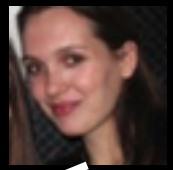
The Science of Social Data

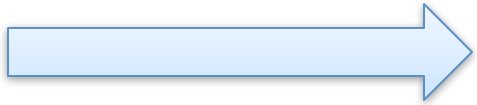
Hilary Mason
Chief Scientist, bitly

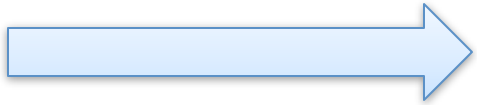
@hmason
h@bit.ly

AJODNA
Barack

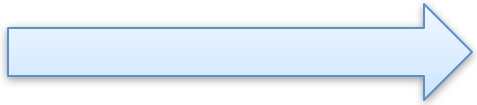
MISSING!!!







http://www.wolframdatasummit.org/2012/attendee/logistics/



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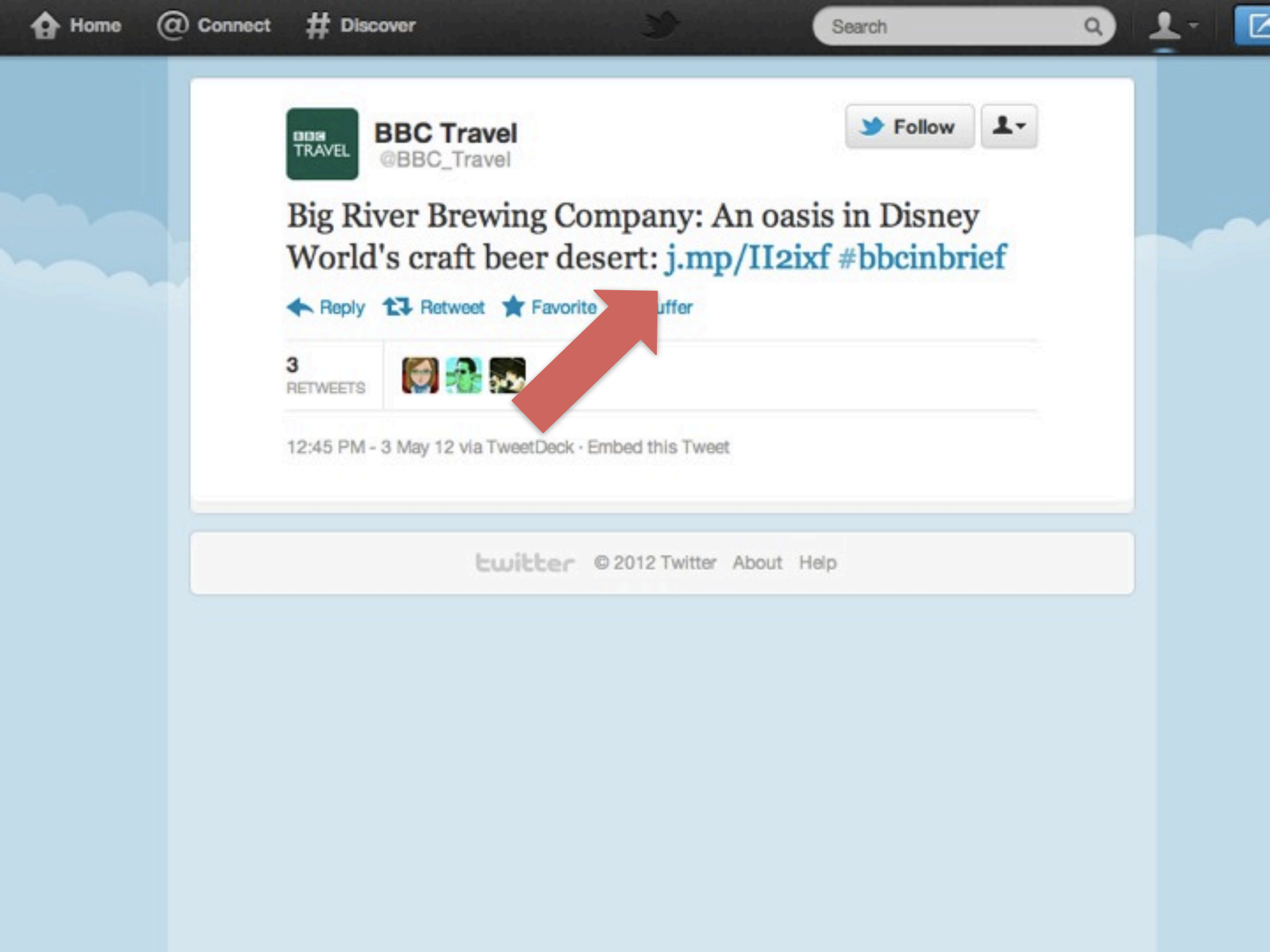
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Dalai Lama

There will be live webcasts of His Holiness the Dalai Lama's public talk, discussion and press conference from Prague, Czech Republic, on December 11–12, 2011. Webcasts can be viewed at http://dalaila.ma/vdj91l

All times Central European Time (GMT+1.00) in Prague, Czech Republic

December 11: Roundtable discussion

...

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All times Central European Time (GMT+1.00) in Prague, Czech Republic

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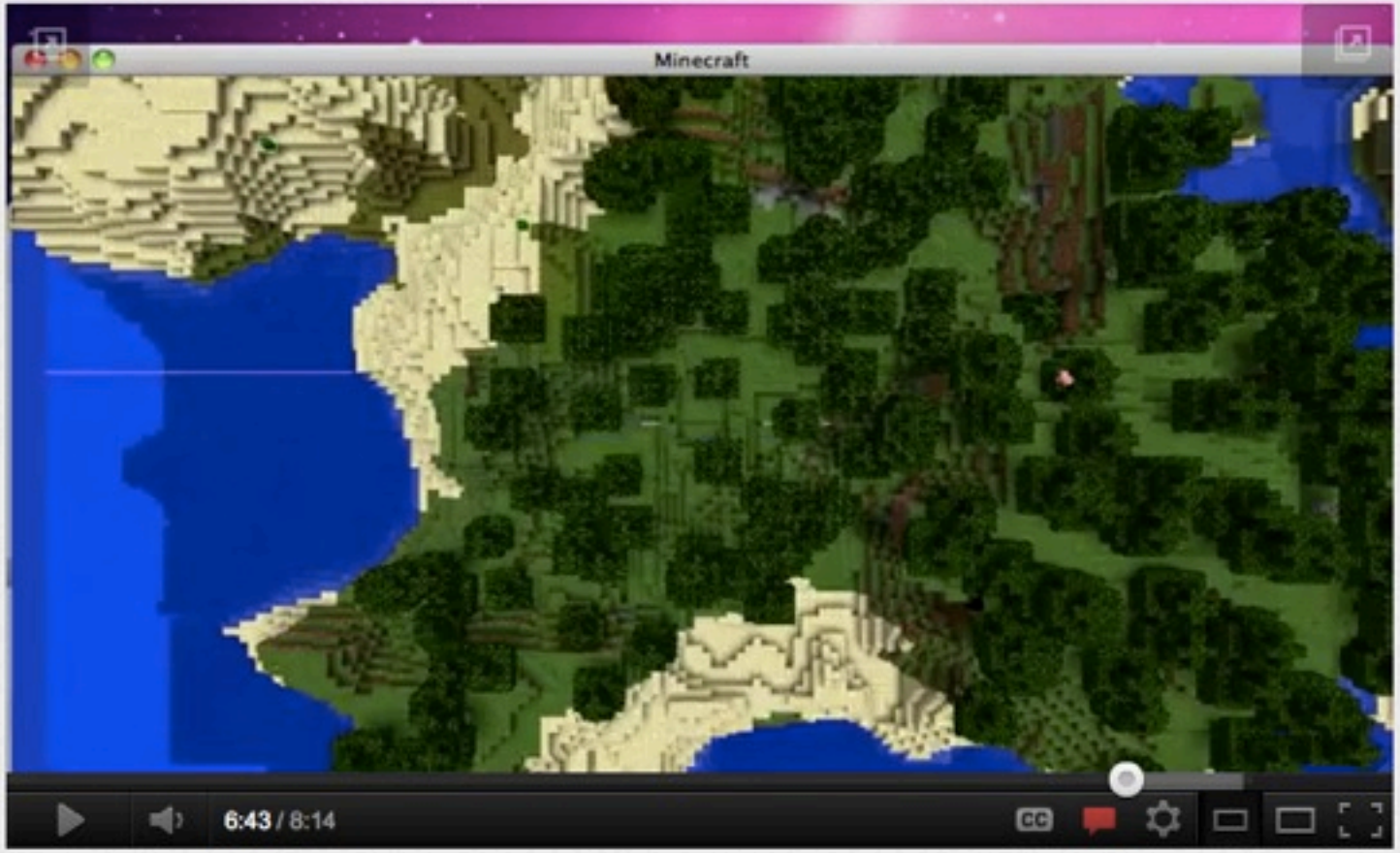
How to Install Explosives+ Mod (Minecraft 1.1.0) (HD)

TheBlackstealth | Subscribe | 8 videos



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Uploaded by TheBlackstealth on Feb 4, 2012

This will Show you how to install the Explosives+ Mod, otherwise known as the Predator Missile mod. This was a Request from HammerLaxLover
Here is their channel: http://bit.ly/A016AZ

How to Install Explosives+ Mod (Minecraft 1.1.0) (HD)

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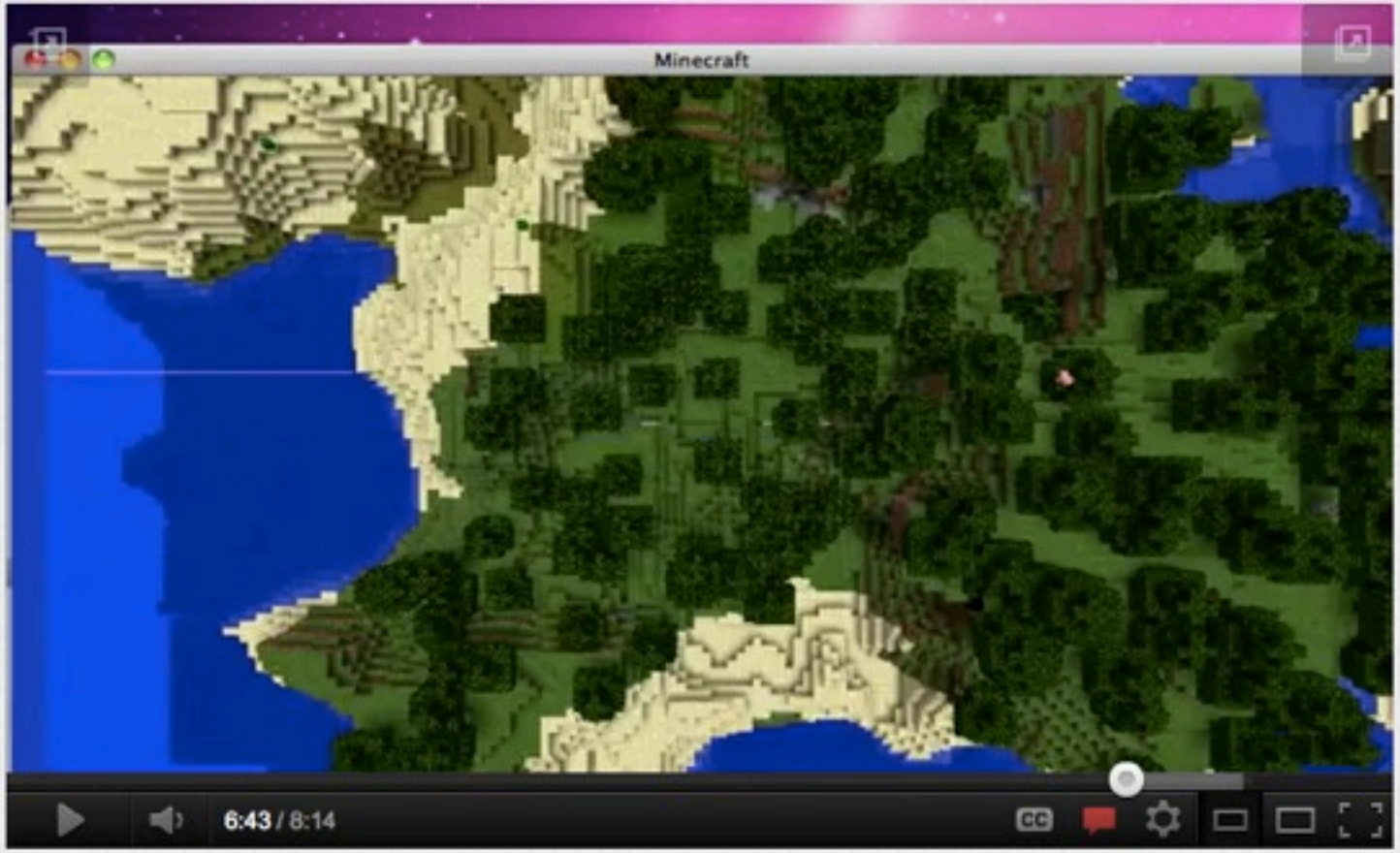

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173,108 Click(s) on this link in the last hour

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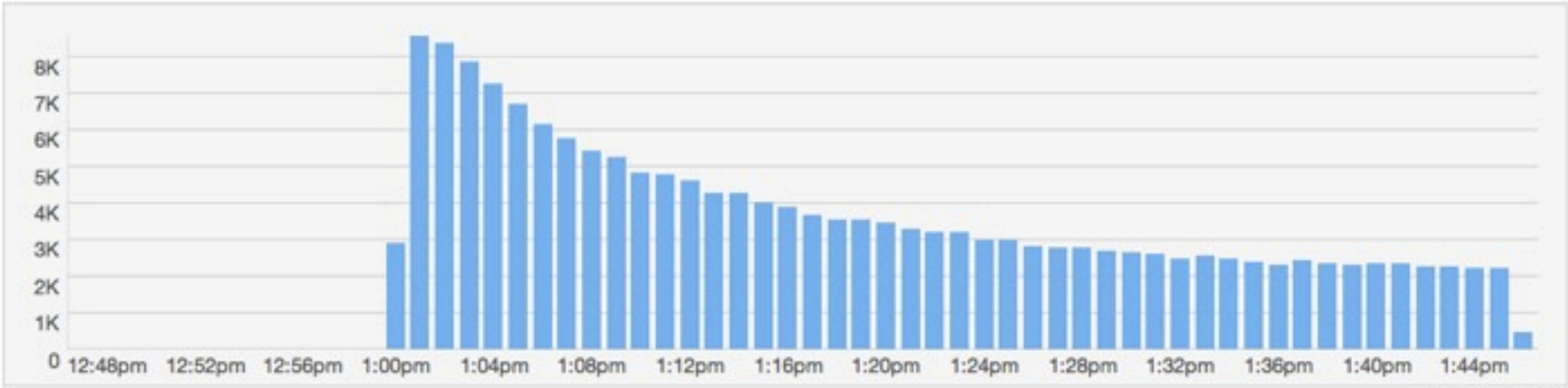

