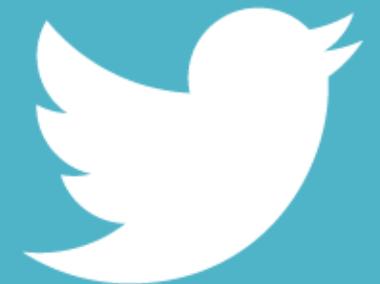


Twitter

Aaron Cunningham, Alero Jakpa, Ben Lee, Irini Sfyris

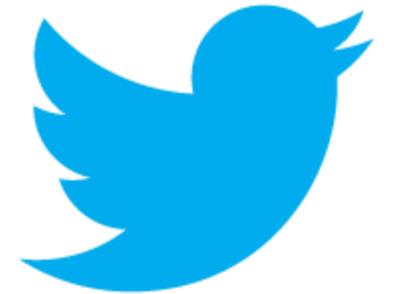


What is Twitter?

twit·ter [twit-er]

verb (used without object)

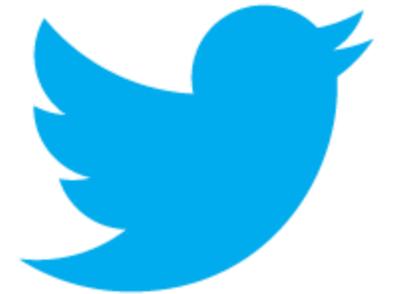
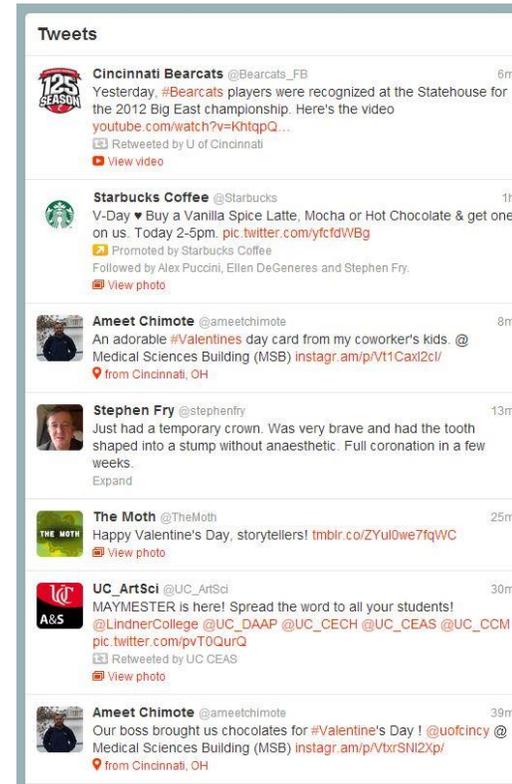
1. to utter a succession of small, tremulous sounds, as a bird.
2. to talk lightly and rapidly, especially of trivial matters; chatter.
3. to titter; giggle.
4. to tremble with excitement or the like; be in a flutter.



What is Twitter?

- most popular micro-blogging platform
- short messages called Tweets update in real-time
- 140 character limit
- hash tags (#) for trending
 - “trending” is a way to tag posts so that all Tweets on a related subject are tracked and can be viewed together
 - shows a topic’s popularity
- more than 140 million Tweets are sent per day
- there are currently over 200 million users worldwide with about 460,000 new accounts being created each day

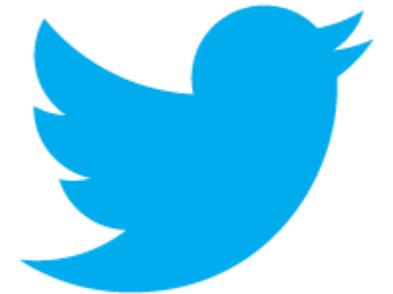
Source: <http://www.socialnomics.net/2013/01/23/the-history-of-twitter/>



History

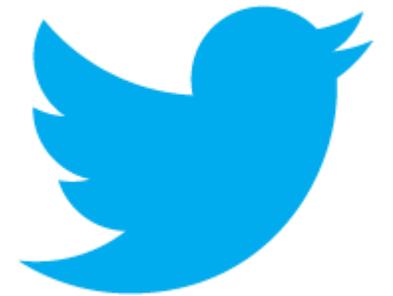
- first launched in March 2006
- created by 3 programmers in San Francisco, CA working for Odeo, Inc. (a podcasting company)
 - Jack Dorsey (@Jack), Evan Williams (@Ev), and Biz Stone (@Biz)
- wanted a way to send text messages on their cell phone and to reinvent a somewhat dying company
- created 140 character limit so that messages could fit in an SMS (160 characters max) and still have room for the username
- name inspired by Flickr, a photo sharing site

Source: <http://www.socialnomics.net/2013/01/23/the-history-of-twitter/>



Who uses it?

