

State of the Geotags: Motivations and Current Changes

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title is somewhat obscure, but in short,
I'm going to be kind of a downer about geotags.



San Francisco Now
@SanFranciscoCP

Follow

Cute dogs: Corgi Con Ocean Beach



Corgi Con takes over San Francisco's Ocean Beach

Corgi owners (and fans) descended on San Francisco's Ocean Beach on Saturday as they celebrated all things Corgi.

sfgate.com

10:39 AM - 9 Mar 2017 from [San Francisco, CA](#)

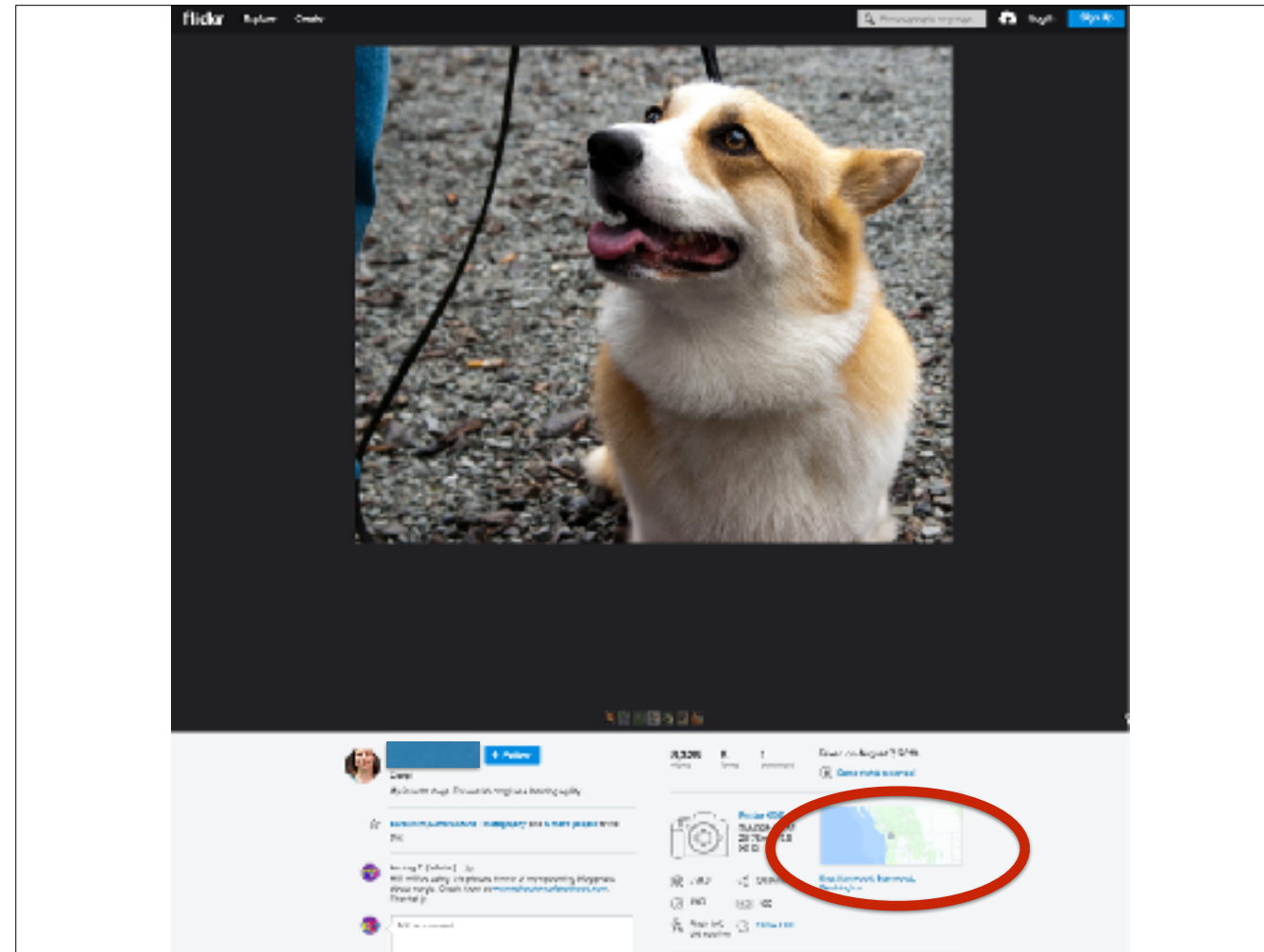


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1

when I talk about geotagging, I mean social media posts with a location attached. like this tweet.



or this flickr photo.



don't mean this, this is a separate thing; in foursquare the whole point of it is to share your location; in twitter flickr instagram, other non-LBSNs

I'm the Mayor of My House: Examining Why People Use foursquare - a Social-Driven Location Sharing Application

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ABSTRACT

There have been many location sharing systems developed over the past two decades, and only recently have they started to be adopted by consumers. In this paper, we present the results of three studies focusing on the foursquare check-in system. We conducted interviews and two surveys to understand, both qualitatively and quantitatively, how and why people use location sharing applications, as well as how they manage their privacy. We also document surprising uses of foursquare, and discuss implications for design of mobile social services.

