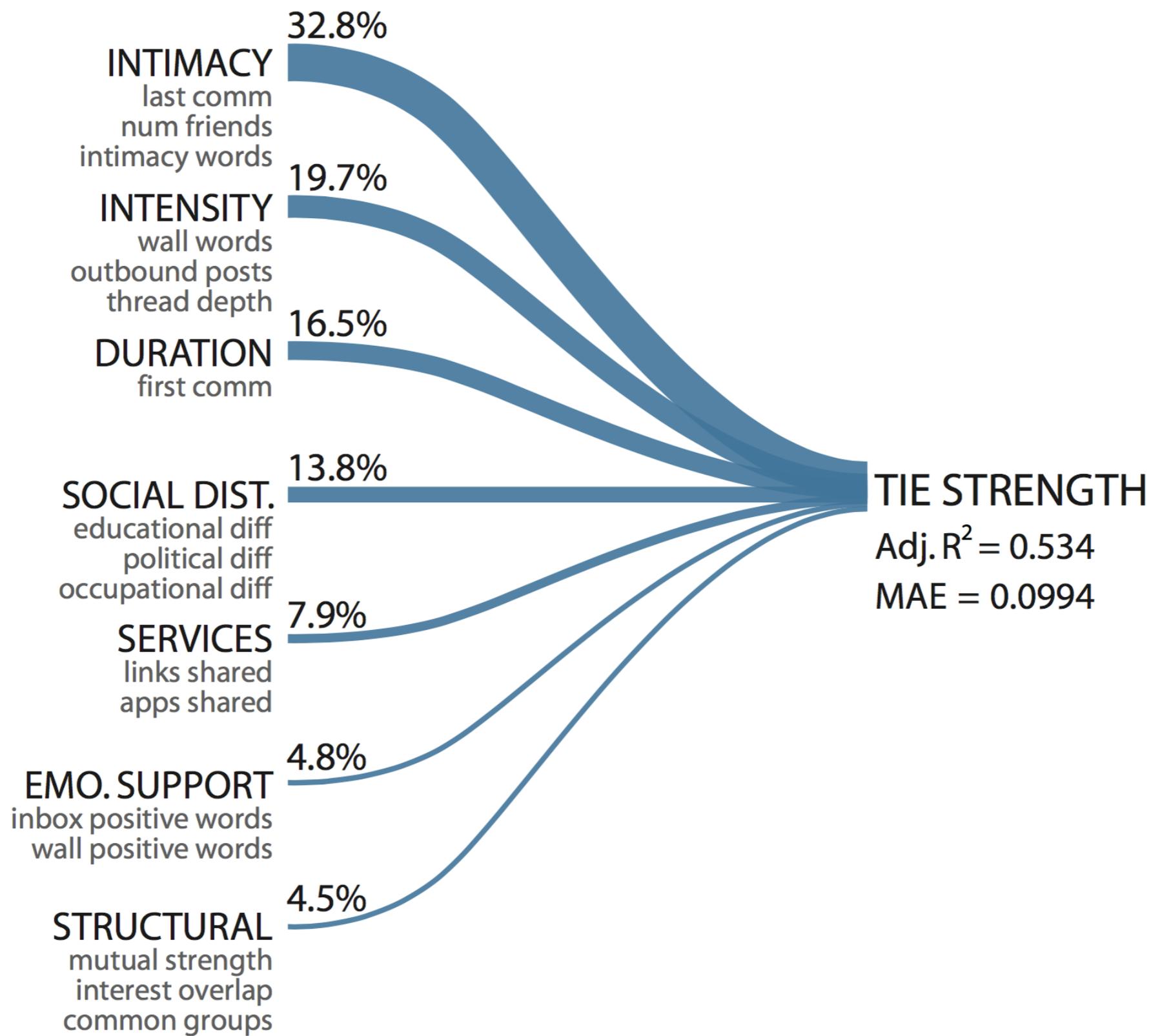
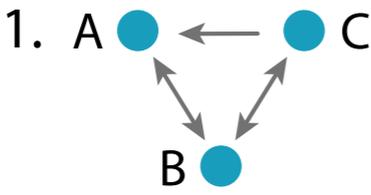
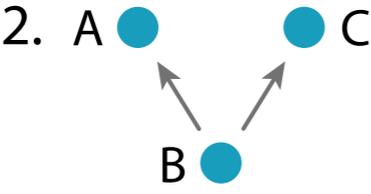
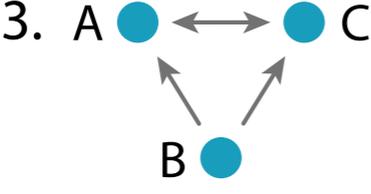
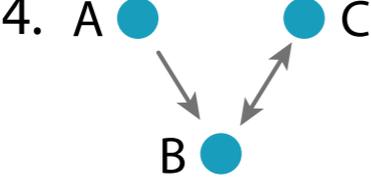
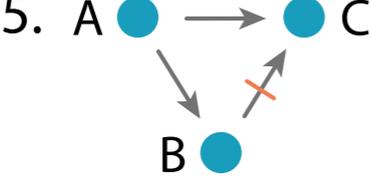
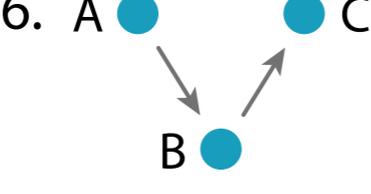


