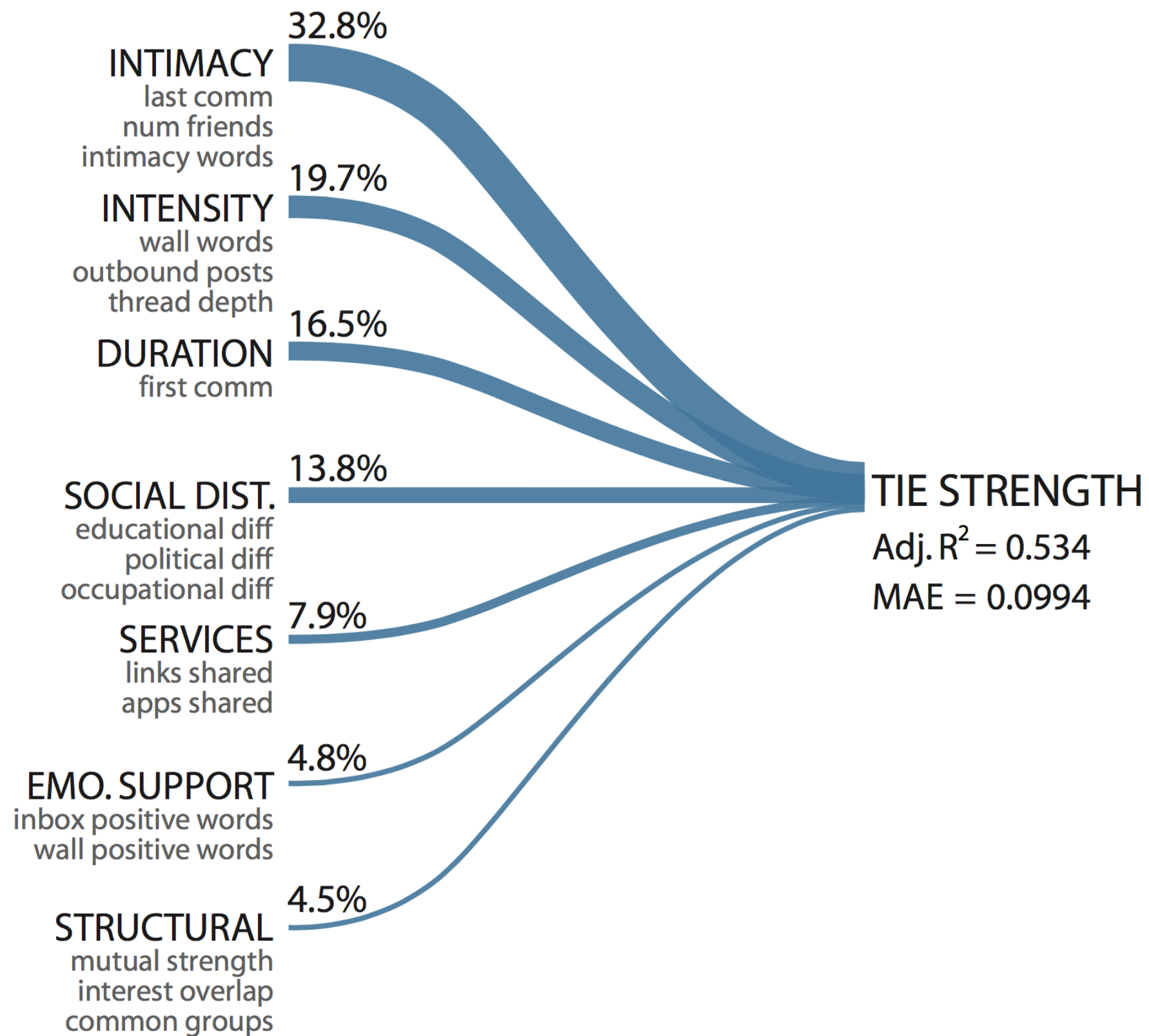
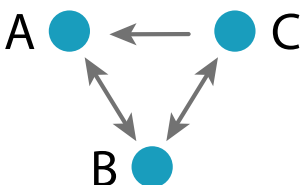
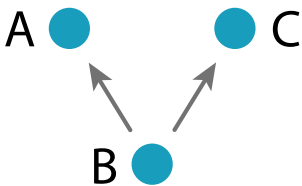
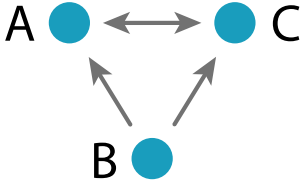
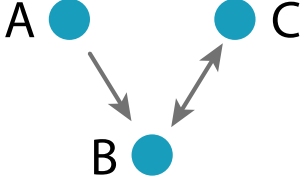
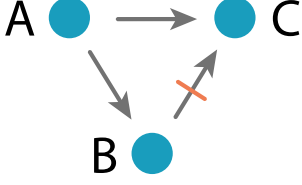
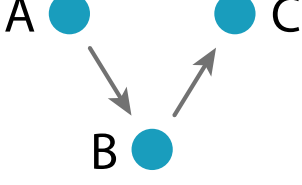