Author Keywords

foursquare, mobile computing, social computing, check-in, privacy, location based service, uses and gratifications

ACM Classification Keywords

H5.m Information Interfaces and Presentation (e.g., HCI): Miscellaneous

General Terms

Human Factors, Design

INTRODUCTION

For the past 20 years, researchers have been proposing a wide range of location sharing systems. With the increasing diffusion of GPS and Internet-enabled smartphones, many of these research ideas are finally being adopted by consumers.

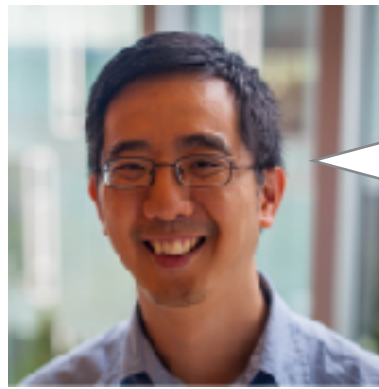
particular, as of December 2010, foursquare claims to have over 5 million members [1]. This critical mass of users provides researchers with an excellent opportunity to investigate how people really use these systems and how people have appropriated them to meet their own needs.

While foursquare has features that distinguish it from other services, it is not yet clear which factors contribute to its popularity. For example, foursquare positions itself simultaneously as a mobile game, a way of exploring cities, a way of telling friends where you are, and a way of tracking where friends have been and who they have been co-located with [1]. Both its popularity and that of other location services raise many questions: What value drives people's use of these systems? How have users appropriated these systems, inventing new purposes for them or none? Understanding these and related questions can offer valuable insights into real-world usage and can reveal design opportunities for new services and new applications.

Past work [5, 11, 22, 25, 30, 31] has found that privacy is a barrier to adoption of location sharing services. Current systems also face this challenge; however, it seems that for a large number of people, privacy concerns have not kept them from experimenting with and adopting this emerging technology. To gain some insight into this, we also investigated the kinds of privacy concerns people have with foursquare, and what strategies they take to manage their privacy.

CHI 2011

(there is already plenty of great research on checkins)
geotags are different, because it's not the primary purpose of what you're doing.



What do you want to do with all this geotagged social media data?

Well, given this trace of “ticket stubs” throughout people’s lives, we can do all this great stuff like demographics, mobility, “people who live here enjoy X”, etc



(cue months of failed experiments)

so this came from my advisor and me
and so the problem was...



Geotagged Posts
Are Postcards,
Not Ticket Stubs

If there's one slide I want you to remember



Like Postcards,
Geotagged Posts Are
Consciously Sent



Like Postcards,
Geotagged Posts Come
From Unusual Places



Like Postcards, Geotagged Posts Are Dying Out

ok, if you agree with me on these three, then you're free to get back to your emailing and pokemon catching.
for some of you this will be very obvious

