Follower Factory

Based on the article by Nicholas Confessore et al.
Presented by Udith Prabhu
For CS895 Fall 2020
Source - https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

December 10, 2020

The real Jessica Rychly

Jes Rychly
@iwanttobejes
I have issues
72 Following   31 Followers

Tweets   Media   Likes

Jes Rychly @iwanttobejes · May 4, 2014
#duckface

Jes Rychly
@Iwanttobejes
I have issues
5,001 Following   80 Followers

Tweets   Media   Likes

Jes Rychly Retweeted

@Adel__Almalki · Dec 11

#اخبار من #المالكي: السعودية تسمح بدور السينما
اعتبارا من 2018 – بعد حظر دام أكثر من ثلاثة عقود،
السعودية تعلن أنها ستمنح ترخيصا لافتتاح صالات للعرض
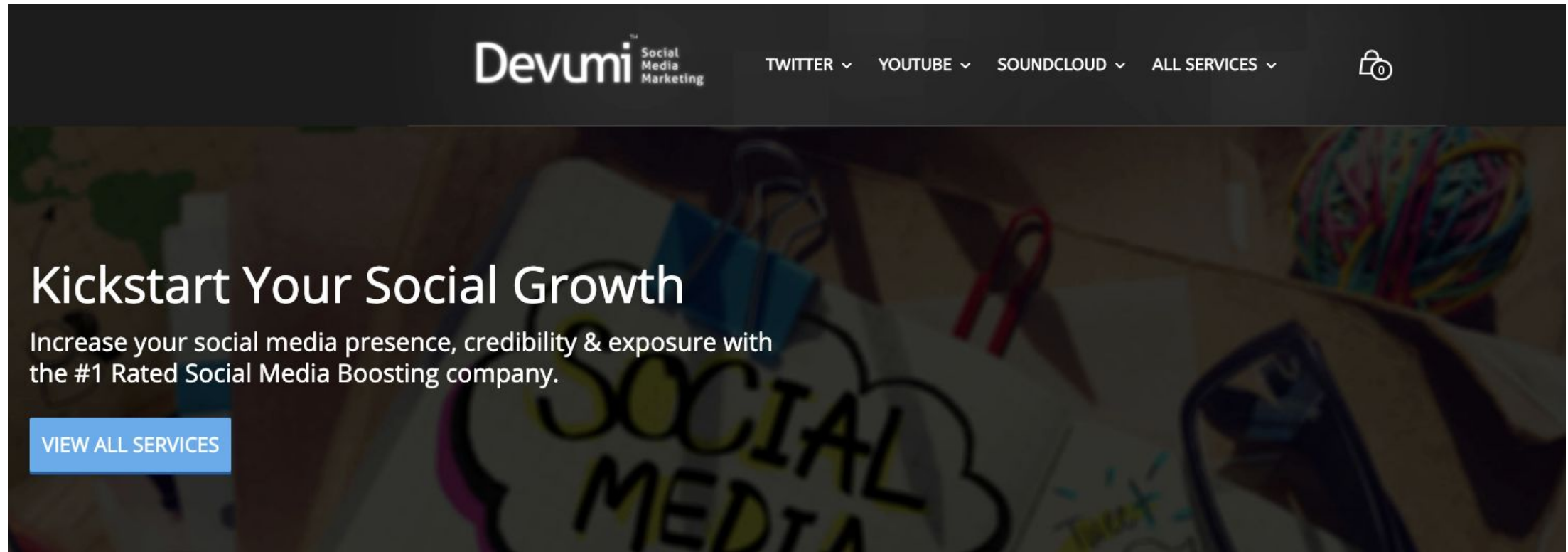السينمائي في عام 2018، مع توقع افتتاح أولى الصالات
في مارس/ آذار.

- The real Jessica Rychly is a teenager from Minnesota who likes reading books and the rapper Post Malone
- Another account with the same name, same bio and same profile picture is available on Twitter.
- The other account promotes crypto currency, a radio station in Ghana and sometimes tweets in Arabic and Indonesian.
- The other account was created by Devumi

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Devumi is a company that sells ghost followers

"Follower Factory" Based on https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

#cs895f20

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"Bot Master" German Calas - Founder of Devumi

German Calas · 3rd

German Calas is a serial Internet Entrepreneur & rumored infamous "bot master". Son of Cuban refugees, 1st-Gen American.

