

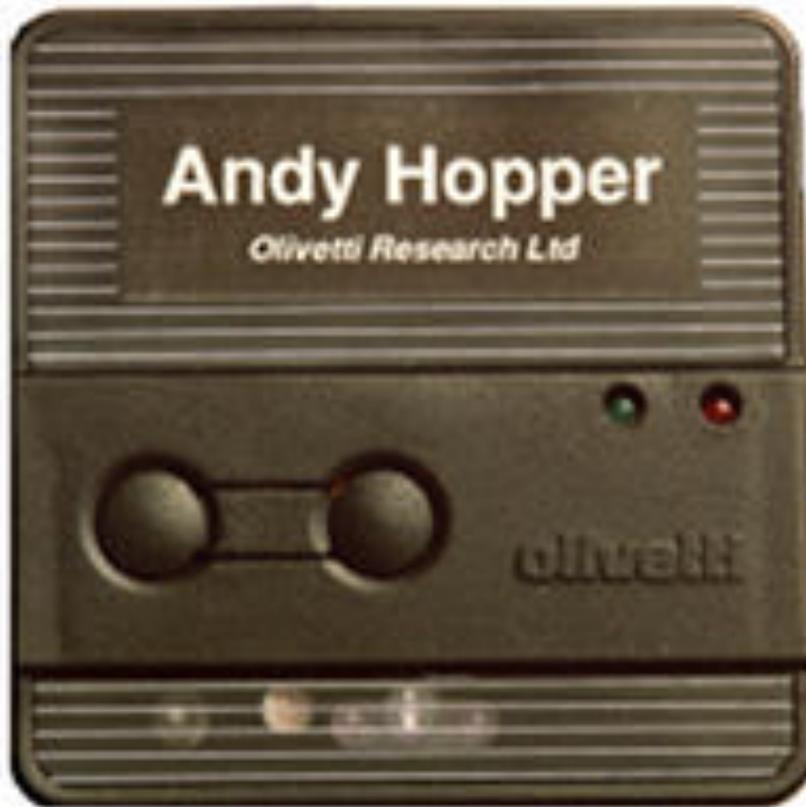
I'm the Mayor of My House: Examining
Why People Use **foursquare**™ – a Social-
Driven Location Sharing Application

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Why Study foursquare?

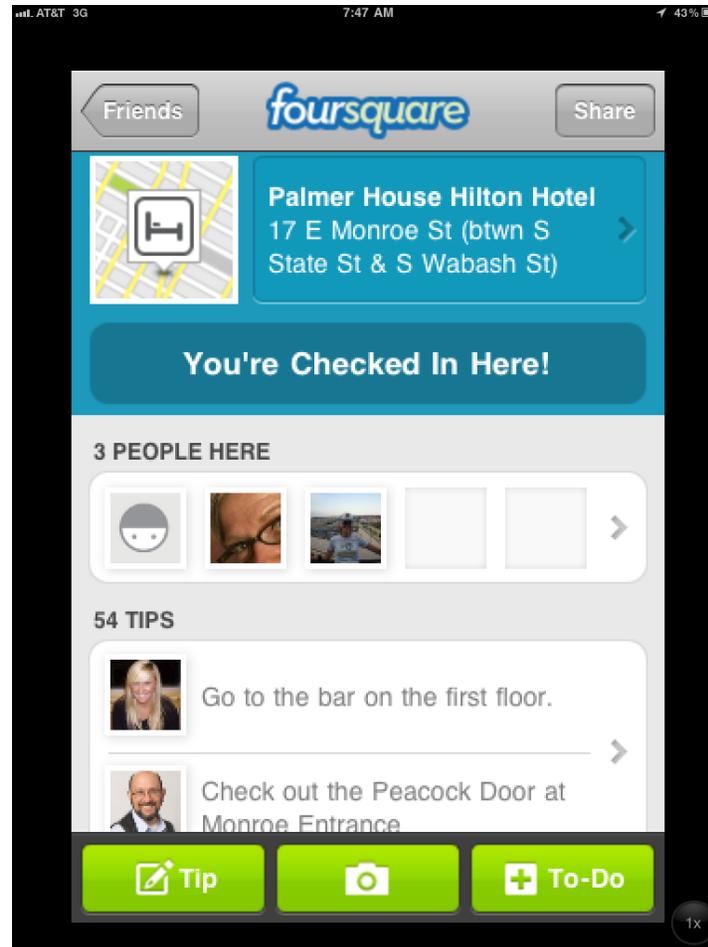


- 20 years of location sharing research, but not much deployment
- Despite even mobile phones and data plans!