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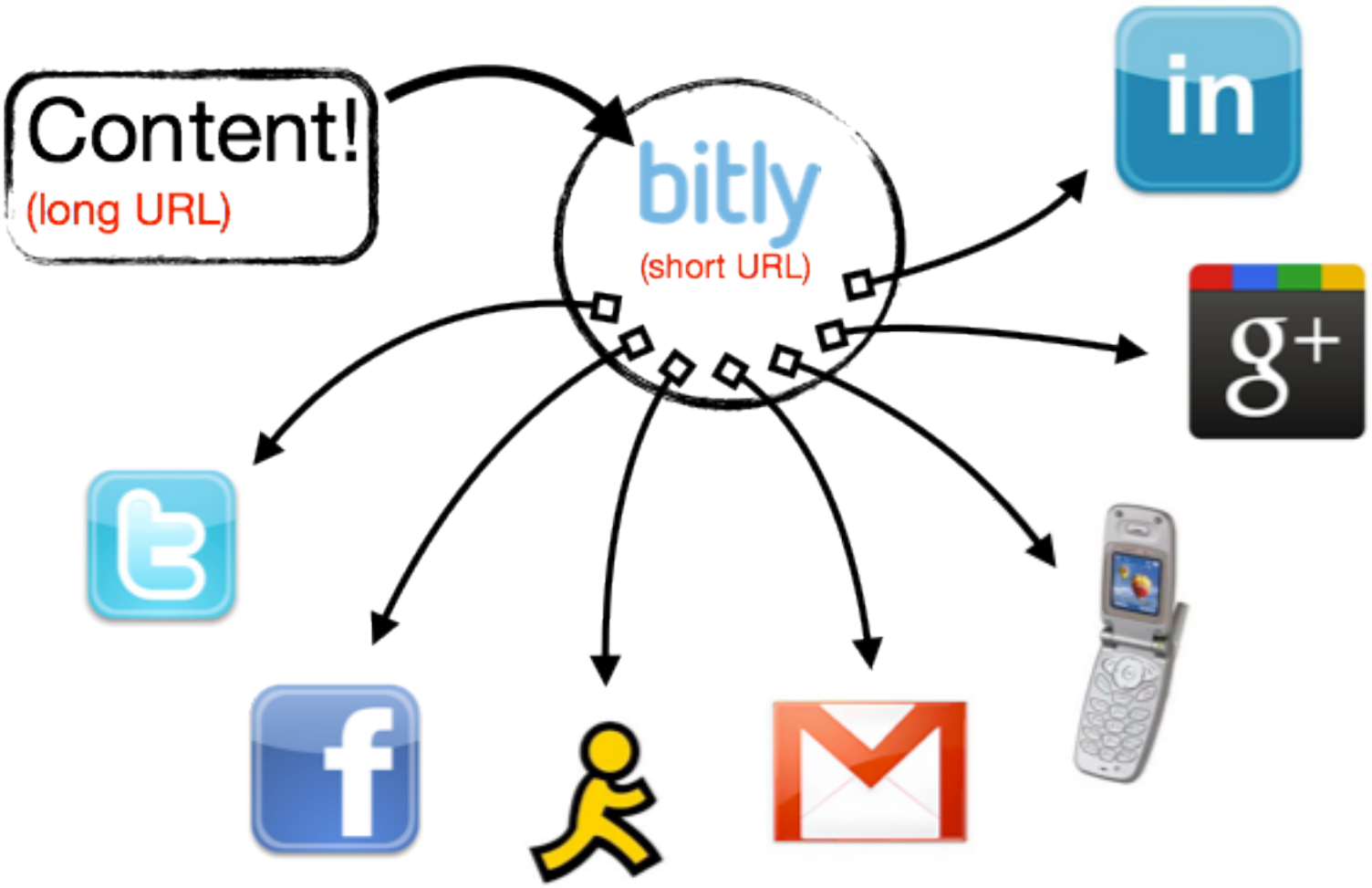
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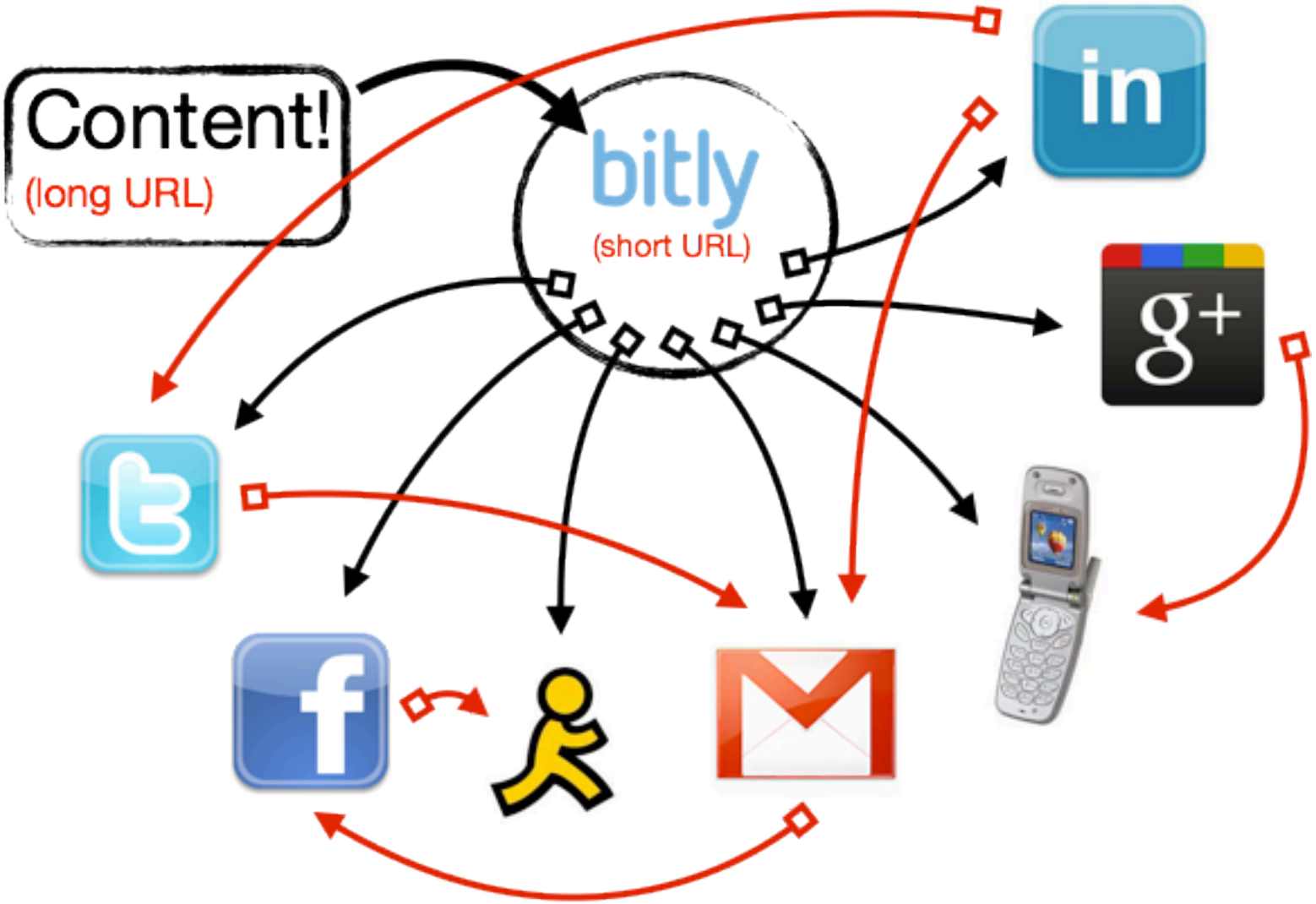
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Big Data

Data

10s of millions of URLs per day
100s of millions of clicks per day

10s of billions of URLs

Data scientists?

Data scientists?

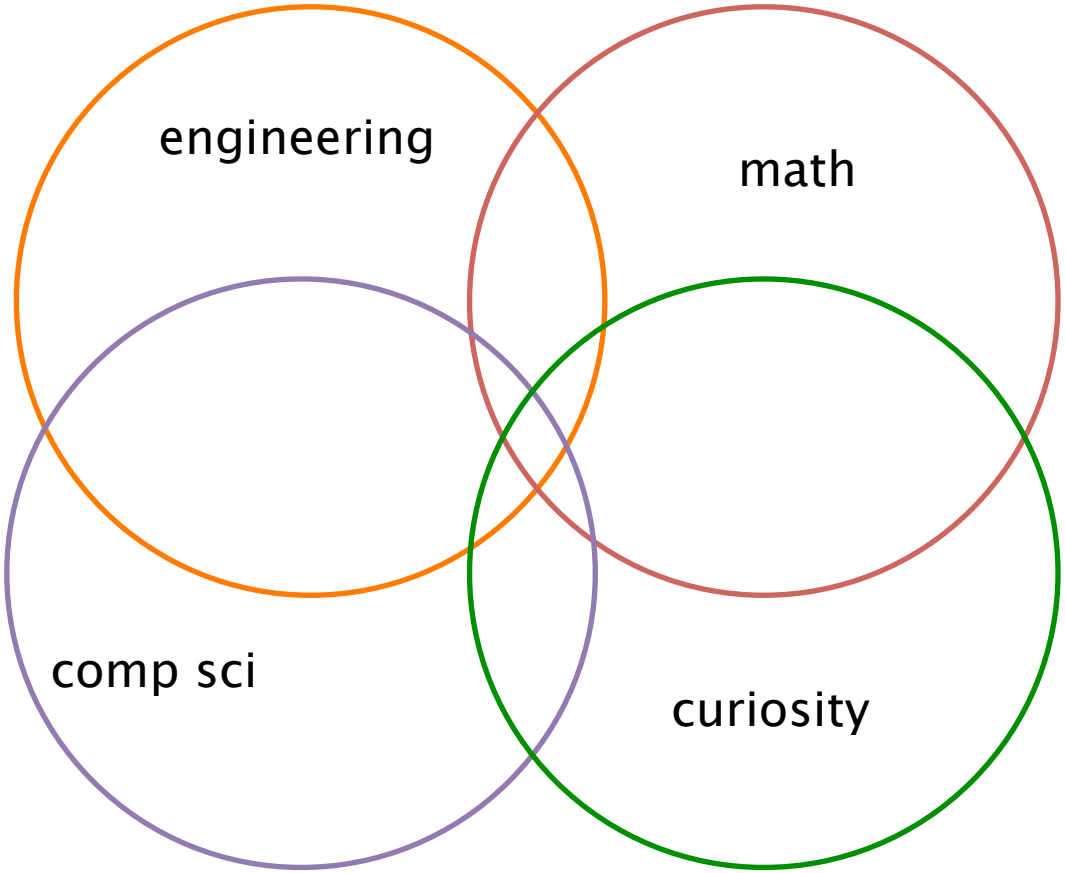
engineering

math

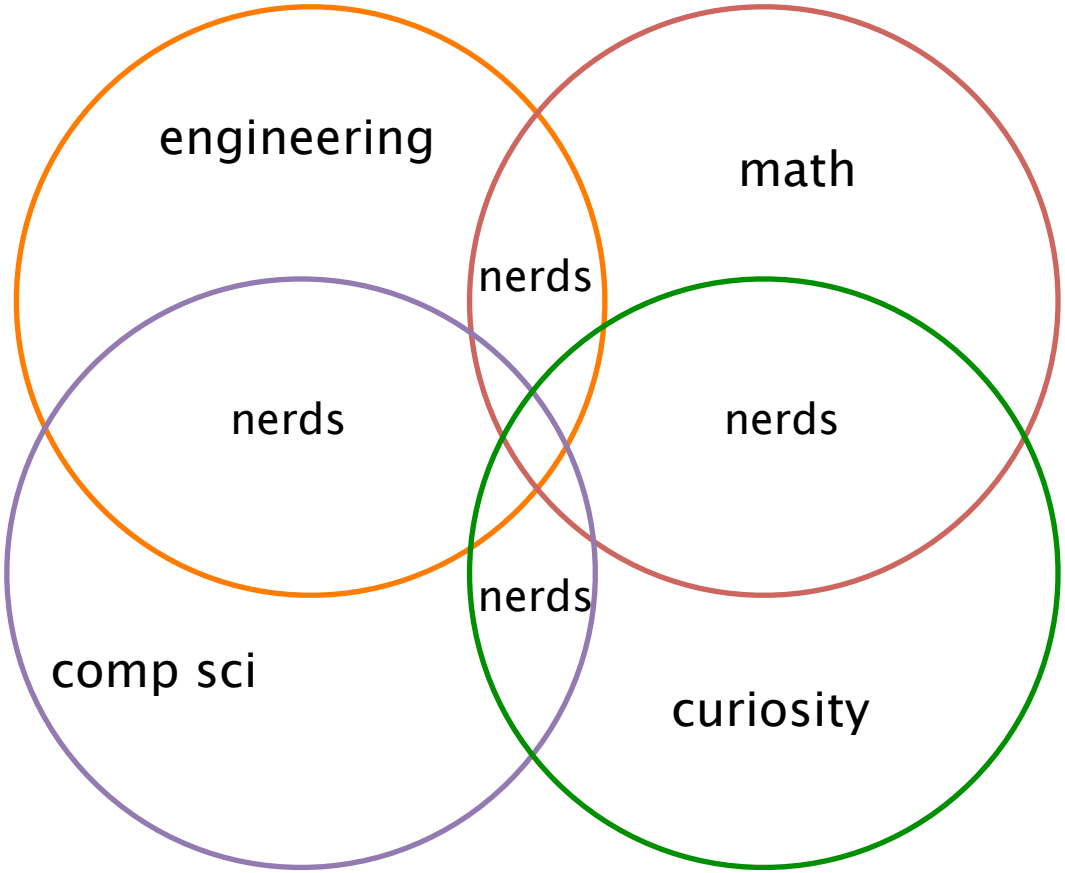
comp sci

curiosity

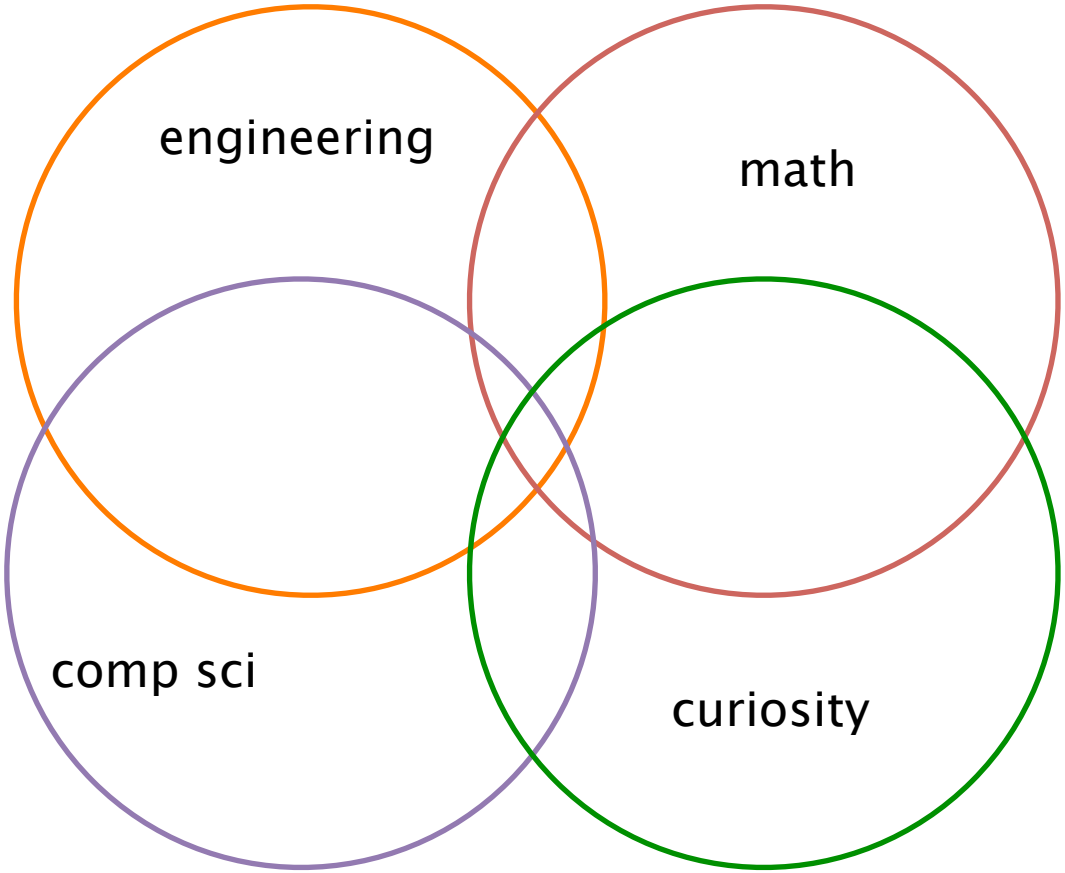
Data scientists?



