

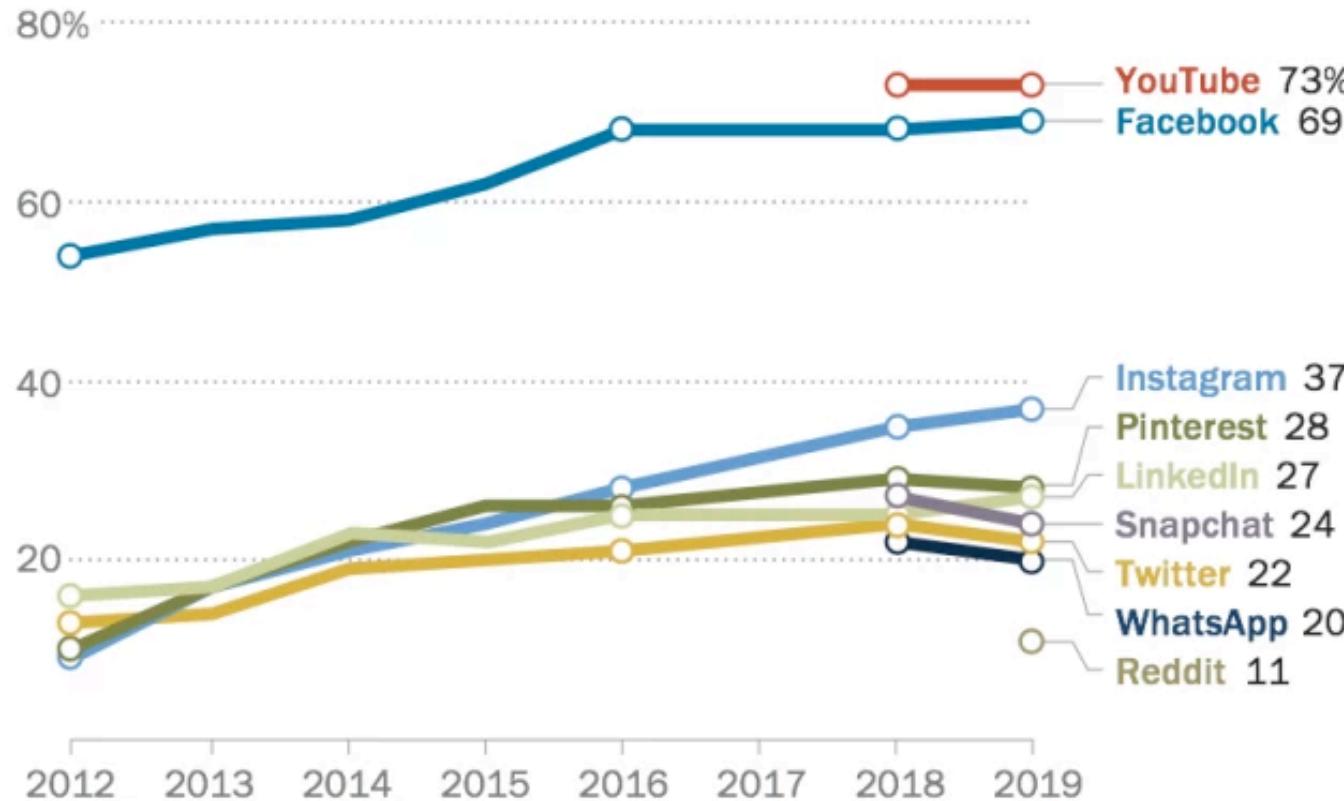
Collecting Twitter data with R

*R-ladies meet-up
CHUV, Lausanne*

TWITTER?

Facebook, YouTube continue to be the most widely used online platforms among U.S. adults

% of U.S. adults who say they ever use the following online platforms or messaging apps online or on their cellphone



Note: Pre-2018 telephone poll data is not available for YouTube, Snapchat and WhatsApp. Comparable trend data is not available for Reddit.

Source: Survey conducted Jan. 8-Feb. 7, 2019.

PEW RESEARCH CENTER

End 2018

1.3B registered users

326M active
48M bots

5,787 tweets/s

80% of non-US users

Sources: Pew Research Center &
<https://blog.hootsuite.com/twitter-statistics/>

Use of different online platforms by demographic groups

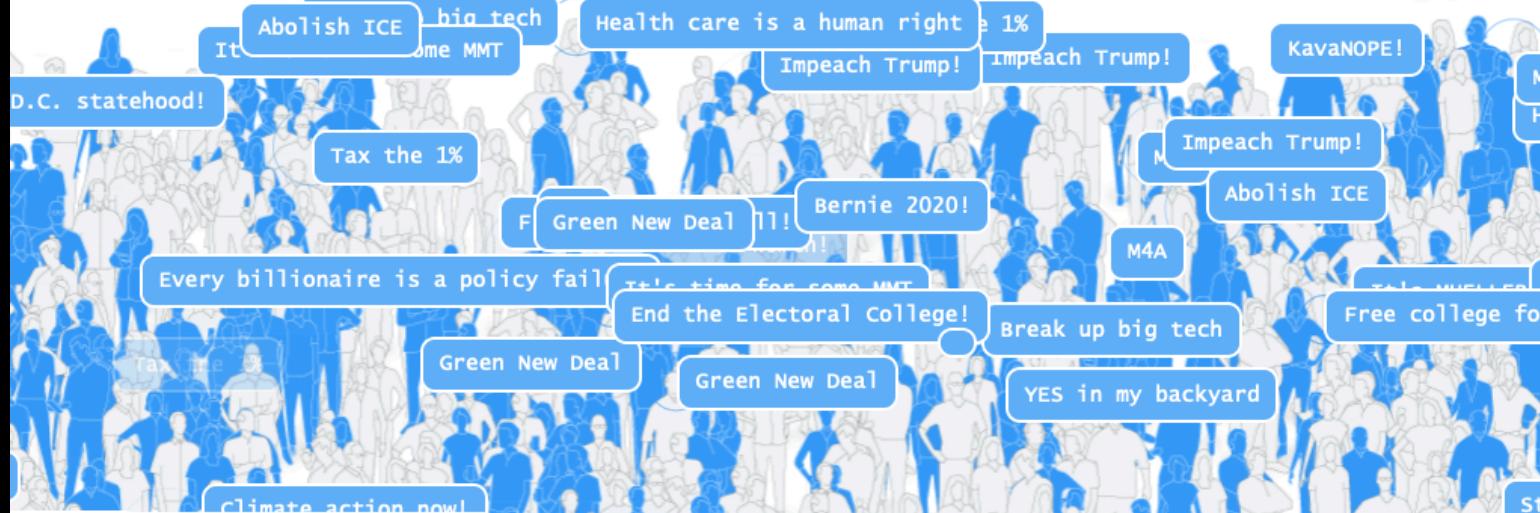
% of U.S. adults who say they ever use the following online platforms or messaging apps