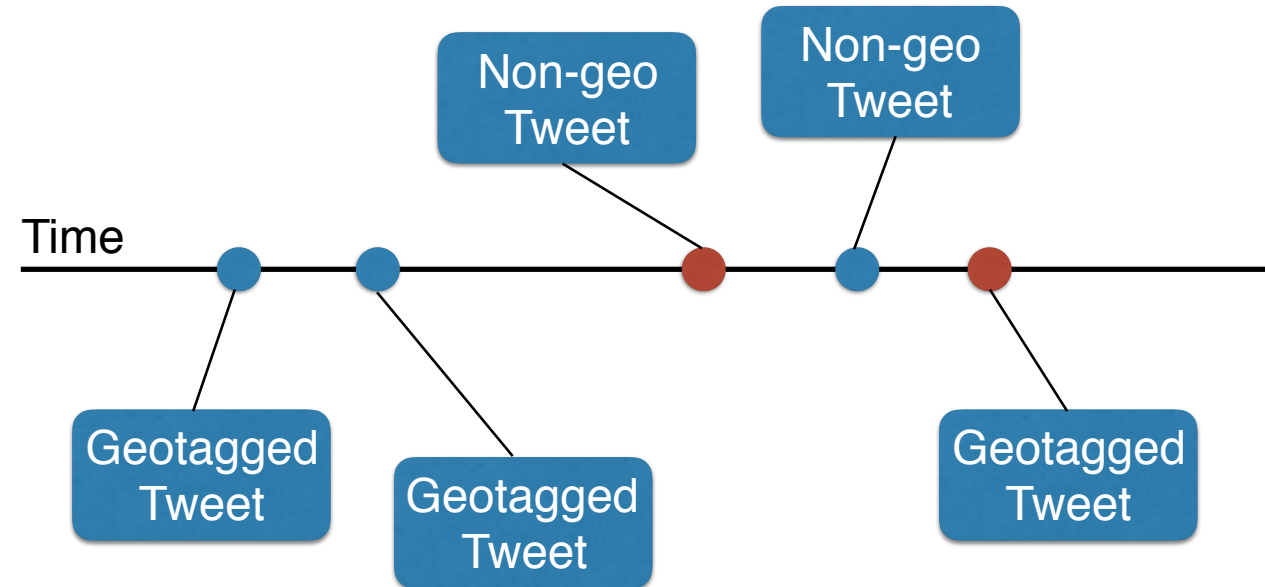


Like Postcards,
Geotagged Posts Are
Consciously Sent

as opposed to just set it and forget it
How do we know?

Toggle Geotagging

Tweets by User X on Twitter for iPhone



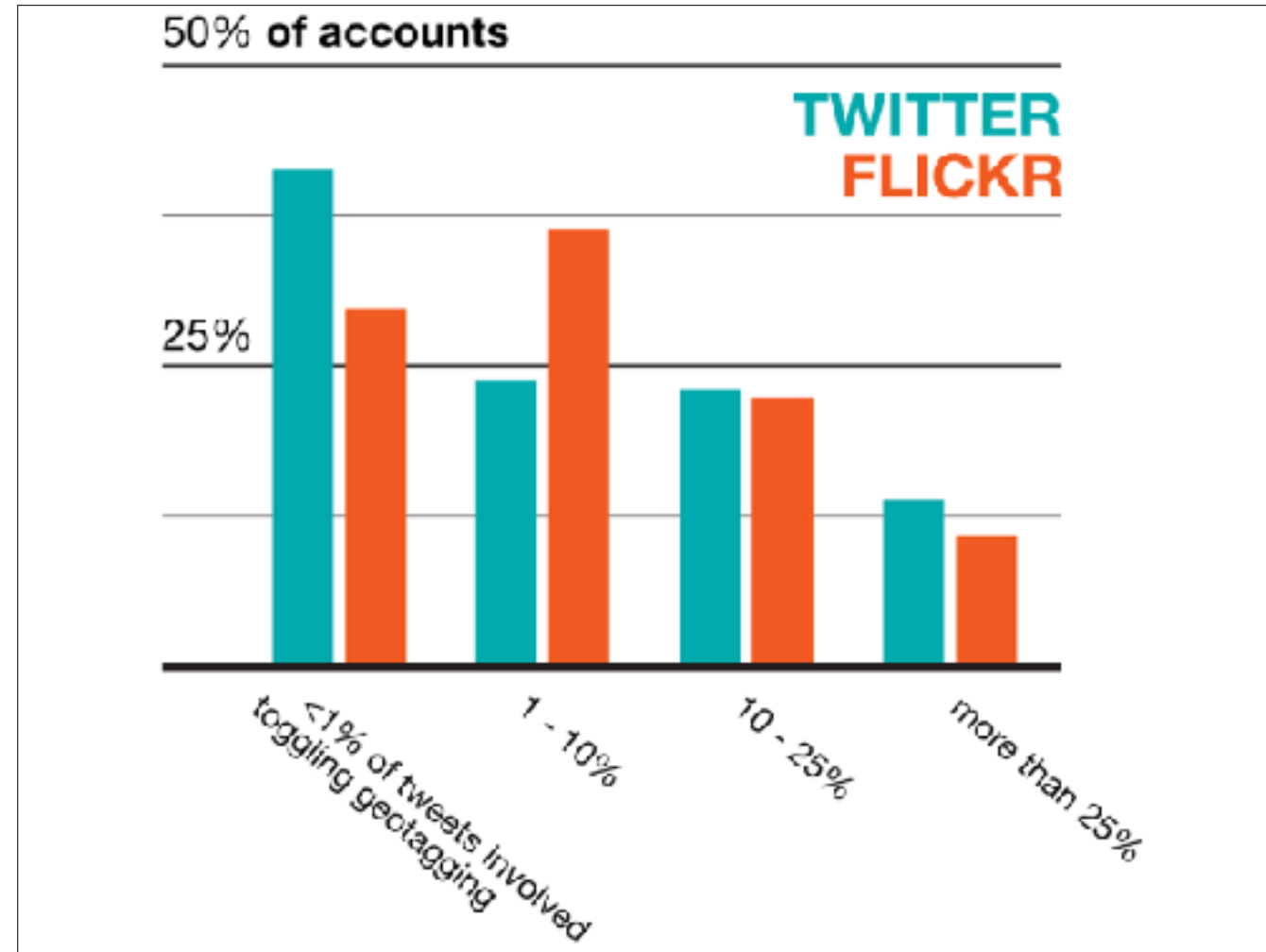
$2/5 = 40\%$ of tweets involve
toggling geotagging