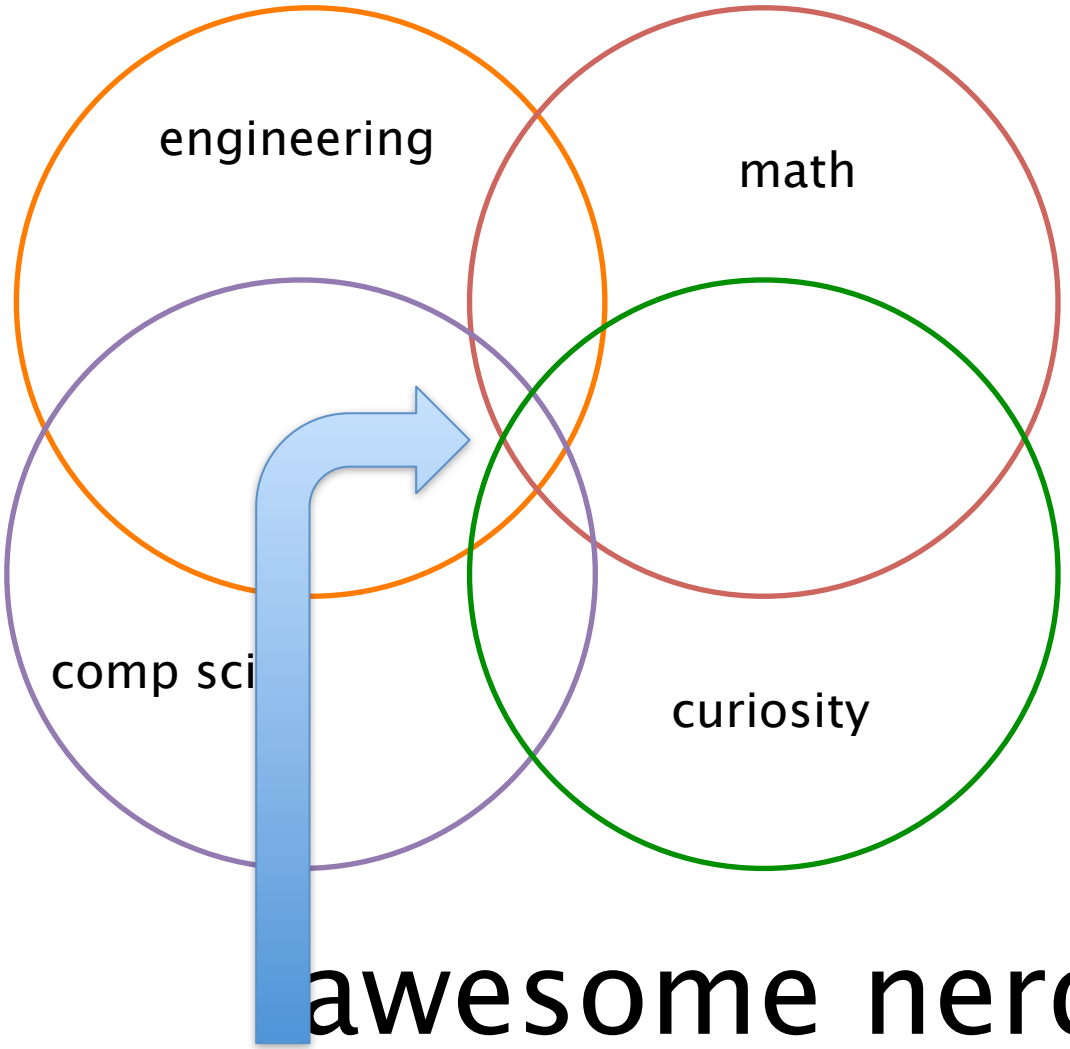
Data scientists?



Data scientists?



Data scientists?



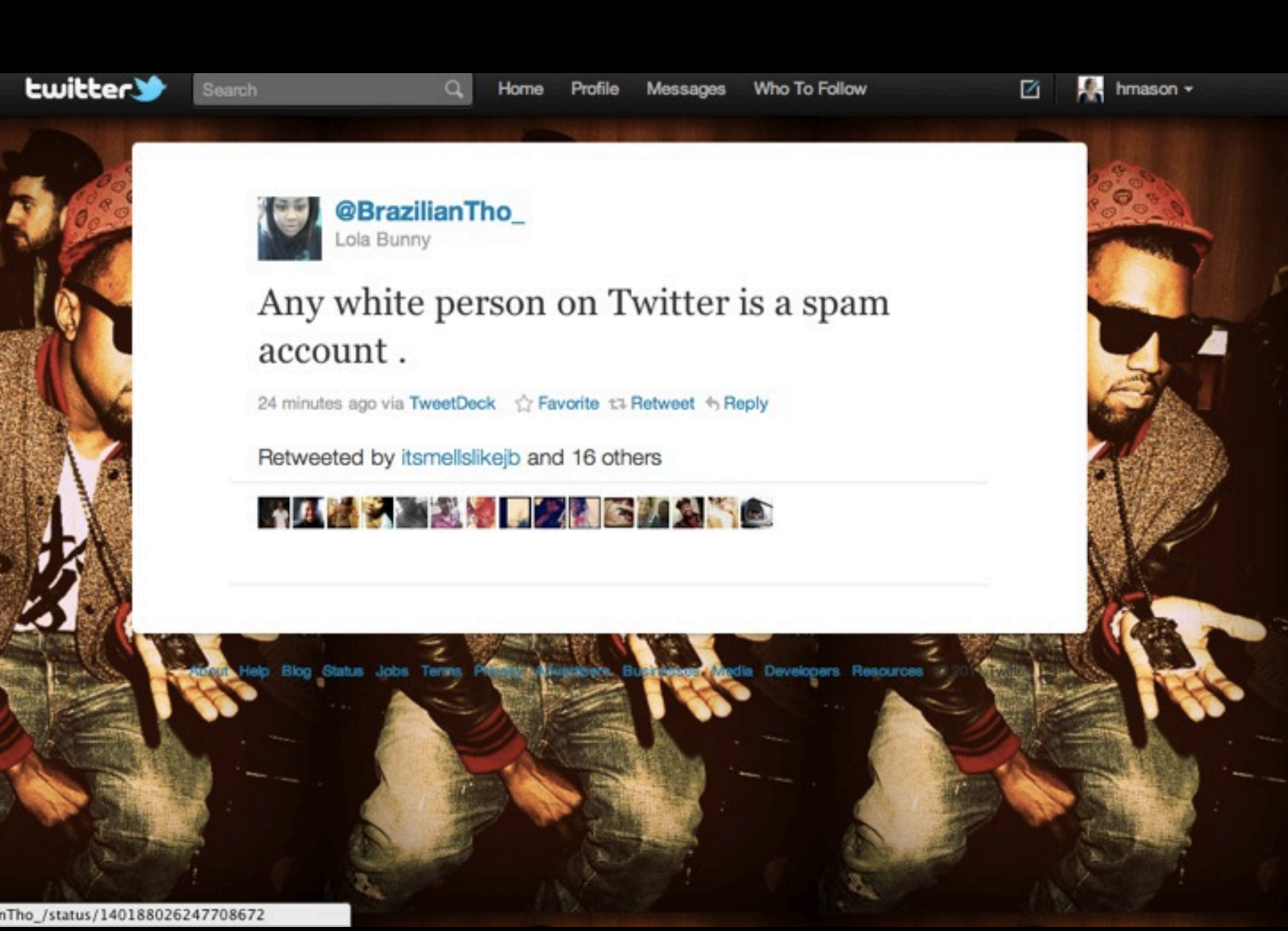
awesome nerds

bitly science team!

I'm
Lying

What can we learn from a lot of people talking to each other?

Your social network is NOT
my social network.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nTho_/status/140188026247708672

George
Rest in Peace, Squirtle the goldfish. Your bubbling antics are forever in my heart. The funeral was well attended and rightfully so.

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and 53 others like this.

Lauren George, why would you do this?
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Conversations: Tweets **0**; Shares **1**, Likes **0**, Comments **0**;

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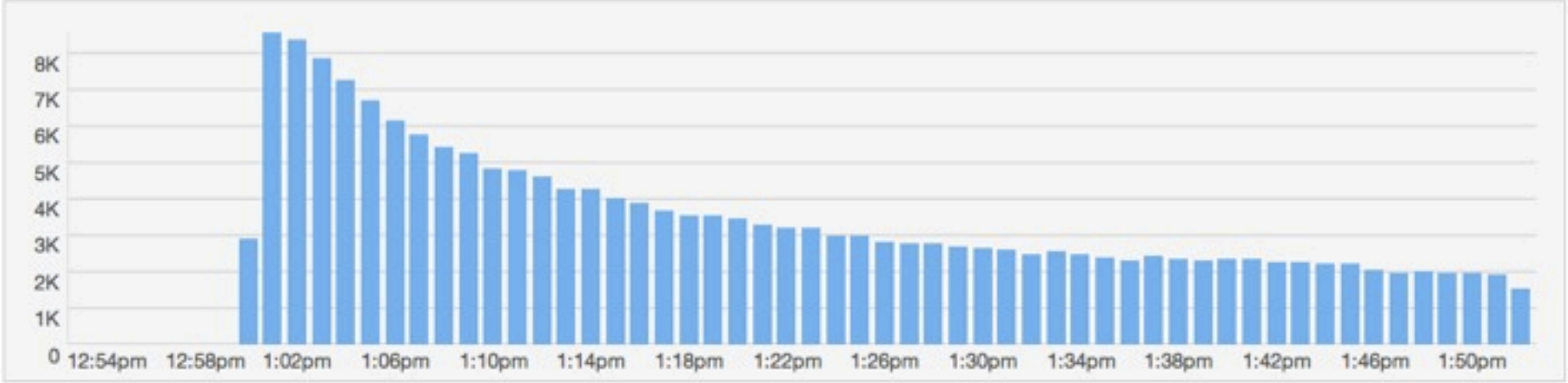

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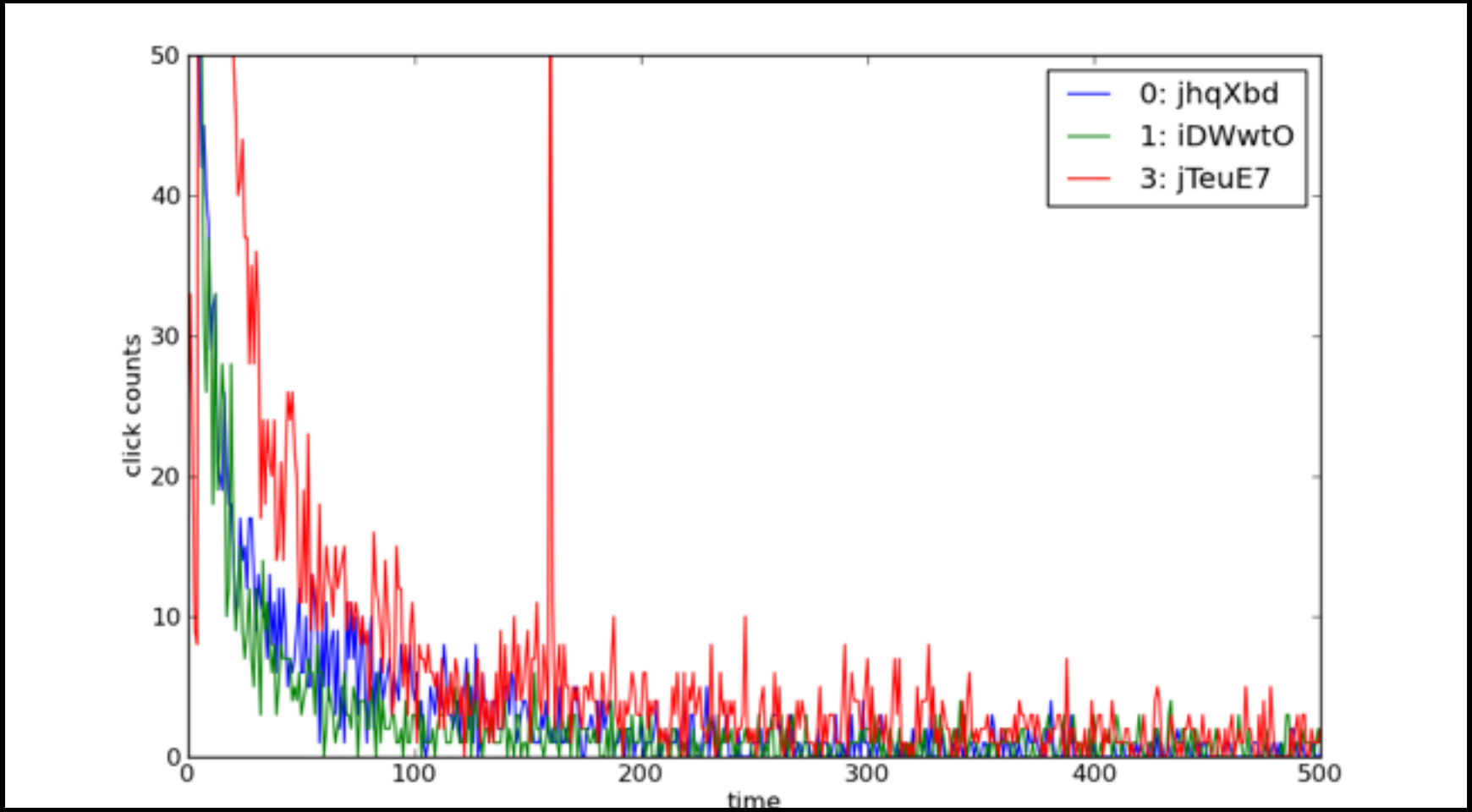
normal click distributions



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85

Enviado por ♂ Dd a

Hace unos meses, y durante tres años, trabajé en un club infantil dando clases particu
mismos niños y niñas hasta hace tres meses que me despidieron ¿la razón? Las niñas
adolescencia y se distraen porque soy atractivo. Por mi "cara bonita" he perdido el úni
en mi casa. ADV

Vaya asco de vida (8857) - Haberlo pensado antes (107) - Menuda chorrada (278)

Comentarios | Ordenar

#1 por alexander666
2011-06-06 13:02:53

Demasiado guapo para trabajar... menuda putada

A favor

#2 por lord_dark

asco de vida

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Asco Life collects stories that have ruined your day. Why keep them to yourself when you can draw a smile to thousands of people? Your misfortune may be our grace. *Send us your ADV is fast, easy and requires no registration!*

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85

Posted by

A few months ago, and for three years, I worked in a club giving private lessons, I alw
children until three months ago they fired me the reason? Girls are reaching adolesce
because I'm sexy. For my "pretty face" I lost the only income coming into my house. A

Go disgust of life (8857) - have thought of before (107) - What a bullshit (278)

categories

- Friendship
- Love
- Money
- Studies
- Family
- Health
- Sex
- Work
- Several

Comments

1 by alexander666
06/06/2011 13:02:53

Too cute to work ... what a bitch

In favor

2 by lord_dark
06/06/2011 13:03:02

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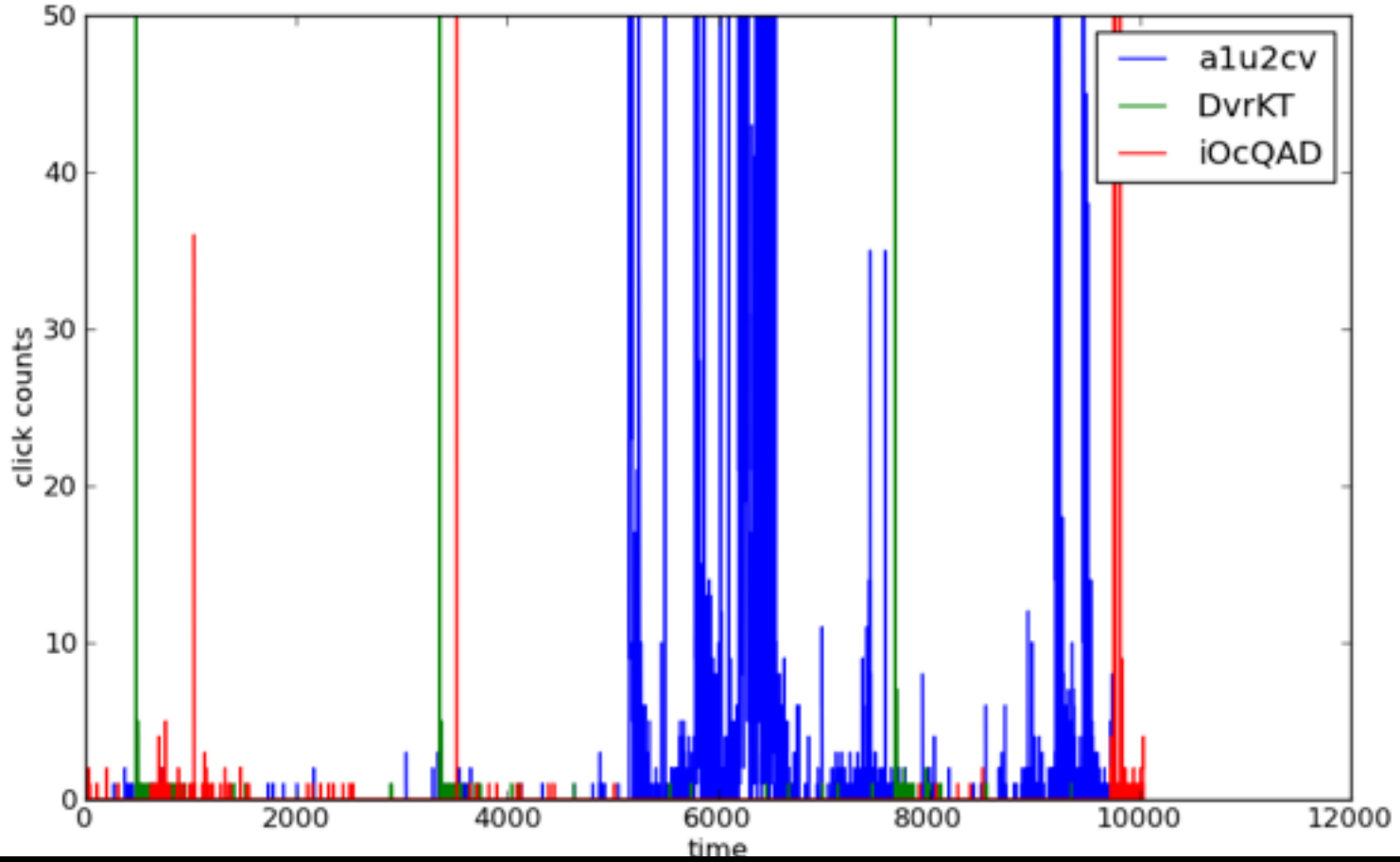

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- Spam and malware is very often propagated by exploiting these loopholes, neither of which bitly allows for.