Foursquare's Design

- “mobile application that makes **cities easier to use** and more interesting to **explore**. It is a **friend-finder**, a **social city guide** and a **game** that challenges users to **experience new things**, and **rewards** them for doing so. Foursquare lets users **‘check in’** to a place when they’re there, **tell friends where they are** and **track the history** of where they’ve been and who they’ve been there with.”

Foursquare Basics



Foursquare Basics

OK! We've got you @ Vancouver Convention Center. You've been here 1 time.

Badges

 **You just unlocked the Adventurer badge**
You've checked into 10 different venues! 

Points

Nice check-in! You earned: +9

	Your first Convention Center!	+4
	First time at Vancouver Convention Center	+3
	First of your friends to check in here	+2

- Check-in

- Badge

- Points

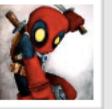
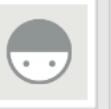
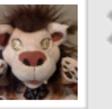
Foursquare Places

Bandits Bar
159 Denny Way (2nd Ave)

CHECK IN HERE

 **Mike P.**
is the mayor. 

9 people are here

10 tips here

More info
Map, contact & more

- Places
- Mayor
- “Who’s here”
- Tips and info

Web Profile



[t](#) [f](#)

Dens
New York, NY

DAYS OUT	CHECK-INS	THINGS DONE
1,568	3,961	171

Tips
POPULAR RECENT



Luke's Lobster East Village

Best bet for lobster roll in the East Village (maybe even all of towntown?). The \$8 half sandwich will make you cry it's so small so opt for the \$14 one. For bonus points go splitty-splitty w/ someo

✓ 21 | October 5, 2009 | New York, NY



The Standard Grill

Downstairs restroom: take the Dyson Air Blade hand dryers for a test drive! It's like a dream come true!

✓ 19 | August 5, 2009 | New York, NY



Ace Bar

Go to Ace Bar and break 300 in skeeball. Reward yourself with a Miller High Life

✓ 19 | February 9, 2009 | New York, NY



Back Room

Winter time + midweek + Backroom + fireplace = one of the better spots on a cold night in Lower East Side (backup plan: fireplace @ The Delancey). Just watch out for the dbags!

✓ 18 | December 9, 2008 | New York, NY

Badges (67)
See All



Mayorships (2)