	YouTube	Facebook	Instagram	Pinterest	LinkedIn	Snapchat	Twitter	WhatsApp	Reddit
U.S. adults	73%	69%	37%	28%	27%	24%	22%	20%	11%
Men	78	63	31	15	29	24	24	21	15
Women	68	75	43	42	24	24	21	19	8
White	71	70	33	33	28	22	21	13	12
Black	77	70	40	27	24	28	24	24	4
Hispanic	78	69	51	22	16	29	25	42	14
Ages 18-29	91	79	67	34	28	62	38	23	22
18-24	90	76	75	38	17	73	44	20	21
25-29	93	84	57	28	44	47	31	28	23
30-49	87	79	47	35	37	25	26	31	14
50-64	70	68	23	27	24	9	17	16	6
65+	38	46	8	15	11	3	7	3	1
<\$30,000	68	69	35	18	10	27	20	19	9
\$30,000-\$74,999	75	72	39	27	26	26	20	16	10
\$75,000+	83	74	42	41	49	22	31	25	15
High school or less	64	61	33	19	9	22	13	18	6
Some college	79	75	37	32	26	29	24	14	14
College+	80	74	43	38	51	20	32	28	15
Urban	77	73	46	30	33	29	26	24	11
Suburban	74	69	35	30	30	20	22	19	13
Rural	64	66	21	26	10	20	13	10	8

Note: Respondents who did not give an answer are not shown. Whites and blacks include only non-Hispanics. Hispanics are of any race.
Source: Survey conducted Jan. 8-Feb. 7, 2019.

Democrats on social media

■ Progressive activists ■ Other Democrats



The Democratic electorate off social media

■ Progressive activists ■ Other Democrats





Édition 2018

BAROMÈTRE ANNUEL DES MÉDIAS SOCIAUX

UTILISATION DES MÉDIAS SOCIAUX PAR LES INTERNAUTES

Réseaux sociaux

75%
au cours des
30 derniers jours

56%
au quotidien

Applications de messagerie

60%
au cours des
30 derniers jours

32%
au quotidien

Utilisateurs
30 derniers jours

Utilisateurs
quotidiens

Utilisateurs
30 derniers jours

Utilisateurs
quotidiens



61%

45%

56% de femmes et 29% Génération Y



31%

16%

55% de Millennials



20%

13%

68% de femmes et 65% de Millennials



18%

13%

70% de femmes et 77% de Millennials



17%

9%

51% de Millennials et 25% en région parisienne



16%

3%

40% Gén. Y et 32% en région parisienne



13%

4%

42% de Millennials



13%

4%

79% de femmes et 40% Gén. Y



44%

23%

61% de femmes et 36% Génération Y



24%

10%

58% de femmes, 35% Gén. Y et 34% en région parisienne



18%

2%

56% d'hommes et 32% Gén. Y

RÉSEAU SOCIAUX

MESSAGERIES

Tweets
339Following
306Followers
867Likes
130Lists
0Moments
0

Edit profile

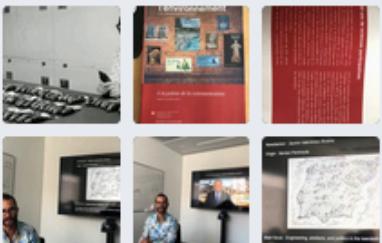
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Tweets

Tweets & replies

Media

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How may the **#experiential #knowledge** of the **#LGBTQ** community in **#Switzerland** shape the future of **#personalized #health** in **#Switzerland**? Find out in our latest blog post: citzensciences.net/blog/

DM

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Interesting what gets labeled a "discovery": K2-288Bb: A Small Temperate Planet in a Low-mass Binary System Discovered by Citizen Scientists doi.org/10.3847/1538-3... via [@IOPscience](#)

Your Tweet activity

Your Tweets earned 2,225 impressions over the last 28 days

[View your top Tweets](#)

Who to follow

[· Followed by CitSci WTSP and others](#)**Anecdata.org** @Anecdata...[Follow](#)[· Followed by 52 Citizen Scientists and others](#)**Chelle Temple-King** @ch...[Follow](#)[· Followed by Andrea Sforzi and others](#)**Dr Lea Shanley** @Lea_Sh...[Follow](#)

Tweets
339Following
306Followers
867Likes
130Lists
0Moments
0[Edit profile](#)

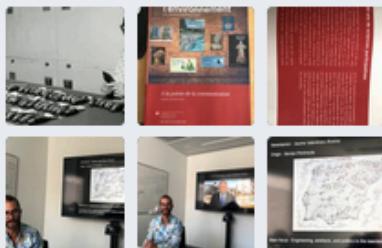
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Citizen Science Global Part...

@CitSciGlobal [Follows you](#)

The Citizen Science Global Partnership is a network-of-networks that seeks to promote and advance citizen science for a sustainable world.

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@MobileMaggie [Follows you](#)

Project Officer at @EuCitSci for @WeObserveEU & @LandSense: Citizen Science, mobile & web tech, hands-on STEM. Prev @NHM_Digitise ...

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PhD in Geo-Informatics, Researcher at Universitat Jaume I, Open Geo Data, Open & Smart Cities, Spatial Analysis, Mapping, GeoGeek, Teaching.

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Community Manager @CitSciZurich / Tweets on #CitizenScience, #SciComm & #Sustainability.

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@pwa_zurich [Follows you](#)

Die PWA fördert die Teilhabe von Bürgerinnen und Bürgern an Wissenschaft und Forschung. Sie wird von der Stiftung Marianne Schärer.

