

From Bot to Robot: How Abilities and Law Change with Physicality

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#fromBotToRobot



robot

**Brittany
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law

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bot

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introduction

SOCIAL BOTS



Good
will always
defeat Evil.

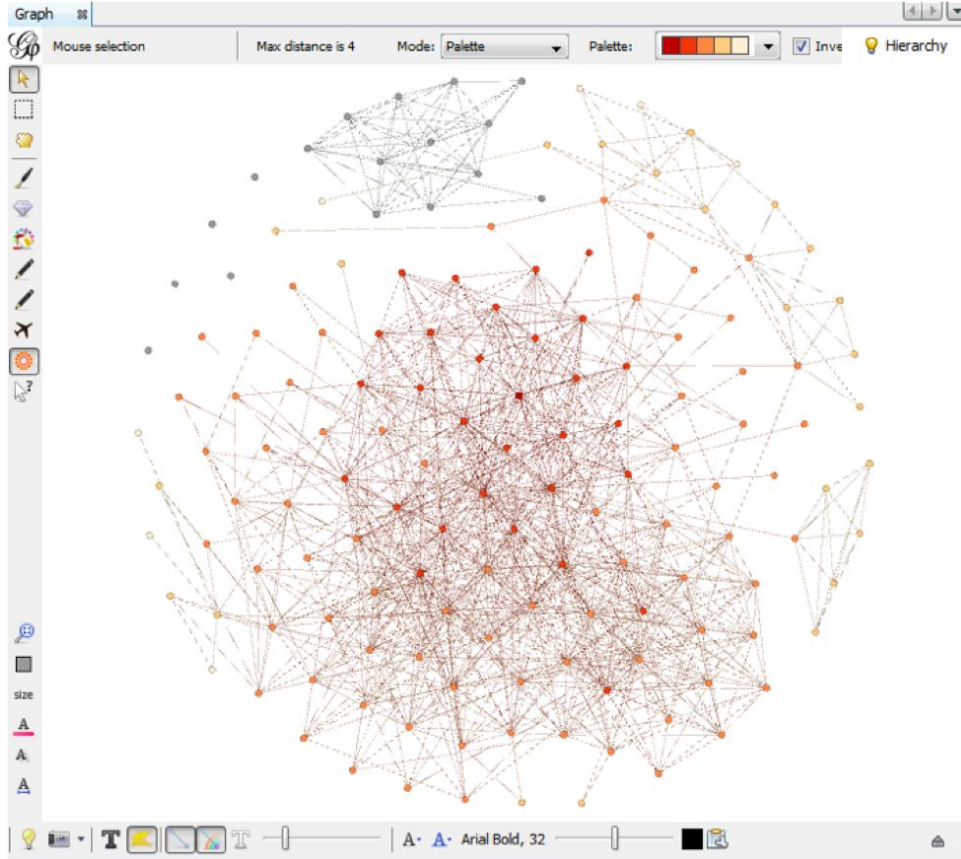
- Q Anon

Tweets	Following	Followers
584K	130	3,614

Follow

EVERY DAY IS GOING TO BE A FIGHT! YOU WANT ANSWERS! THE TRUTH! THE BATTLE FOR AMERICA BEGINS TODAY! #TCOT Don't Tread on Me! Reagan Coaliti...
BROOKLYN NEW YORK

SOCIAL BOTNETS

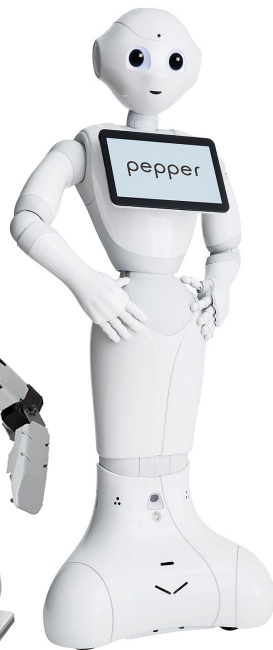
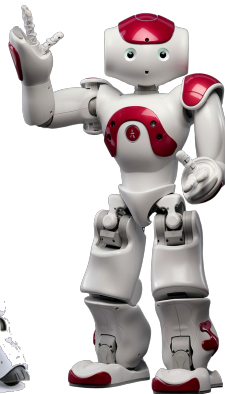