note that we have to use only one twitter client - otherwise you might have your iPhone always geotagging and your computer never geotagging

Toggling Geotagging Study

Twitter: all tweets from a random sample of 3406 of the 68088 tweeters from our dataset of ppl who have geotagged at least once around Pittsburgh

Flickr: the YFCC100M dataset



so people at least do it.

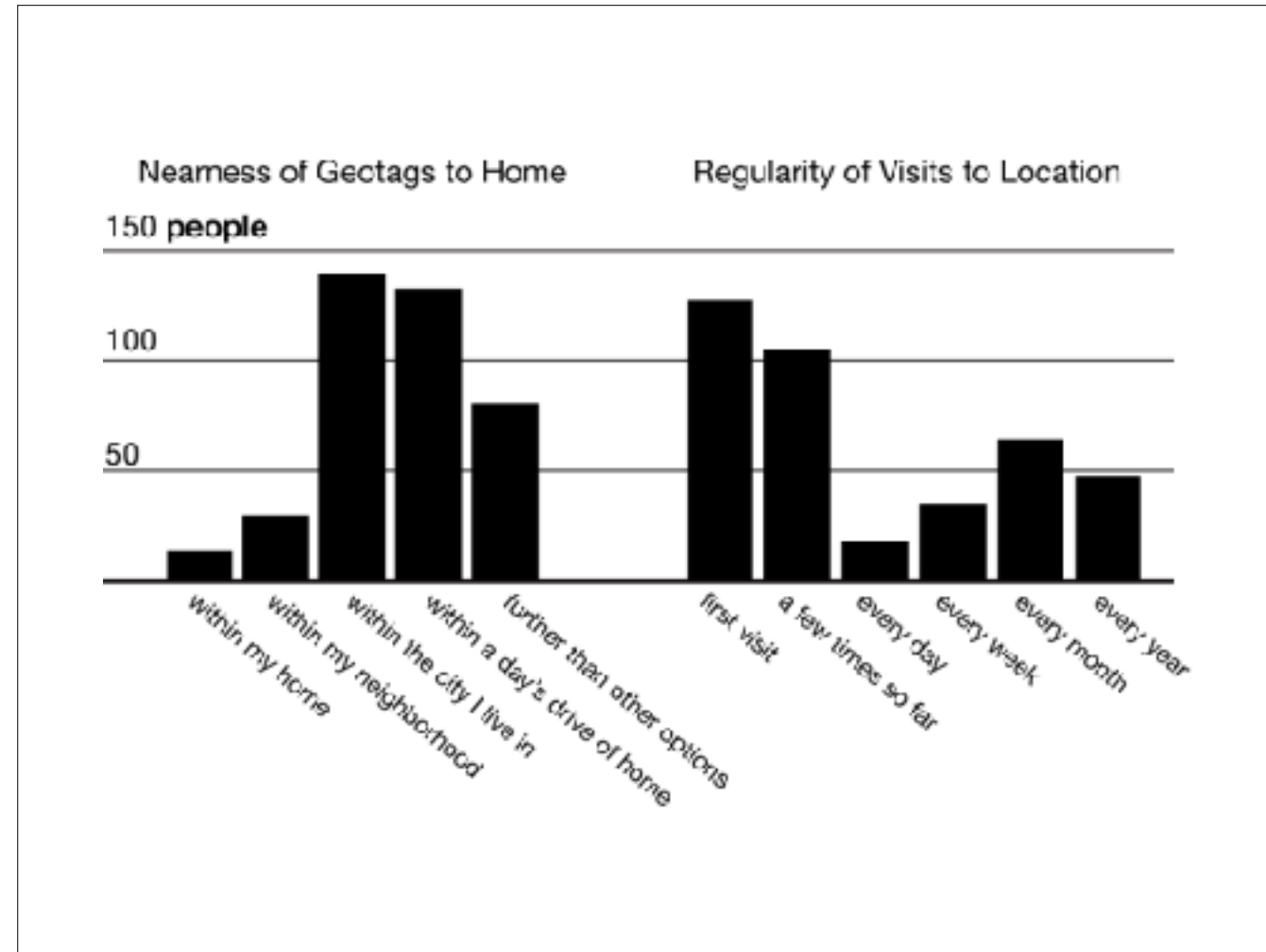


Like Postcards,
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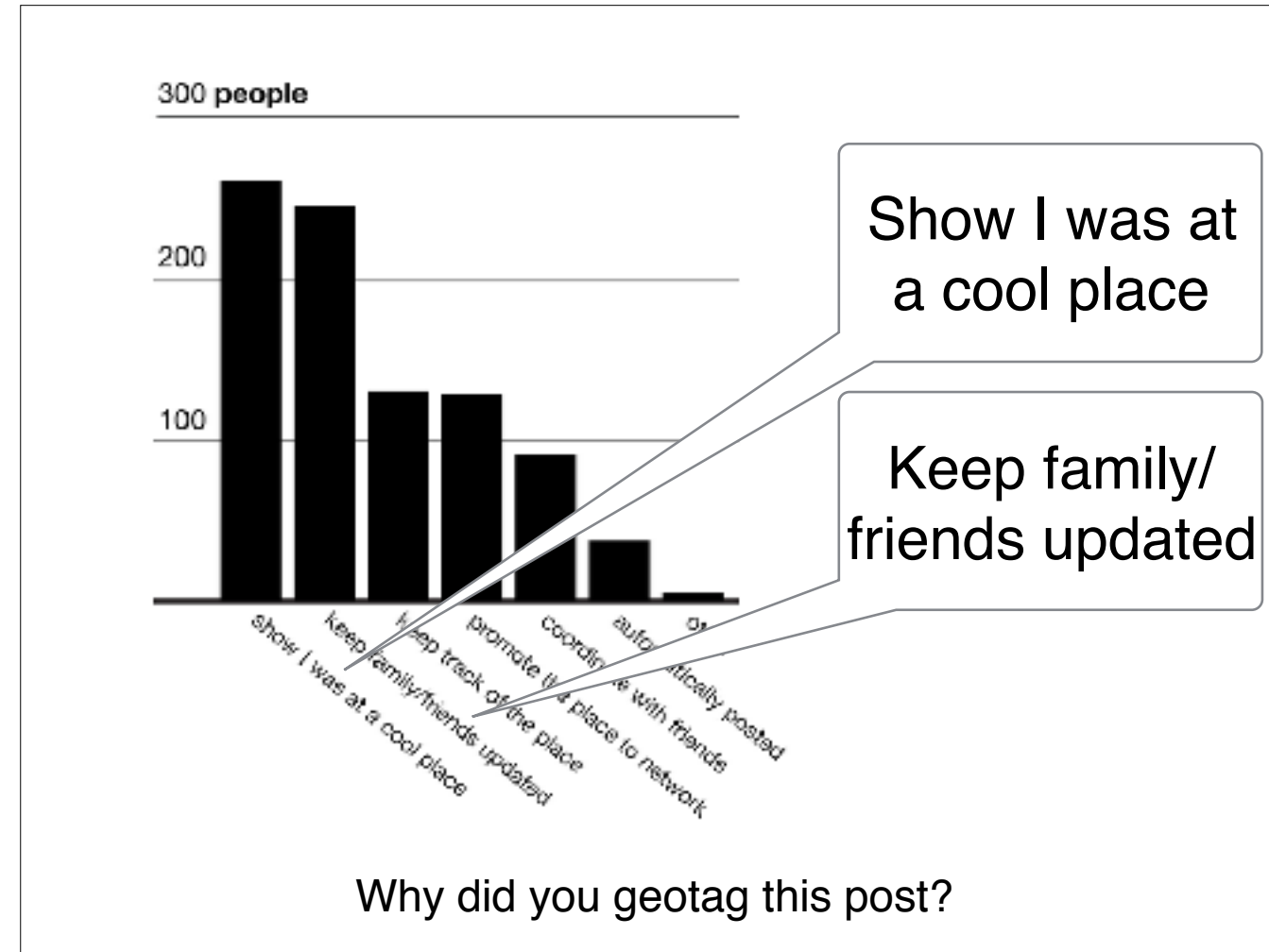
Surveys

1. 78 people who had geotagged in Pittsburgh
2. 400 people on Mechanical Turk who geotagged on any social network

When, where, and why did you add your location to your most recent post?



usually tagging at a new place



most common reason is “show I was at a cool place”

these were from previous research

keep track of the place, promote to network, coordinate with friends, auto-posted, other



Like Postcards,
Geotagged Posts Are
Dying Out

Travel

Are postcards obsolete?