The link you requested may contain inappropriate content, or even spam or malicious code that could be downloaded to your computer without your consent, or may be a forgery or imitation of another website, designed to trick users into sharing personal or financial information.

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LIFE

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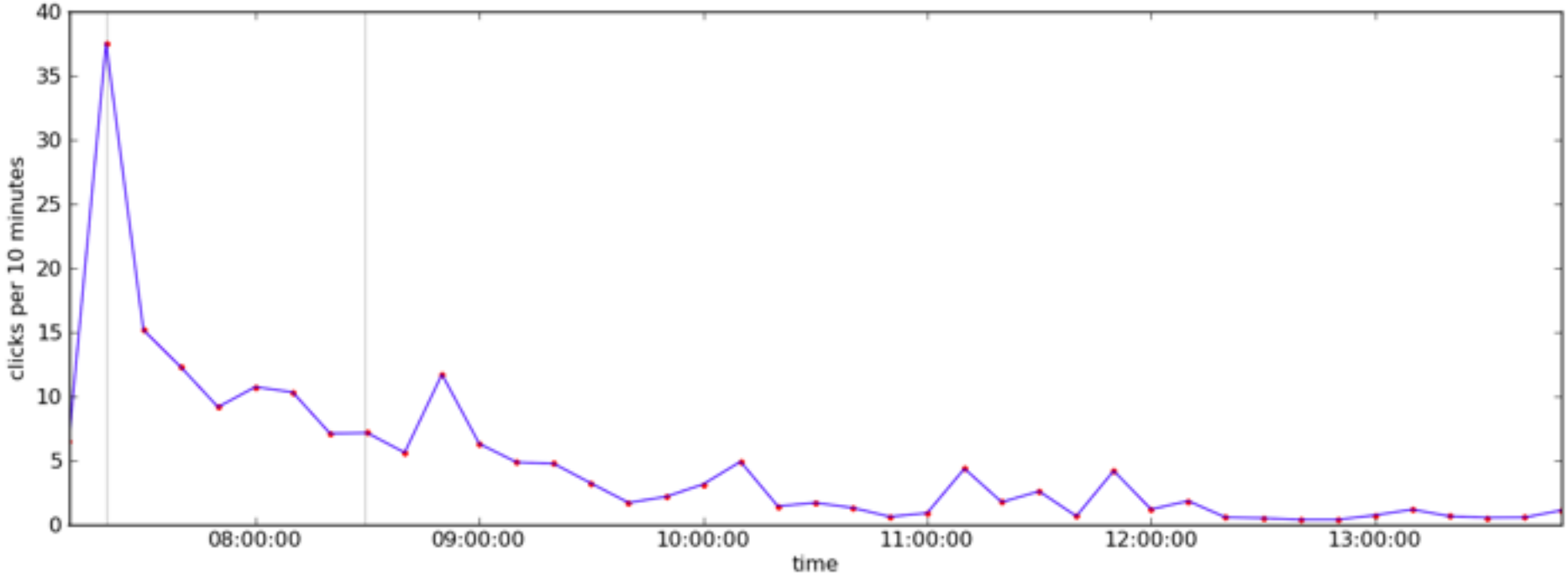
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clicks per 10 minutes
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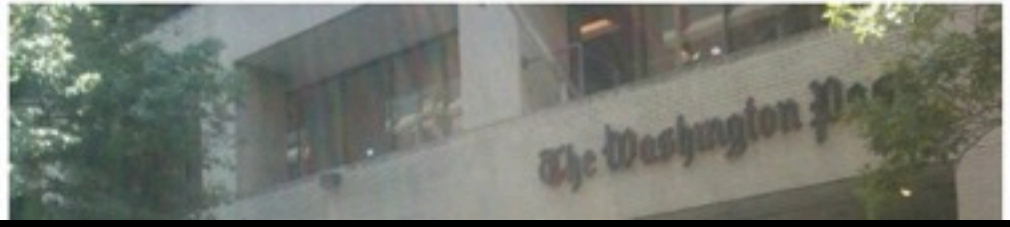
Posted at 01:58 PM ET, 08/23/2011

East Coast earthquake: 5.8 magnitude epicenter hits Virginia

By Melissa Bell



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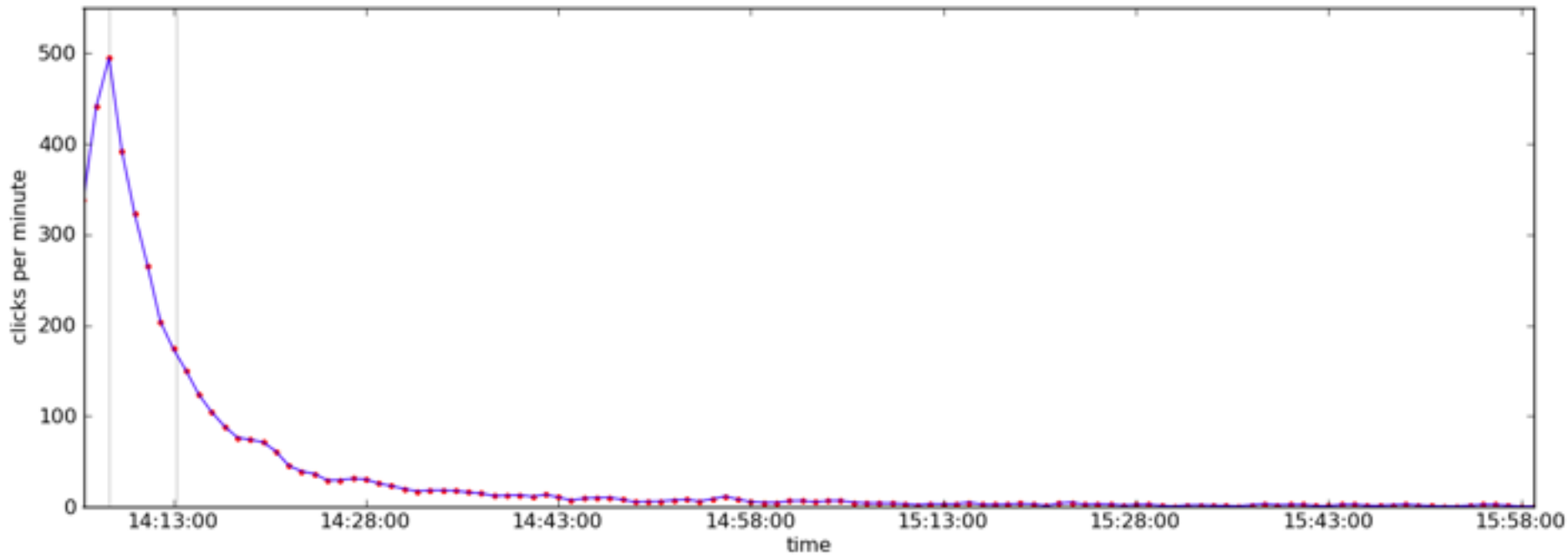
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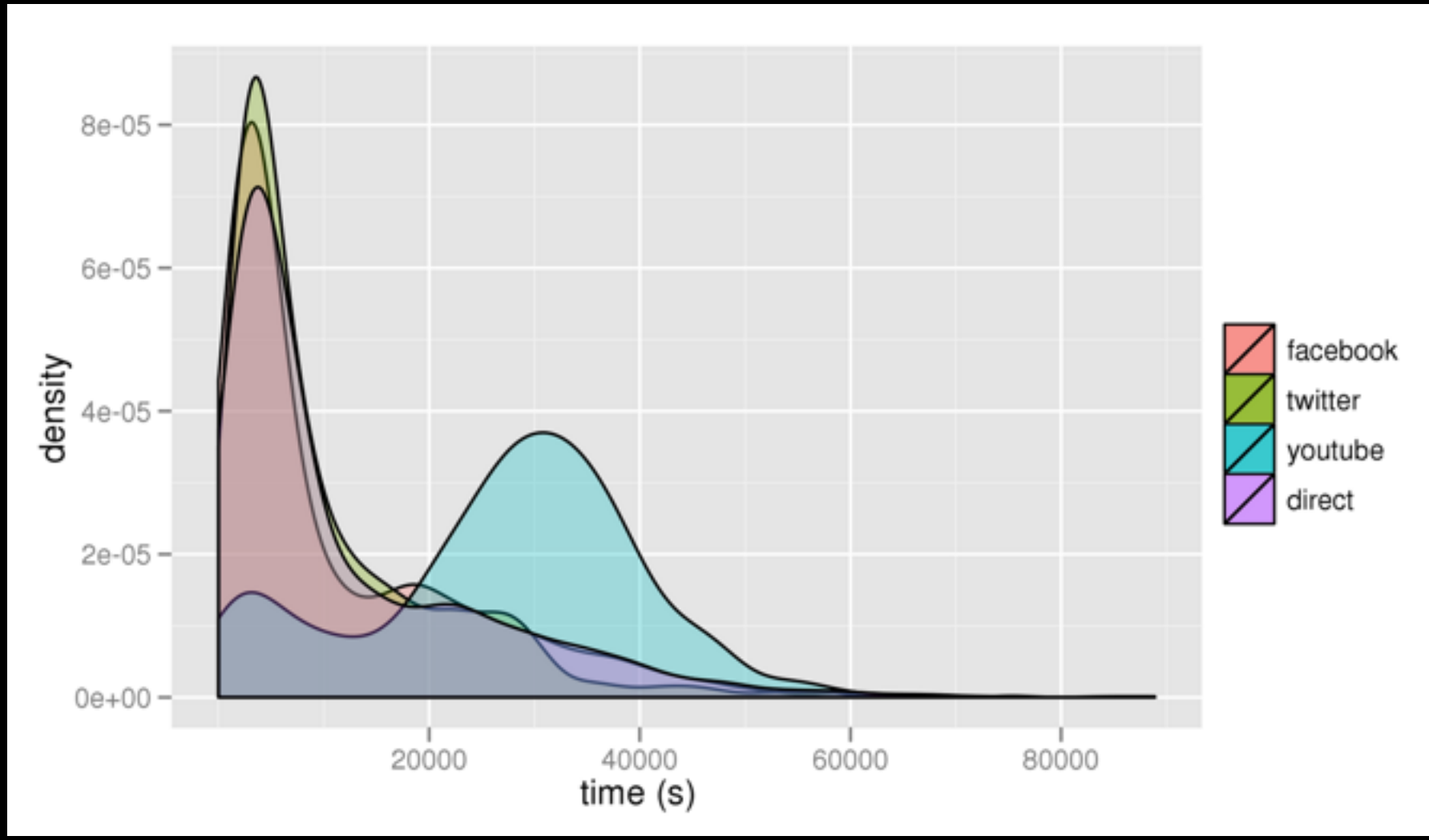
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facebook
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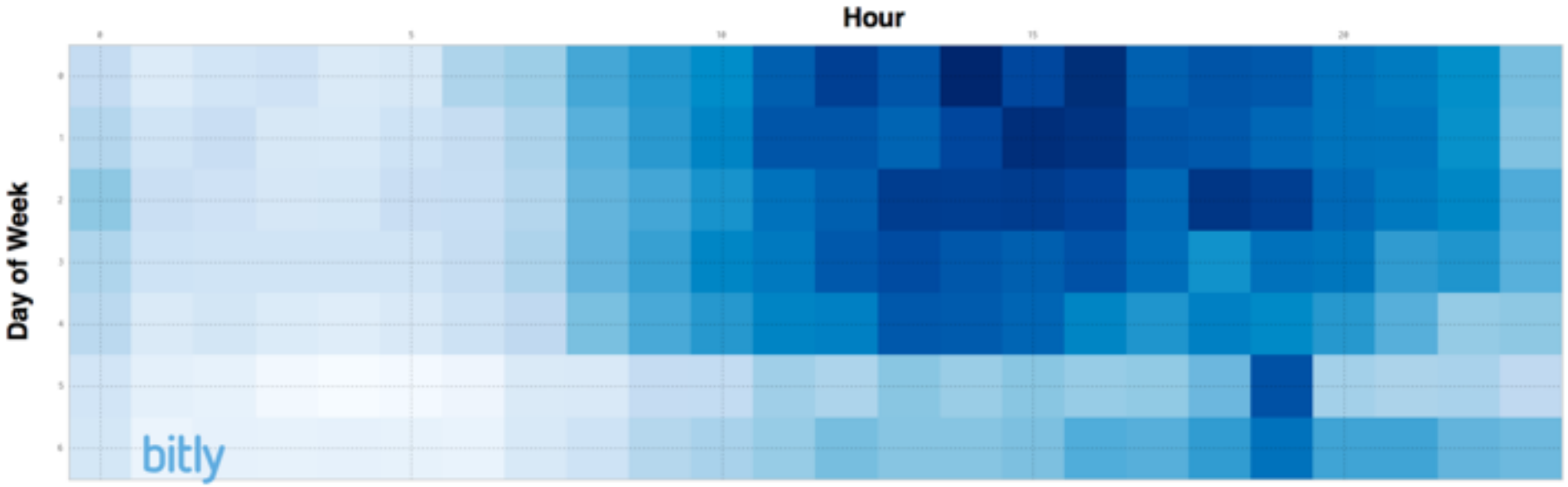
direct

…do the networks change the dynamics of how those messages spread?

twitter



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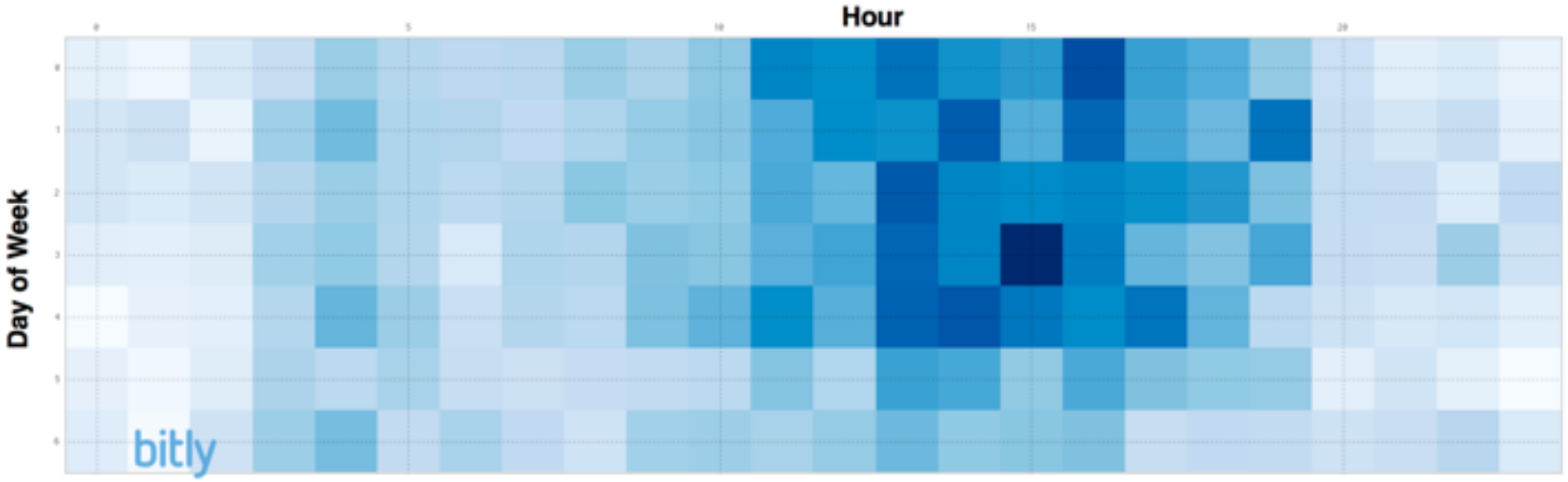