DPSTYLES™ House Of

New York, NY



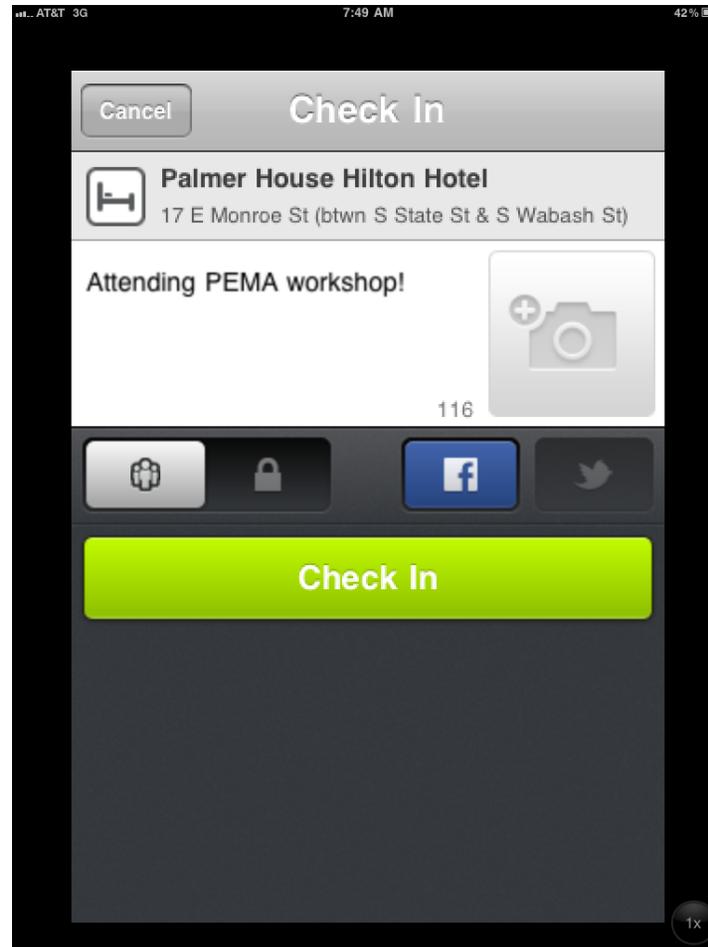
Union Square Ventures

what's a mayor?

Friends (502 total)

 Lindsay R.	 Sophia C.
 Steven v.	 Anjellka P.
 Kimberly T.	 Leah C.

Foursquare Privacy Management



Study Methods

- Qualitative studies
 - Interviews, N=6 (OSN ads)
 - Survey N=18 (craigslist ads)
- Quantitative studies
 - Survey N = 219 (twitter RT!)
 - US: 158, Europe 46, rest around the world
 - Male 72 %, Female 28 %
 - Largest age groups: 24-29: 77, 30-35: 69