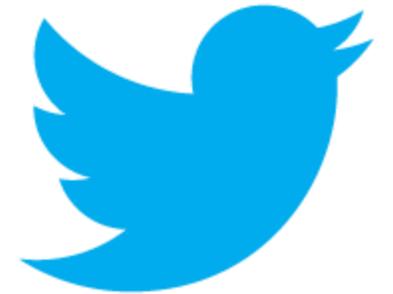
- *everyone*
- politicians
- news programs
- government agencies
- comedians
- celebrities



When/how is it used?

- *all the time*
- updates about mundane things (i.e. what someone had for breakfast)
- jokes from comedians
- quick news updates with links to full articles
- witty comments
 - “140 characters forces people to be more concise and clever.”
- connect with celebrities
- “Twitter supplements your life, while Facebook seeks to replace it.”

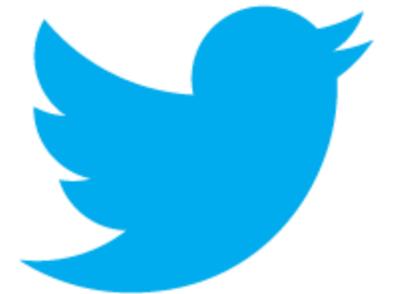
Quotes source: <http://techland.time.com/2011/11/17/why-twitter/>



About Twitter

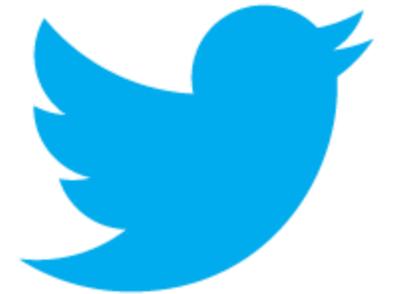
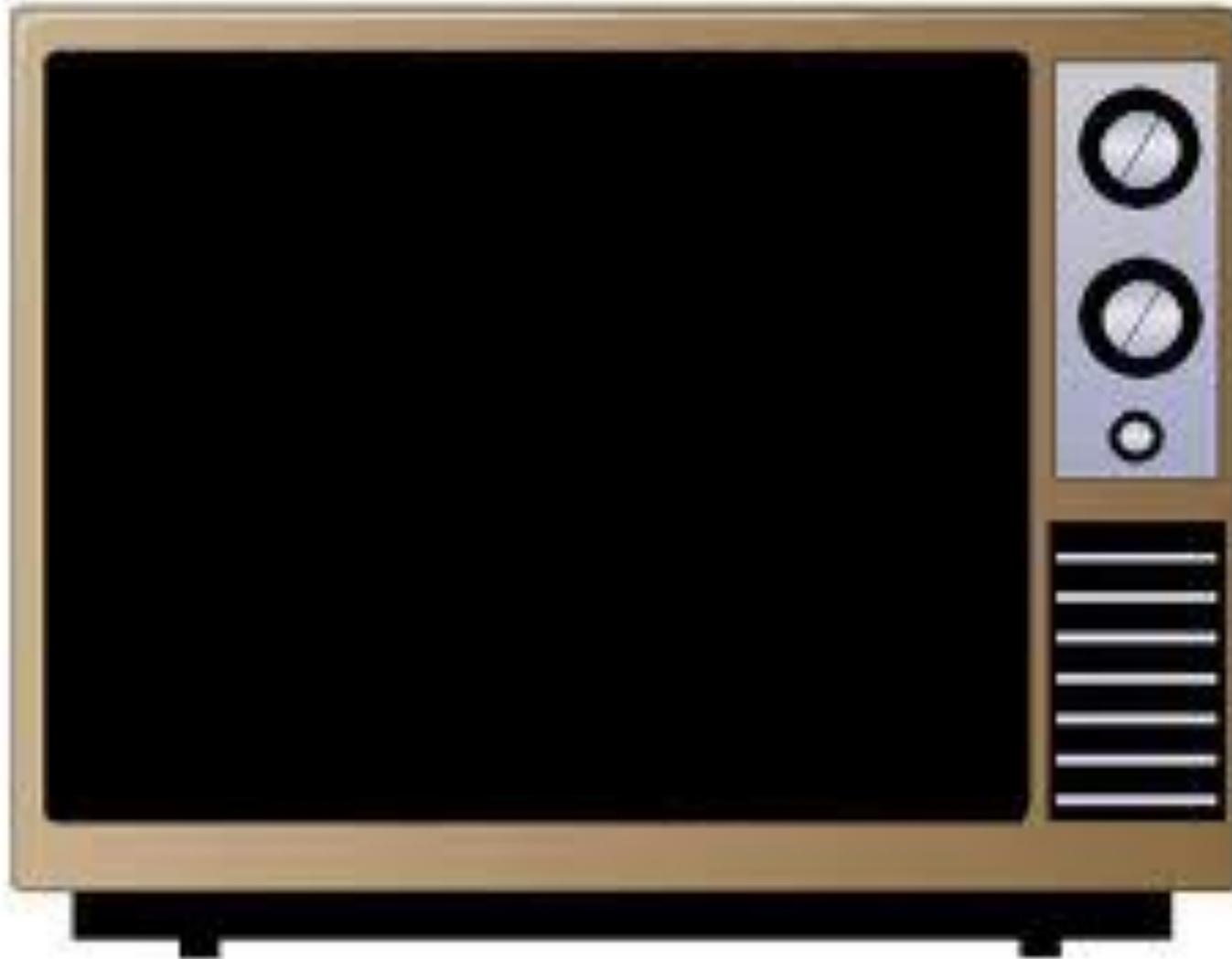
“Twitter is a real-time *information network* that connects you to the latest stories, ideas, opinions and news about what you find interesting.”