eric gilbert | asst prof | georgia tech

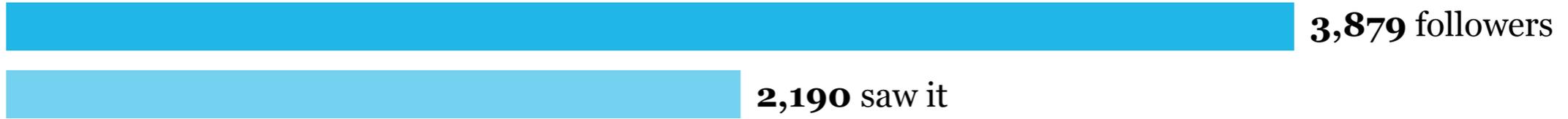


[Gilbert & Karahalios. CHI 2009]

| Triad  | Trait          | Example design problem  |
|--|----------------|---|
| 1.    | Visibility     | When chatting with A and C, how does B not highlight the “forbidden triad?”       |
| 2.    | Visibility     | B hears something from A relevant to C. How does B bring it to C’s attention?     |
| 3.    | Awareness      | Are A and C always aware that B hears everything they say to one another?         |
| 4.  | Awareness      | A can hear what B says to C, but not what C says back.<br>* addressed by Twitter. |
| 5.  | Awareness      | A followed C because B did. Now B severed the tie. Does A still want to follow?   |
| 6.  | Accountability | B can take credit for what C says, since A only hears C through B.                |