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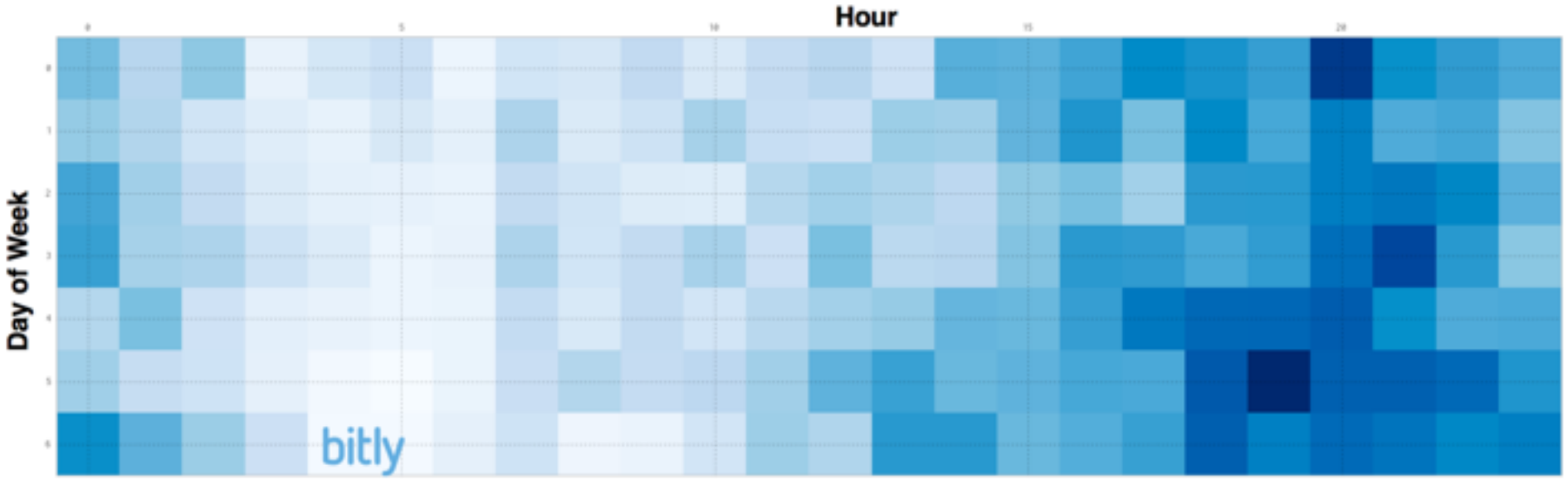
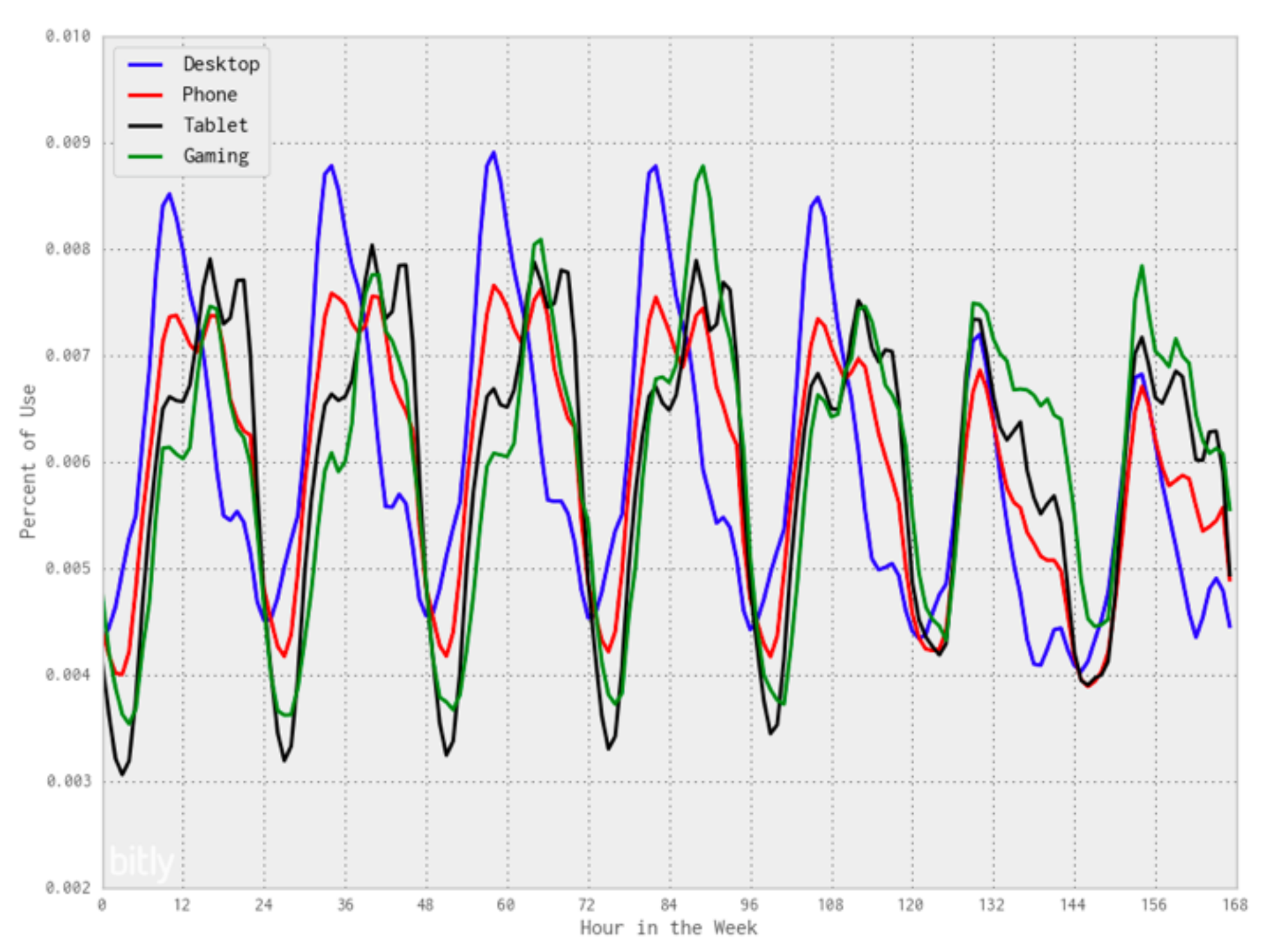


And devices?


Desktop
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Hour in the Week
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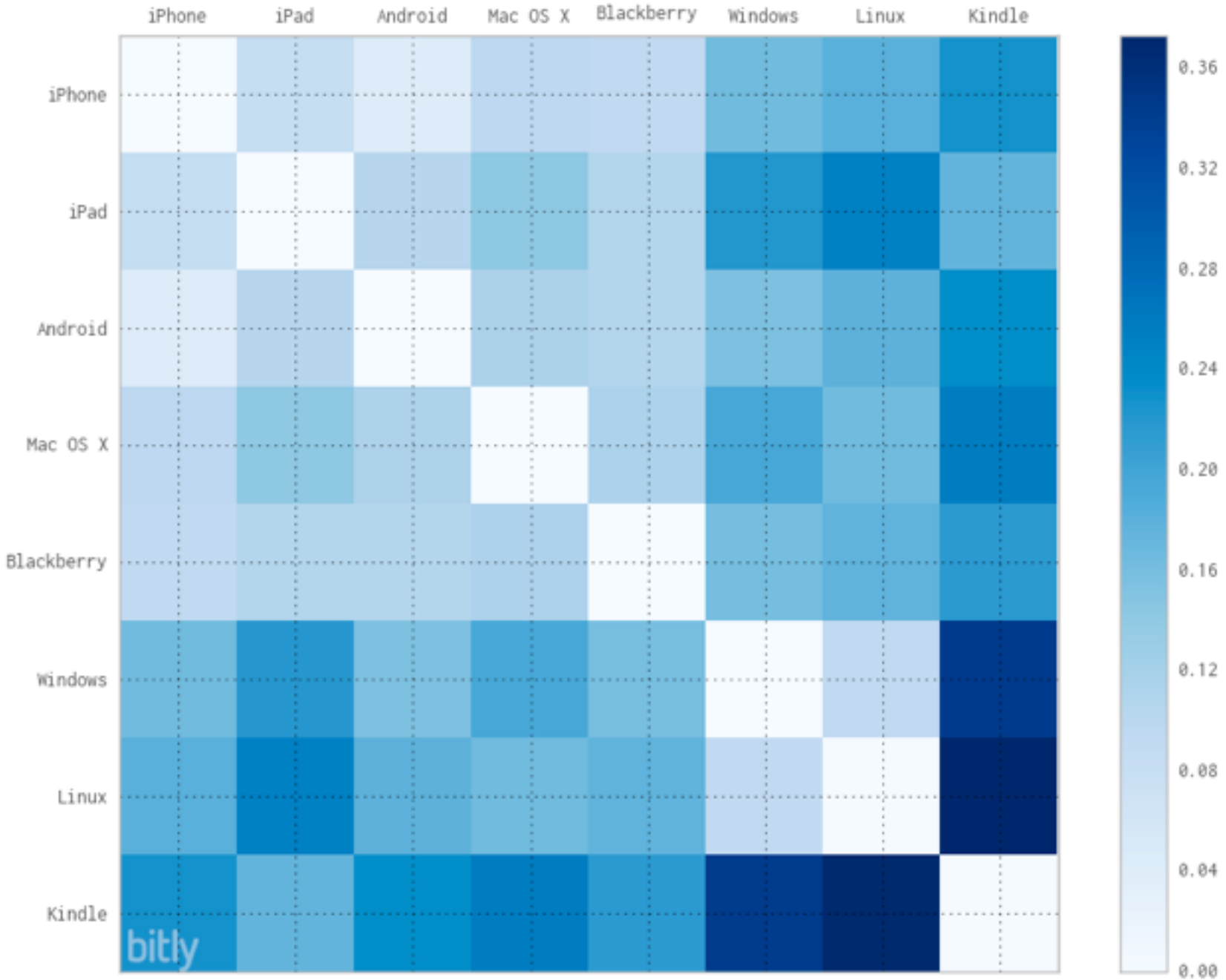
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Can we understand geographic relevance?

Clear Map Share Map

Click a news source to see where it's popular:

- New York Times
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- MSNBC
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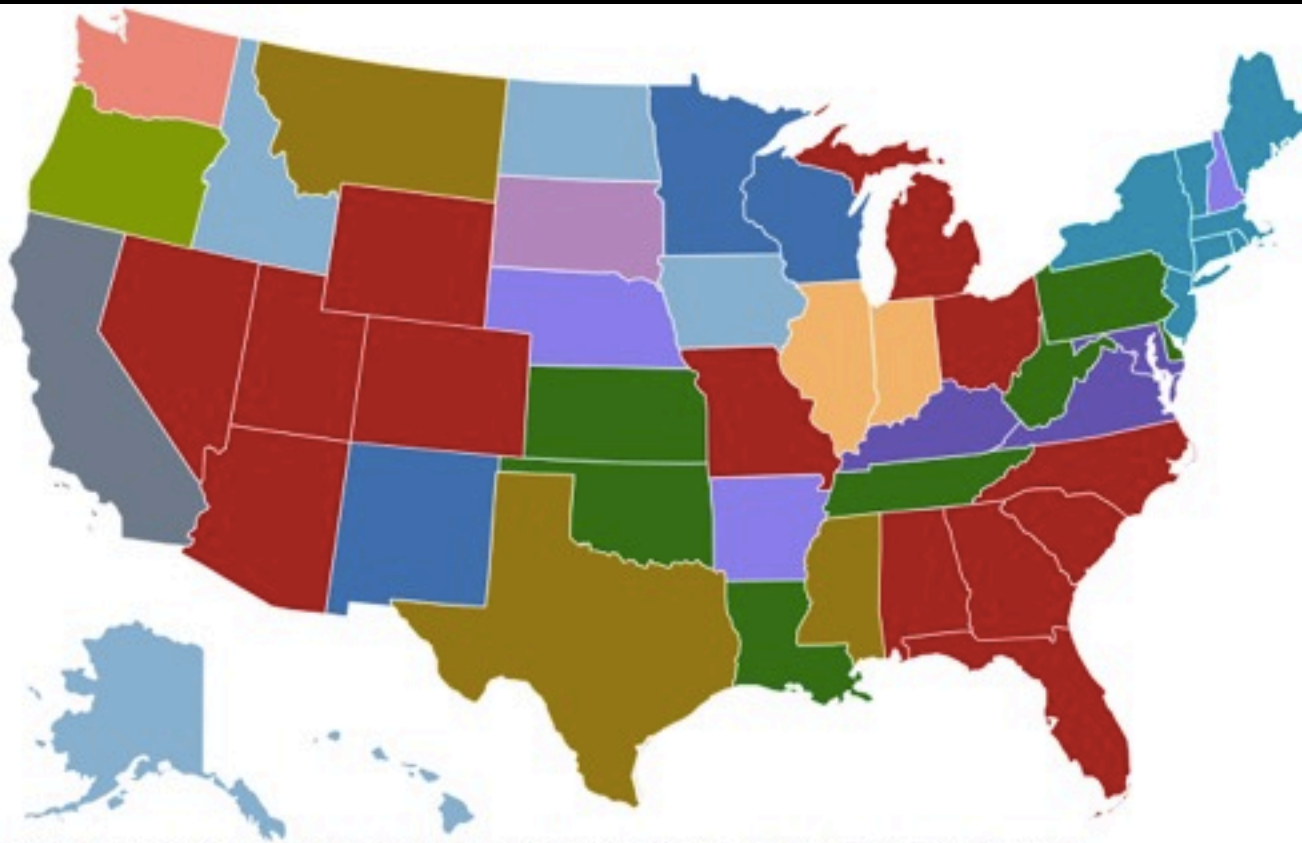
- Los Angeles Times
- Washington Post
- The Onion
- Al Jazeera
- Fox News
- Seattle Times
- Chicago Tribune
- ABC News
- CNN
- NPR
- Forbes



Data are for January 2012. Map shows relative popularity of news sources and links by state, as calculated by bit.ly.
Source: bit.ly

Forbes

Clear Map | Share Map

Click a news source to see where it's popular:

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- USA Today
- MSNBC
- Huffington Post
- Los Angeles Times
- Washington Post
- The Onion
- Al Jazeera*
- Wall Street Journal*
- Fox News
- Seattle Times
- Chicago Tribune
- ABC News
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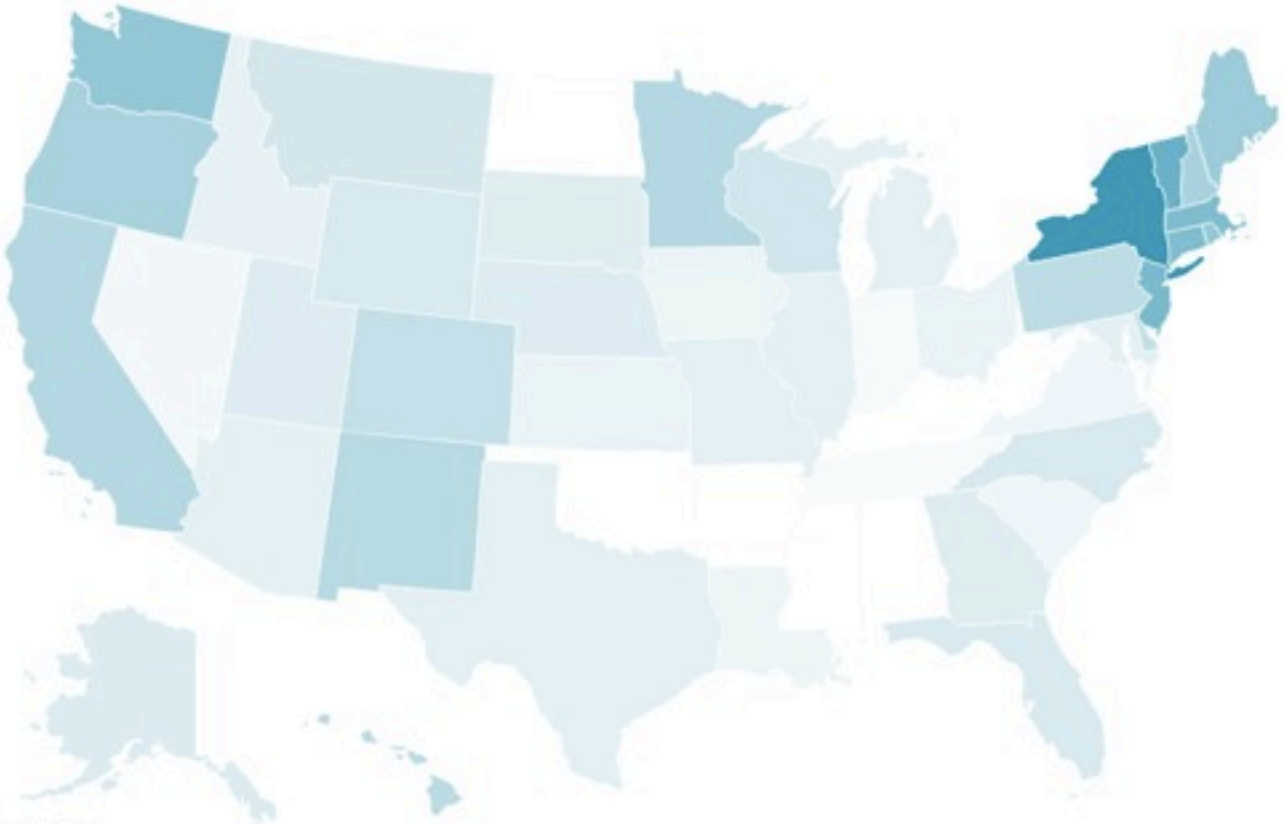


