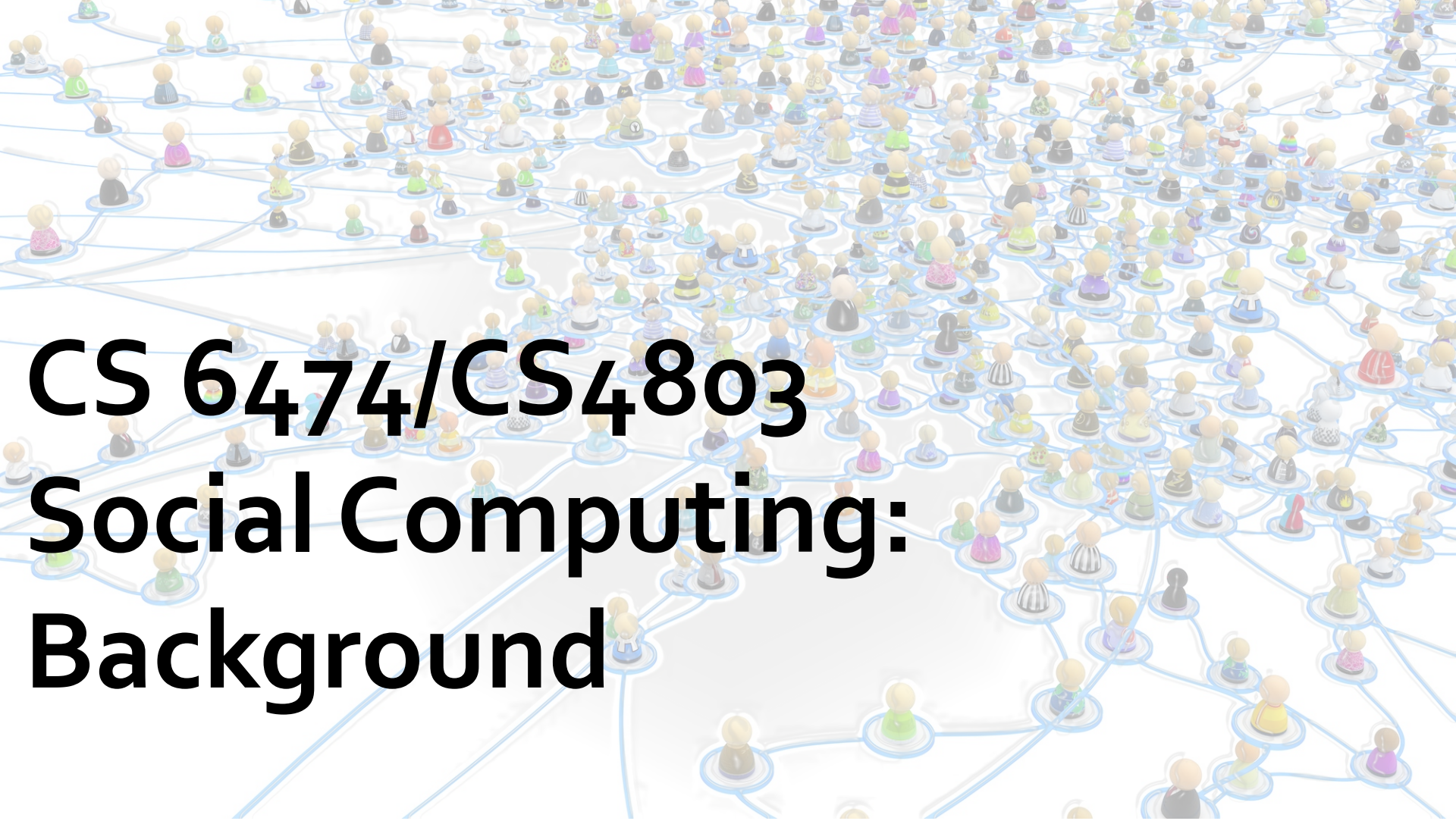

CS 6474/CS4803 Social Computing: Background

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Week 2 | January 19, 2021

Course Resources

- Course Webpage: http://www.munmund.net/CS6474_Fall2021.html
- Slides on the course webpage
- Recording of class videos on Canvas under "Pages"

- Reading reflection samples: http://www.munmund.net/courses/fall2019/reflection_samples.pdf
  - Due night before from the class (at 11:59pm on Piazza)
- Assignment I – available on the course website
  - Due January 28

Defining “Social Computing” / Background

Why Social Computing?