Quotes source: <https://twitter.com/about>



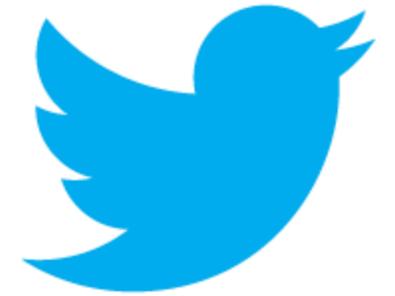
A Better-connected World

*Twitter
is not
just a
place
where
friends
get
together
...*



A Better-connected World

... its founders created it with *more* in mind.

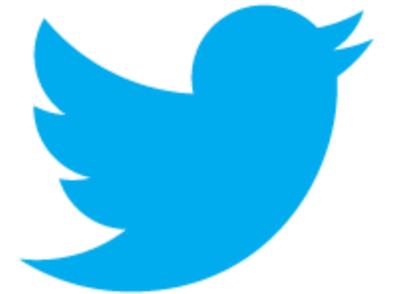


Information Must Flow

- “Twitter has been framed — by its founders, no less — as an important news-bearing medium in this any many other situations of global portent.”
- Egyptian political crisis (January 2011)
 - Twitter was blocked in Egypt
 - All internet access temporarily blocked
 - Google came out with a voice-to-tweet service for those affected
 - Thousands of tweets still got through
- For better or for worse, the people at Twitter believe in transmitting information as it occurs.
- Freedom of expression
- Can facilitate political change, or in the case of a disaster, help to keep people safe

Source: <http://mashable.com/2011/01/31/egypt-twitter-infographic/>

Source: <http://blog.twitter.com/2011/01/tweets-must-flow.html>



Misinformation

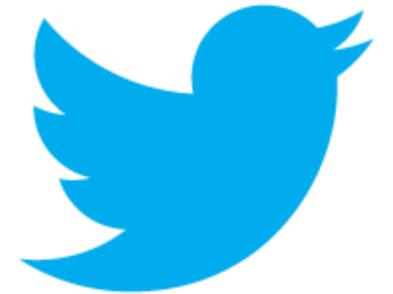
- There is the issue with incorrect information being tweeted and spreading *rapidly*:

- Hurricane Sandy →



- Girl faked kidnapping in 2012

- Fake celebrity accounts that have comedic value [look for the verified users]

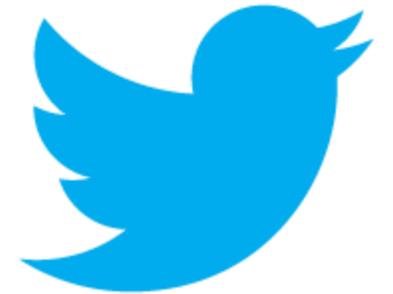


Twitter the Lifeline

- When all power is out, when phone lines are down, when the T.V. doesn't work. Twitter still might.
- Needs only a connection to a cell tower and a charged battery
- Huffington Post and BuzzFeed saw their servers go down, so turned to Twitter
- People use Twitter to:
 - Warn others
 - Request help
 - Report about the environment
- Organizations use Twitter to:
 - Listen and gain information
 - Announce sources of aid
 - Break the news

Source: http://www.journalism.org/index_report/hurricane_sandy_and_twitter

Source: http://www.eurekalert.org/pub_releases/2011-04/ip-tan041511.php

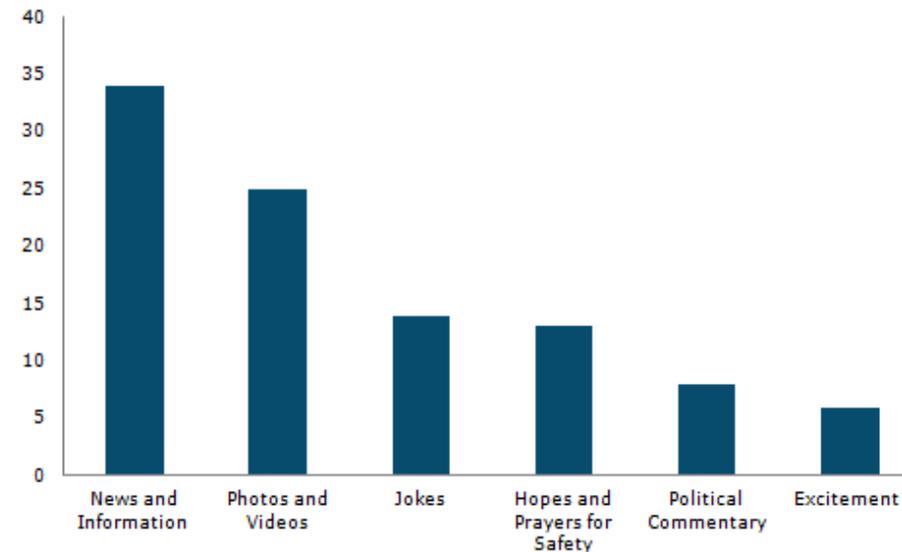


Usage: Quantity and Quality

- In 5 days following the storm, over 20 million Sandy-related tweets were sent.
- Few of these (only about 15%) were jokes, which can be considered unhelpful information.
- Over half of what you would have seen was pictures and information.
- “Second screen” media product