Source: Bitly
Data are for January 2012. Map shows relative popularity of news sources and links by state, as calculated by Bitly.
**These publishers have national audiences without exceptional distribution in any particular state. Click on a source to explore the distribution of its social media audience.*

Clear Map | Share Map

Click a news source to see where it's popular:

- New York Times
- USA Today
- MSNBC
- Huffington Post
- Los Angeles Times
- Washington Post
- The Onion
- Al Jazeera*
- Wall Street Journal*
- Fox News
- Seattle Times
- Chicago Tribune
- ABC News
- CNN
- NPR
- Forbes*
- Bloomberg News*

Choose a headline to see states where it was read frequently:

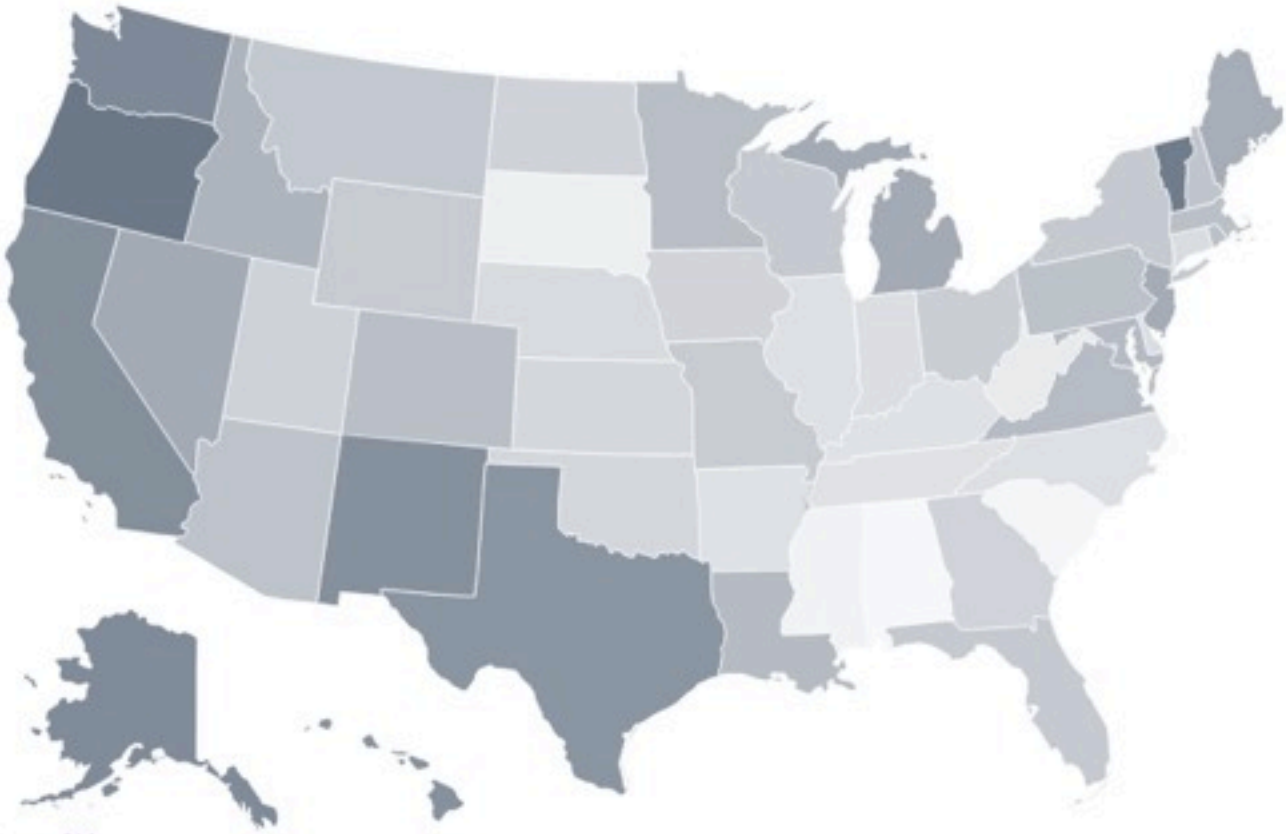
AJE - Al Jazeera English
See story stats Read story

Cancer Sell
See story stats Read story

AJE - Al Jazeera English
See story stats Read story

Argentina fines drugs firm over baby deaths - Americas - Al Jazeera English
See story stats Read story

AJE - Al Jazeera English
See story stats Read story



Source: Bitly
Data are for January 2012. Map shows relative popularity of news sources and links by state, as calculated by Bitly.
**These publishers have national audiences without exceptional distribution in any particular state. Click on a source to explore the distribution of its social media audience.*

Previous Blog home

How Bitly mapped Britain's news websites for us

Which news sites are read disproportionately highly across Britain? See how Bitly mapped Britain

- Click here to explore our interactive map
- Data journalism and data visualisations from the Guardian

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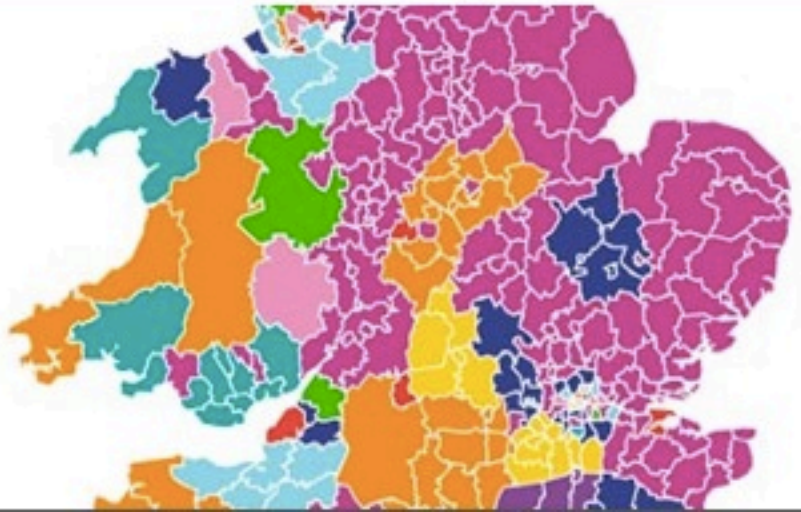
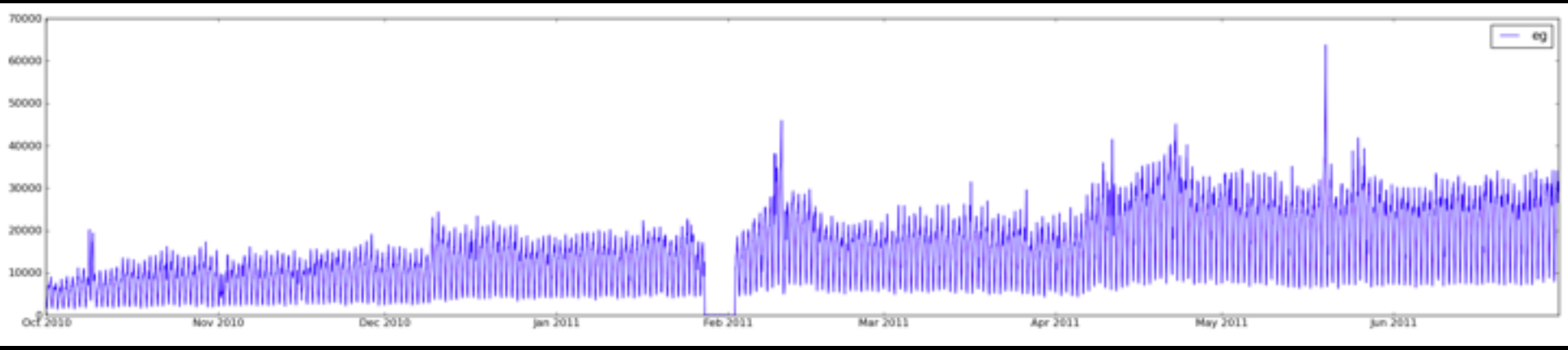
Tweet 51
+1 3
Email



Posted by
Simon Rogers
Wednesday 16 May 2012
10.29 EDT
guardian.co.uk
Comments (14)

The internet IS the real world.


eg
70000
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Oct 2010
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Dec 2010
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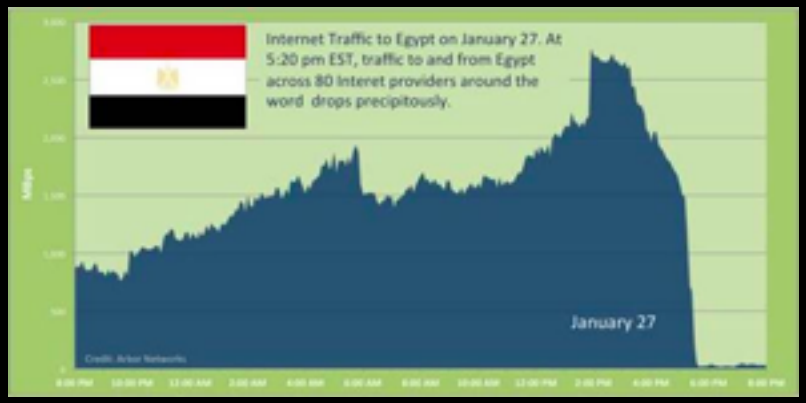
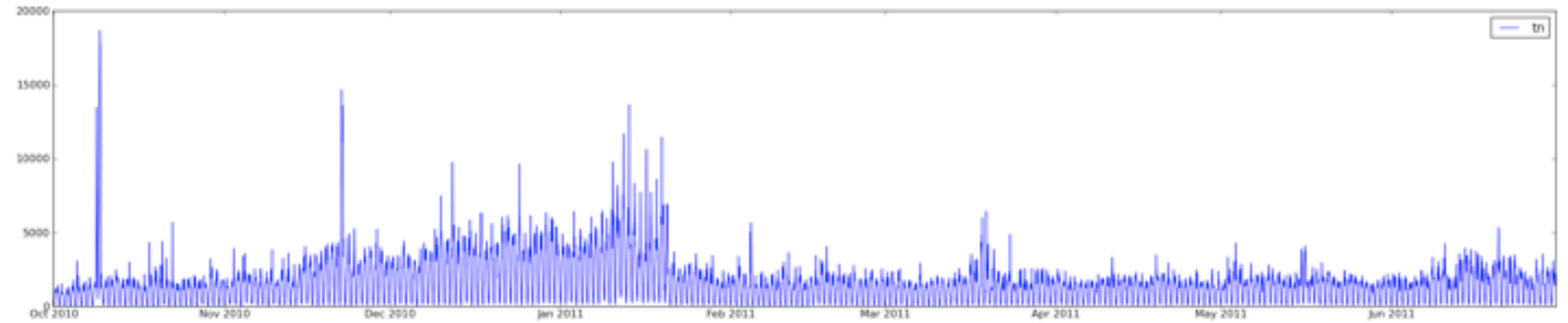
Apr 2011
May 2011
Jun 2011