West Palm Beach, Florida, United States · 500+ connections ·

https://www.linkedin.com/in/german-calas/

Do's and Don'ts of automating Twitter

Do!

- Build solutions that automatically broadcast helpful information in Tweets.

- Run creative campaigns that auto-reply to users who engage with your content.

- Build solutions that automatically respond to users in Direct Messages.

- Try new things that help people (and comply with our rules).

- Make sure your application provides a good user experience and performs well — and confirm that remains the case over time.
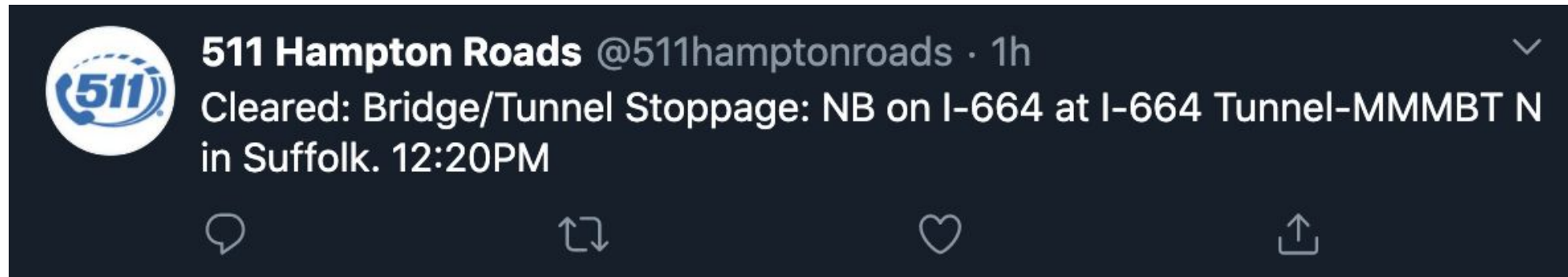
Don't!

- Violate these or other policies. Be extra mindful of our rules about abuse and user privacy.

- Abuse the Twitter API or attempt to circumvent rate limits.

- Use non-API-based forms of automation, such as scripting the Twitter website. The use of these techniques may result in the permanent suspension of your account.

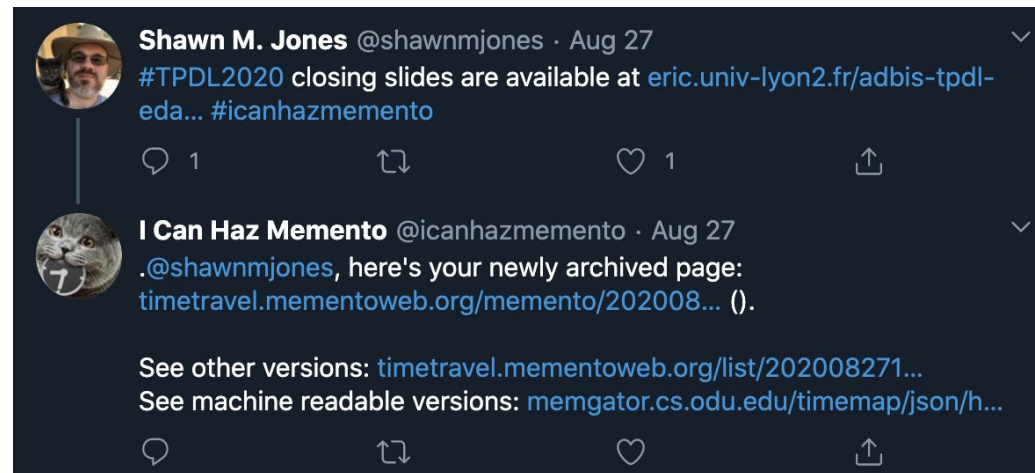- Spam or bother users, or otherwise send them unsolicited messages.

https://help.twitter.com/en/rules-and-policies/twitter-automation

Benign bots

https://twitter.com/511hamptonroads/status/1337084735655436288

https://twitter.com/icanhazmemento/status/1298998936447803397

Devumi's bots

Amplification bots, like those sold by Devumi, follow, retweet and like tweets sent by clients who have bought their services.