[Following](#)

Andrea Sforzi

@AndreaSforzi

Director Maremma Natural History Museum and Member of the Board of Directors of ECSA, the European Citizen Science Association.



Citizen Sciences

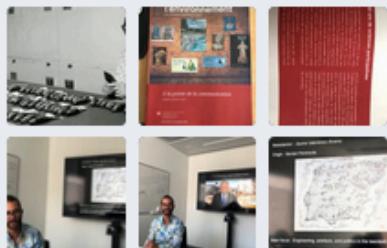
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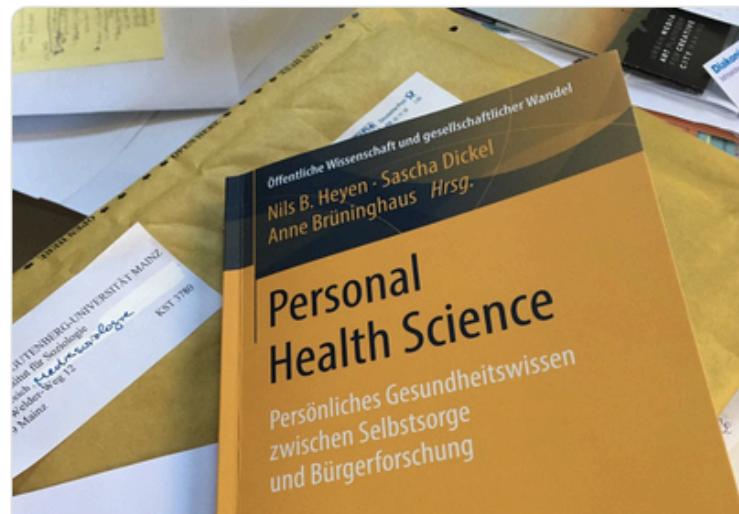
[Edit profile](#)

Likes



Claudia Göbel @claugobel · 6 Nov 2018

Wow! When i got to the office this morning i found this inspiring package 😊😊 - thank you @saschadickel!! Will be a great companion through autumn



Your Tweet activity

Your Tweets earned 2,231 impressions over the last 28 days

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Who to follow

[Refresh](#) · [View all](#)

Followed by 52 Citizen Scientists and others

Chelle Temple-King @ch... [Follow](#)

Followed by Claudia Göbel and others

Earth Challenge 2020 @E... [Follow](#)

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<http://citizensciences.net/wp-content/uploads/2019/04/Abschlussbericht-HFG-2019-Maerz-Final-copy.pdf> ...

Impressions

252

Total engagements

8

Hashtag clicks

4

Detail expands

3

Link clicks

1



Reach a bigger audience

Get more engagements by promoting this Tweet!

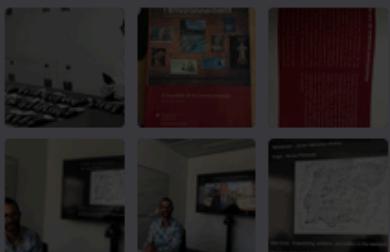
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[View your top Tweets](#)**Who to follow** · Refresh · View all

Followed by 52 Citizen Scientists and others

Chelle Temple-King @ch...[Follow](#)

Followed by Lucy Robinson and others

Dr. Rebecca Johnson @...[Follow](#)

Followed by CityNatureChallenge and others

Carrie Seltzer @carrieselt...[Follow](#)



Credit: Michel Bobillier



The nozzle of Geneva water jet – Photo – @ Bill Harby



Crédit : famveldman

Tweets



	Standard (free)	Premium	Enterprise
Publish and engage	✓		
Search Tweets: 7-days	✓		
Search Tweets: 30-days		✓	✓
Search Tweets: Full-archive		✓	✓
Filter Tweets	✓		✓
Sample Tweets	✓		✓
Batch Tweets			✓
Direct Messages	✓		
Account and users	✓	✓	✓
Metrics			✓
Ads API	✓		
Publisher tools and SDKs	Get started >		

Price example : Premium

	Total Requests PER MONTH ?	Month-to-month PRICE PER MONTH ?
Paid		
	Up to 100	\$99.00
	Up to 250	\$224.00
	Up to 500	\$399.00
	Up to 1000	\$774.00
	Up to 2,500	\$1,899.00

- full history
- 500 tweets max./request
- counts endpoint
- max 60 request/min

→ about 650 tweets for 1\$

« Please note that Twitter's search service and, by extension, the Search API is not meant to be an exhaustive source of Tweets. Not all Tweets will be indexed or made available via the search interface. »

	Twitter Stream API	sends selected data when published 1% to 40% of total related tweets
	Twitter REST (Search) API	sampling of recent Tweets published in the past 7 days.

Endpoint	Resource family	Requests / window (user auth)	Requests / window (app auth)
GET account/verify_credentials	application	75	0
GET application/rate_limit_status	application	180	180
GET favorites/list	favorites	75	75
GET followers/ids	followers	15	15
GET followers/list	followers	15	15
GET friends/ids	friends	15	15
GET friends/list	friends	15	15
GET friendships/show	friendships	180	15
GET geo/id/:place_id	geo	75	0
GET help/configuration	help	15	15
GET help/languages	help	15	15

Back in the mid 2000s...

A global community of friends and strangers answering one simple question: **What are you doing?**

Biz Stone | [Invite](#) | [Public](#) | [Codes](#) | [Settings](#)

Characters available: 82

Thinking for her birthday

But who will get your updates? Invite some of your friends to Twitter!

Or make your account public and let everyone read them.

1 new friend request!

102 Friends

[Recent Public Updates](#)



Ben J Fire roaring. Sushi good. Mylo + Imogen. I have to poop. [less than a minute ago](#) from mobile



Glenda Wondering wtf is up with all my homies from NYC eloping all this fall. Crazy bastards. [3 minutes ago](#) from mobile



Wut Yee Htike watching movie [4 minutes ago](#) from im

Please Sign In!

Email or Mobile Number

Password [Forgot?](#)

Remember me

Sign In!

Want an account?

[Join for Free!](#)

It's fast and easy!

Featured!