Hurricane Sandy Conversation on Twitter

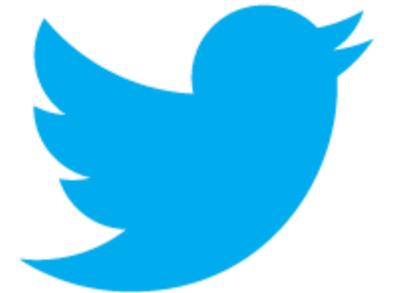
Percentage of assertions



Date Range: October 29, 2012-October 31, 2012

PEJ analysis using Crimson Hexagon technology

PEW RESEARCH CENTER'S PROJECT FOR EXCELLENCE IN JOURNALISM



The Audience

Government Agencies

- FEMA Sandy
- Governor Christie (Gov. of NJ)
- Mike Bloomberg (Mayor of NYC)
- Homeland security
- NYC Mayors office
- NASA
- AmeriCorps
- New York City 311
- NOAA Communications

The Community

- Sponsors:
- Chase
- McDonalds NYTriState
- General Electric
- Volunteers

Celebrities

Survivors

The general Public

Non Government Agencies

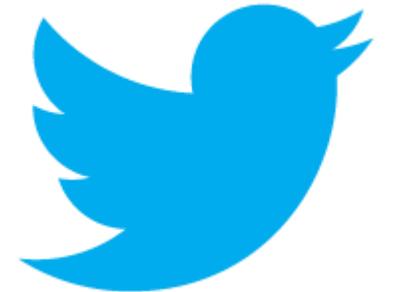
- American Red Cross
- CAREUSA
- Walmart Community

The Media

- WNYC radio
- NBC New York
- USA Today Travel

Weather Channels

- The Weather Network



Official #Sandy Twitter Page

#Sandy
Important information and updates about Hurricane Sandy

Tweet about #Sandy
#Sandy

Top people

- FEMA @fema: This channel provides FEMA missi...
Follow
- NWS @usNWSgov: NOAA's National Weather Service ...
Follow
- NOAA @NOAA: NOAA provides science, services, &...
Follow

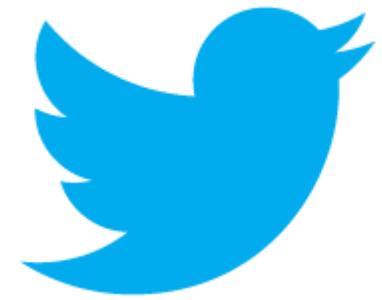
Tweets

- Jacaranda Newsteam @Jacarnews 17s
@Jacarnews @8 Super Storm #Sandy death toll at 13, sea water in NY subways, AA tells 2-mil members: don't buy e-tags bit.ly/zTlyeg
Expand
- Cory Booker @CoryBooker 33s
So important: conditions tomorrow will still be bad and dangerous. Please stay inside and let emergency crews work.
Expand
- New York Daily News @nydailynews 36s
Take a look at photos of the damage #Sandy brought to New York City. On the live blog: bit.ly/SkKyvM
Expand
- 680News/Toronto News @680News 1m
Tens of thousands of people without power in the GTA. For a full list of affected areas: torontohydro.com/sites/electric... #sandy #toronto
Expand
- GeorgeMonbiot @GeorgeMonbiot 1m

People grouped according to relevance such as FEMA, Agency authorized to handle Hurricane Sandy's relief program