eric gilbert | asst prof | georgia tech



[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. * 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?

3,879 followers

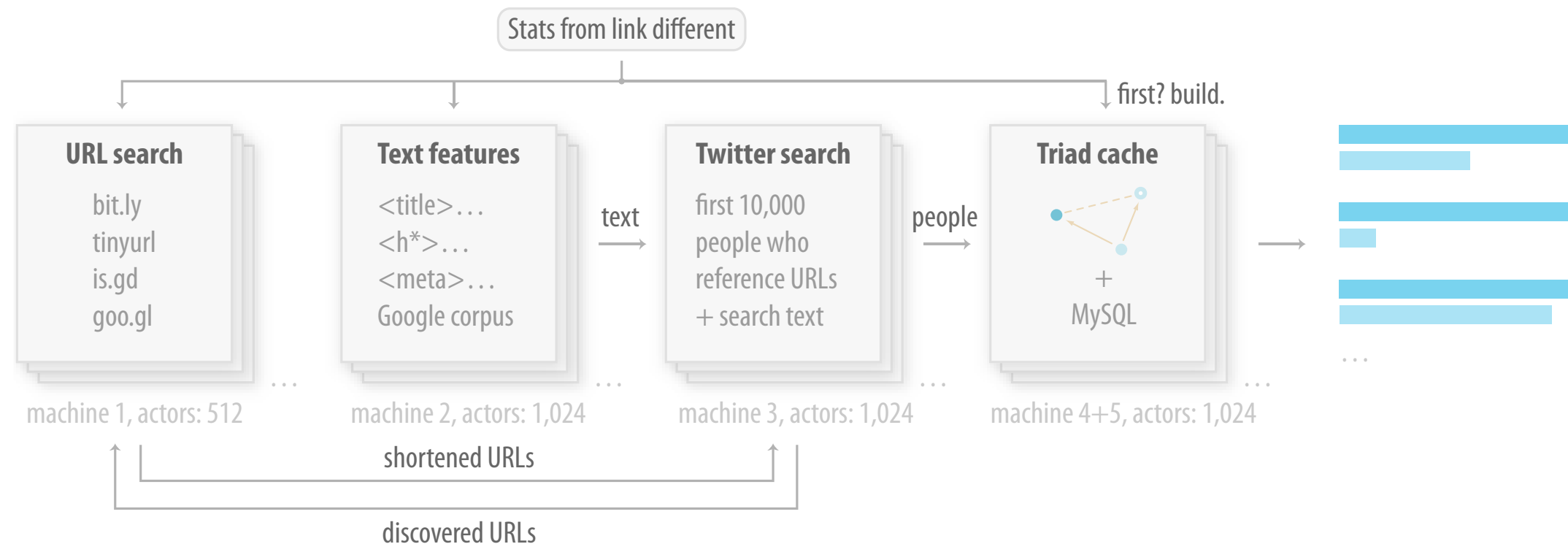
2,190 saw it

EARLIER

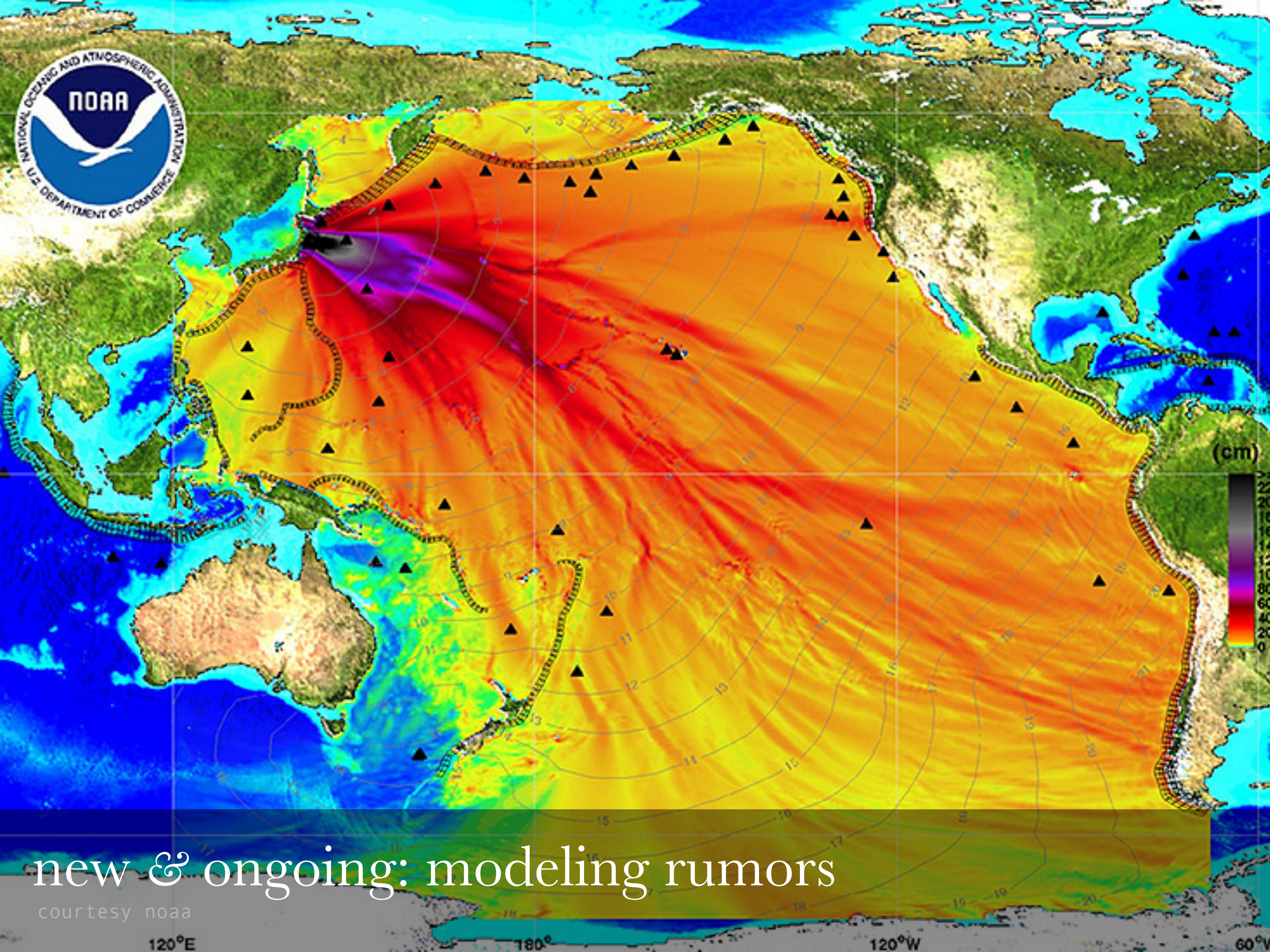
<http://bit.ly/JT679N>

3,879 followers

1,597 saw it



[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

Tweet lang
code = English

Remove
Spam

Tokenize
Tweets

Remove
Stopwords

Processed tokens

2 Online LDA (MC)

Initialization

Initialize
Parameters
 α, β, k, c

Iterative Step

Load model
 t_{i-1}

Update
Parameters

Run LDA
for current
time t_i

k-Topics

3 EventAssess (HC)

Boolean AND
top 3 words
(per topic)

Search
Query

Send to Turkers for
Event Assessment

Search Queries for
Agreed upon Events

4 CredAssess (HC)

Send to Turkers for
Credibility Assessment

5 SearchTwitter (MC)

Search Tweets
Search API

Time Duration of Collection = 96 days

D_p : 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_s : Topics

topic#	word1, word2, word3, ..., word _i
topic ₁	$p(w_1 t_1)$
⋮	⋮
topic _j	$p(w_1 t_j)$
⋮	$p(w_{i-1} t_j)$

Total topics annotated
46,850

Event/Non Event
annotations
468,500

E_s : Event_Annotations

topic#	Search Query	10-Turker Responses	Event Assessment	(if Event) Summarization
topic ₁	$q=w_1 \& w_2 \& w_3$	[1,0,-1...1]	1(Event)	[Messi scored,
⋮	⋮	⋮	⋮	⋮
topic _j	⋮	[0,0,0,0...1]	0(NonEvent)	⋮
⋮	⋮	⋮	⋮	⋮