[asruge](#)

[Tom Coates](#)

[fabienne](#)

[Nikita Kashner](#)

[Chris Messina](#)

Twitter, November 2006. Accessed through Archive Wayback machine

- 2006 creation
- until 2009: classical funding for startups
 - user innovations (@, #, RT)
 - free access to the data

Search for a keyword or phrase... Search

Have an account? [Sign In](#)

Discover what's happening right now, anywhere in the world

Gulf Microsoft Kin Kagan President Noynoy Aquino Deathly Hallows trailer Javier Aguirre Pretty Little Liars

World Cup 2010

Top Tweets [View all >](#)

leannrimes I must say, there is nothing more unattractive than a woman who puts another woman down. Us women already have (cont) <http://tl.gd/9hnvme> over a year ago

iRespectFemales I'm NOT single, and I'm NOT taken. I'm simply on reserve for the one who REALLY deserves my heart....because they say good things take time. over a year ago

royalsreview A white athlete with a gun: awesome, boys havin' toys. A black athlete with a gun: a special episode of Outside the Lines. over a year ago

New to Twitter?

Twitter is a rich source of instant information. Stay updated. Keep others updated. It's a whole thing.

[Create an account >](#)

Customize Twitter by choosing who to follow. Then see tweets from those folks as soon as they're posted.

Using Twitter for a business? Check out [Twitter 101](#)

© 2010 Twitter [About Us](#) [Contact](#) [Blog](#) [Status](#) [Goodies](#) [API](#) [Business](#) [Help](#) [Jobs](#) [Terms](#) [Privacy](#) Language: English ▾

2010 strategic turn - strong investors – new economic model

- ads + data selling
- small number of official partners

« the public itself is the product and object of commercial transactions »

Twitter, June 2010. Accessed through Archive Wayback machine

Does your question fit the data?

- a socio-economical elite
 - only samples of data available for free
-
- ✓ Donald Trump's communication
 - ✗ propagation of a worldwide phenomenon
 - ✓ Political opinions
 - ✗ Political opinions from elderly people
 - ✗ Political opinions from New York's inhabitants

WORKING WITH TWITTER?

Part 2: Conversational Archetypes: Six Conversation and Group Network Structures in Twitter

BY MARC A. SMITH, LEE RAINIE, BEN SHNEIDERMAN AND ITAI HIMELBOIM

After examining thousand distinct network structures



tic&société

Vol. 7, N° 2 | 2ème semestre 2013
Mondes numériques : nouvelles perspectives de la recherche

Comment articuler analyse des réseaux et des discours sur Twitter

L'exemple du débat autour du pacte budgétaire européen

Nikos Smyrnaios and Pierre Ratinaud



Electronic version
URL: <http://ticetsociete.revues.org/1578>

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Graduate Institute /
Genève



Article

Towards a Sociological Understanding of Social Media: Theorizing Twitter

Dhiraj Murthy
Bowdoin College, USA

Abstract

This article presents the first steps towards a sociological understanding of emergent social media. This article uses Twitter, the most popular social media website, as its focus. Recently, the social media site has been prominently associated with social movements in Libya, Egypt, Tunisia, and Algeria. Rather than rush to breathlessly describe its novel role in shaping contemporary social movements, this article takes a step back and considers Twitter in historical and broad sociological terms. This article is not intended to provide empirical evidence or a fully formed



Sociology

46(6) 1059–1073

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DOI: 10.1177/0038038511422553

soc.sagepub.com



RESEARCH ARTICLE

“Anyone Know What Species This Is?” – Twitter Conversations as Embryonic Citizen Science Communities

Stefan Daume^{1,2,3*}, Victor Galaz²

1 Faculty of Forest Sciences and Forest Ecology, Georg-August-University Göttingen, Büsgenweg 5, 37077 Göttingen, Germany, 2 Stockholm Resilience Centre, Stockholm University, SE-10691 Stockholm, Sweden, 3 Department of Biodiversity Informatics, Swedish Museum of Natural History, Box 50007, 104 05 Stockholm, Sweden

* stefan.daume@ecovillance.org

Abstract

Social media like blogs, micro-blogs or social networks are increasingly being investigated and employed to detect and predict trends for not only social and physical phenomena, but also to capture environmental information. Here we argue that opportunistic biodiversity observations published through Twitter represent one promising and until now unexplored example of such data mining. As we elaborate, it can contribute to real-time information to traditional ecological monitoring programmes including those sourced via citizen science activities. Using Twitter data collected for a generic assessment of social media data in ecological monitoring we investigated a sample of what we denote biodiversity observations.



CrossMark
click for updates

OPEN ACCESS

Citation: Daume S, Galaz V (2016) “Anyone Know What Species This Is?” – Twitter Conversations as Embryonic Citizen Science Communities. PLoS ONE 11(3): e0151387. doi:10.1371/journal.pone.0151387

Editor: Robert O’Byrne, University of Colorado

Earthquake Shakes Twitter Users: Real-time Event Detection by Social Sensors

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The University of Tokyo
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Tokyo, Japan
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Yutaka Matsuo
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Yayoi 2-11-16, Bunkyo-ku
Tokyo, Japan
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ABSTRACT

Twitter, a popular microblogging service, has received much attention recently. An important characteristic of Twitter is its real-time nature. For example, when an earthquake occurs, people make many Twitter posts (*tweets*) related to the earthquake, which enables detection of earthquake occurrence promptly, simply by observing the tweets. As described in this paper, we investigate the real-time interaction of events such as earthquakes in Twitter and propose an algorithm to monitor tweets and to detect a target event. To detect a target event, we devise a classifier of tweets based on features such as the keywords in a tweet, the number of words, and their context. Subsequently, we produce a probabilistic spatiotemporal model for the target event that can find the center and the trajectory of the event location. We consider each Twitter user as a *sensor* and apply Kalman filtering and particle filtering, which are widely used for location estimation in ubiquitous/pervasive

1. INTRODUCTION

Twitter, a popular microblogging service, has received much attention recently. It is an online social network used by millions of people around the world to remain socially connected to their friends, family members and co-workers through their computers and mobile phones [18]. Twitter asks one question, "What's happening?" Answers must be fewer than 140 characters. A status update message, called a *tweet*, is often used as a message to friends and colleagues. A user can follow other users; her followers can read her tweets. A user who is being followed by another user need not necessarily reciprocate by following them back, which renders the links of the network as directed. After its launch on July 2006, Twitter users have increased rapidly. They are currently estimated as 44.5 million worldwide¹. Monthly growth of users has been 1382% year-on-year, which makes Twitter one of the fastest-growing sites in the world².