SAMPLE CODE

```
when(client_tweet)
    retweet(client_tweet)
```

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Color shifting and substitution to avoid detection

ORIGINAL   **FAKE**

@iwanttobejes
ORIGINAL

@Iwanttobejes
FAKE

Image processing techniques like color-shifting and recompression was done to the image, possibly to avoid automated detection

Small changes were made to the handle so that the difference will not be noticed by a cursory look

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Metric difference between the real and fake account

172 Following
ORIGINAL

5,001 Following
FAKE

The fake accounts follow more than 10 times the amount of users followed by the real account. This is to be expected as the company reuses the same accounts for multiple clients

Jes Rychly @iwanttobejes · May 4, 2014
#duckface

Jes Rychly Retweeted
عادل علي المالكي @Adel__Almalki · Dec 11
#اخبار من #المالكي: السعودية تسمح بدور السينما اعتبارا من 2018 - بعد حظر دام أكثر من ثلاثة عقود، السعودية تعلن أنها ستمنح ترخيصا لافتتاح صالات للعرض السينمائي في عام 2018، مع توقع افتتاح أولى الصالات في مارس/ آذار.

The bot accounts also retweeted from a wide range of accounts about a wider spectrum of information. This is highly unlikely incase of an actual user.

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Scope of deception

Actors

Ryan Hurst
"Sons of Anarchy" actor

Matthew Postlethwaite
Actor on "Peaky Blinders"

Katie Lowes
Actress on "Scandal"

Business

Lynn Tilton
Businesswoman and investor

Michael Dell
Dell founder

Peter R. Orszag
Former White House budget director

Athletes

Joey Galloway
ESPN college football analyst

Adam Peaty
Olympic swimmer

Brandon Phillips
Professional baseball player

Musicians

DJ Snake
French D.J.

Mikel Jollett
Musician and liberal Twitter personality

Lucas Hoge
Country singer and brand ambassador

Media

Richard Roeper
Film critic for The Chicago Sun-Times

Britt McHenry
Conservative writer and pundit

Elizabeth MacDonald
Fox Business Network journalist and author

Politics

China Xinhua News
Chinese government-run press agency

Lynne Patton
Federal housing official and Trump appointee

Lenín Moreno
President of Ecuador

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Celebrity chef, Michael Symon, is a Devumi client

