

Address, City, State, and/or Zip  
3405 Michigan Union 530 S. State Street

Current City: Ann

- Ann Arbor, Michigan  
51,001 like this · 752,64...
- Lake Ann, Michigan  
785 like this · 8,350 wer...
- Saint Ann'S Bay, Saint A...  
742 like this · 3,583 wer...
- Saint Ann, Missouri  
533 like this · 3,920 wer...

Location: Ann Arbor, MI  
Where in the world are you?

家乡: 安

- 安庆
- 安顺
- 安康

SKYHOOK  
WIRELESS



# Positioning

Spatial Computing – University of Minnesota



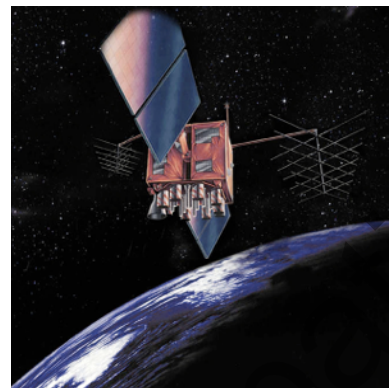


102.111.321.5



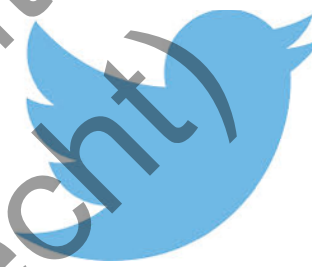
flickr

Signal-based Content-based  
Positioning Positioning



Determining the location of a client's device  
**Signal-based Positioning**  
(e.g. for a mobile map, location-based service, scientific application)

102.111.321.5



**flickr**

Used when no signal-based position is available

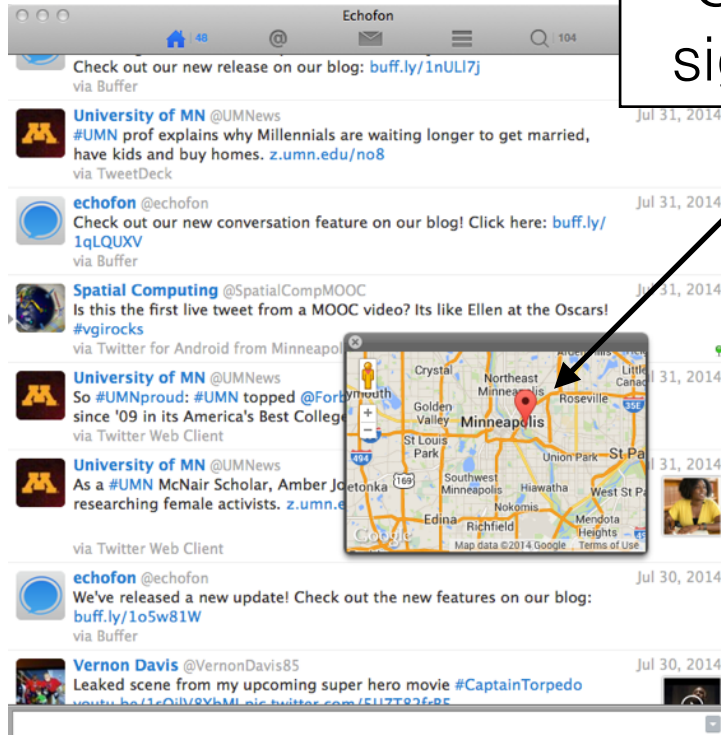
(e.g. location inference in online communities)

**Content-based Positioning**

Used when signal-based positioning is not useful for your needs  
(e.g. need "home" not "current" location)