Some researchers have examined Twitter: Java et al. an-

¹ www.statcounter.com (2007-04-26)

² www.43.com/twitter-facts.html (2007-04-26)



CrossMark

DIGITAL HUMANITIES | RESEARCH ARTICLE

A social network analysis of Twitter: Mapping the digital humanities community

Martin Grandjean^{1*}

Received: 15 November 2015

Accepted: 02 March 2016

*Corresponding author: Martin Grandjean, Department of History, University of Lausanne, Lausanne, Switzerland
E-mail: martin.grandjean@unil.ch

Reviewing editor:
Aaron Mauro, Pennsylvania State University, USA

Additional information is available at the end of the article

Abstract: Defining *digital humanities* might be an endless debate if we stick to the discussion about the boundaries of this concept as an academic “discipline”. In an attempt to concretely identify this field and its actors, this paper shows that it is possible to analyse them through Twitter, a social media widely used by this “community of practice”. Based on a network analysis of 2,500 users identified as members of this movement, the visualisation of the “who’s following who?” graph allows us to highlight the structure of the network’s relationships, and identify users whose position is particular. Specifically, we show that linguistic groups are key factors to explain clustering within a network whose characteristics look similar to a *small world*.

Subjects: Internet & Multimedia - Computing & IT; Network Theory; Sociology of Science & Technology

Keywords: digital humanities; social network analysis; Twitter; digital studies; social media; digital culture; digital history

WHAT THE HASHTAG?

A content analysis of Canadian politics on Twitter

Tamara A. Small 

Pages 872-895 | Received 23 Jul 2010, Accepted 03 Jan 2011, Published online: 19 May 2011

 Download citation  <http://dx.doi.org/10.1080/1369118X.2011.554572>

 Full Article

 Figures & data

 References

 Citations

 Metrics

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Abstract

Twitter is the latest social networking tool said to be reshaping politics. Twitter allows subscribers to write a 140-character status update, called a 'tweet'. This research analyzes the intersection of microblogging and Canadian politics. There is little scholarship on the political aspects of Twitter. This paper seeks to fill this gap through a content analysis of the most popular Canadian political hashtag, #cdnpoli. Designated by a 'hash' symbol (#), a hashtag is a keyword assigned to information that describes a tweet and aides in searching. With 50 million tweets per day, hashtags are central to organizing information on Twitter. Hashtags organize discussion around specific topics or events. Political hashtags came to prominence in

R & TWITTER

Name	Authors	Updated	API	About	
tweet2r (on <i>streamR</i>)	Pau Aragó et al. SIG, SP	July 2018	stream	Access Twitter's filter, sample, user streams -> performs descr. + exploratory space-time analysis	
rtweet (ex <i>twitteR</i>)	Michael W. Kearney SHS, USA	Sept 2018	search & stream	Search Twitter, get trends, user info, timelines, status, friends, followers, search users, etc.	
graphTweets	John Coene private, CN	Feb 2019	search	Based on <i>twitteR</i> . Creates a network of citation by subsetting @tags in tweets retrieved.	
saotd	Evan Munson et al. army, USA	Apr 2019		Searches tweets, cleans data, topic modeling, sentiment scores, output visualizations	

Fresh new! April 14, 2019

twinetverse 0.0.2



Packages

Book



twinetverse

Easily install and load packages for Twitter network analysis and visualisation.



Installation

```
# install.packages("devtools")
devtools::install_github("JohnCoene/twinetverse") # github
devtools::install_bitbucket("JohnCoene/twinetverse") # bitbucket
```

Rationale

`twinetverse` all the packages you need to *collect, build and visualise* Twitter networks. Each package fills one of the aforementioned need in dealing with Twitter networks.

Action	Package
1 Collect	<code>rtweet</code>
2 Build	<code>graphTweets</code>
3 Visualise	<code>sigmajs</code>

Links

Report a bug at
[https://github.com/JohnCoene/twinetverse/
issues](https://github.com/JohnCoene/twinetverse/issues)

License

MIT + file [LICENSE](#)

Developers

[John Coene](#)

Author, maintainer

Dev status

CRAN	not published
lifecycle	maturing
build	passing
ci-build	passing
twinetverse	0.0.2



Tweets
339

Following
306

Followers
867

Likes
130

Lists
0

Moments
0

Edit profile

get_timeline()
get_my_timeline()*

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Tweets Tweets & replies Media



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How may emerging technologies and epistemic developments like #CRISPR, #OpenScience and #BigData affect how we discuss and regulate #risks in medical research? Find out in our new report for the Federal Ministry of Public Health (#FMPH) in Switzerland. DM

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get_friends()
get_followers()
get_favorites()
my_friendships()*

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How may emerging technologies and epistemic developments like #CRISPR, #OpenScience and #BigData affect how we discuss and regulate #risks in medical research? Find out in our new report for the Federal Ministry of Public Health (#FMPH) in Switzerland. DM

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lists_statuses()
lists_subscribers()
lists_subscriptions()/*
lists_users()/*

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A black and white profile picture of a person wearing a lab coat and glasses, looking through a telescope or microscope eyepiece.

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direct_messages()*



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#Twitter tells us about #citizenscience on
our new blog post: [citizensciences.net/2017/01/26/4-th... ET](http://citizensciences.net/2017/01/26/4-things-about-citizenscience-on-twitter/)



4



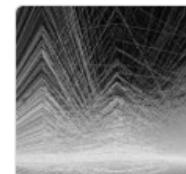
4



You Retweeted

Barbara Prainsack @BPrainsack · Jan 20

Come see Vanessa Heggie, Javier Lezaun, @dana_mahr1 and others @KingsCollegeLon 2 March: conference on citizen science



Cr...

In biomedicine, initiatives subsumed under the heading of "citizen science" are highly diverse, ranging from projects run by academic institutions to private comp... globalhealthandsocialmedicine.com

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Kelle Cruz @kellecruz

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CitizenScienceGames @CS...