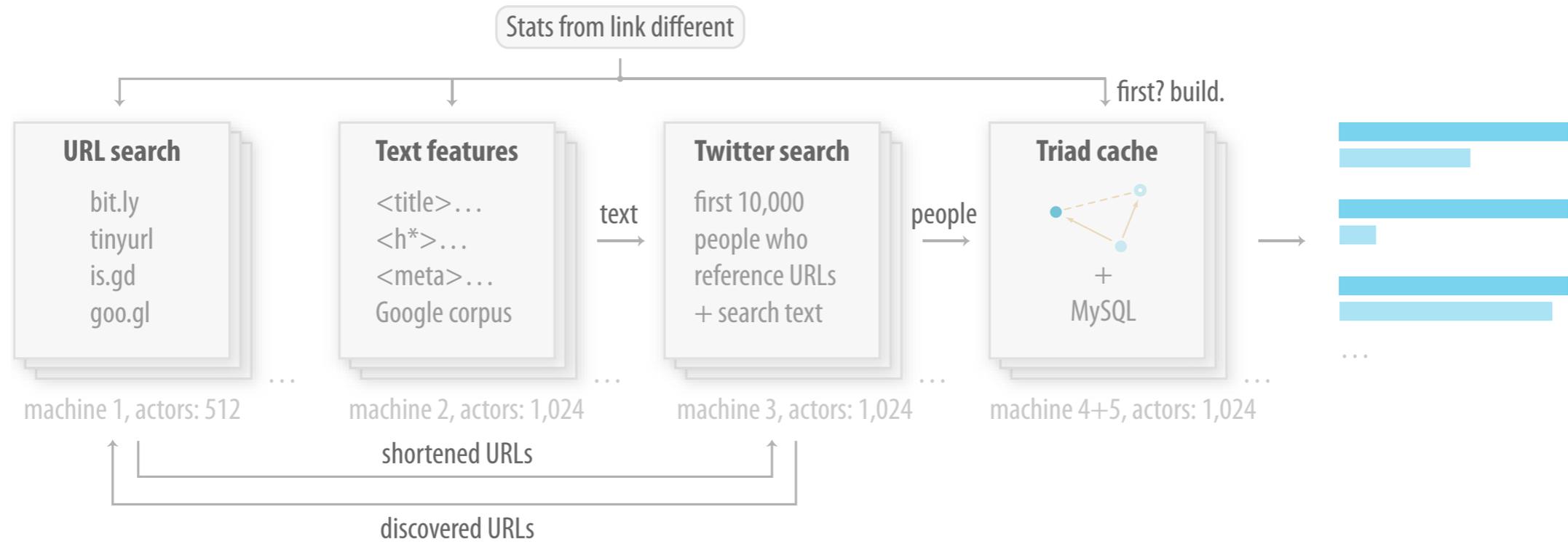
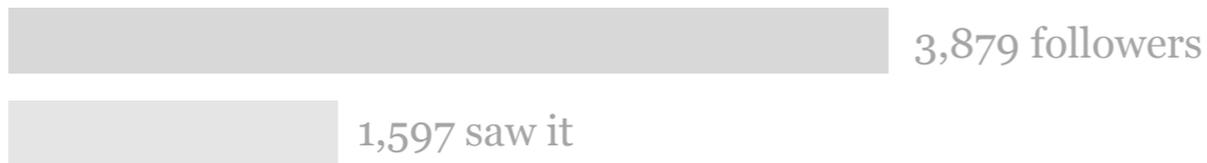
# Link Different

<http://bit.ly/a45Hgb> copy who?