Internet Traffic to Egypt on January 27. At 5:20 pm EST, traffic to and from Egypt across 80 Interet providers around the word drops precipitously.
Mbps
January 27
Credit: Arbor Networks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Oct 2010
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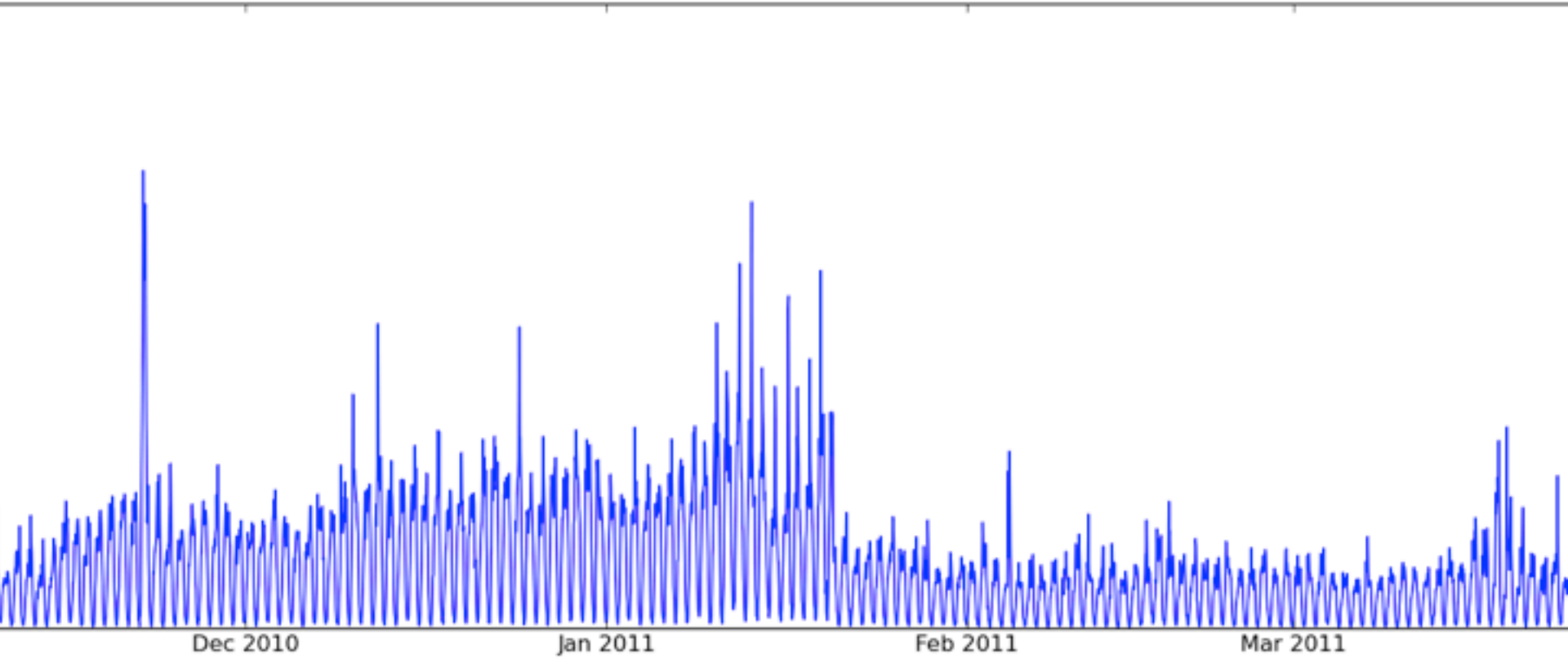
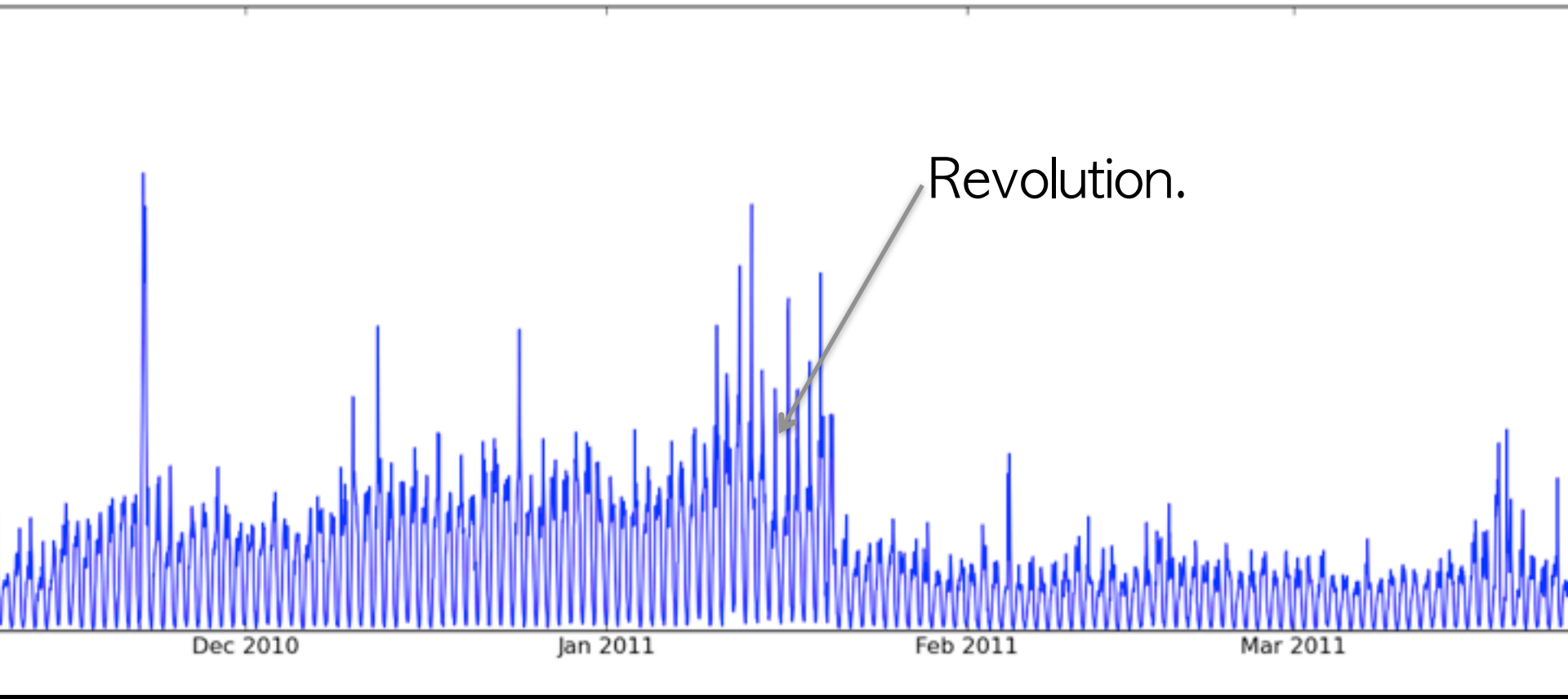
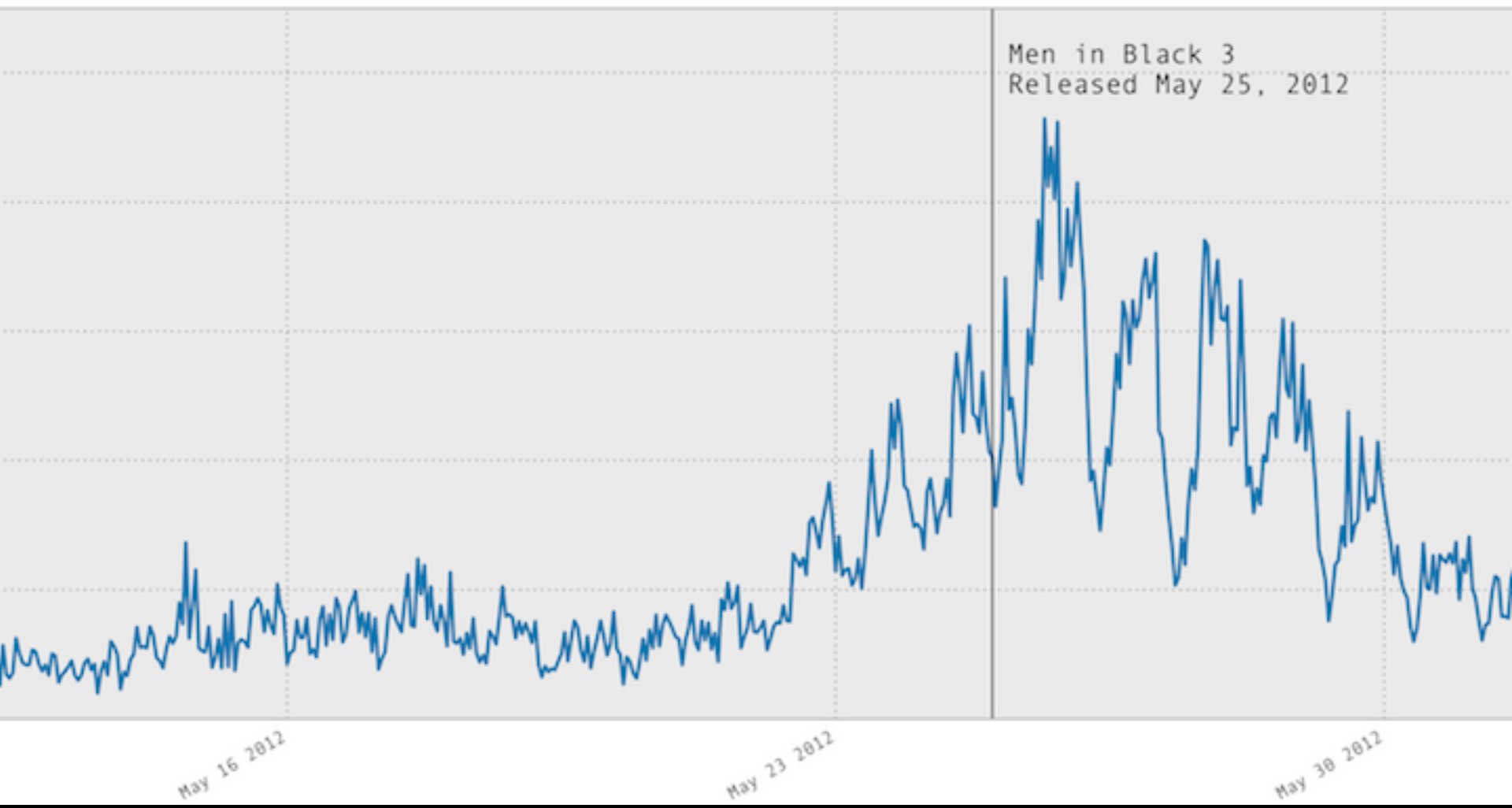
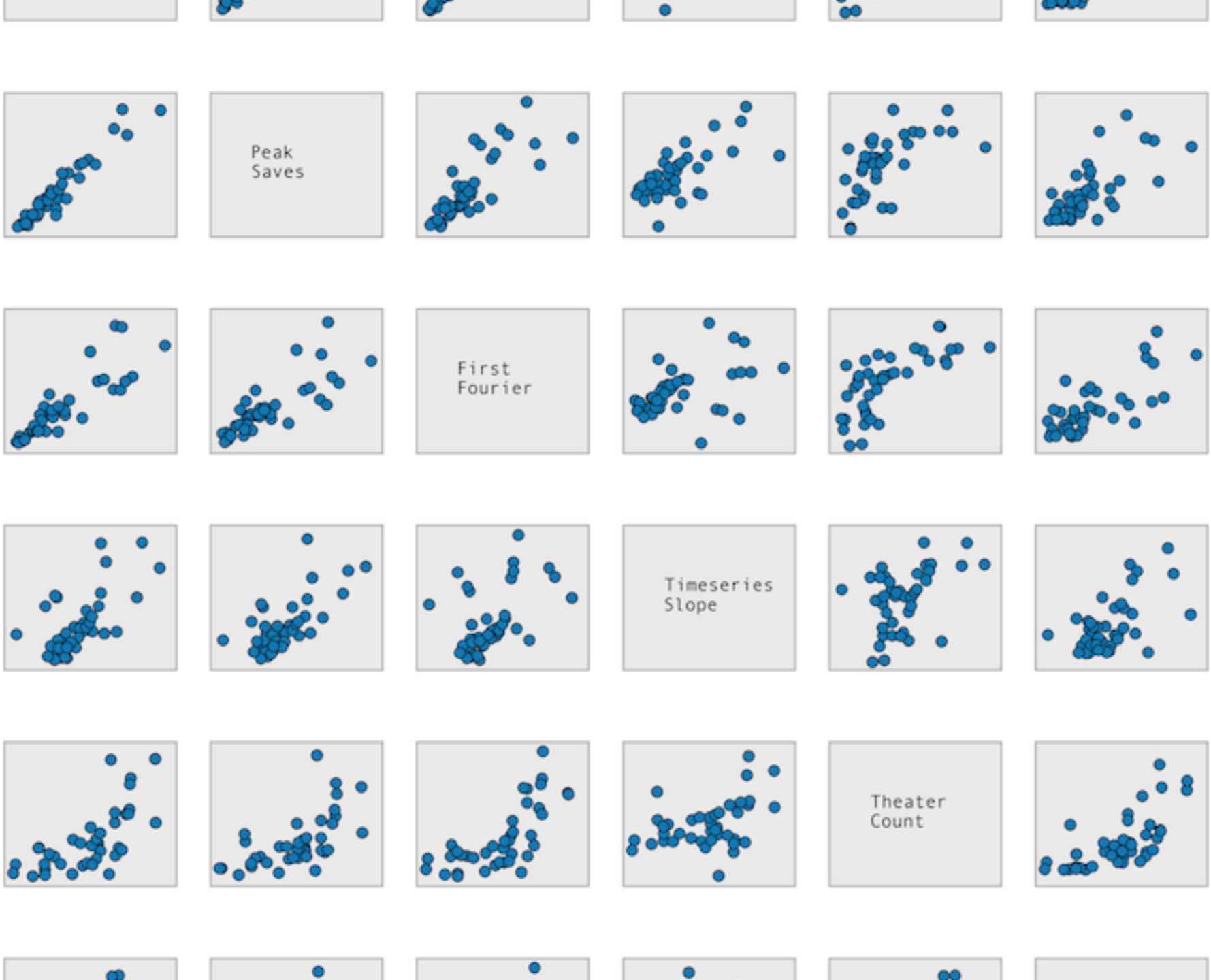
Apr 2011
May 2011
Jun 2011

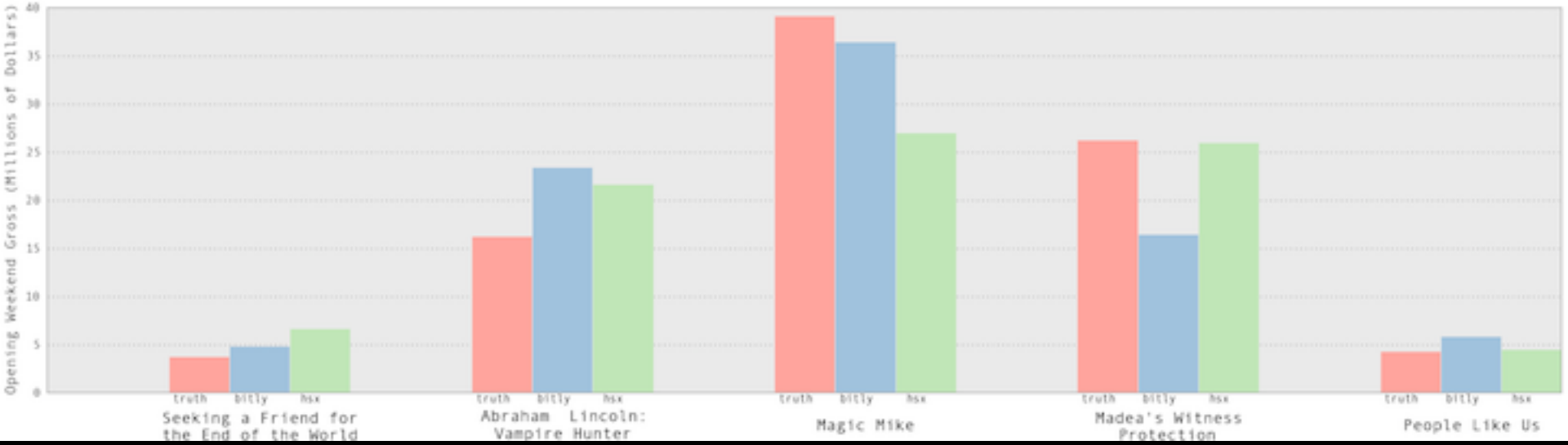

Dec 2010
Jan 2011
Feb 2011
Mar 2011


Revolution.
Dec 2010
Jan 2011
Feb 2011
Mar 2011

Can we predict real-world events?


Men in Black 3
Released May 25, 2012
May 16 2012
May 23 2012
May 30 2012


Peak
Saves
First
Fourier
Timeseries
Slope
Theater
Count


Opening Weekend Gross (Millions of Dollars)
40
35
30
25
20
15
10
5
0
truth
bitly
hsx
Seeking a Friend for the End of the World
Abraham Lincoln: Vampire Hunter
Magic Mike
Madea's Witness Protection
People Like Us

I'M A CHIKIN LOL

What People Share

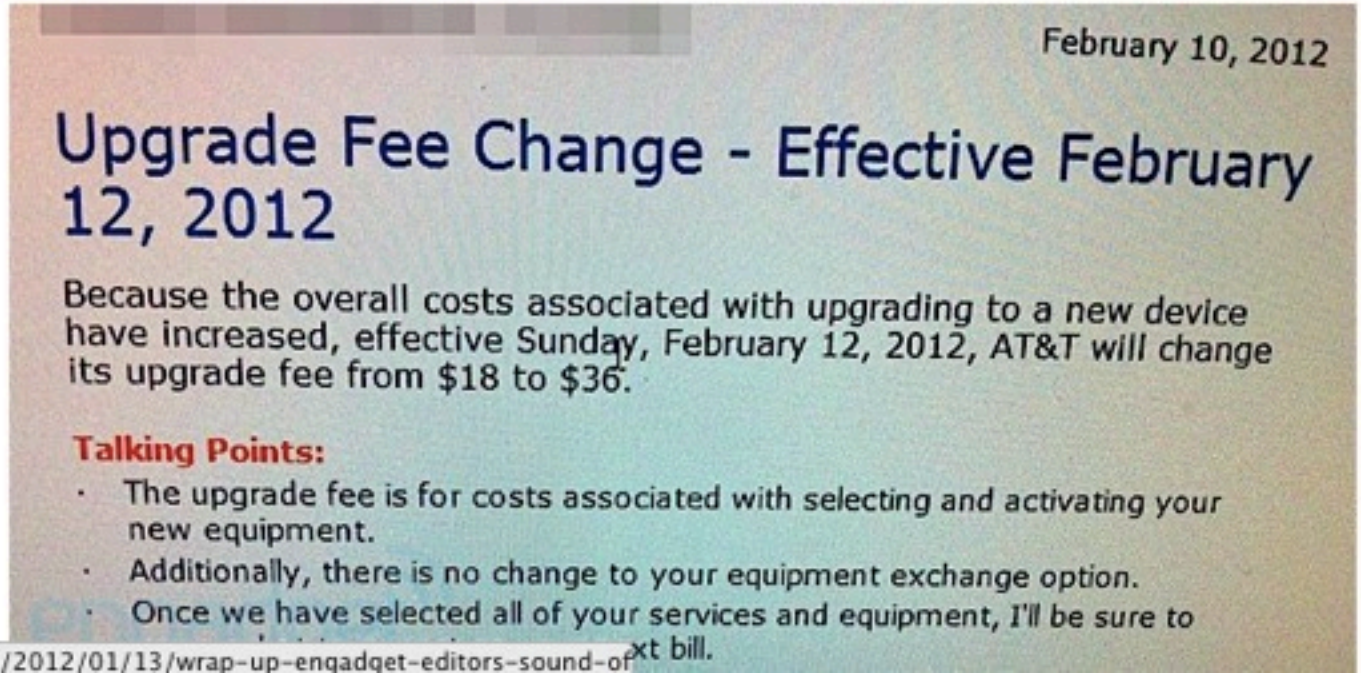
What People Share
What People Read
I'M A CHIKIN LOL

Things people share:

FILED UNDER *Wireless*

AT&T doubling its upgrade fee to $36 on February 12th (update: confirmed)

By Dante Cesa posted Feb 10th 2012 5:52PM



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10 February 2012 Last updated at 18:32 ET

457 Share

Twitter fuels Kim Jong-un assassination rumour

A rumour that North Korean leader Kim Jong-un was assassinated in Beijing has spread across social media websites all over the world.

The story apparently originated on Chinese microblog site Sina Weibo and was later picked up by Twitter users.

The reports were also carried on at least two fake BBC Twitter accounts, which have since been closed.