Geotags in tweets generally come from signal-based positioning in smartphones



Twitter API

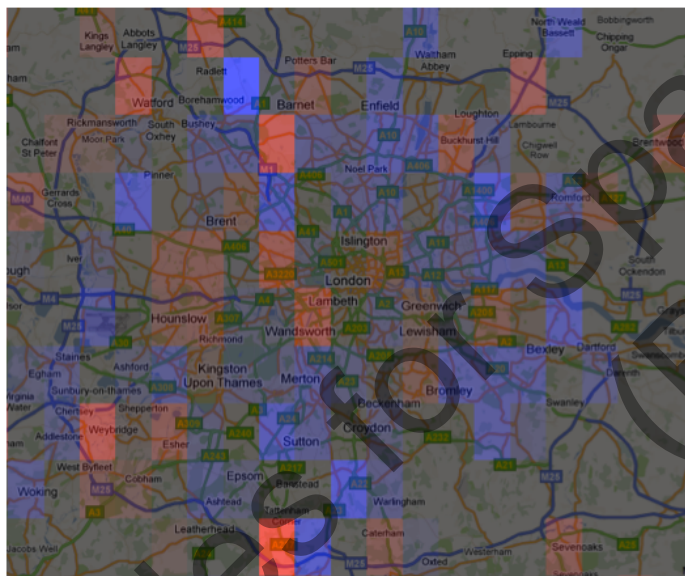
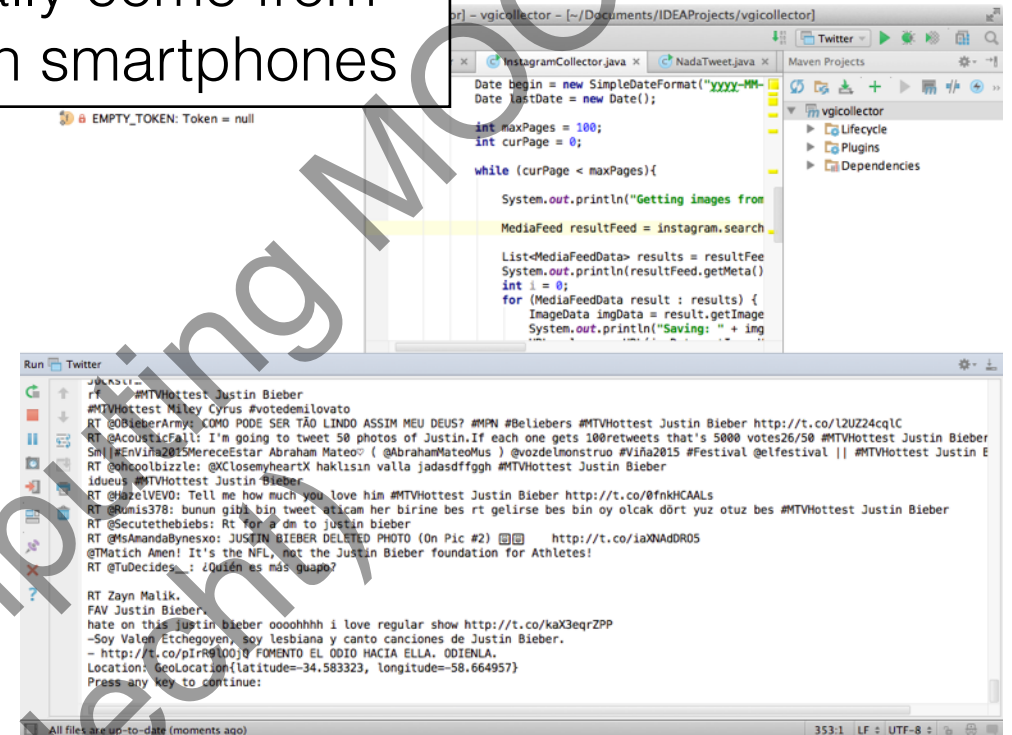
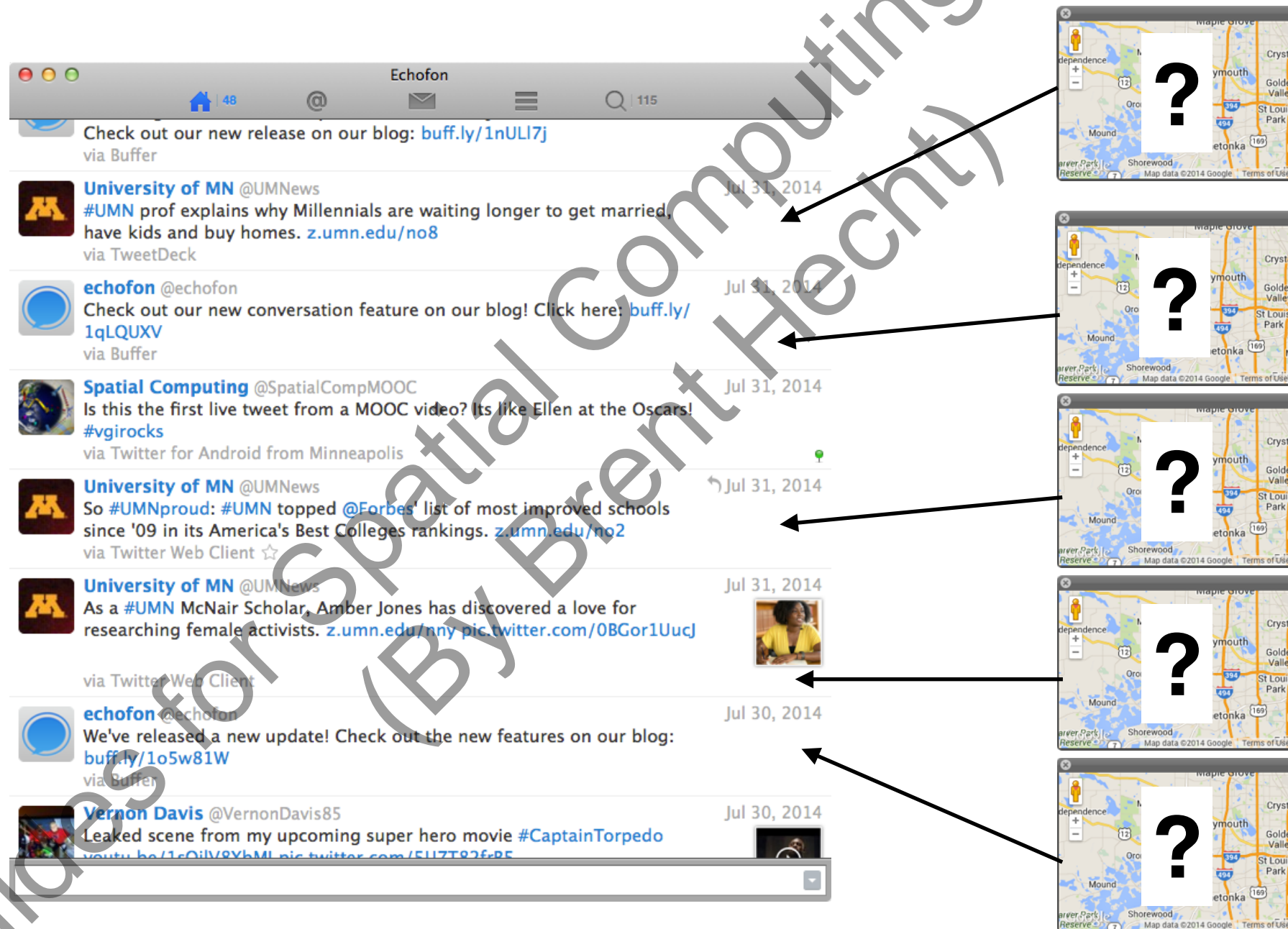


