activities needed to fulfill campaign objectives.

The distortion does not necessarily have to involve fake news stories. Alternately, it could be something as simple as increasing the volume of stories about one part of the campaign that isn't getting enough traction or publicity. Either way, the goal is the same: to manipulate the opinion of the public towards the organizer's own goals.

Delivery

Delivering the propaganda campaign to end users will require the tools and services discussed in the main body of this paper. Actors with enough resources may have their own organic capabilities to carry out propaganda campaigns, but their tools will not be drastically different than those available to the public.

Before any propaganda message can be delivered, however, the target audience has to be made receptive to it—i.e., they must be open to changing their minds. To do this, it is important to first destabilize the situation and introduce volatility to make the audience far more likely to entertain new options. Of course, what counts as a destabilized and unstable audience varies considerably based on the campaign's objectives.

Exploitation and Persistence

One can use all the tools available in marketplaces to launch a propaganda campaign, but if one isn't aware of how people form and express their opinions, no campaign to manipulate public opinion will actually succeed.

The fundamental theory in this field dates back to the 1950s—the Asch conformity experiments. Simply put, the experiments found that peer pressure had a significant effect on people. In various tests (usually involving planted accomplices/confederates of the experimenter), test subjects went along with the views of the majority—even if it was obvious that this view was wrong. The goal of the experiments was to see if the test subjects would change their answer to match the confederates or stick with the factually correct, but unpopular, answer.

A properly designed propaganda campaign is designed to have the appearance of this peer pressure—bots pretending to be humans, gurus accounts that have acquired a positive reputation in social media circles—these can make propaganda campaign's planted story appear to be more popular than it actually is.

Once a campaign has convinced enough members of the public, other group effects start to kick in. When this "bandwagon effect" comes into play, people start to believe something simply because it is popular—which is, in effect, a self-perpetuating cycle.

For political campaigns or any other event with a fixed time limit, a reinforced version of this can come into play. The perception of a majority opinion—no matter how narrow—can cause a last-minute swing towards a particular belief. German political scientist Elisabeth Noelle-Neumann attributed such swings to the "spiral of silence"—when individuals believe that expressing an opinion will make them socially isolated, they will likely opt to stay silent. A skilled propagandist will attempt to cause such a spiral for opposing views of his objective.

Sustainment

Some propaganda campaigns can be immediately effective, if they already conform to the target audience's worldview. But what if it's not? Then you have to shift opinions gradually over time—and this is where the concept known as the Overton window comes in.

Simply put, the Overton window describes how ideas are considered on a scale, from one political extreme to the other. From one end of the political spectrum to the "middle", ideas would be described as:

- Unthinkable
- Radical
- Acceptable
- Sensible
- Popular
- Policy

The spectrum then repeats itself, going back to "Unthinkable".

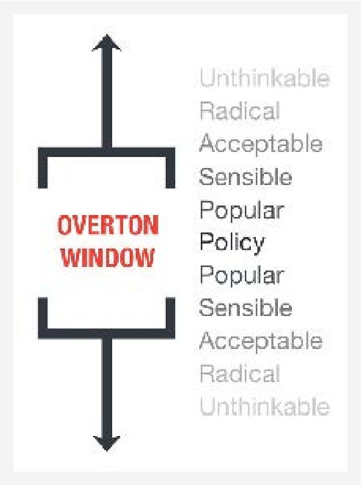


Figure 78. The Overton window

The Overton window defines ideas that the public considers “Acceptable”. How is this useful to would-be propagandists?

Careful and extended use of propaganda can shift the Overton window. Prolonged use of opinion manipulation techniques can make the public receptive to ideas that would have previously been unwelcome at best, and perhaps even offensive at worst. The concept of the slippery slope applies: once opinion has been changed a bit, it becomes easier to change it even more.

This allows for bigger changes in public opinion than before, making it easier to achieve larger goals of public opinion manipulation.

Actions on Object

Once an opinion manipulation campaign is successful, the question for an operator is then: now what?

For commercial campaigns, the goal is simple enough: sell a product. For political campaigns, however, the desired action may be more complicated, especially if a long-term strategy is employed. The gains in changed opinion may not be used right away, but for further actions down the road.