(Julia Yellow for The Washington Post)

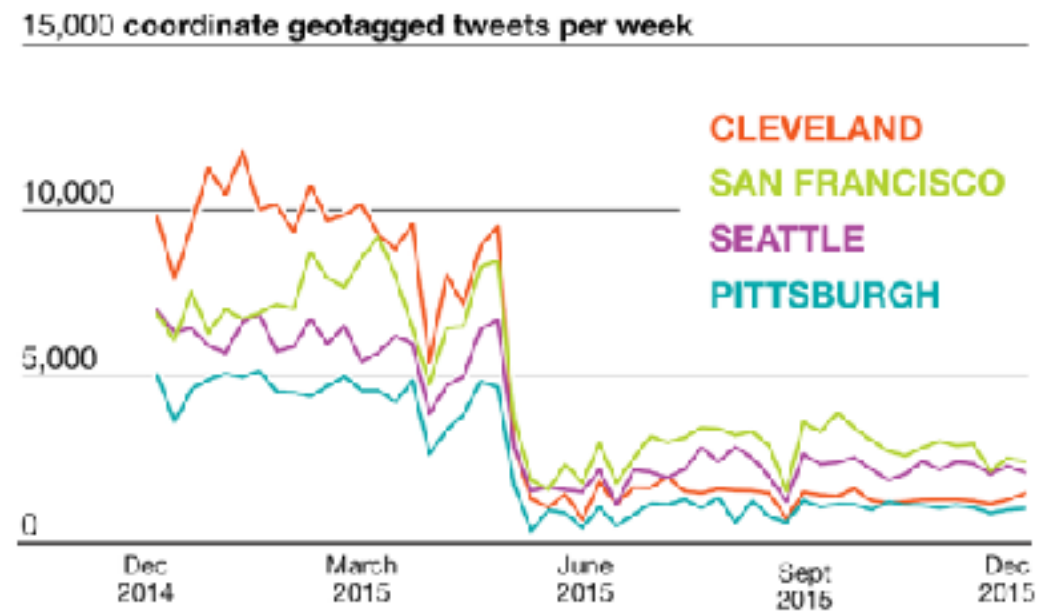
By Mark Jenkins February 26, 2015

yes, postcards are dying

1.2 billion in 2010, 770 million in 2014

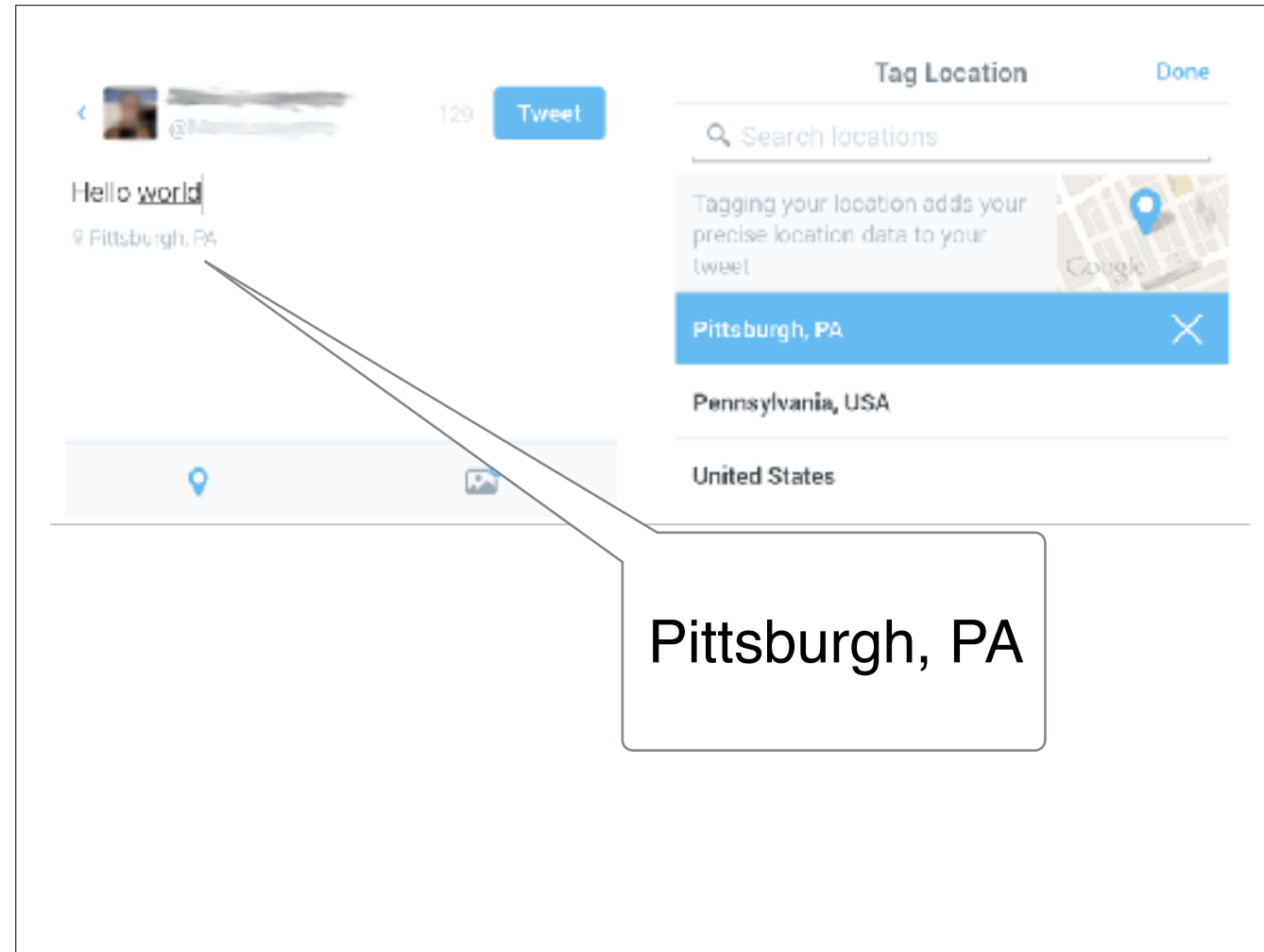
https://www.washingtonpost.com/lifestyle/travel/are-postcards-a-thing-of-the-past/2015/02/26/a243909a-b945-11e4-aa05-1ce812b3fdd2_story.html