Figure 2. Mapping “Gross Community Happiness” in Greater London (best seen in color).

(Quercia et al. 2012)

Sentiment Analysis Algorithms

# Only 1-3% of tweets are geotagged!





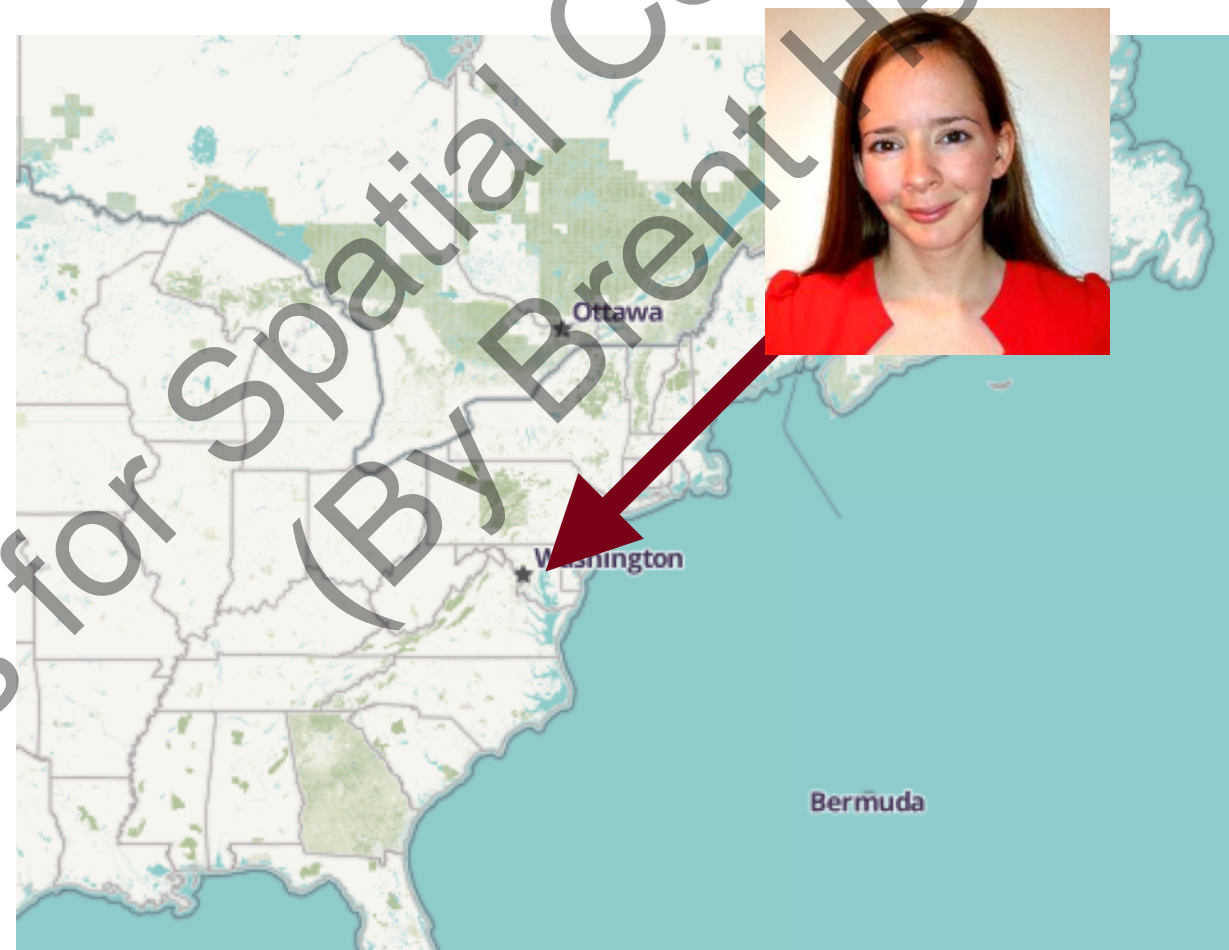
**edchi** edchi

wonderful afternoon at the 20th anni. of HCI at StanfordU. Terry Winograd toasted by many, inc. my ex and current boss: S.Card and L.Page.