Topics agreed upon
as Events
1049

C_s : Credibility_Annotations

topic#	Search Query	30-Turker Responses	Turker Reasonings	Turker Response Time
topic ₁	$q=w_1 \& w_2 \& w_3$	[2,2...1]	[News sources confirm,..]	2014-11-05 19:48
⋮	⋮	⋮	⋮	⋮
topic _j	⋮	[-1,0..2]	[Lots of people tweeting,..]	⋮

Total Credibility
Annotations
31,470

S_{tweets} : Searched_Tweets

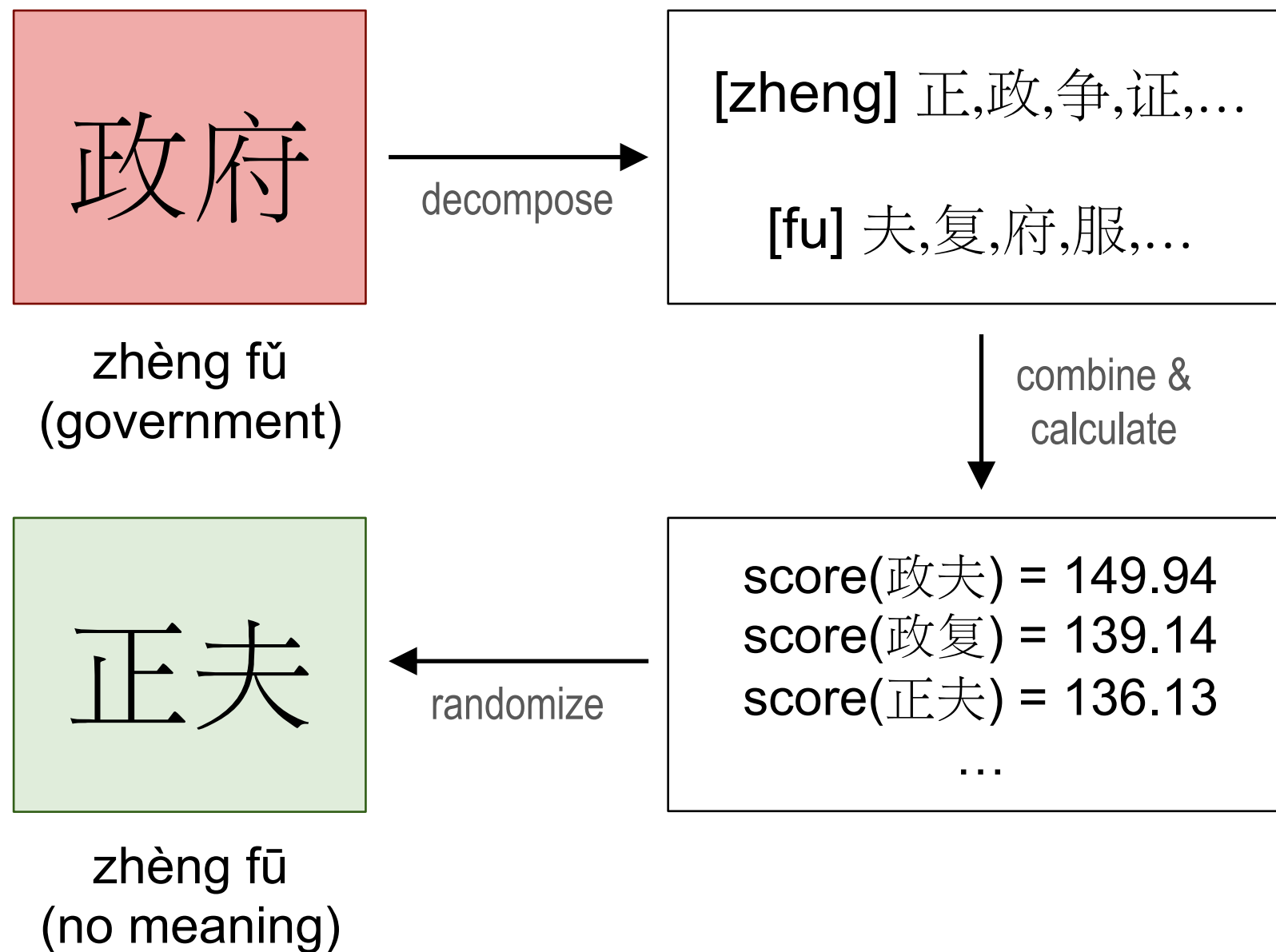
topic#	Search Query	tweetID	tweet_post_time	tweet_json
topic ₁	$q=w_1 \& w_2 \& w_3$	530884	2014-11-05 19:48:56	{author:...,}
⋮	⋮	⋮	⋮	⋮
topic _j	⋮	⋮	⋮	⋮