SOCIAL ROBOTS

***"A physically embodied,
autonomous agent, that
communicates and interacts with
humans on a social level."***

*Extending Legal Protection to Social Robots: The Effects of Anthropomorphism, Empathy, and Violent Behavior
Towards Robotic Objects Kate Darling. 2016. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2044797*

ROBOTS



LEGAL FRAMEWORKS

intent & agency

TORTS, CONTRACTS, & CRIMINALS

**can bots or robots
commit crimes?**

TORTS, CONTRACTS, & CRIMINALS

**can bots or robots
form a contract?**

TORTS, CONTRACTS, & CRIMINALS

**what if a robot
injures a person?**

PRODUCT LIABILITY AND NEGLIGENCE

**free speech
protections**

**creating /
acquisition**

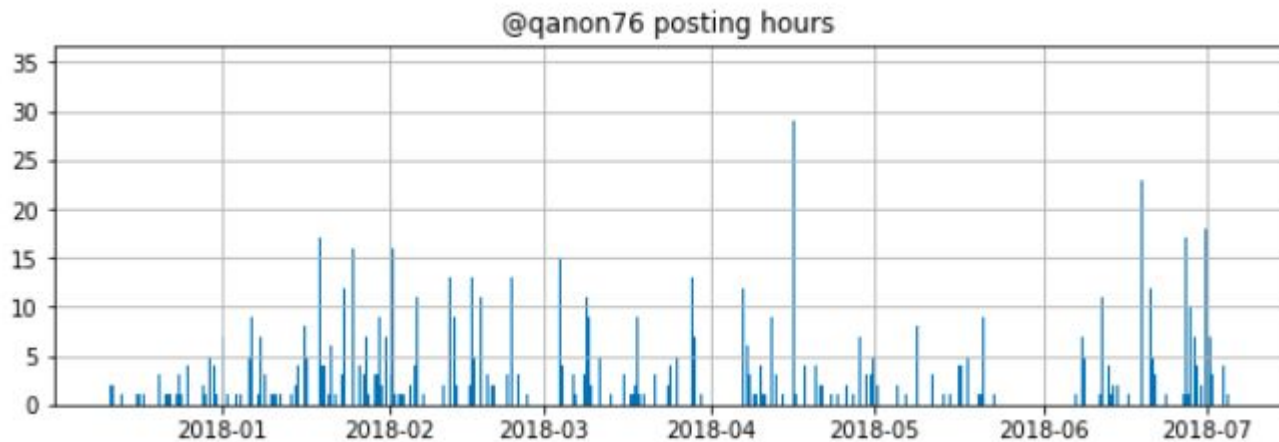
BUYING A BOTNET

 For sale

Provider	Quantity	Price for 1000 accounts
Mail.ru	497984	1K-10K: \$6 10K-20K: \$6 20K+: \$6
Mail.ru Mix	149252	1K-10K: \$6 10K-20K: \$6 20K+: \$6
Mail.ru Human	74735	1K-10K: \$8 10K-20K: \$7.5 20K+: \$7
Mail.ru No SPAM	47722	1K-10K: \$8 10K-20K: \$7.5 20K+: \$7
Mail.ru EN	50674	1K-10K: \$8 10K-20K: \$7.5 20K+: \$7
Mail.ru UA	104500	1K-10K: \$7 10K-20K: \$6.5 20K+: \$6
Mail.ru Second Hand	69056	1K-10K: \$3 10K-20K: \$3 20K+: \$3
Mail.ru Mix Second Hand	31815	1K-10K: \$3 10K-20K: \$3 20K+: \$3
Rambler.ru	11339	1K-10K: \$25 10K-20K: \$25 20K+: \$25
Rambler.ru Mix	9347	1K-10K: \$25 10K-20K: \$25 20K+: \$25
Gmail.com PVA SMTP	0	1K-10K: \$420 10K-20K: \$420 20K+: \$420
Gmail.com USA PVA LS	0	1K-10K: \$400 10K-20K: \$400 20K+: \$400

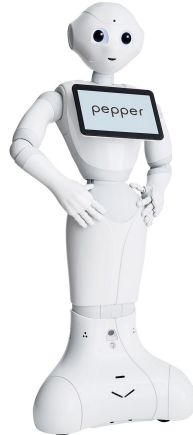
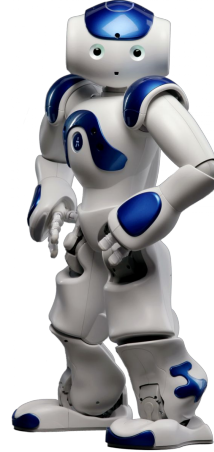
**\$100 buys
you a lot of
reach**