Coordinate-Geotagged Tweets



ok, why did this happen?

a lot of them were not meaning to be geotagged in the first place



old UI would actually add your coordinates. it would look like it's just Pittsburgh PA, but if you clicked into it...
so the old default is to add your coordinates, and you can change it to city-level if you want
new default is just city-level, and you can add your coordinates if you want.
this is probably good.

2. Did you know that you've posted geotagged tweets in 2014?

9/78 (11.5%) said no

ok, this is good, why is this good: some people didn't even know they're geotagging (more details in the paper)

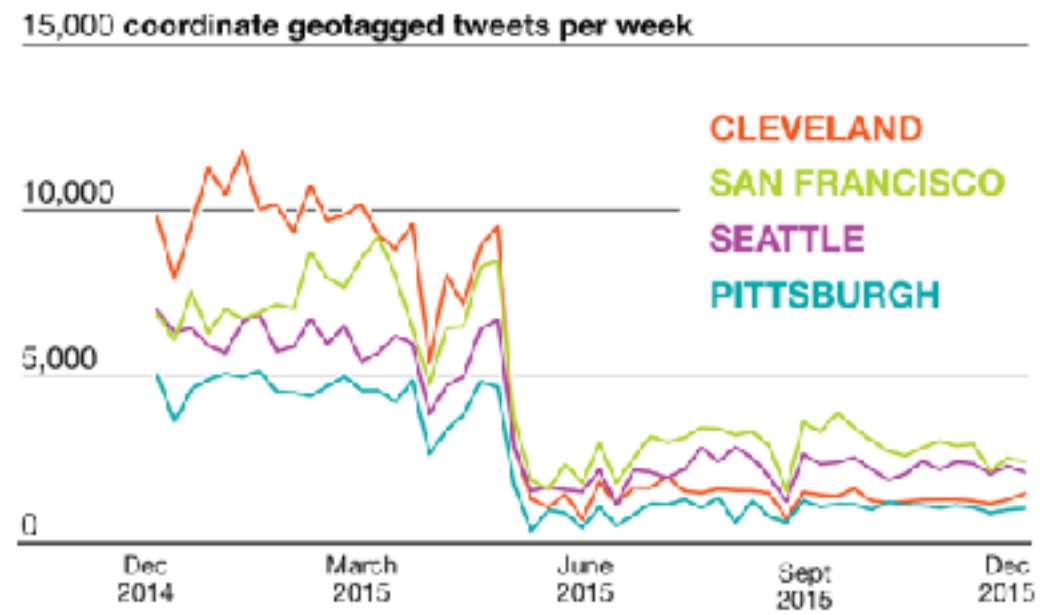
7. Are you worried about privacy implications of geotagging your tweets?

8. Why or why not?

12/78 (15.4%) said no, because “I’m only sharing my city.”

