Social Computing Systems

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(http://tiny.cc/socsClass)
Today

- Social Network Sites (SNSs): definition and examples
- Why do people use SNSs?
- How do people decide which SNSs to use?
- Benefits of SNSs
Social Networks

Nodes = people

Edges = connections between people

Communities = clusters of nodes (defined by edges)

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

“Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.”

- boyd and Ellison

Social Network Sites

1. Profile?
2. Articulate Connections?
3. Visible Connection List?
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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.
Social Network Sites

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2. Articulate Connections?
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ICWSM 2012 paper: The YouTube Social Network

“examines the social network aspect of YouTube by measuring the fullscale YouTube subscription graph, comment graph, and video content corpus. We find YouTube to deviate significantly from network characteristics that mark traditional online social networks, such as homophily, reciprocative linking, and assortativity.”

Why do people use social network sites?
People are naturally social.

We socialize to: have fun, learn, share information, signal, …

Making and maintaining connections is key to socialization.
Human Communication

- Relate to others (shared experiences)
- Share/find content (information)
- Coordinate (share information about intent)
- Shared problem solving
- Shared memory
- Send/receive social signals
Social Penetration Theory

AKA, “The Onion Theory”

- Orientation (meeting)
- Exploratory (cautiously establish shared knowledge)
- Affective (expression of the target state; commitment)
- Stable (long-term state)
Social Penetration Theory

1: Biographical Data (Age, Gender, Name)
2: Preference in Clothes, food & Music
3: Goals, Aspirations
4: Religious Convictions
5: Deeply Held Fears & Fantasies
6: Concept of Self
Social Penetration Theory

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We use social media to initiate/augment these stages!
Social Signaling

“Signaling theory addresses the type of information that can be placed in profiles, suggesting that profile elements act as signals that may prove something about the identity of the user. These signals can be manipulated by senders to communicate personal qualities, or interpreted by receivers to make judgments about the characteristics of other users.”

- Lampe, Ellison, Steinfield

Social Signaling
Social Signaling

1. Legs On The Beach
   Lighthearted but kinda braggy joke about you poor saps stuck at work!! haha jk

4. Jumping For No Reason
   Jumping! #Jumping
Social Signaling
Social Signaling

(possibly fake)
Social Signaling

- Income (as we saw)
- Lifestyle (as we saw)
- Skills / Attributes
- Popularity
- Reputation
- Power/Influence
- Beliefs/Morals
- Group Affiliation
- ...
How do people decide which social network site to use anytime they want to share something?
I should post this awesome picture from my vacation online. But where?!?!
It’s a picture, and I want to share it with friends. Instagram it is!
Affordance Theory

“Affordances are properties taken with reference to the observer.”

“All objects have features that distinguish them from other objects, but what distinguishes objects and **people’s use of them** is each person’s perception of the objects’ features”

- James J. Gibson

Social Media Affordances

**Visibility:** “means, methods, and opportunities for presentation” i.e., how information is presented on a social network site

**Editability:** ability for a user to craft or edit their content before and after posting it

**Persistence:** whether the information presented persists or disappears, i.e., the ephemerality of content

**Association:** established relationships between individuals or individuals and data (audience-related categories like audience type, size, privacy boundary)

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Benefits of Online Social Networks
ANATOMY OF A SOCIAL NETWORK

CLOSURE
Building trust within a cluster

BROKERAGE
Connecting clusters

DEGREE
Number of connections

CLOSENESS
How easily a node can make connections

BETWEENNESS
Critical link between other nodes
Recap

Social Network Sites: profile + articulated connections + visible connections

Why do people use social network sites?
- Social Penetration Theory
- Signaling Theory

How do people decide which site to use?
- Affordance Theory

Benefits of Online Social Networks
- Trust within clusters
- Connection across clusters via brokers
Studio: Eval/Metrics
Examples

Speech recognition system (live captioning)

Integrated Development Environment (IDE)

Conversational Interface to Yelp

Conversational Interface to a Party-Planning Service