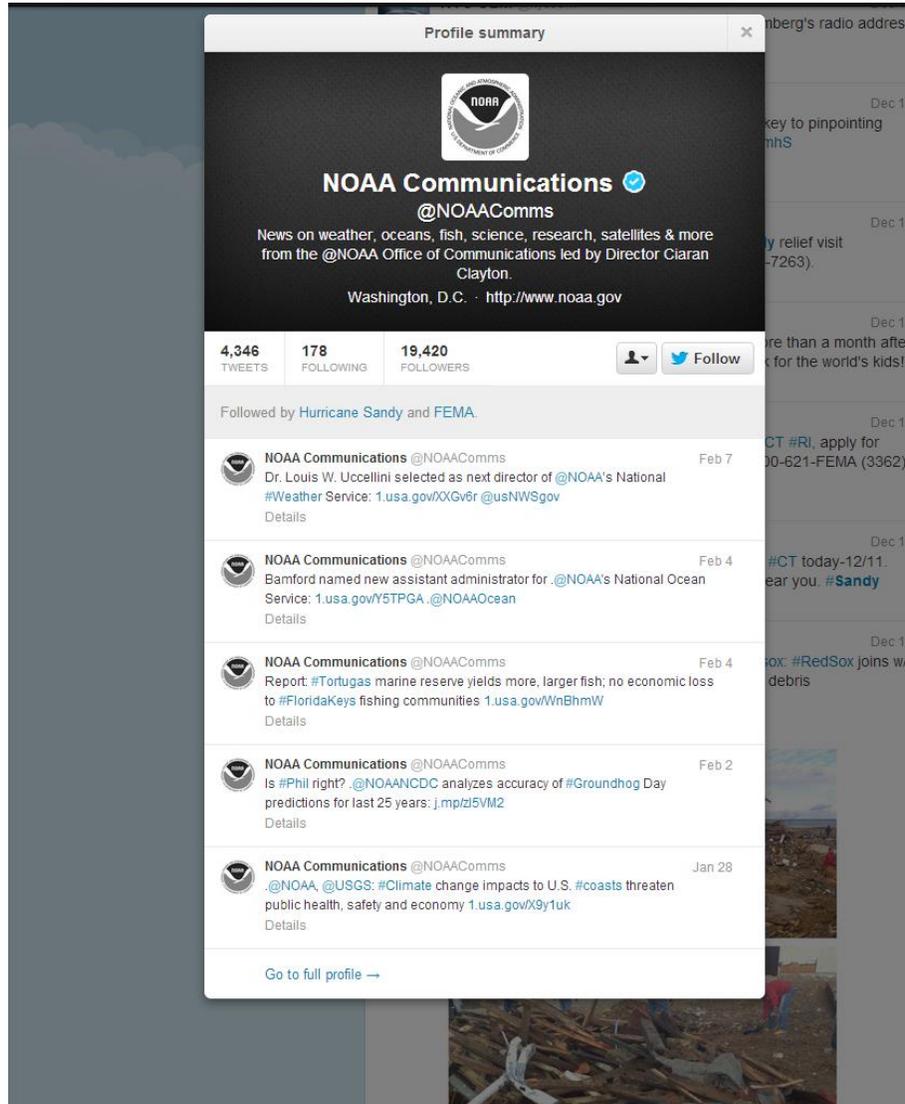
Audience is created using icons

Time of tweet



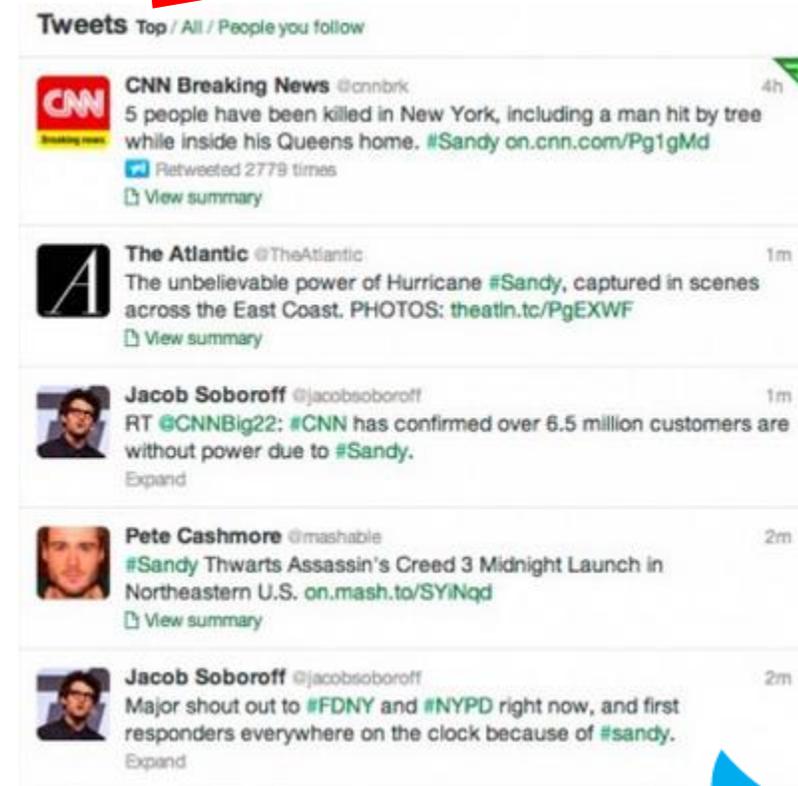
Trusted Tweets

Profile of relevant but unknown sources can be viewed without exiting current page.