The image features a solid red background. In the upper left corner, the word "RUTGERS" is written in a white, serif font. Below it, in a smaller, white, sans-serif font, are the words "THE STATE UNIVERSITY OF NEW JERSEY". A large, faint watermark of the Rutgers University seal is visible in the background, centered behind the text. The seal is circular with a sunburst in the center and the words "RUTGERS THE STATE UNIVERSITY OF NEW JERSEY" around the perimeter.

RUTGERS

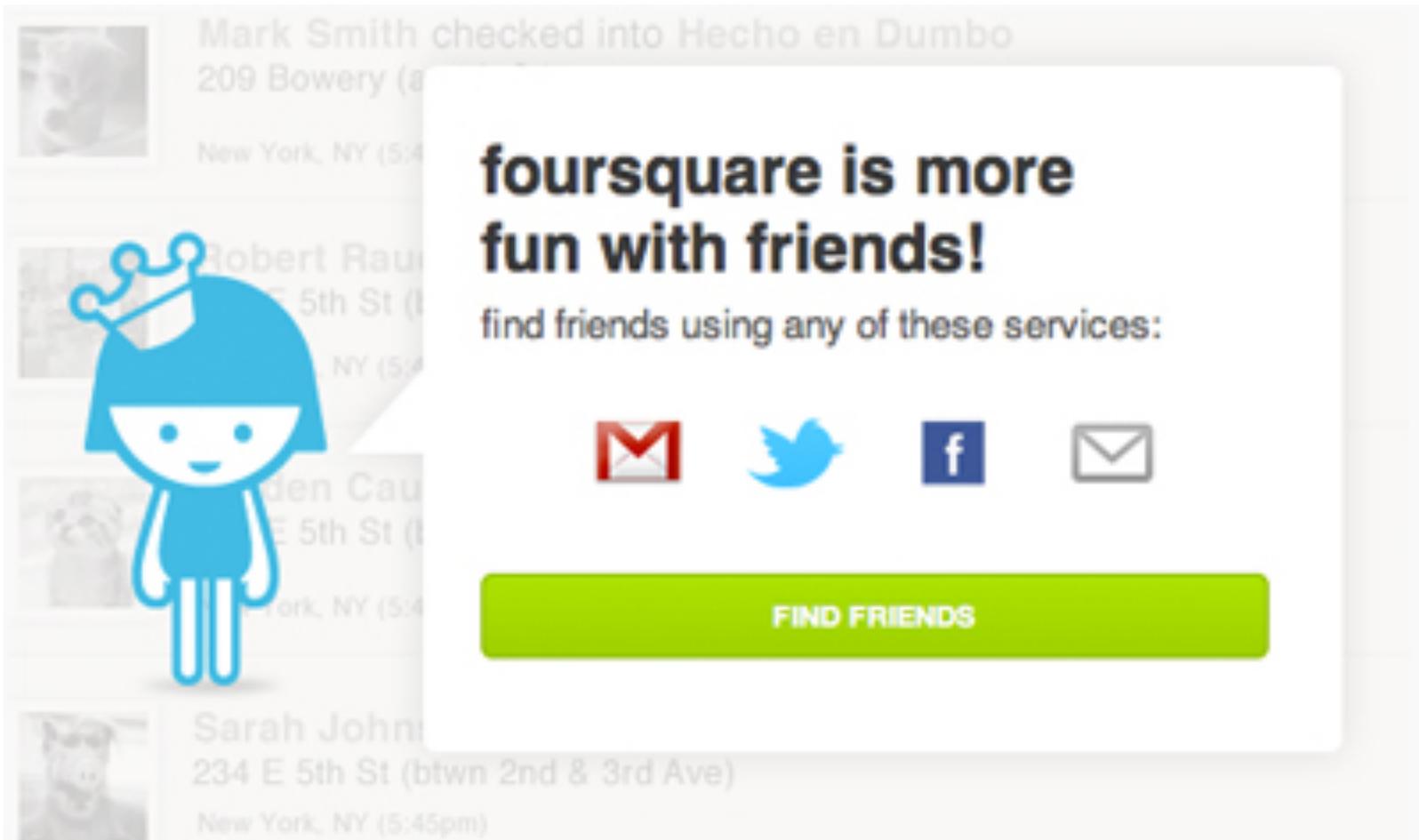
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Qualitative Survey