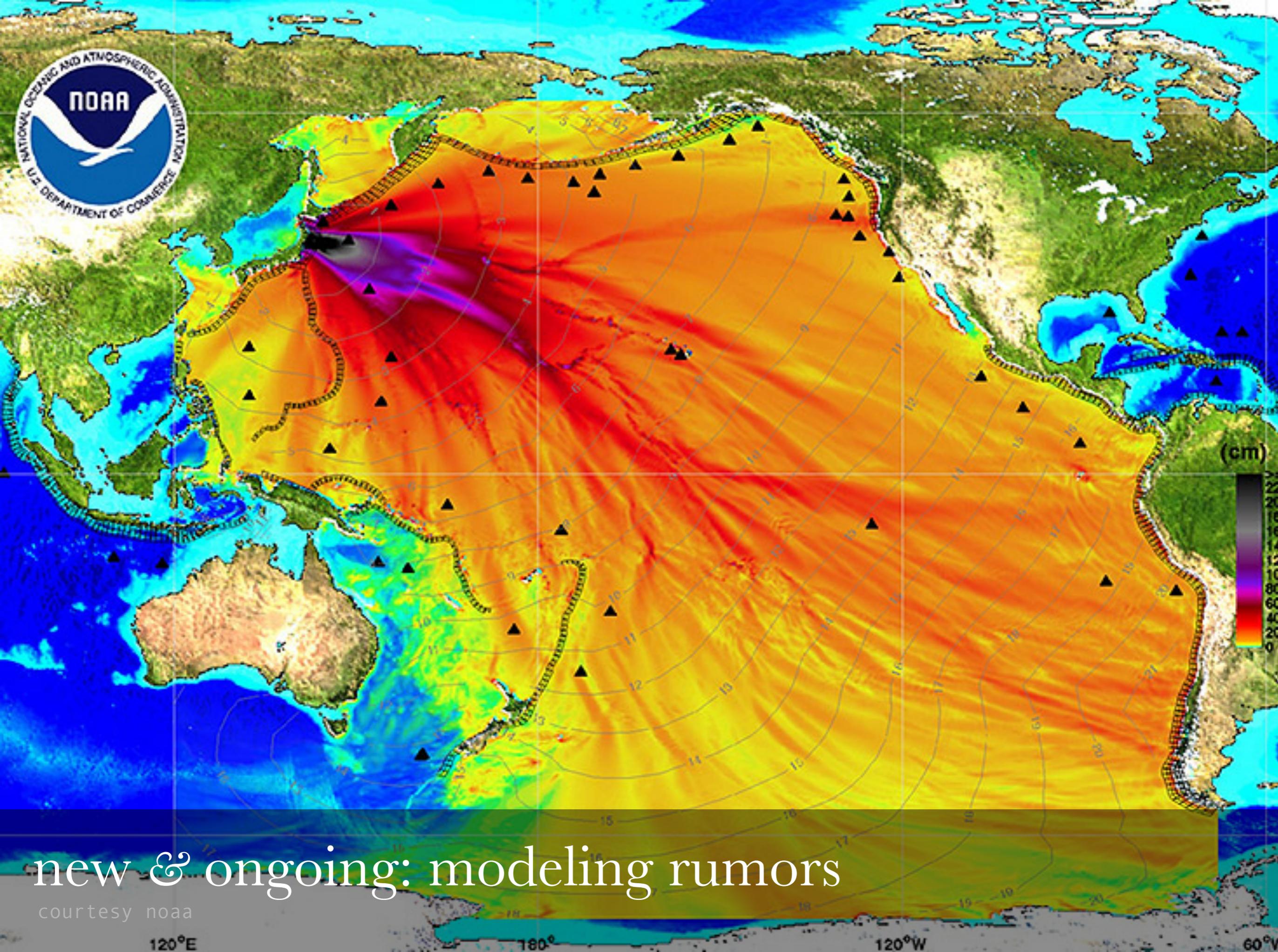


EARLIER

<http://bit.ly/JT679N>



[Gilbert. CHI 2012]



new & ongoing: modeling rumors

courtesy noaa

120°E

180°

120°W

60°N

### 1 Streaming + preprocessing (MC)

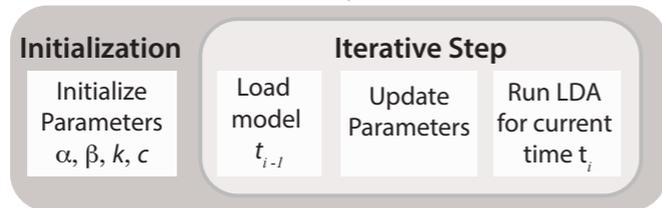
Streaming API: 1% sample

Every 1M tweets



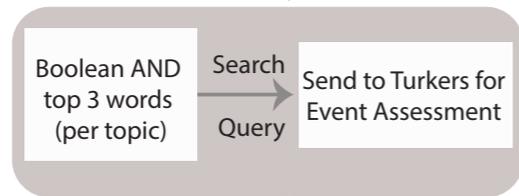
Processed tokens

### 2 Online LDA (MC)



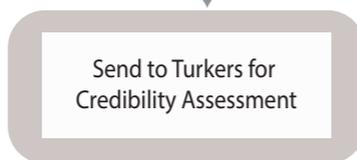
k-Topics

### 3 EventAssess (HC)



Search Queries for Agreed upon Events

### 4 CredAssess (HC)



### 5 SearchTwitter (MC)



Time Duration of Collection = 96 days

#### D<sub>p</sub>: Processed Tweets

| tweetID | tweet_post_time     | tweet_json            |
|---------|---------------------|-----------------------|
| 530884  | 2014-11-05 19:48:56 | {text:...,author:...} |
| ⋮       | ⋮                   | ⋮                     |