SETTING UP BOTNETS



**don't get
caught**

ACQUIRING (SOCIAL) ROBOTS



BOTS FOR SALE: THE LAW

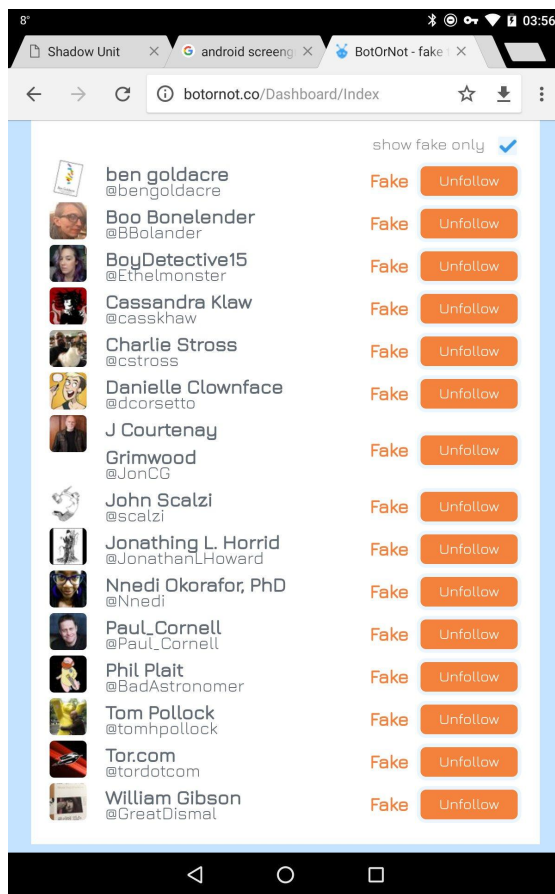
Computer Fraud and Abuse Act (18 USC §1030)

ROBOT VS BOT AND THE LAW

is a robot a product?

interaction

BOTNETS AS AMPLIFIERS



**current game:
human attention
and beliefs**

BOTNET CONTROL OF HUMANS



Donie O'Sullivan

@donie

Follow

Video of two opposing demonstrations that took place outside an Islamic center in Houston in 2016. The whole thing was organized by Russians. The full story: money.cnn.com/2018/01/26/med ...



5:40 AM - 27 Jan 2018 from [Manhattan, NY](#)

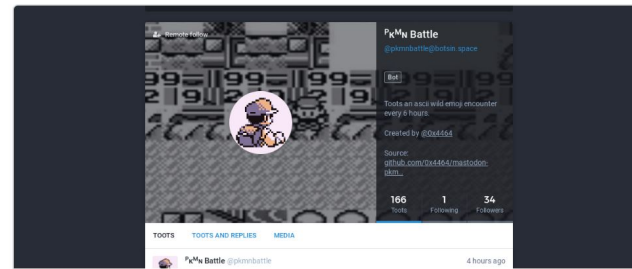
**current game:
creating
real-world
human actions**

INDEPENDENT BOTS



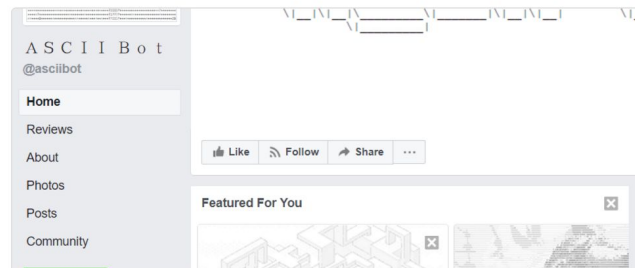
Twitter bots

Browse

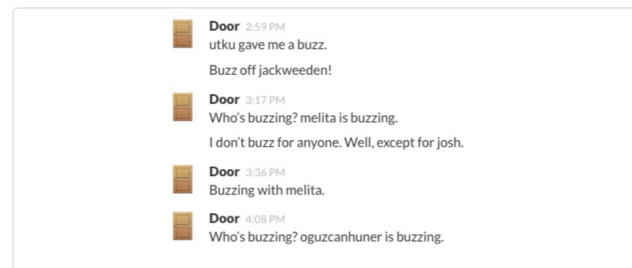


Fediverse bots

Browse



Facebook and Messenger bots



Slack bots



WORKPLACE (SOCIAL) ROBOTS



Ripple Effects of an Embedded Social Agent: A Field Study of a Social Robot in the Workplace