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Trends · change

RStudio

Project: (None)

ECSA_data.R | twitter_rtweet pckge_article.R | iramuteq.R

Source on Save | Run | Source

814
815
816 # question sur l'âge de
817 library(dplyr)
818 temp <- left_join(SETI,
819 temp[!which(is.na(temp))]
820 # # A tibble: 7 × 2
821 # classe median()
822 # <chr> <dbl>
823 # 1 0
824 # 2 1
825 # 3 2
826 # 4 3
827 # 5 4
828 # 6 5

as_screenname()
emojis()
langs()
flatten()
plain_tweets()
write_as_csv()

819:1 # (Untitled) ▾

Console Terminal

~/

```
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded
During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
2: Setting LC_TIME failed, using "C"
3: Setting LC_MESSAGES failed, using "C"
4: Setting LC_MONETARY failed, using "C"
* DONE (shiny)

The downloaded source packages are in

'/private/var/folders/fs/7d7kjcw53sg2d0pbr49y4w2c0000gn/T/RtmpkE3AES/downloaded_packages'
> |
```

Environment History Connections

Import Dataset | Global Environment

Environment is empty

Files Plots Packages Help Viewer

Install Update

Name	Description	Ver...
abind	Combine Multidimensional Arrays	1.4-5
acepack	ACE and AVAS for Selecting Multiple Regression Transformations	1.4.1
ape	Analyses of Phylogenetics and Evolution	5.3
askpass	Safe Password Entry for R, Git, and SSH	1.1
assertthat	Easy Pre and Post	0.2.1



gt_co_edges()

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4



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Kelle Cruz @kellecruz

Follow



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WORKSHOP

Download

2019_Rladies_Twitter.R

Exercise

- Find the number of followers of @UNESCO_ch
- Find the most retweeted tweet from @GenevePolice
- Find the most followed follower of @Hopitaux_unige
- Find the oldest account that follow @Hopitaux_unige
- How many tweets mention « UNIL » in the last 7 days?