Streaming Tweets tracked via Streaming API  
**1,086,942,494**  
(~ 1.09 billion)

#### T<sub>s</sub>: Topics

| topic#             | word1, word2, word3, ..., word <sub>i</sub> |
|--------------------|---|
| topic <sub>1</sub> | p(w <sub>1</sub>  t <sub>1</sub> ) .....    |
| ⋮                  | ⋮   |
| topic <sub>j</sub> | p(w <sub>1</sub>  t <sub>j</sub> ) .....    |
| ⋮                  | p(w <sub>i-1</sub>  t <sub>j</sub> )        |

Total topics annotated  
**46,850**

Event/Non Event annotations  
**468,500**

#### E<sub>s</sub>: Event\_Annotations

| topic#             | Search Query                                     | 10-Turker Responses | Event Assessment | (if Event) Summarization |
|--------------------|--|---------------------|------------------|--------------------------|
| topic <sub>1</sub> | q=w <sub>1</sub> &w <sub>2</sub> &w <sub>3</sub> | [1,0,-1...1]        | 1(Event)         | [Messi scored,           |
| ⋮                  | ⋮  | ⋮                   | ⋮                | ⋮                        |
| topic <sub>j</sub> | ⋮  | [0,0,0,0...1]       | 0(NonEvent)      | ⋮                        |
| ⋮                  | ⋮  | ⋮                   | ⋮                | ⋮                        |

Topics agreed upon as Events  
**1049**

#### C<sub>s</sub>: Credibility\_Annotations

| topic#             | Search Query                                     | 30-Turker Responses | Turker Reasonings           | Turker Response Time |
|--------------------|--|---------------------|-----------------------------|----------------------|
| topic <sub>1</sub> | q=w <sub>1</sub> &w <sub>2</sub> &w <sub>3</sub> | [2,2...1]           | [News sources confirm,..    | 2014-11-05 19:48     |
| ⋮                  | ⋮  | ⋮                   | ⋮                           | ⋮                    |
| topic <sub>j</sub> | ⋮  | [-1,0..2]           | [Lots of people tweeting,.. | ⋮                    |
| ⋮                  | ⋮  | ⋮                   | ⋮                           | ⋮                    |