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Normal Account

Bot Account

Join date

2016
2015
2014
2013
2012
2011
2010
2009
2008
2007

200K   400K   600K

@chefsymon's followers
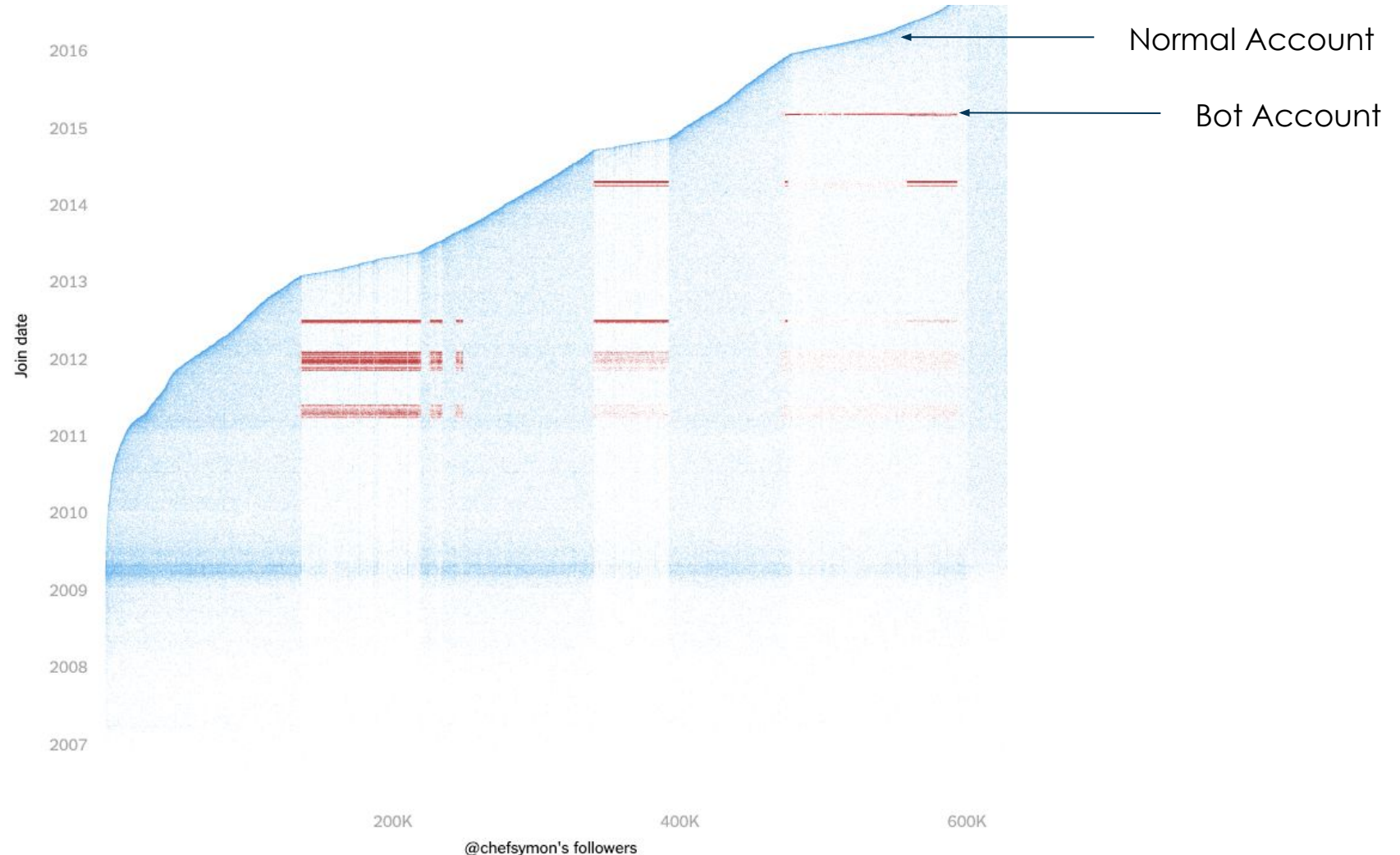
Political commentator, Hilary Rosen, paid for 0.5M+ Twitter followers