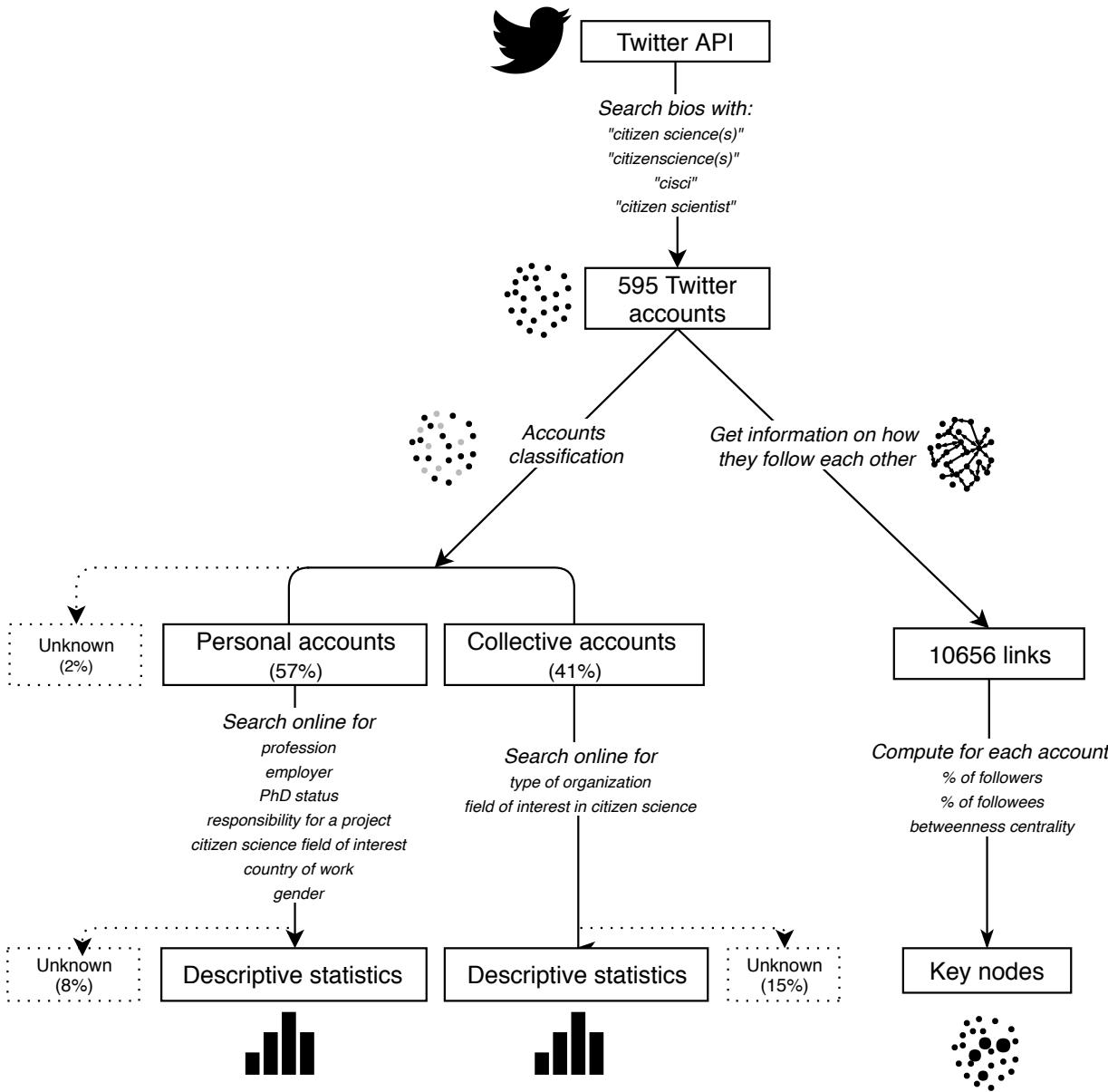
EXAMPLE

Citizen Sciences

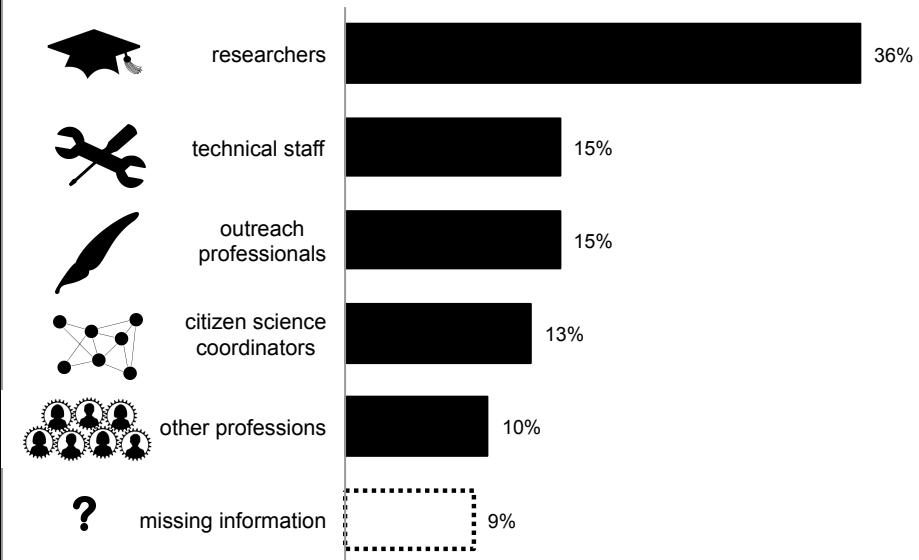


<https://www.birdlife.org.au/get-involved/citizen-science>

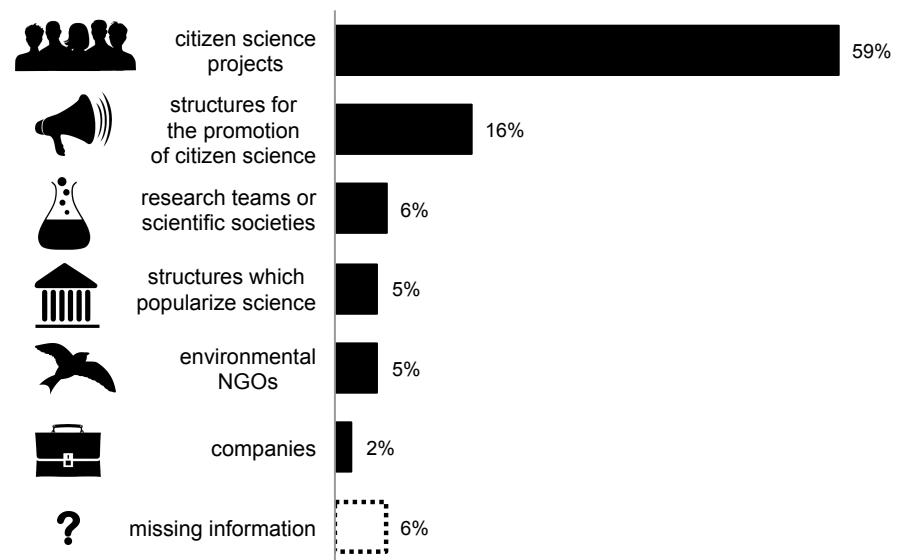
→ Who advocates for citizen science?