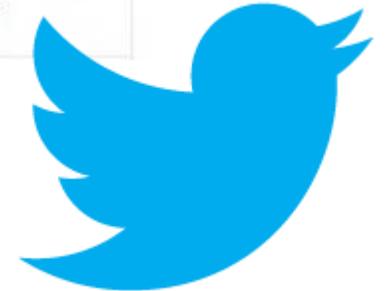


The screenshot shows a Twitter profile for NOAA Communications (@NOAAComms). The profile summary includes the NOAA logo, the name "NOAA Communications" with a verified badge, the handle "@NOAAComms", and a bio: "News on weather, oceans, fish, science, research, satellites & more from the @NOAA Office of Communications led by Director Ciaran Clayton. Washington, D.C. · http://www.noaa.gov". It also shows 4,346 tweets, 178 following, and 19,420 followers. Below the summary are several tweets from NOAA Communications, including news about a new director, an assistant administrator, a marine reserve report, and groundhog day predictions.

Tweets categorized by relevance



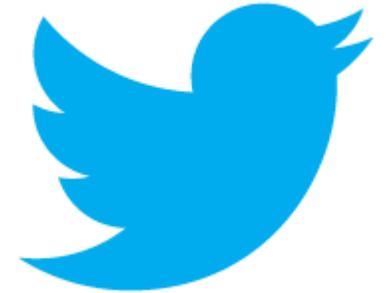
The screenshot shows a Twitter feed titled "Tweets Top / All / People you follow". A red arrow points from the text "Tweets categorized by relevance" to the top of the feed. The feed displays several tweets, including one from CNN Breaking News (@cnnbrk) about 5 people killed in New York, one from The Atlantic (@TheAtlantic) about Hurricane Sandy, and one from Jacob Soboroff (@jacobsoboroff) retweeting a tweet about CNN's customer base.



“People” Pages

The screenshot shows the American Red Cross (@RedCross) Twitter profile. A green arrow points to the navigation menu on the left, which includes links for Tweets, Following, Followers, Favourites, Lists, and a 'Tweet to American Red Cross' section. A red dashed box highlights the profile picture, with a red arrow pointing to it from a text box that says 'Icon for easy identification'. Another red dashed box highlights the bio, with a red arrow pointing to it from a text box that says 'Link to recent activities such as hurricane Sandy'. The main content area shows tweets from various Red Cross regional accounts, including RedCrossArkansas, American Red Cross, Cent/SE OH Red Cross, and Red Cross MS Region.

The screenshot shows a Twitter Lists page titled 'Lists Subscribed to / Member of'. A green arrow points to the 'Blizzard Feb 2011' list. Below it are other lists: 'Hurricane Sandy' (50 members), 'CrisisData' (99 members), 'people' (198 members), 'Local' (248 members), and 'Leadership 18' (24 members). Each list entry includes a brief description and the number of members. A red dashed box highlights the profile picture of the American Red Cross, with a red arrow pointing to it from a text box that says 'Icon for easy identification'.



List By American Red Cross

Hurricane Sandy
A public list by American Red Cross

useful links to follow for Hurricane Sandy preparation and response. *Not endorsements

31 MEMBERS 13 SUBSCRIBERS

Subscribe

Tweets

List members

List subscribers

Recently added members · View all

- SB Disaster Relief @SBDReNet Follow
- NY Red Cross @redcrossny Follow
- Red Cross-Central PA @ARC_C... Follow
- VACapitalRedCross @RedCross... Follow

More lists by @RedCross · View all

- Blizzard Feb 2013
- Hurricane Sandy
- CrisisData
- people
- Local

© 2013 Twitter About Help Terms Privacy Blog

Tweets

NWS Boston @NWSBoston 6m
2 to 5 inches of snow fell last night across the south coast, Cape and Islands with not much elsewhere. #MAwx #RIwx ow.ly/hlmhg
Expand

NOAA @NOAA 13m
Does V-Day have your head in the #clouds? Wishing you love that can #weather any storm: twitpic.com/c3oyao
View photo

Brad Panovich @wxbrad 15m
Asteroid 2012 DA14 Flyby Tomorrow | @wxbrad Blog goo.gl/u1qtb
View summary

Brad Panovich @wxbrad 16m
Asteroid 2012 DA14 Flyby Tomorrow wp.me/p1srzO-15n
View media

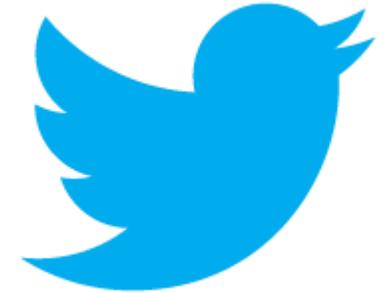
Capital Weather Gang @capitalweather 32m
Snow last night ranged from none SE of DC, to a coating around DC, to 1-2" N & W of Baltimore: wapo.st/12ksXJZ
View summary

Capital Weather Gang @capitalweather 33m
Anne Arundel co hit hardest by AM ice it seems, 60+ accidents. Compilation of reports: wapo.st/12ksXJZ
View summary

Capital Weather Gang @capitalweather 34m
"Car-topper" snow event leaves glaze of morning ice on some roads, new blog post: wapo.st/12ksXJZ
View summary

Jim Cantore @JimCantore 51m
Both GFS and EURO have more #snow for northeast this weekend. GFS more robust especially with mid-Atlantic: wxcaster4.com/gfs/CONUS2_GFS...
Expand