Total Credibility Annotations  
**31,470**

#### S<sub>tweets</sub>: Searched\_Tweets

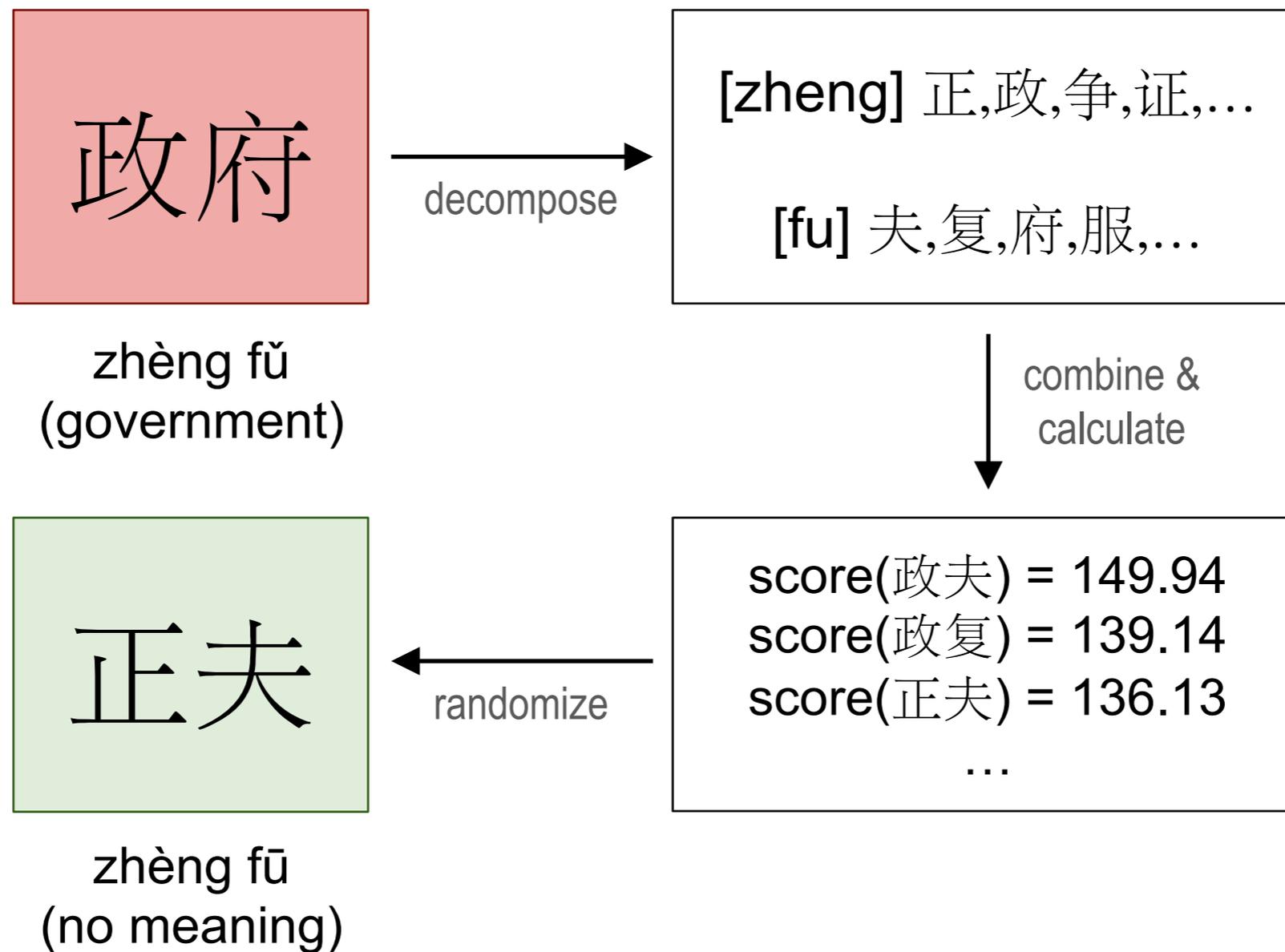
| topic#             | Search Query                                     | tweetID | tweet_post_time     | tweet_json    |
|--------------------|--|---------|---------------------|---------------|
| topic <sub>1</sub> | q=w <sub>1</sub> &w <sub>2</sub> &w <sub>3</sub> | 530884  | 2014-11-05 19:48:56 | {author:...,} |
| ⋮                  | ⋮  | ⋮       | ⋮                   | ⋮             |
| topic <sub>j</sub> | ⋮  | ⋮       | ⋮                   | ⋮             |
| ⋮                  | ⋮  | ⋮       | ⋮                   | ⋮             |