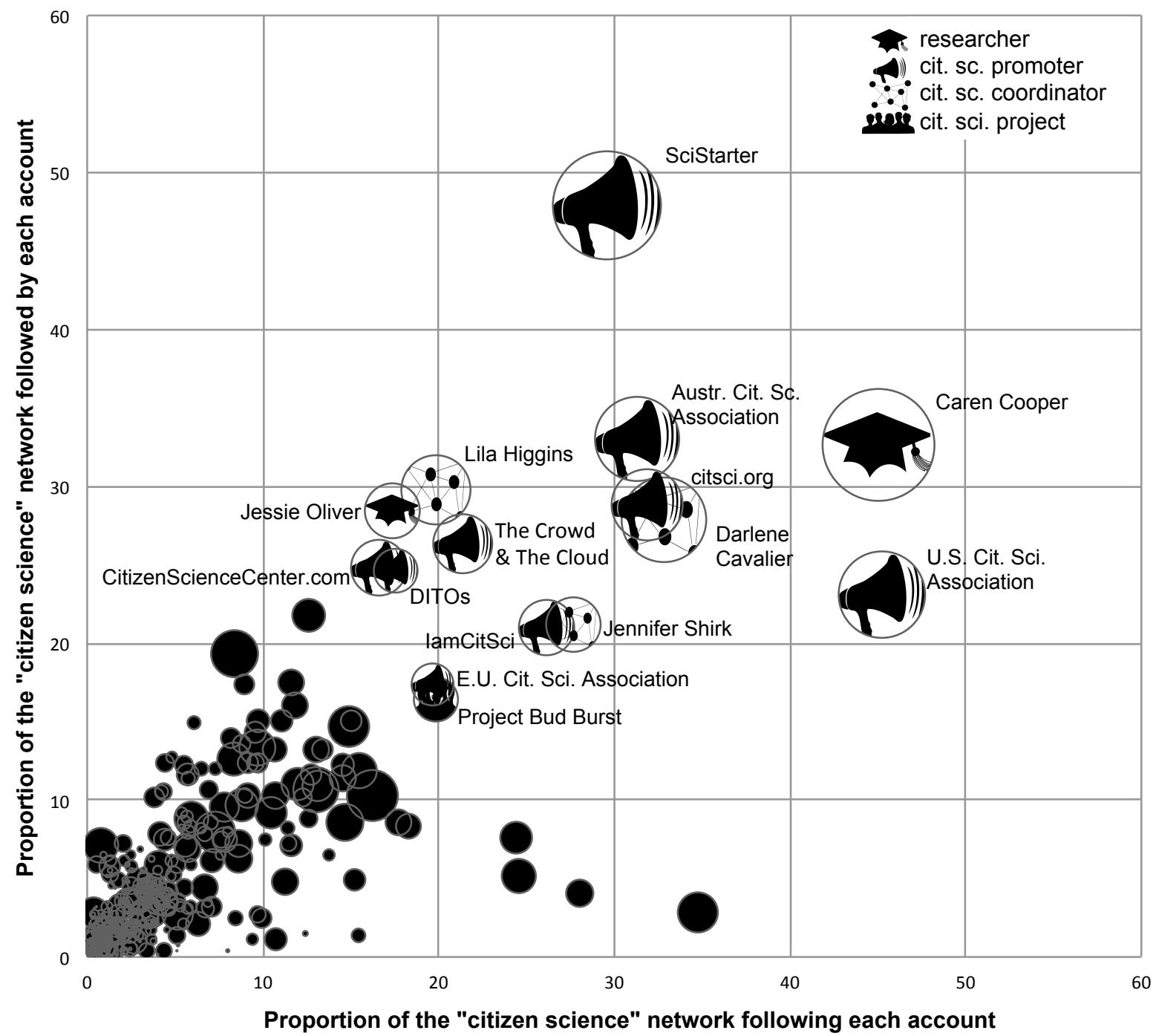


**A. "Citizen science" on Twitter.
Personal accounts**



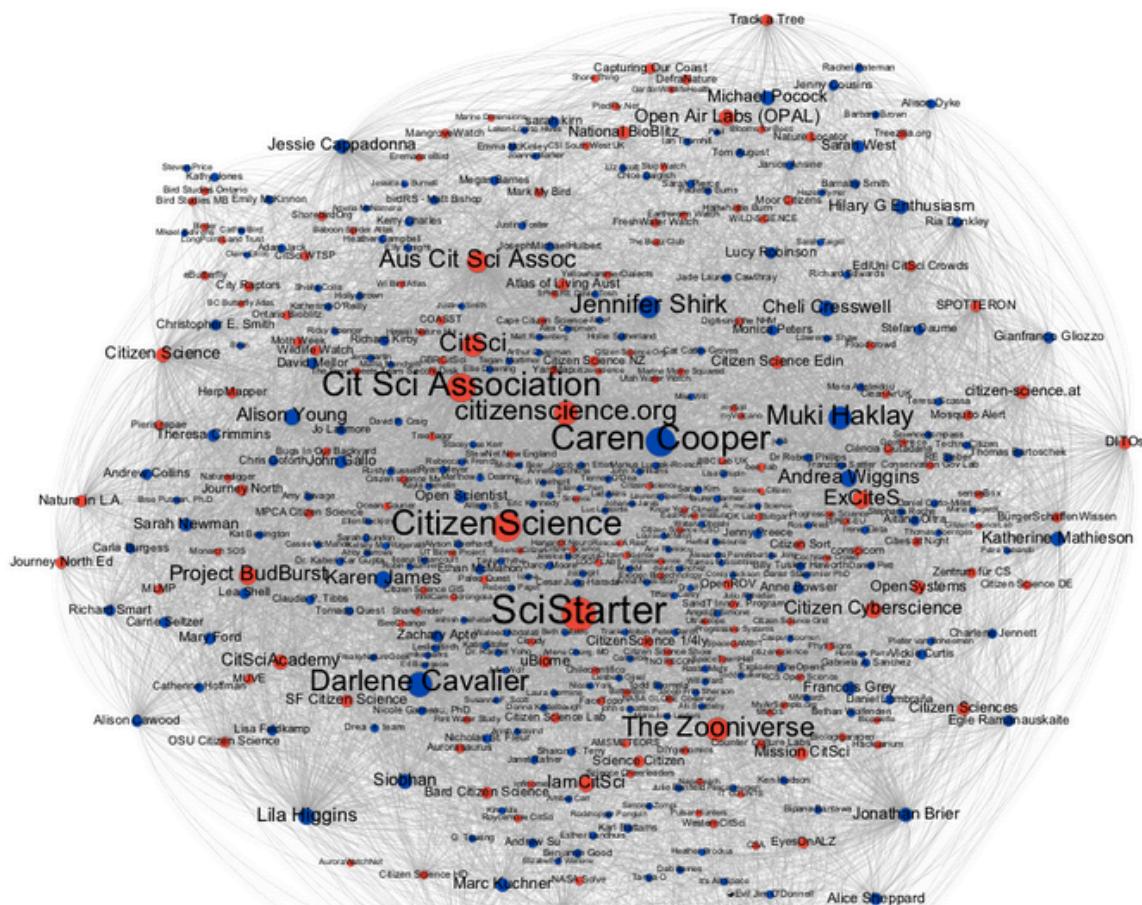
**B. "Citizen science" on Twitter.
Collective accounts**





Four things Twitter tells us about “Citizen Science” (and 1,000 things it doesn’t)

by Elise Tancoigne | Jan 26, 2017 | 3 comments



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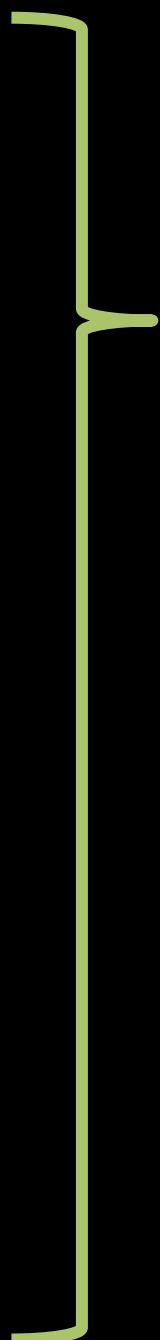
Elise Tancoigne on Four things Twitter tells us about "Citizen Science" (and 1,000 things it doesn't)

Philip Halliwell on Four things Twitter tells us about "Citizen

Other potential analyses

- Network
 - followers/following
 - retweet
 - mentions
- Discourse
- Socio-demographics
- Relationships between the previous three

CONCLUSION



deserves the usual SHS ‘eye’ on data

24% of online adults (21% of all Americans) use Twitter

% of online adults who use Twitter

All online adults	24%
Men	24
Women	25
18-29	36
30-49	23
50-64	21
65+	10
High school degree or less	20
Some college	25
College+	29
Less than \$30K/year	23
\$30K-\$49,999	18
\$50K-\$74,999	28
\$75,000+	30
Urban	26
Suburban	24
Rural	24

Note: Race/ethnicity breaks not shown due to sample size.

Source: Survey conducted March 7-April 4, 2016.

“Social Media Update 2016”

PEW RESEARCH CENTER

- check that your question fits this type of data
- carefully design your list of keywords
- think on the meaning of the links you want to study
- bring external knowledge to make sense of what you find

Questions ?