Social Computing Systems

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EECS 498, Winter 2016
(http://tiny.cc/socsClass)
Today (part 2)

- More Social Networking Sites (SNSs) examples
- Continued question: What do we need to facilitate social networking?
and now, the thrilling conclusion to SNS…

(starting with more examples)
AIM (?)
OkCupid (?)

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**My self-summary**

I’m a fun loving guy and a self-starter who has absolutely no interest in committing murder. I’m looking for love, companionship, or just that one lovely evening (and rest assured that that one lovely evening will absolutely end with you back at your house, safe and sound!) Let me take you into my magical world of not murdering anyone, ever, for any reason.

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**His Details**

- Last Online: Today – 3:43pm
- Ethnicity: White
- Height: 5’11” (1.80m)
- Body Type: Fit
What SNSs Are Out There?

One potential list: https://en.wikipedia.org/wiki/List_of_social_networking_websites

- Not exactly air-tight / perfect. Some of these could be debated
- However, they all enable social connections and interactions
  - AKA, they all have some social networking aspects
Breaking Down Design Decisions
System Features

- Connections / network
- Interaction options (e.g., chat/public posts/…)
- Privacy/anonymity (e.g., ‘real-name’ policies, and ‘circles’)
- Interaction visibility (e.g., ‘profile view’ alerts)
- User/use culture of the community
- UX (user experience)
- ...

[Image of interconnected people]
MySpace
Hypothetical Features and Their Impact

(Based on a Cracked 2007 post: http://www.cracked.com/article_15752_5-features-myspace-desperately-needs.html)

What is the expected impact of their list (on various SNSs)?

#5  Anti-Friends

#4  Account Activity Simulator

#3  Tom Filter

#2  Pedophile Identification (more generally: a convicted felon / registered offender / etc. disclosure requirement)

#1  “Straight-On” Picture Requirement

… Other ideas?
Re-Designing With These Ideas
Using These Ideas

- How could we make Facebook into a safe dating site?
- How could we help maintain strong friendships from afar?
- How could we improve how research is done?
- ...
Downsides

“The more people used Facebook at one time point, the worse they felt the next time we text-messaged them; the more they used Facebook over two-weeks, the more their life satisfaction levels declined over time.”

"Interacting with other people “directly” did not predict these negative outcomes. They were also not moderated by the size of people's Facebook networks, their perceived supportiveness, motivation for using Facebook, gender, loneliness, self-esteem, or depression.”
“On the surface, Facebook provides an invaluable resource for fulfilling the basic human need for social connection. Rather than enhancing well-being, however, these findings suggest that Facebook may undermine it.”
SNS Network Properties
Social Graphs

Nodes = people (or other members like orgs) in SNSs

Edges = connections between people

Communities = clusters of nodes (defined by edges)

Paths = complex links between people (e.g., “friends of friends”)

Modified from: moz.com/blog/authorship-google-plus-link-building
Network Measures

**Betweenness**: How many shortest paths between two nodes pass through the node X?

**Node degree**: How many connections to other nodes does the node have?

- Often, this follows a power law distribution

**Centrality**: Measure of a vertex’s importance in a graph

... and many more
Network Properties

**Homophily:** “Birds of a feather flock together”

**Transitivity:** If A is friends w/ B, and B is friends w/ C, then A is likely friends w/ C

**Reciprocity:** If A follows B, what is the probability that B follows A

**Assortativity:** If A has property X, how likely is their friend B to have that prop.?
It’s a Small World After All

“6 degrees of separation”

Milgram (1960), “package” experiment

- Send a package cross country by handing it off
- On average, 6.5 people needed

“Bacon Number”: separation of acting w/ Kevin Bacon

- The Oracle of Bacon: https://oracleofbacon.org/

“Erdos Number”: separation of publishing w/ Paul Erdos
Coming Later: Network Theory

Network Analysis

Data Mining

NLP

...

Connection network examples: SNSs, papers, movies, etc.
“Today” (recap)

- **Social Networking Sites (SNSs)**
  - Websites that connect people to one another to communicate, share and more

- **What do we need to facilitate social networking?**
  - Think about why and what people communicate, and find ways to support or dissuade them
Next Class

- Lecture Topic:
  - Communication Tools

- Readings (for this week):
  - onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2007.00367.x
  - (available on the class website)

- Assignments:
  - Coming Soon
Quiz
Ice Breaker — Pairings

- Find someone you don’t already know

- Chat about project ideas, problems that could be solved, tech you want to use
  - You don’t have to chat about all of these, just what you want to do

- You have 2 minutes to chat

- Once time is up, you have 20 seconds to find someone new

- Repeat!
Team Formation — Round 1

- Form your initial teams (based on informed preference)
- Discover how many ‘builders’ you have
  - How many are front-end? Back-end?
- Find out how many ‘designers’ you have
  - System or interface/user experience?
- You need to have an approximate balance of people who fit each role!
- What is your preferred medium (e.g., web or mobile)? Can you build for that?