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

- Check-in
- Badge
- Points
Foursquare Places

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

Tips

<table>
<thead>
<tr>
<th>Tip</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Luke’s Lobster East Village</strong></td>
<td>October 5</td>
<td>New York, NY</td>
</tr>
<tr>
<td>Best bet for lobster roll in the East Village (maybe even all of downtown?). The $8 half sandwich will make you cry it’s so small so opt for the $14 one. For bonus points go spittly-spitty w/someo.</td>
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<tr>
<td><strong>The Standard Grill</strong></td>
<td>August 5</td>
<td>New York, NY</td>
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<tr>
<td>Downstairs restroom: take the Dyson Air Blade hand dryers for a test drive! It’s like a dream come true!</td>
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<tr>
<td><strong>Ace Bar</strong></td>
<td>February 9</td>
<td>New York, NY</td>
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<tr>
<td>Go to Ace Bar and break 300 in skeeball. Reward yourself with a Miller High Life</td>
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<tr>
<td><strong>Back Room</strong></td>
<td>December 9</td>
<td>New York, NY</td>
</tr>
<tr>
<td>Winter time + midweek + Backroom + fireplace = one of the hotter spots on a cold night in Lower East Side (backup plan: fireplace © The Delancey). Just watch out for the drags!</td>
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Badges (67)

Mayorships (2)

Friends (502 total)
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
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?

foursquare is more fun with friends!

find friends using any of these services:

- [ ]
- [ ]
- [ ]

FIND FRIENDS
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
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?

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<th>Restaurants</th>
<th>Bars</th>
<th>School</th>
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<th>Home</th>
<th>Work</th>
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Meeting New People

- 66 (30%) had met new people using foursquare
- 37 (17%) had gone to talk to new people
- 30 (14%) have been approached 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

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
Thank you!

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