Qualitative Survey

- First, four open-ended questions
 - Why?
 - Benefits?
 - Drawbacks?
 - Privacy concerns?
- Second, directed questions
 - Things that we thought people might be doing

Why?



The image shows a screenshot of the Foursquare mobile application interface. In the background, there is a list of location check-ins. A white overlay box is centered on the screen, containing the text "foursquare is more fun with friends!" and "find friends using any of these services:". Below this text are four icons: a red and white envelope icon, a blue bird icon, a blue square with a white 'f' icon, and a grey envelope icon. At the bottom of the overlay is a large green button with the text "FIND FRIENDS". To the left of the overlay, a blue cartoon character with a crown is visible. The background check-ins include names like Mark Smith, Robert Rau, and Sarah John, along with addresses and timestamps.

Benefits?

- Discovering new places
 - “There are location-specific badges that motivate me to go to new places”
 - “In order to earn badges I have gone to shops in San Francisco that I had not visited previously”
- Keeping track of places (location history)

Benefits?

“discover real facts about customers of the places”



Privacy?

- Self-representation
 - Don't check in at work or house... gets boring
 - Don't check in to fast food vs. Mayor of McDonalds
- Spam on your Facebook wall
 - “Privacy, too much spam on my Facebook wall”

Privacy?

- Check-in at home or other's home
 - To signal availability
 - To be mayor of those locations
 - One participant said that he is the mayor of his house, his mother's house, and grandparent's homes. He was also the mayor of his friend's houses, because his friends don't check-in at home

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Quantitative Survey

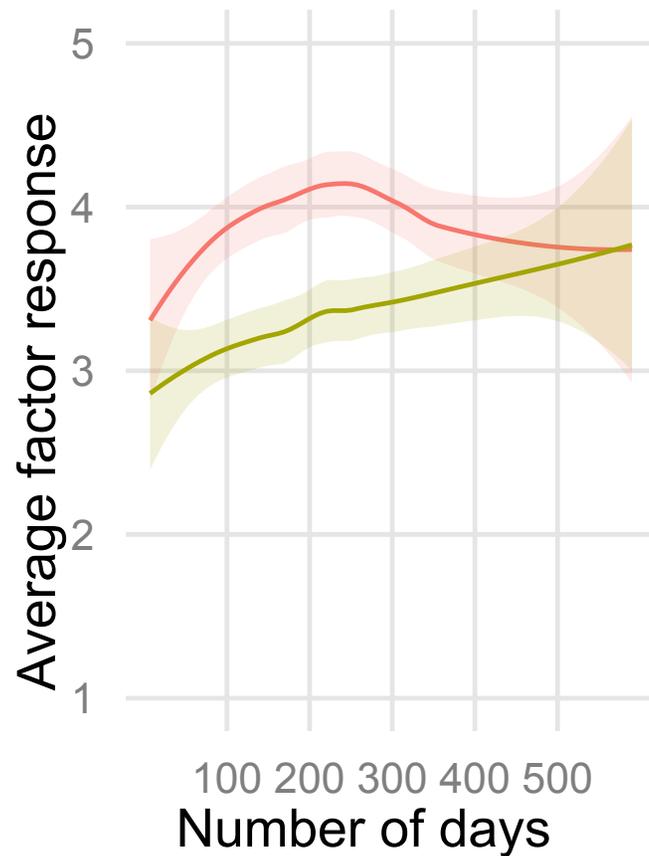
Quantitatively: Why do you use foursquare?