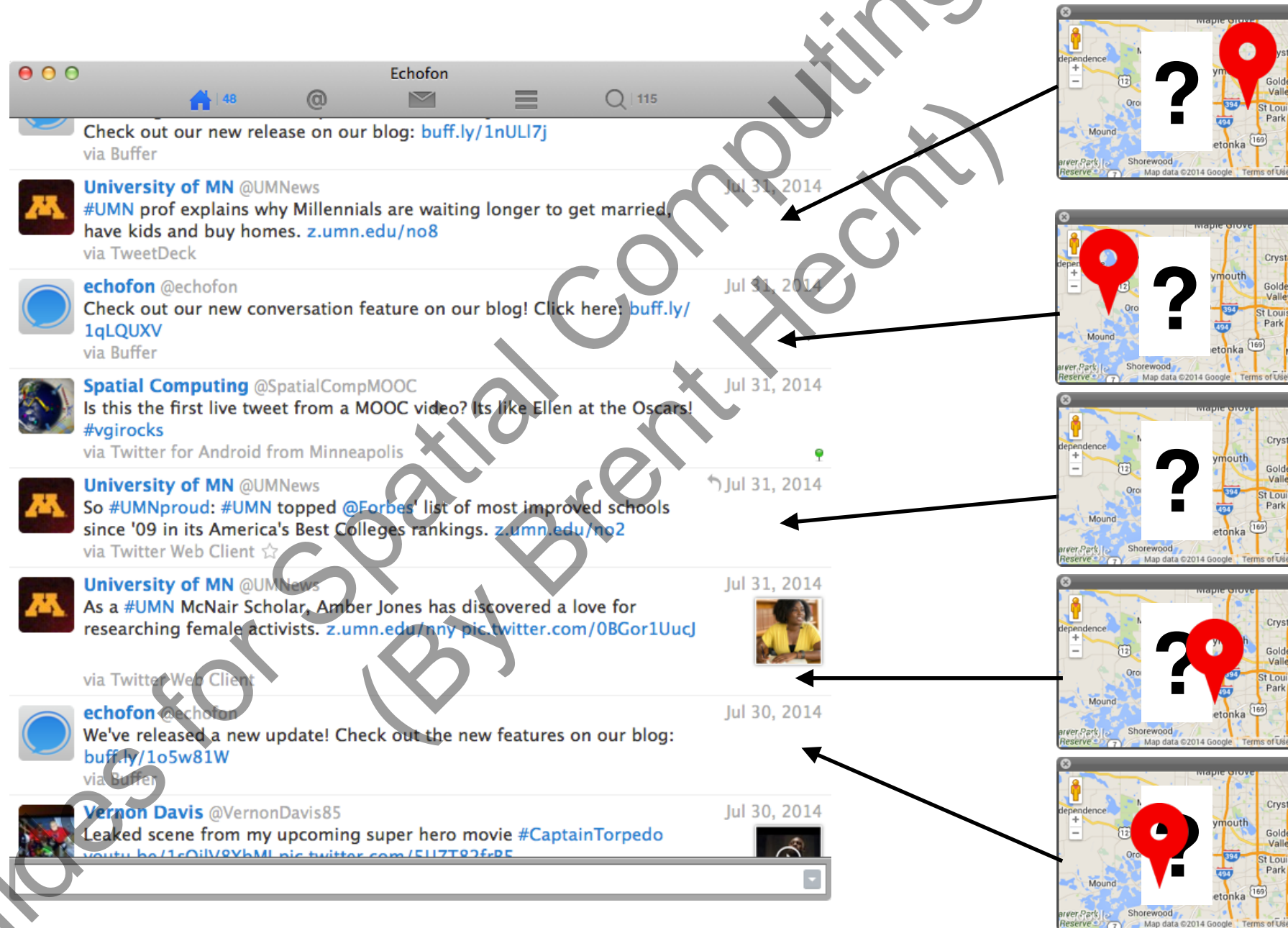
21 Feb







# Only 1-3% of tweets are geotagged!





102.111.321.5



**flickr**

## **Content-based Positioning**

The use of implicit and explicit geographic information contributed or consumed by Internet users to generate a position for these users (with or without their knowledge or consent).

We'll cover the following content-based positioning-related topics:

**1 Geoparsing:** Extracting place names from natural language text

**2 “Home Locations”:** The dynamics of location fields in user profiles (and more)

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## Attributions

Twitter location maps © OpenStreetMap contributors ([www.openstreetmap.org/copyright](http://www.openstreetmap.org/copyright))

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