Min Kyung Lee, Sara Kiesler, Jodi Forlizzi, Paul Rybski. 2012.

http://www.cs.cmu.edu/afs/cs.cmu.edu/Web/People/kiesler/publications/2012/2012_Ripple-Effects.pdf

Image: <https://www.flickr.com/photos/jiuguangw/6265557906>

(SOCIAL) ROBOTS IN PUBLIC



Knight Robot as Security

(<https://qz.com/1154649/a-knightscope-security-robot-is-being-used-to-shoo-away-homeless-people-in-san-francisco/>)

ROBOT SOCIAL ENGINEERING



Robot Social Engineering: Attacking Human Factors with Non-Human Actors

THE FIRST AMENDMENT

**who is speaking,
the bot or the creator?**

MISINFORMATION

**political speech and
the First Amendment**

MAKING IT PHYSICAL

**place and manner
restrictions**

UPDATING BOTS AND ROBOTS

**embodiment: state of the
art & product liability**

**destruction /
removal**

BOT REMOVAL BY HOST

Your account has been locked.



misinfo links
@misinfo links

What happened?

Your account appears to have exhibited automated behavior that violates the [Twitter Rules](#). To unlock your account, please complete the steps below and confirm that you are the valid account owner.

What you can do:

To unlock your account, you must do the following:

- Verify your phone number

Start

**hosts
have a
lot of
power**

BOT REMOVAL BY OPERATOR

CLOSE ACCOUNT

Deactivate Account

Delete Account

Deactivate

GETTING A BOT REMOVED

[Help Center](#) > [Twitter Rules and policies](#) > [Impersonation policy](#)

Impersonation policy

Impersonation is a violation of the [Twitter Rules](#). Twitter accounts portraying another person in a confusing or deceptive manner may be permanently suspended under the Twitter impersonation policy.

An account will not be removed if:

- The user shares your name but has no other commonalities, or
- The profile clearly states it is not affiliated with or connected to any similarly-named individuals.

Accounts with similar usernames or that are similar in appearance (e.g., the same avatar image) are not automatically in violation of impersonation policy. In order to be impersonation, the account also portrays another person in a misleading or deceptive manner.

Twitter users are allowed to create parody, commentary, or fake accounts. Please refer to Twitter's [parody, commentary, and fake account policy](#) for more information about these types of accounts.

Find more information about [reporting impersonation on Twitter](#).

Automation rules

Updated November 3, 2017

This page is primarily intended for **developers**.

For Twitter users: You are ultimately responsible for the actions taken with your account, or by applications associated with your account. Before authorizing a third-party application to access or use your account, make sure you've thoroughly investigated the application and understand what it will do. If automated activity on your account violates the [Twitter Rules](#) or these automation rules, Twitter may take action on your account, including [filtering your Tweets from search results](#) or suspending your account.

For more information on third-party applications, please see our article on [connecting and revoking third-party applications](#).