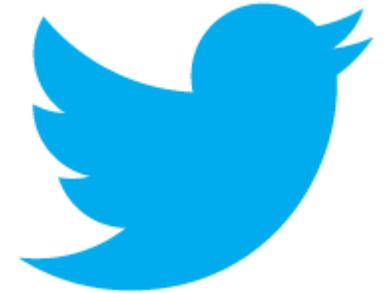
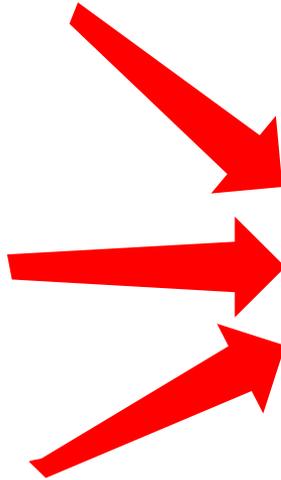
Jim Cantore @JimCantore 1h
Transitioning in2 COLD this Wknd east of MS River should bring light novelty #snow in the south. Only accumulation in southern Appalachians



More Reliable Lists

Lists Subscribed to / Member of

- Irene** by FEMA
Accounts to follow for updates on #Irene.
66 members 
- Lee** by FEMA
Accounts with updates on tropical storm Lee.
62 members 
- State EM Offices** by FEMA
State emergency management Twitter accounts.
61 members 
- Local EM** by FEMA
A collection of local emergency management agencies or related accounts. #welcometotwitter
143 members 
- fema** by FEMA
All official FEMA Twitter channels
19 members 
- New Jersey Sandy** by FEMA Region 2
46 members 
- NYC Sandy** by FEMA Region 2
40 members 
- New York State Sandy** by FEMA Region 2
26 members 
- FEMA Regions** by Craig Fugate
FEMA Regions Twitter Feeds
10 members 



Rich Infographics

Unlimited possibilities of what can be shared



Tweets >

Following >

Followers >

Favorites >

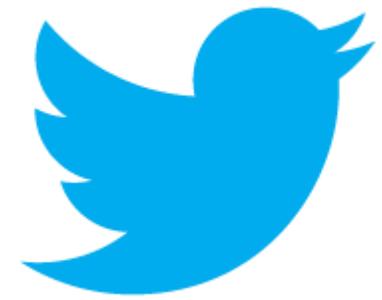
Lists >

Tweet to American Red Cross

@RedCross

2012 Disaster Response Statistics

2012 Disaster Response Statistics



FEMA

FEMA's Twitter page for Hurricane Sandy

Lists Subscribed to / Member of

NYC Sandy by FEMA Region 2
40 members

New York State Sandy by FEMA Region 2
26 members

New Jersey Sandy by FEMA Region 2
46 members

- Tweets >
- Following >
- Followers >
- Favorites >
- Lists >

Tweet to FEMA Sandy

@FEMASandy



Who to follow - Refresh - View all

-  **craig larkin** @kb2fed Follow
-  **Natl Hurricane Ctr** @NHC_A... Followed by Hurricane Sandy and ... Follow
-  **LarryCosgrove** @LarryCosgrove Follow

ories - Find friends



FEMA Sandy @FEMASandy
This channel provides information related to Sandy recovery efforts. For emergencies, call your local fire/EMS/police or 9-1-1.
fema.gov/sandy

1,248 TWEETS

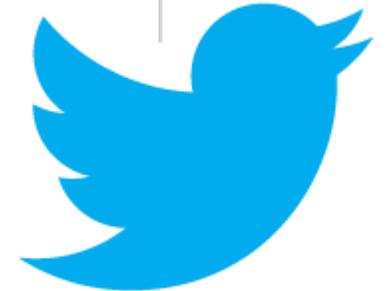
173 FOLLOWING

2,715 FOLLOWERS



Tweets All / No replies

-  **FEMA Sandy** @FEMASandy 4 hrs
Reminder: All @FEMA Disaster Recovery Centers in #NY & #NJ closed today (2/18) in honor of Presidents Day. Normal hours resume 2/19.
Expand
-  **FEMA Sandy** @FEMASandy 24 hrs
Get ahead of the next disaster: text PREPARE to 43362 (4FEMA) to receive monthly #preparedness tips: ready.gov/get-tech-ready
Expand
-  **FEMA Sandy** @FEMASandy Feb 16
#Winter Safety Tip If you've tapped into your emergency kit during winter storms, replace items soon for both at home & your car #wx
Expand
-  **FEMA Sandy** @FEMASandy Feb 16
In case you haven't seen it, we're also found on Facebook at facebook.com/FEMASandy #NY #NJ
Expand



Benefits of Tweets

FEMA Sandy @FEMASandy Jan 9
Please tag any questions or comments you have for me about #Sandy recovery in #NY with #NYfemaChat. -mb
Expand Reply Retweet Favorite More

Instant question messaging

FEMA Sandy @FEMASandy Dec 6
#NJ: @FEMA has 33 Disaster Recovery Centers open Mon-Sat; find one near you at fema.gov/drc or register at disasterassistance.gov
Expand