Event specific tweets Searched & Collected via Search API  
**60,097,152**  
(~ 60 million)



new & ongoing: censorship on sina weibo

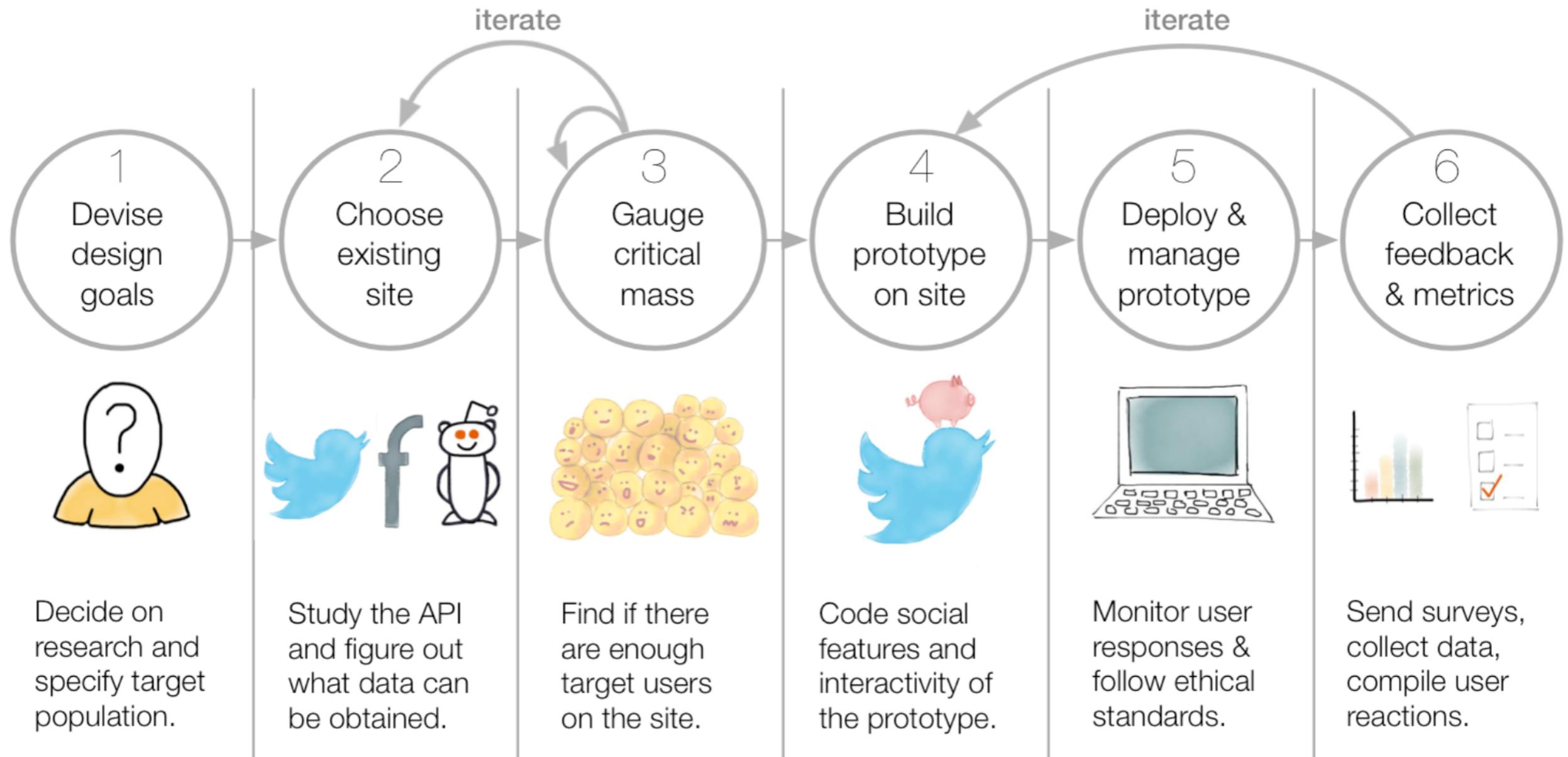
<https://flic.kr/p/qE2UAj> (cc by-sa)



[Hiruncharoenvate, Lin, Gilbert. ICWSM 2015]

**Q1:** How do early design decisions affect future, systemic behavior?

*Q2: How do you know whether a social system will work? Achieve critical mass?*



[Grevet & Gilbert. CHI 2015]

**Q3:** Can we get to interpretable models that are understandable by users and designers?

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