- Identified 19 items that could be probed with 5-point Likert scale
 - Also, yes/no questions
- Exploratory factor analysis by principal components method with varimax rotation
 - Five factors, 68 % variance
 - Cronbach's Alphas ~ 0.90

Factors of Usage

- Factor 1: Badges and Fun
 - I pay attention to badges I earn
- Factor 2: Social Connection
 - Foursquare is fun because my friends..
- Factor 3: Place Discovery
 - I have found a good tip..
- Factor 4: Keeping Track of Places
 - I use foursquare to keep track of places..
- Factor 5: Game with Yourself
 - I consider foursquare a game I play alone

Newcomers vs. Long-term users



- Badges and Fun
- Social Connection

Privacy?

- 163 (74%) participants had recognizable photo on their foursquare profile
- 187 (85%) participants allowed others to see them in “Who’s here” listing
- 193 (88%) let local business see they are checked-in to a venue.

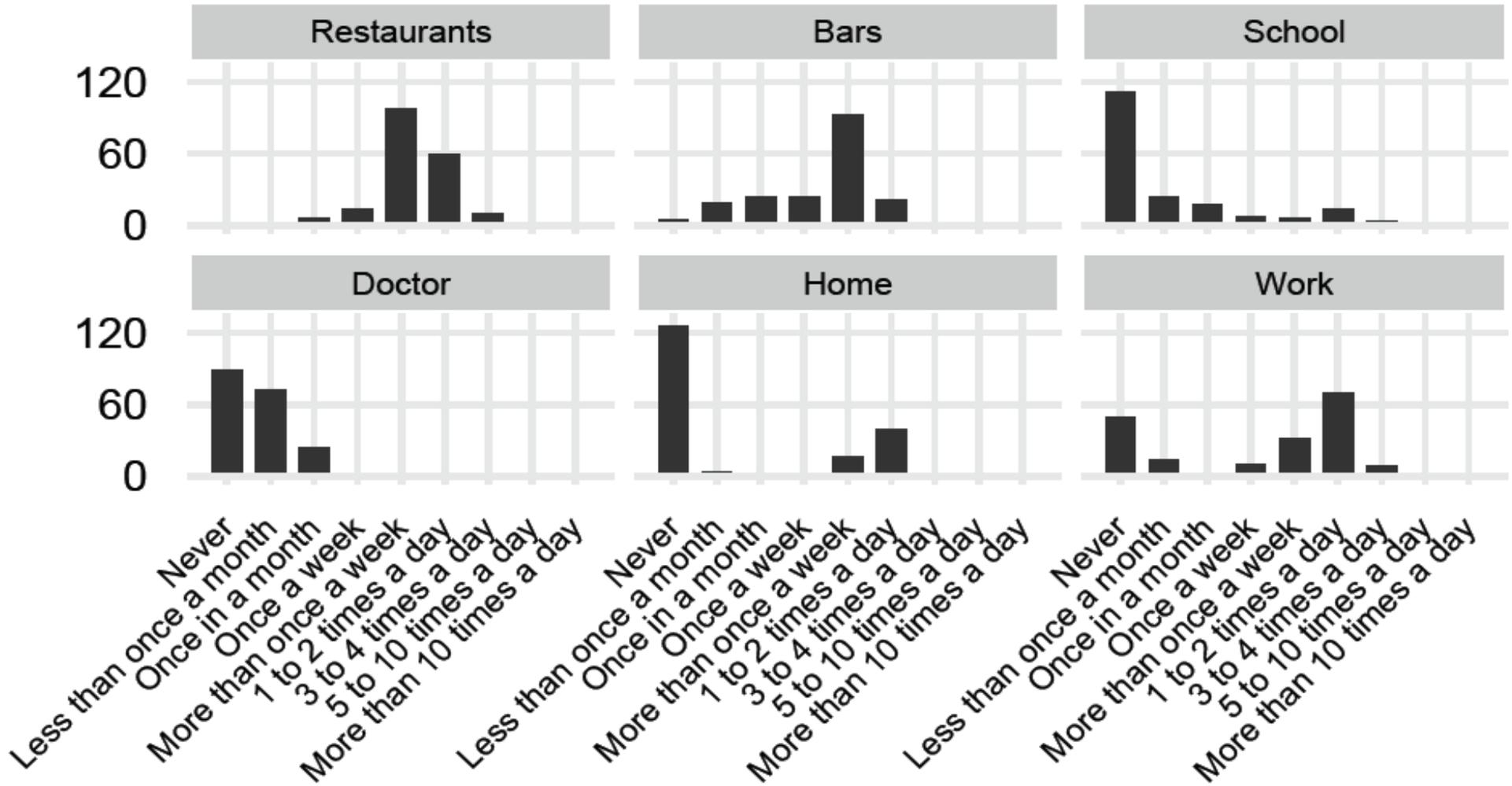
Privacy: Spam?