Recovery center information

FEMA Sandy @FEMASandy
A @FEMA registration site is open in #NYC at 79 John St. until 5 p.m. today. 11/27
Expand

FEMA Sandy @FEMASandy Dec 4
Finding rental housing after #Sandy is a daunting task. Here is a resource that can help make it easier: [asd.fema.gov/inter/hportal/...](http://asd.fema.gov/inter/hportal/)
Expand Reply Retweet Favorite More

After recovery help such as register for assistance, loans

FEMA Sandy @FEMASandy Dec 5
If you have friends or family affected by #Sandy, remind them to register for assistance with @FEMA DisasterAssistance.gov #CT #NJ #NY #RI
Expand

Health information & Medication

FEMA Sandy @FEMASandy Nov 29
As temps drop, be aware of the dangers of Hypothermia: Info via @CDCgov: 1.usa.gov/U2cv7O
Expand

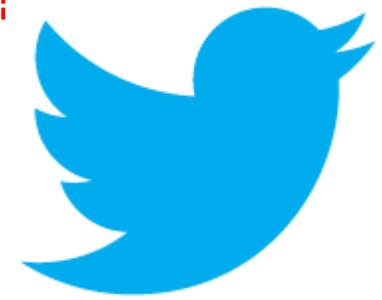
Help Line

NYS DHSES @NYSDHSES Nov 28
Upset by #Sandy? The Disaster Distress Helpline provides 24/7, year-round crisis counseling and support 1-800-985-5990
Retweeted by FEMA Sandy
Expand

NYS DHSES @NYSDHSES Nov 28
#Sandy survivors who get disaster loan applications from SBA should complete & return applications even if they do not plan to take a loan.
Retweeted by FEMA Sandy
Expand

femaregion5 @femaregion5 Nov 28
If your friends or family speak Spanish, be sure to have them follow @FEMAespanol!
Retweeted by FEMA Sandy
Expand

FEMA retweets relevant information so it appears on their page



Program Capabilities

API allows a program to do nearly anything you can do from Twitter's website.

Tweet

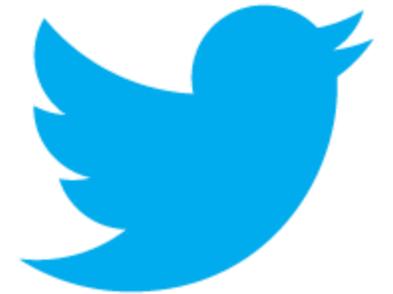
Search for tweets

Get trends for a location

Get geographic information from a tweet

Manage lists, friends and followers

Find and view other users.



Service: Authentication: powered by **apigee**

Select an API method

Search methods...

Timelines

- /statuses/mentions_timeline.json
- /statuses/user_timeline.json
- /statuses/home_timeline.json

Tweets

- /statuses/retweets/{id}.json
- /statuses/show/{id}.json
- /statuses/destroy/{id}.json
- /statuses/update.json
- /statuses/retweet/{id}.json
- /statuses/update_with_media.json
- /statuses/oembed.json

Search

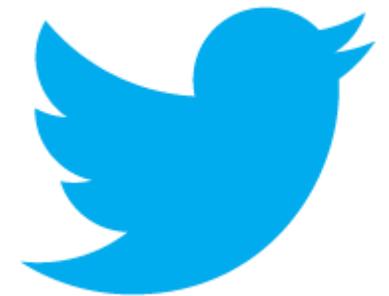
- /search/tweets.json

Help

- /help/configuration.json

Response

API Console



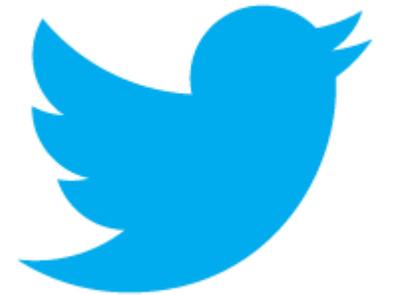
Limitations

Users must turn on geographic info (off by default)

Places API didn't always work when I tested it.

Info for places and trends is very broad

Hashtags tend to have too much information to sort through

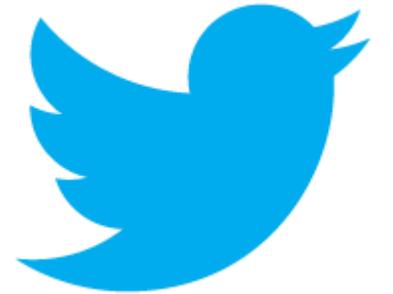


Solutions

Automate account setup - turn on geotagging, create lists with disaster info, and make them easy to view

Restrict search to people you follow

Create a hashtag for your local area to get more relevant tweets



App Ideas

Use direct messaging to create a "private" Twitter network, so you can tweet in a smaller area.

Geographic search to get the nearest tweets to you.

Search feature that lets you find other peoples' lists, so you can take advantage of lists published by bigger agencies.

Search feature that automatically subscribes to top tweeters for a topic, so when an agency creates a new account for an event you can immediately follow it.