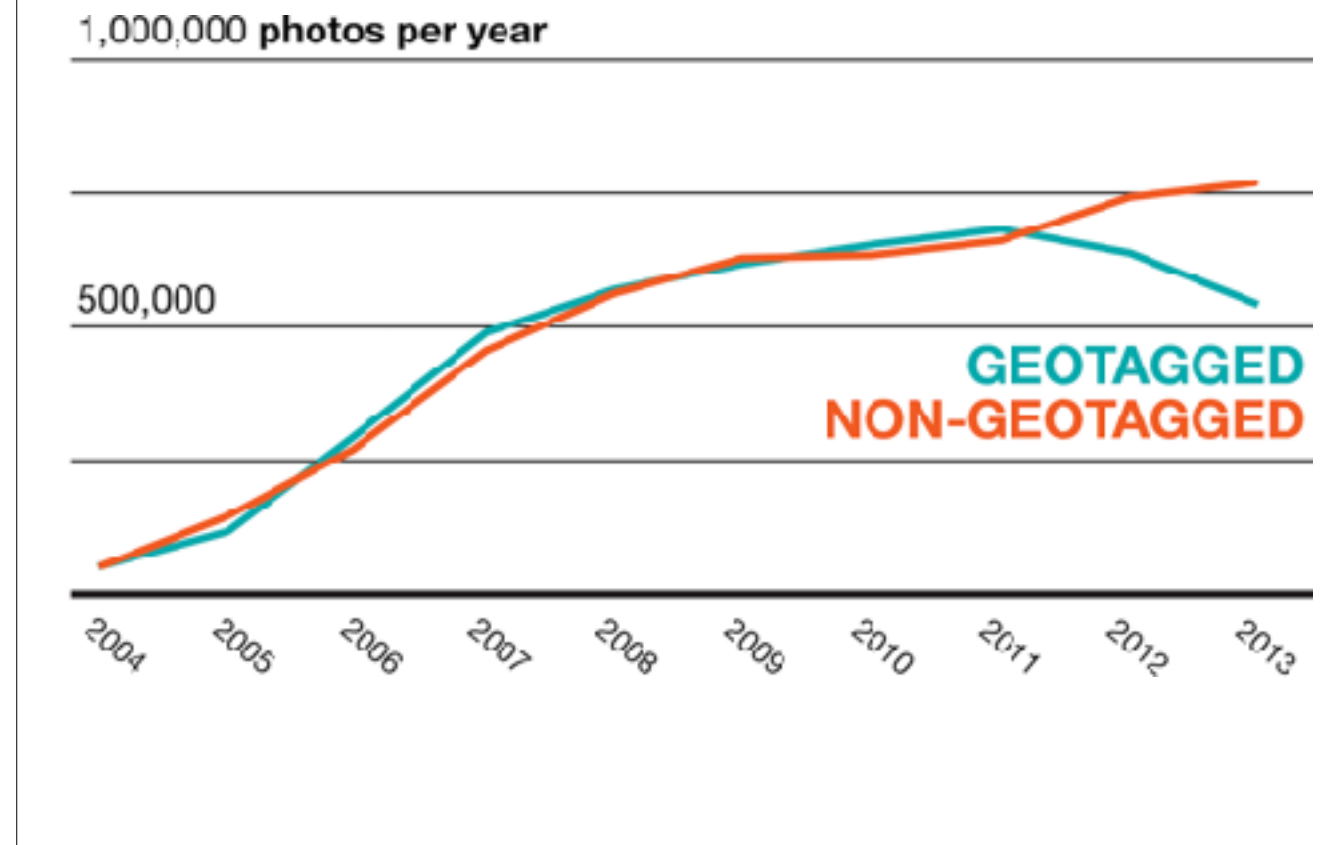
They weren’t just sharing their city.

Coordinate-Geotagged Tweets



twitter changed the UI so now the default is to add your city-level location

YFCC100M dataset photos



flickr geotagged photos might be decreasing too - hard to tell because we don't know how they generated this

Job Spammers

1-2% of geotag-posting accounts

Most have “job”, “career”, “work”, “join”, or “tmj” in name

20-30% of one-place accounts are these bots



of the geotags that were left

so, it's not huge, but it's a pretty common source of noise; luckily, it's easy to filter out

so to recap



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so what can we do with this?



so, no to transit planning, demographics, or well-being
yes to tourism and promoting neighborhood character

State of the Geotags:

Motivations and Current Changes

Geotags are postcards, not ticket stubs:

1. Geotags are consciously added
2. They come from unusual places
3. They are dying out

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Aspiring data scientist (in SF); let's talk!
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