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html
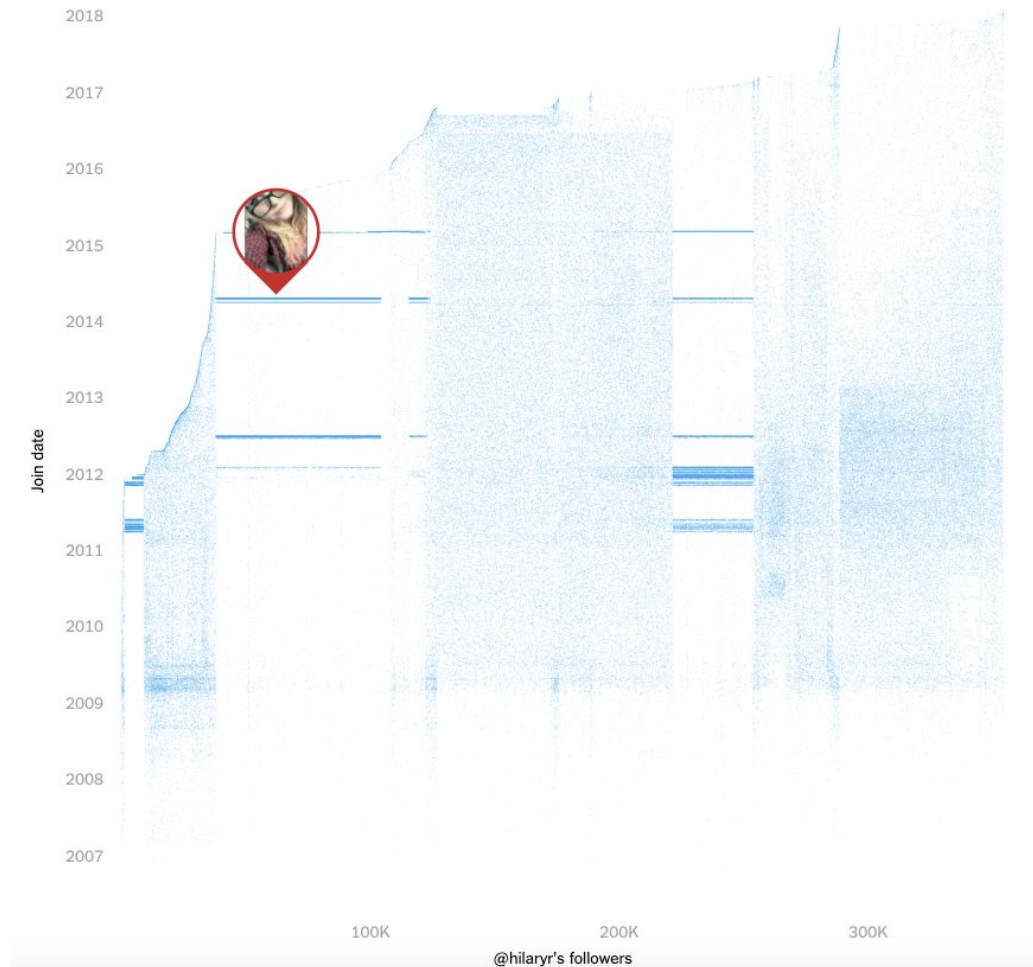
Devumi's office address was fake

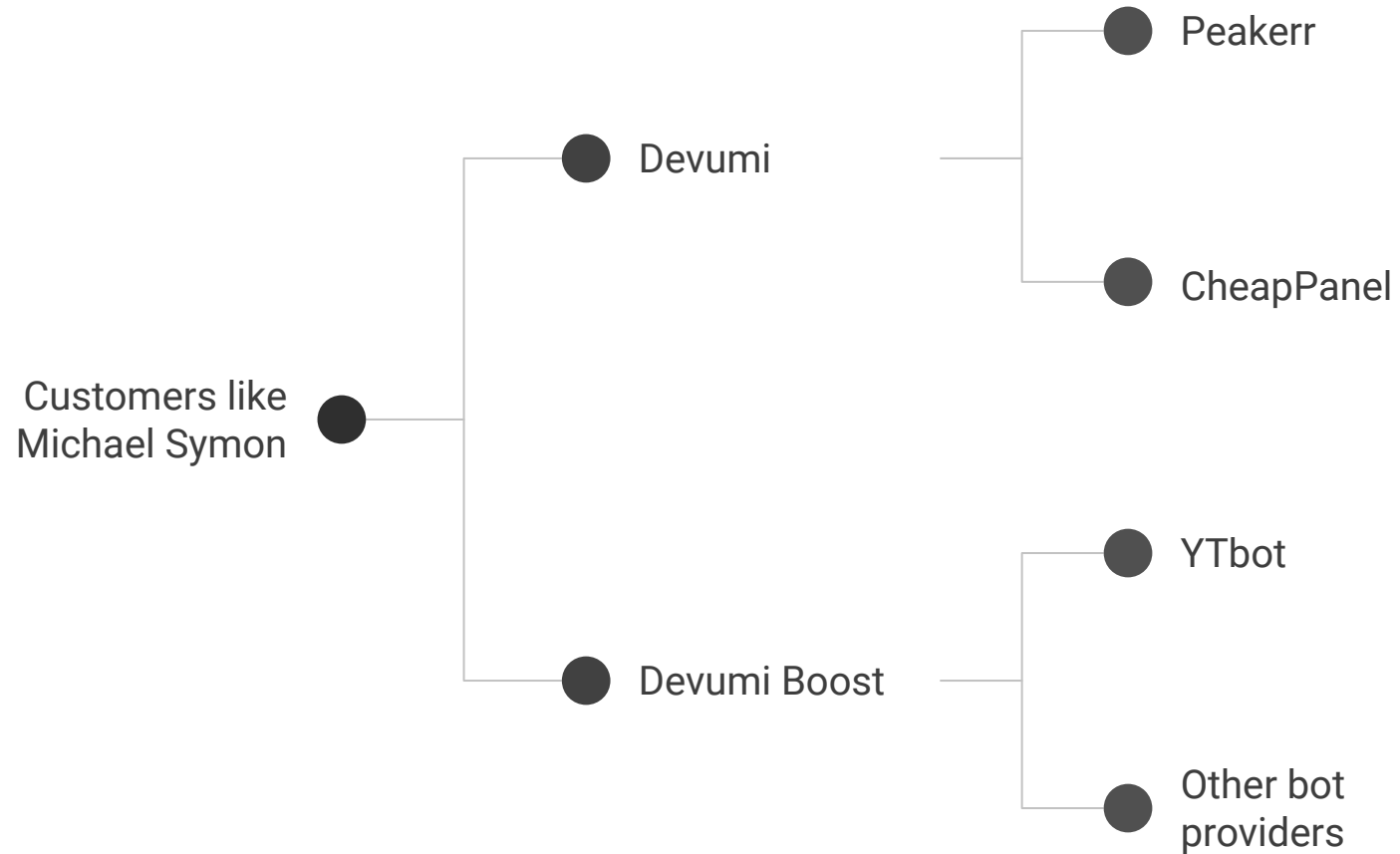https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Truth and lies associated with Devumi