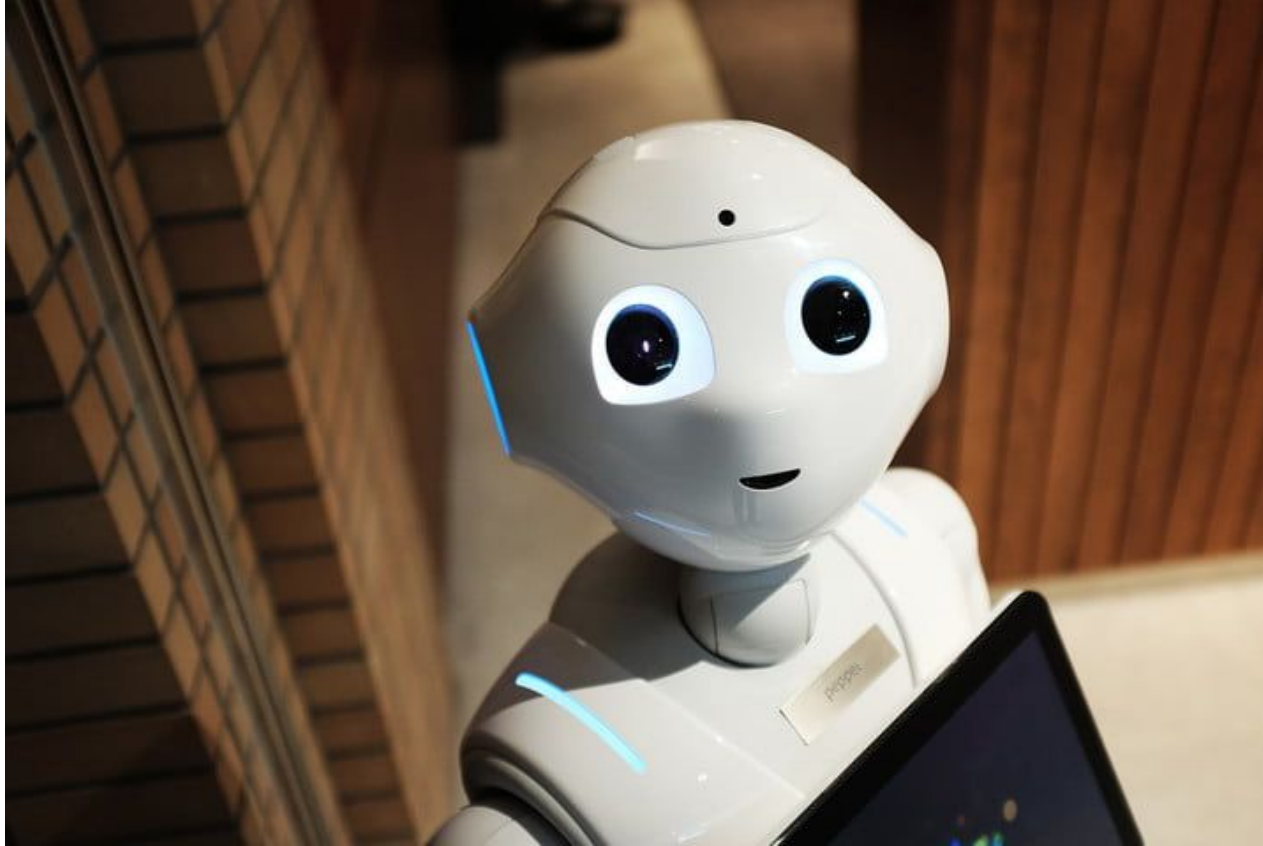
- If you are a developer and have questions about these Automation Rules, please reach out via <https://twittercommunity.com/c/rules-and-policies>.
- If your application has been suspended or restricted from performing write actions, you may submit an appeal at [/forms/platform](#).

About fake engagements on Twitter

Can I purchase or sell account interactions (i.e. Twitter followers, Retweets or likes) on Twitter?

- Twitter strictly prohibits the purchasing and selling of account interactions on our platform. When you purchase followers, Retweets and likes, you are often purchasing bot (fake) or hacked accounts. Any account caught participating in this behavior will be in violation of the [Twitter Rules](#) and may be suspended.
- If your account is found to have purchased followers, Retweets and likes, your account may be suspended.

FIRING A (SOCIAL) ROBOT



**Pepper as
a grocery
store clerk**

Image: <https://www.digitaltrends.com/cool-tech/pepper-robot-grocery-store/>

REMOVING A (SOCIAL) ROBOT



**Bots on
the
Ground**

Article: <http://www.washingtonpost.com/wp-dyn/content/article/2007/05/05/AR2007050501009.html>

Image: <https://www.designboom.com/technology/irobot-packbot/>

(SOCIAL) ROBOT DEATH



Sony AIBO funerals

Image: <https://www.japantimes.co.jp/news/2018/05/01/national/japan-aibo-robots-get-funeral/>

TAKEDOWNS

**corporate personhood
& the legal status of
bots and robots**

conclusion & takeaways

CONCLUSION

bots aren't going away

choose robot embodiment carefully

**existing legal frameworks
are flexible enough**

TAKEAWAYS

“When we consider how a new technology affects law, our focus should not be on what is essential about the technology but on what features of social life the technology makes newly salient.”

- Jack M. Balkin

QUESTIONS?

bots aren't going away

**choose robot
embodiment carefully**

**existing legal
frameworks
are flexible enough**

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