Kim Jong-un took over as leader when his father died last year

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Eight held over paymen

Iran to make nuclear an

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Valentine's Day Gifts for Him and for Her

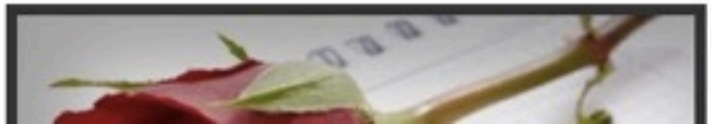
February 10, 2012 11:43 pm Sam Dating no comments

Valentines Day Gifts for Him and for Her

Valentine's Day is the day of love and a good **Valentine's Day gift** help to strengthen your love relationship as well as help to color your happiness of love. But what to buy for your beloved is a question. This article will guide you that what you should buy for your love one to realized her or him your passionate love and care.

As Les Miserables said, "**To love another person is to see the face of God**" To be loved by someone is the world greatest happiness. And the **Valentine's Day** is the best day to celebrate your happiness with your loved one's to strengthen your relationship. A romantic **valentine's gift** can be a greatest token of love from your side to your love one to make this Valentine's Day special.

Valentine's Day gifts for her:



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or the lake reserve n
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Cleanoscope: Kaleidoscopic Trash Bin Turns Discarded Objects Into Art

by Ana Lisa Alperovich, 02/10/12

filed under: Green cleaning, Green Products, Urban design

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Soccer's Alex Morgan

Following U.S. goalkeeper Hope Solo's naked lawn watering in ESPN The Magazine's body issue, Alex Morgan will be one of to pose in bodypaint for the upcoming Sports Illustrated swimsuit issue.

HIDE THUMBNAILS ▲

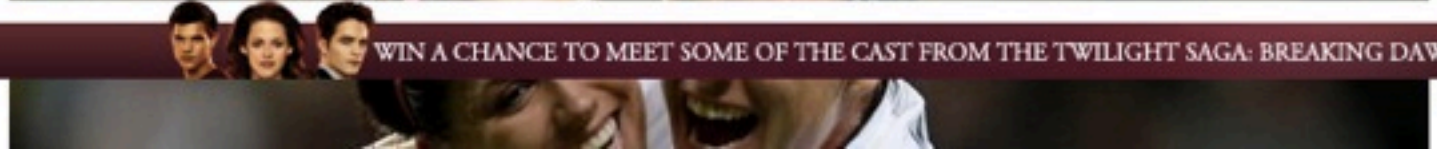
1 - 8 of 10

1 of 10 photos

Next ▶

FRANKFURT AM MAIN, GE
17: Alex Morgan (L) of USA
scoring the first goal with Ab
during the FIFA Women's W
match between Japan and

WIN A CHANCE TO MEET SOME OF THE CAST FROM THE TWILIGHT SAGA: BREAKING DAWN PT. 2 YAHOO! MOVIES FIN



by Friedemann Vogel/Getty

the cutest kitten

the cutest kitten

We all have extraordinary coded
within us, waiting to be released.
Lucky Numbers 16, 34, 27, 35, 6,

We all have extraordinary coded
within us, waiting to be released.
Lucky Numbers 16, 34, 27, 35, 6,
AT SCALE

1. Research offline

2. Do fancy math – find the shortcuts

3. Design infrastructure

4. Re-design to run at scale and speed

Realtime Search

Realtime Search

Attributes calculated either at index time or query time.

Rankings can vary by second.

What are people paying attention to right now?

actual rate of clicks on phrases

vs

expected rate of clicks on phrases

Dragoneye

We calculate clickrate with a sort of moving average:

$$r(t) = \sum_i \int \phi(t - \tau_i)\delta(\tau_i)d\tau$$

where $t \geq max(tau_i)$

Dragoneye

We represent as a sum of delta spikes.

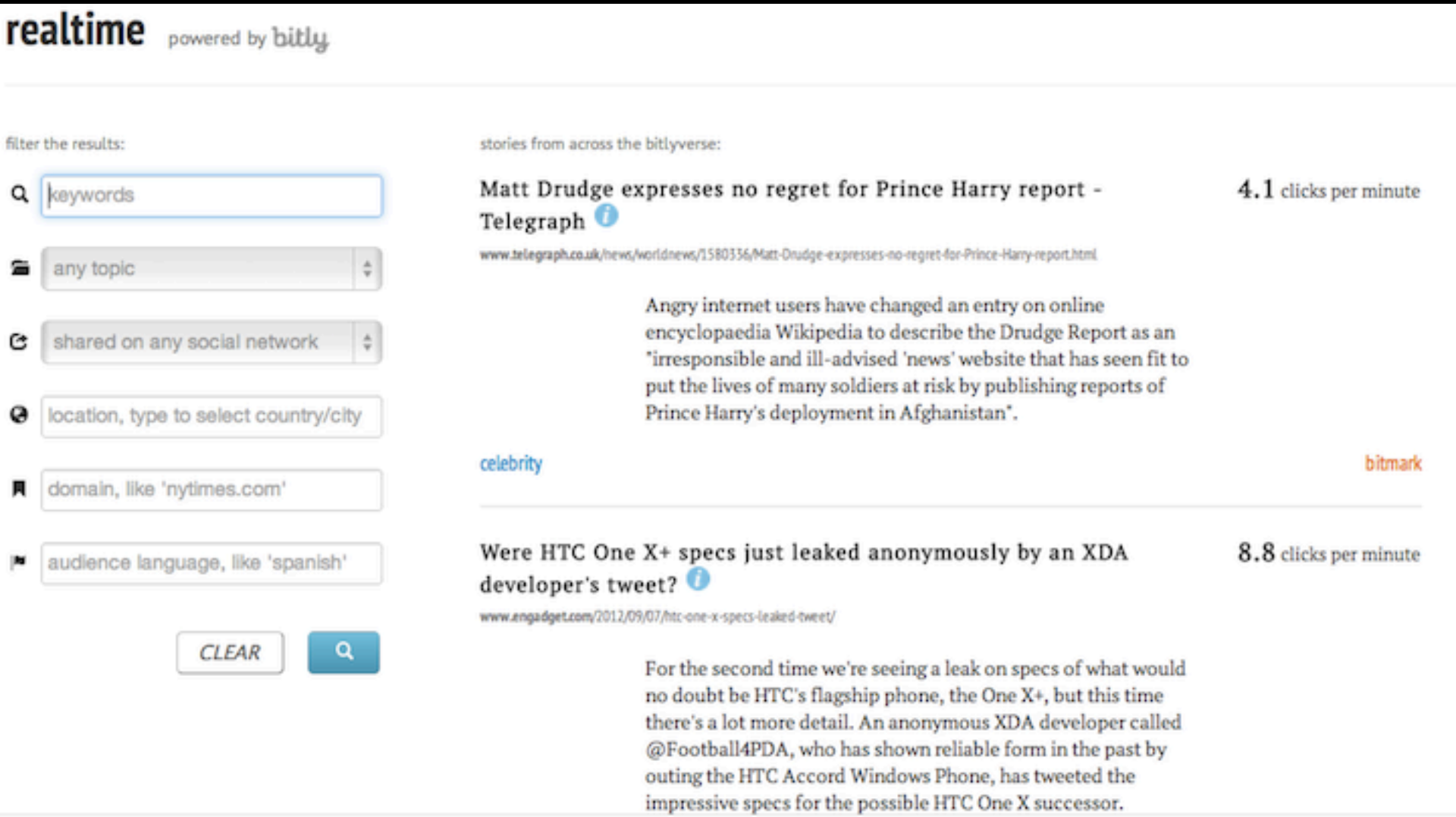
This simplifies to: $$r(t) = \sum_i \phi(t - \tau_i)$$

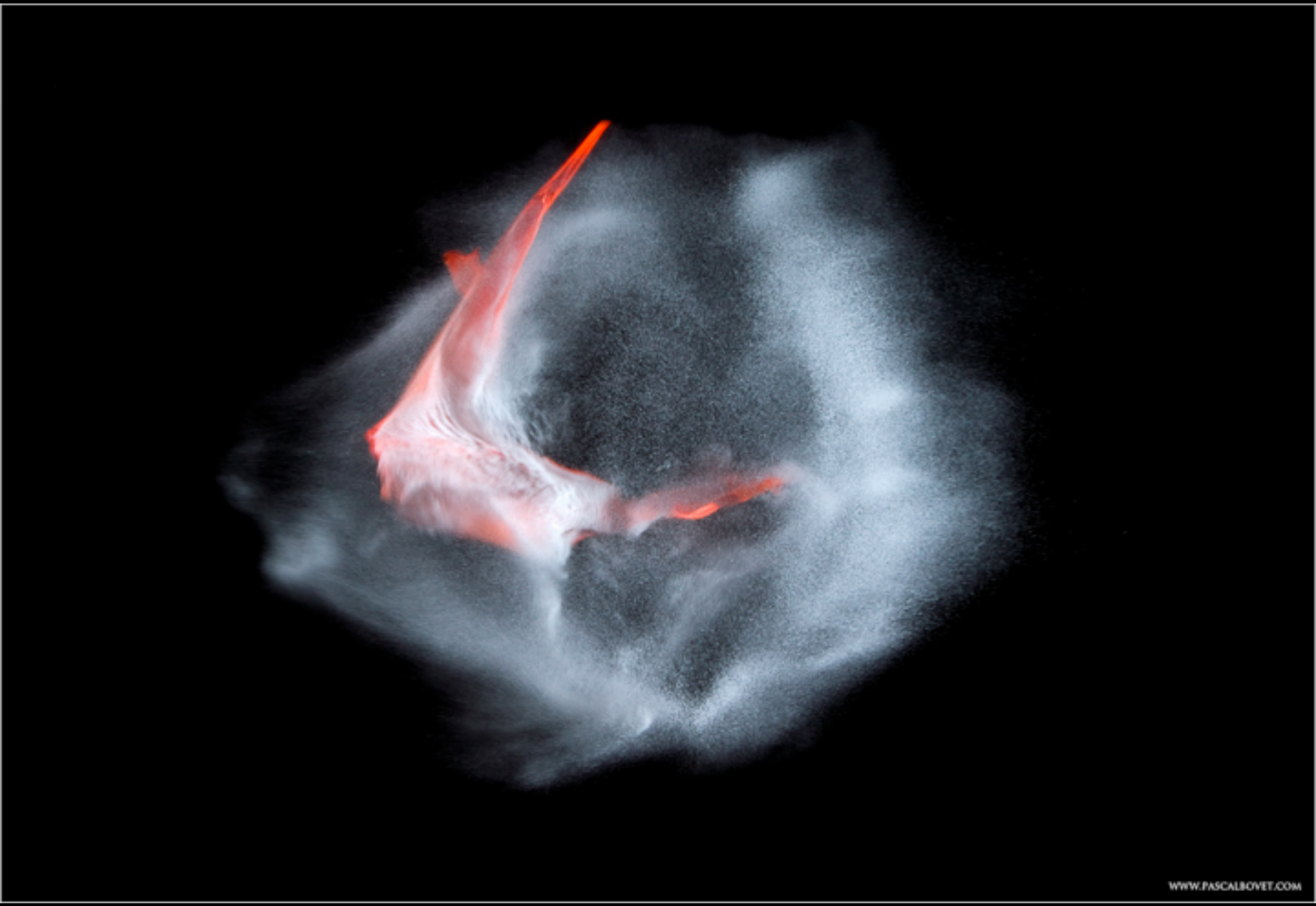
Dragoneye

Choosing ϕ is important.

It must be interpretable, and smooth (but not too smooth).

We use a distribution for ϕ that is a function that sums to 1. The function is 0 at the origin.


realtime
powered by bitly
filter the results:
keywords
any topic
shared on any social network
location, type to select country/city
domain, like 'nytimes.com'
audience language, like 'spanish'
CLEAR
stories from across the bitlyverse:
Matt Drudge expresses no regret for Prince Harry report - Telegraph
4.1 clicks per minute
www.telegraph.co.uk/news/worldnews/1580336/Matt-Drudge-expresses-no-regret-for-Prince-Harry-report.html
Angry internet users have changed an entry on online encyclopaedia Wikipedia to describe the Drudge Report as an "irresponsible and ill-advised 'news' website that has seen fit to put the lives of many soldiers at risk by publishing reports of Prince Harry's deployment in Afghanistan".
celebrity
bitmark
Were HTC One X+ specs just leaked anonymously by an XDA developer's tweet?
8.8 clicks per minute
www.engadget.com/2012/09/07/htc-one-x-specs-leaked-tweet/
For the second time we're seeing a leak on specs of what would no doubt be HTC's flagship phone, the One X+, but this time there's a lot more detail. An anonymous XDA developer called @Football4PDA, who has shown reliable form in the past by outing the HTC Accord Windows Phone, has tweeted the impressive specs for the possible HTC One X successor.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philosophy

simple math 〉 fancy math

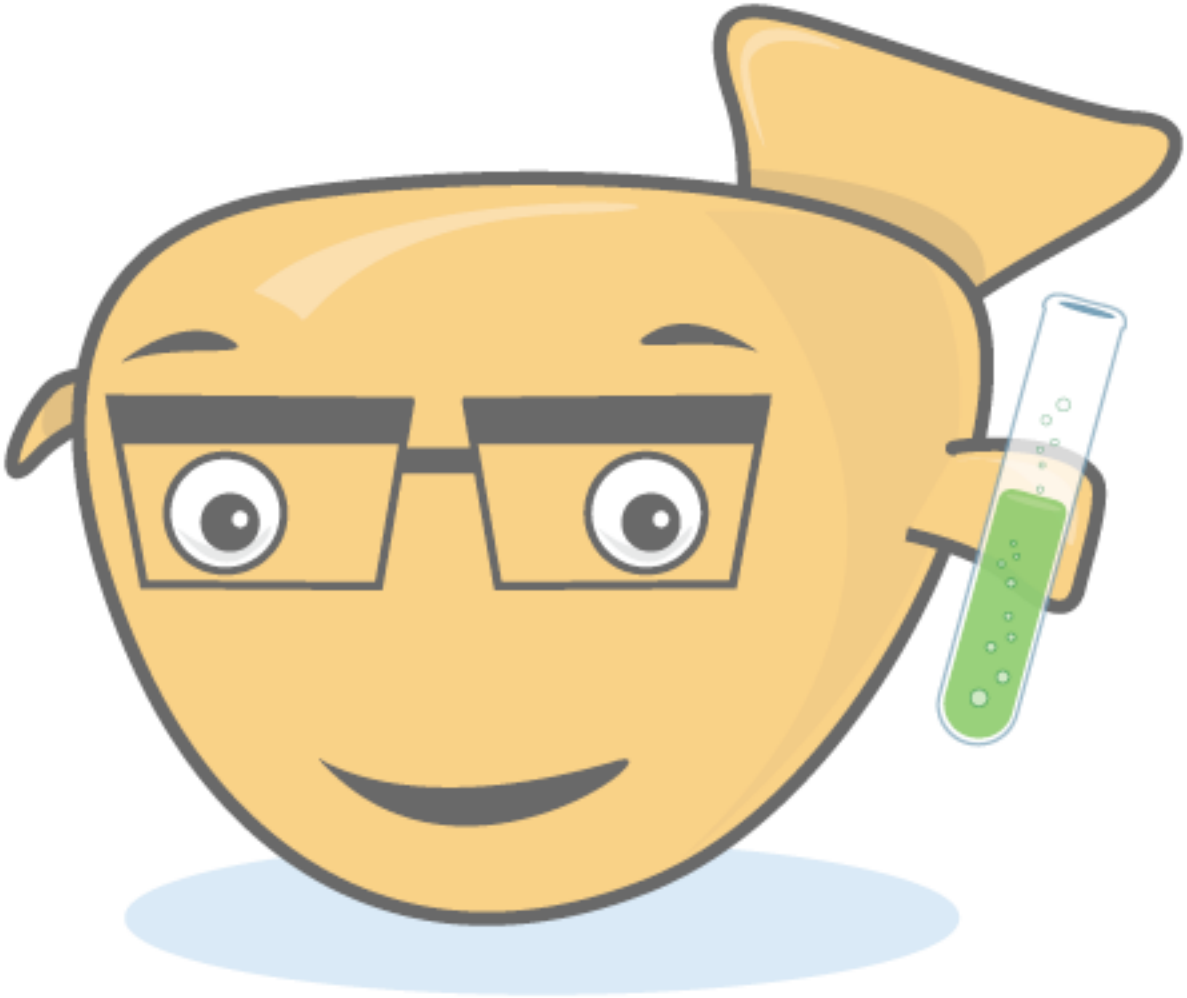
WINNING

How do we know
when we've won?

How do we communicate what we've learned effectively?

Ask the crazy questions.

Thank you!



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@hmason