- Devumi listed address in in Manhattan.
- *Devumi is actually based in an office suite above a Mexican restaurant in Florida.*

- Devumi's founder, German Calas, has listed in his resume that he holds Ph.D from MIT.
- *Representative from MIT has denied the claim.*

- German Calas listed in his resume that he attended Princeton in 2000, when he would have been 10 years old.
- *Representative form Princeton has also denied this claim*

- German Calas listed in his LinkedIn page that he has a Master's degree in International Business from MIT.
- *MIT does not offer such a degree.*

The bot supply chain

Customers like Michael Symon → Devumi → Peakerr, CheapPanel

Customers like Michael Symon → Devumi Boost → YTbot, Other bot providers

Evolution of Twitter's UI which facilitated raise of Devumi

September 2013

October 2013

February 2014

June 2014

- Twitter has continuously updated its UI to facilitate higher engagement.

- This has increased the user's need for higher metrics

- Thus, the users have turned to Devumi and the companies bots to satisfy the need

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Twitter bot purge

- Twitter suspended more than 59 million accounts in the span of 3 months from October 2017 to Dec 2017

- In the months of May through June 2018, Twitter suspended another 70 million accounts.

- The company did not respond to questions regarding the reason for the purge.

- After the purge, Twitter lost around 7.7 million followers, thus becoming the most affected party of the purge

Source 1: https://www.forbes.com/sites/kalevleetaru/2018/07/21/twitters-great-bot-purge-and-can-we-really-trust-active-user-numbers/
Source 2: https://www.marketwatch.com/story/who-lost-the-most-followers-in-twitters-sweeping-bot-purge-twitter-2018-08-01

Key Takeaways

- Fake accounts based out of real people, people like Jessica Rychly, are being used as "high quality" bots

- Twitter has taken a more reactive approach rather than a proactive one in combating the increase in bot accounts till the middle of 2017.

- Twitter and other social media companies have also introduced highly engaging mechanisms like real-time metrics update, which feeds into the increasing use of bots.

- Companies like Devumi outsource the bots that are used.

- From the end of 2017 to the middle of 2018, 129 million bot accounts were purged by Twitter. The simple magnitude of the bots found and the uncountable others that are still present reveals the true enticement that cheap ways to increase the user's metrics hold for social media users.