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



new & ongoing: censorship on sina weibo

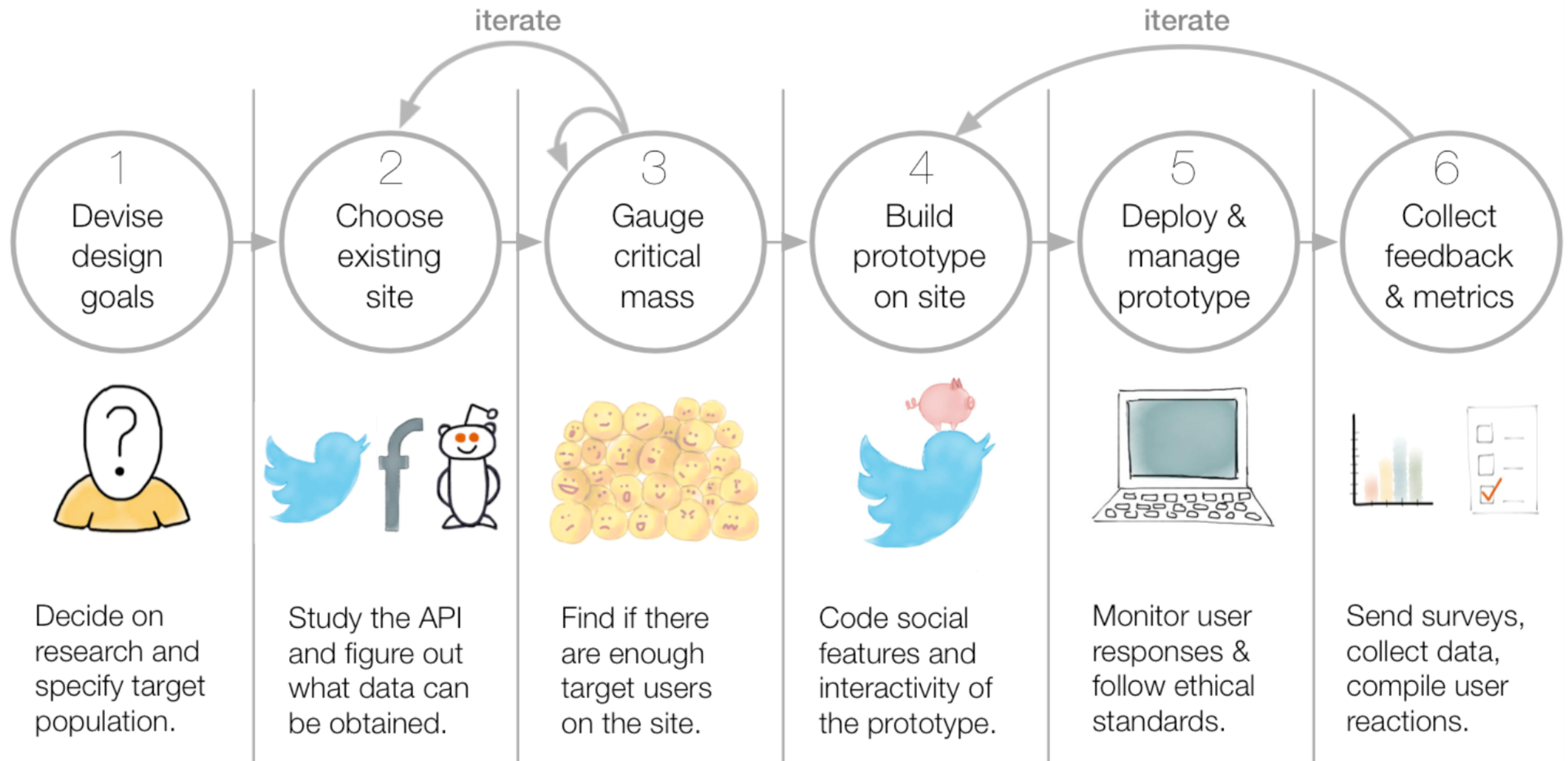
<https://flic.kr/p/qE2UAj> (cc by-sa)



[Hiruncharoenwate, 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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