A particularly extreme case of a propaganda campaign’s result happens during protest movements. Participants in the protests themselves can use social media to organize themselves, discuss how to respond to any government moves or counter-protests, as well as organize virtual supporters who share their objectives but can’t join the protests in person. Gene Sharp has discussed cases of non-violent protests since the 1970s; more recently, Zeynep Tufecki[50] underlined how social media can accelerate the growth of protest movements.

Remove traces

Once a propaganda campaign has been completed and its objectives fulfilled, it is a good idea for the campaign organizer to return the target audience to a more settled, relaxed state. Why? This is because political propaganda doesn’t operate in a vacuum—competing actors can always take advantage of an unstable situation that another side has created as well.

As a result, a cooling down period is useful. This returns the target audience’s mood to what it was before any manipulation took place, but with an opinion changed to match the campaign’s objectives.

Appendix B: Domains Related to Legitimate, Gray, and Underground Marketplaces and Services

Xiezuobang (写作帮)	hxxp://24x[.]com[.]cn/ruanwen hxxp://24x[.]com[.]cn/daifa
Boryou Public Opinion Influencing System (博约輿情引导考评系统)	hxxp://boryou[.]com/?page_id=704
Yunjing Public Opinion Monitoring System (天互云镜輿情监测分析系统)	hxxp://yuqing[.]idcs[.]cn/
ftx9 (粉天下)	hxxp://ftx9[.]com/
Weibosu (微博速)	hxxp://weibosu[.]com/
Weibofans (微粉网)	hxxp://www[.]weibofans[.]cn/
Shuafans (fans微传媒)	hxxp://www[.]shuafans[.]cn/sp[.]htm
Weixinvips (伦桥平台)	hxxp://www[.]weixinvips[.]com/yewu/2.html
118t Negative News (大良造负面信息理)	hxxp://www[.]118t[.]com[.]cn/index.html
Higym (集微微信群控)	hxxp://www[.]higym[.]net/
VTope	hxxp://vto[.]pe/
SMOFast	hxxp://smofast[.]com
SMOService	hxxp://smoservice[.]ru/shop/all hxxp://smoservice[.]ru/index/tariffs_discounts/0-6 hxxp://smoservice[.]ru/shop/smm_promotion
Kwoki	hxxp://www[.]kwoki[.]ru/
like4u	hxxp://like4u[.]ru
TopSoc	hxxp://topsoc[.]ru
ZiSMO	hxxp://zismo[.]biz hxxp://zismo[.]biz/forum/70-kupit-i-prodat-akkaunty/ hxxp://zismo[.]biz/topic/837439-nakruchu-ot-100000-v-instagram-za-150-rublej-aktciia/ hxxp://zismo[.]biz/topic/597694-spam-vkontakte-rassylka-soobschenij-po-lsgruppa/ hxxp://zismo[.]biz/topic/842222-nakrutka-golosov-v-raznykh-konkursakh-i-golosova/ hxxp://zismo[.]biz/topic/588532-nakrutka-v-konkursakh-i-golosovaniiakh-s-avtoriza/

Siguldin	hxxp://siguldins[.]wixsite[.]com/votes hxxp://siguldins[.]wixsite[.]com/votes/uslugi-i-ceny
Jet-s	hxxp://jet-s[.]ru/blog/nakrutka-peticij-na-change-org hxxp://jet-s[.]ru/uvelichenie-peticiy-na-changeorg
Slavavtope	hxxp://slavavtope[.]com
Weberaser	hxxp://weberaser[.]ru/
CoolSouk	hxxp://coolsouk[.]com
Dr.Followers	hxxp://drfollowers[.]com/
Indian Facebook Likes	hxxp://indianlikes[.]com
Social King	hxxp://socialking[.]in
BeSoEasy	hxxp://besoeasy[.]com
Quick Follow Now	hxxp://quickfollownow[.]com
100kfollowers	hxxp://100kfollowers[.]net
Break Your Own News	hxxp://breakyourownnews[.]com
Breaking News Generator	hxxp://classtools[.]net/breakingnews/

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