- 142 (64%) linked their foursquare account to Twitter
 - Only 40 (18%) tweet about their check-ins
 - But 83 (38%) tweet about **mayorships**
 - And 98 (44%) tweet about **receiving a badge**
- 114 (52%) linked their foursquare account to Facebook
 - Only 23 (11%) allow foursquare to post check-ins to their Facebook walls
 - But 48 (21%) automatically post **mayorships**
 - And 53 (23%) automatically post **receiving a badge**

Privacy?

- Surprisingly few concerns about stalkers
 - Only 9/219 participants (but early adopters)
- Checking in when leaving (safety)
 - Surprising use, 29 people said they did this
- 71 people (32%) used verify okayness
- Over half of participants had a stranger on their friends list
 - Want to know where interesting people go
 - Perceived like Twitter followers
 - Suggests separating Friends from friends

Self-Representation?



Meeting New People

- 66 (30%) had met new people using foursquare
- 37 (17%) had gone to talk to new people
- 30 (14%) have been approach by unknown people
- 3 participants had used foursquare for dating purposes or develop romantic relationship

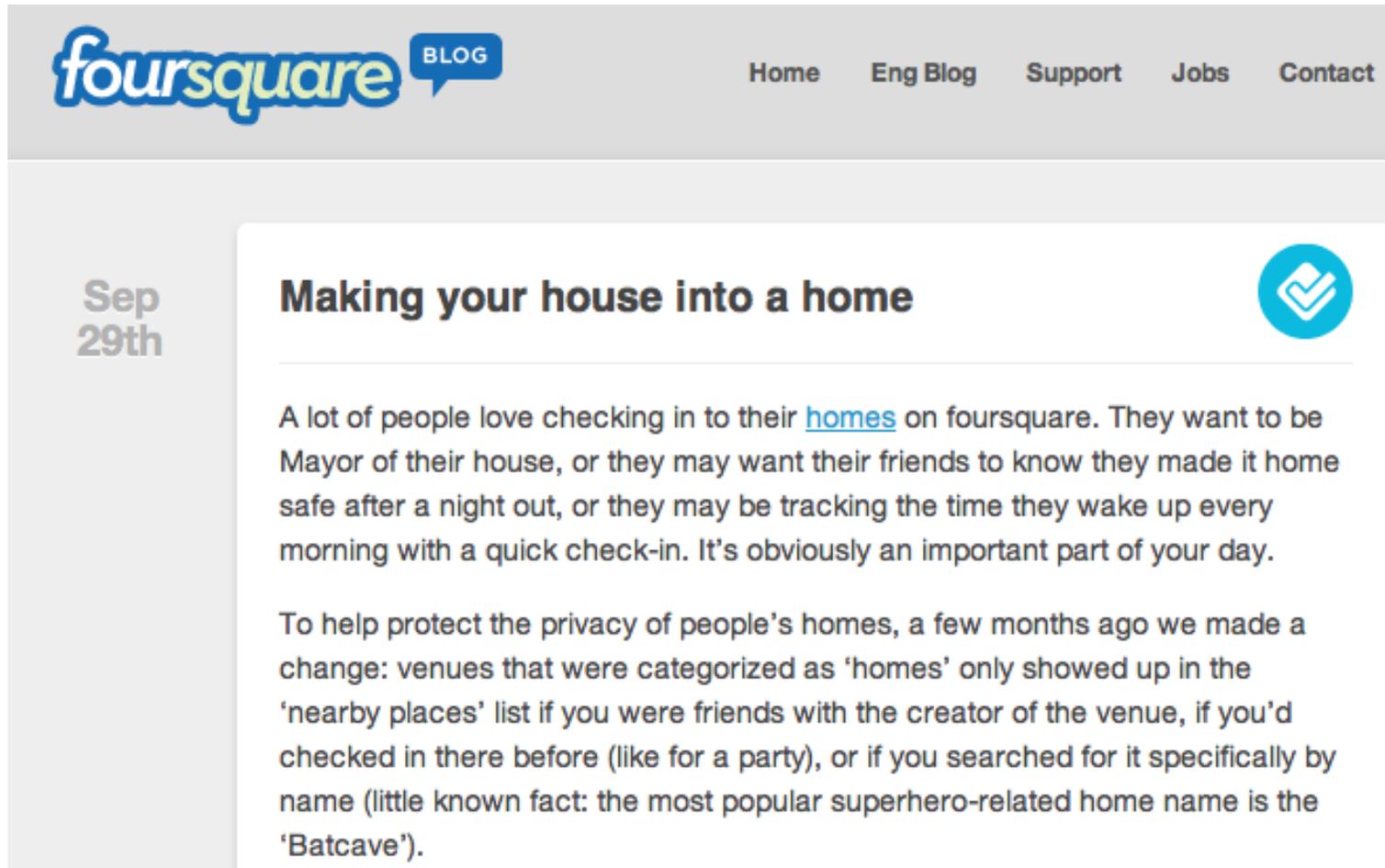
Design Implications

- Gamification helps location-sharing
 - Badges, Mayorships, etc.
- Multiple value propositions effective
 - Engage with virtual rewards, build social network
- Check-in model good for privacy
 - Decide when and where to reveal location

Design Implications

- Implications for Check-in Systems
 - Treat residences differently
 - Check-in for safety
 - Signal availability (people check at home)
 - Separate friends from followers

foursquare™ changes privacy settings as we recommended



The screenshot shows a Foursquare blog post. At the top left is the Foursquare logo with a 'BLOG' tag. To the right are navigation links: Home, Eng Blog, Support, Jobs, and Contact. The post is dated 'Sep 29th'. The title is 'Making your house into a home' with a blue circular icon containing a white house symbol. The text discusses privacy changes for 'homes' on the platform.

Sep 29th

Making your house into a home

A lot of people love checking in to their [homes](#) on foursquare. They want to be Mayor of their house, or they may want their friends to know they made it home safe after a night out, or they may be tracking the time they wake up every morning with a quick check-in. It's obviously an important part of your day.

To help protect the privacy of people's homes, a few months ago we made a change: venues that were categorized as 'homes' only showed up in the 'nearby places' list if you were friends with the creator of the venue, if you'd checked in there before (like for a party), or if you searched for it specifically by name (little known fact: the most popular superhero-related home name is the 'Batcave').

Conclusions

- 20 years of location sharing studies, today we finally have foursquare (huge)
- Three user studies on uses of foursquare
 - Badges lure people to build online social network on foursquare?
 - Our participants felt they can manage their privacy with check-in
 - First step to understand check-in behavior at large

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Thank you!

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