Interact

- Expressions
- Gestures
- Spoken Word
- Written Word

Sensitive to the people around

Humans are Social

Make decisions shaped by social context

- Choosing a restaurant
- Crossing the street

Doing what others do and following what others say

Class Activity

A) An example of a social computing system (that exists online)

Why?

B) An example of a non-social computing system (that exists online)

Why?

people creating
(blogs, user-generated content and podcasts)



people connecting
(social networks and virtual worlds)


people collaborating
(wikis and open source)


people reacting
(to each other: forums, ratings and reviews)

people organizing content
(tags)


people accelerating consumption
(RSS and widgets)


Source: Forrester Research (www.forresterresearch.com)

Purposes of social computing systems

- Social interaction
  - Twitter, Instagram, blogs, LinkedIn, Google+
- Maintaining friendships/contacts
  - Facebook, Instagram, Twitter, LinkedIn, Google+
- Social curation
  - Reddit, Pinterest, blogs, Twitter, Flickr, YouTube, Google+
- Content sharing
  - Reddit, Instagram, Twitter, Facebook, Tumblr, Pinterest, blogs, Flickr, YouTube
- Q&A, recommendations
  - Twitter, Facebook

- *General goal: Better connecting, decision making*

Purposes of social computing systems

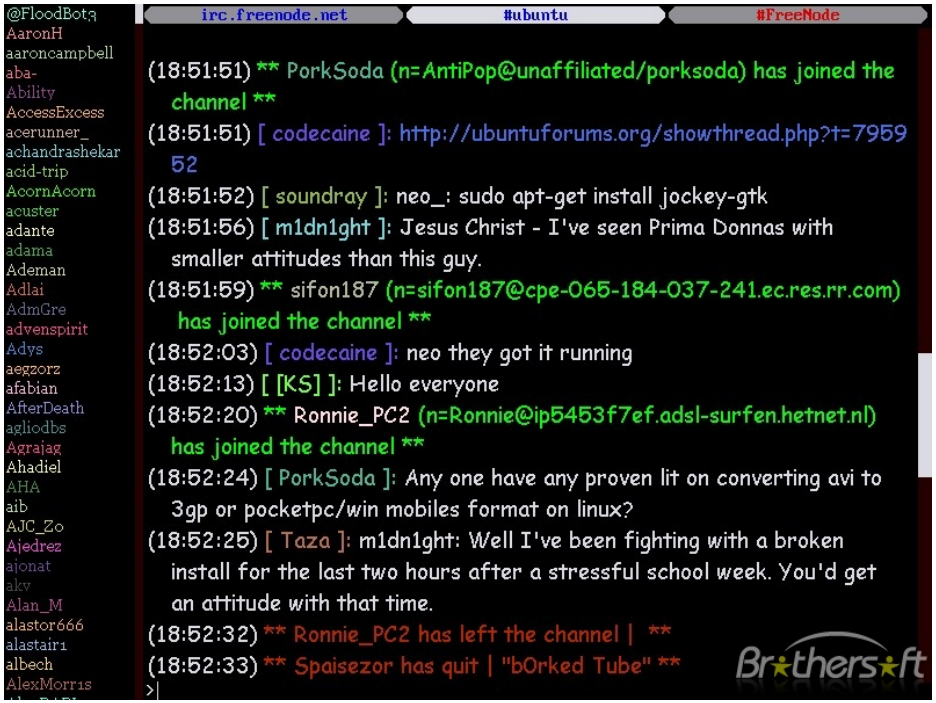
- Ubiquity of social computing systems
  - Recent advances in smartphone and tablet technologies, access to tailored, social information anytime, anywhere
- Serve as a "backchannel" to real events
  - People at real-world meetings tapping into an electronic swirl of commentary and interpretation by other participants – the "back channel" [2005]
- Geo-temporal breadcrumbs in the physical world
  - Serendipitous information discovery; smart gadgets for everyday tasks

Revisiting the history…

"As We May Think" predicted (to some extent) many kinds of technology invented after its publication, including hypertext, personal computers, the Internet, the World Wide Web, speech recognition, and online encyclopedias such as Wikipedia: "*Wholly new forms of encyclopedias will appear, ready-made with a mesh of associative trails running through them, ready to be dropped into the memex and there amplified*."

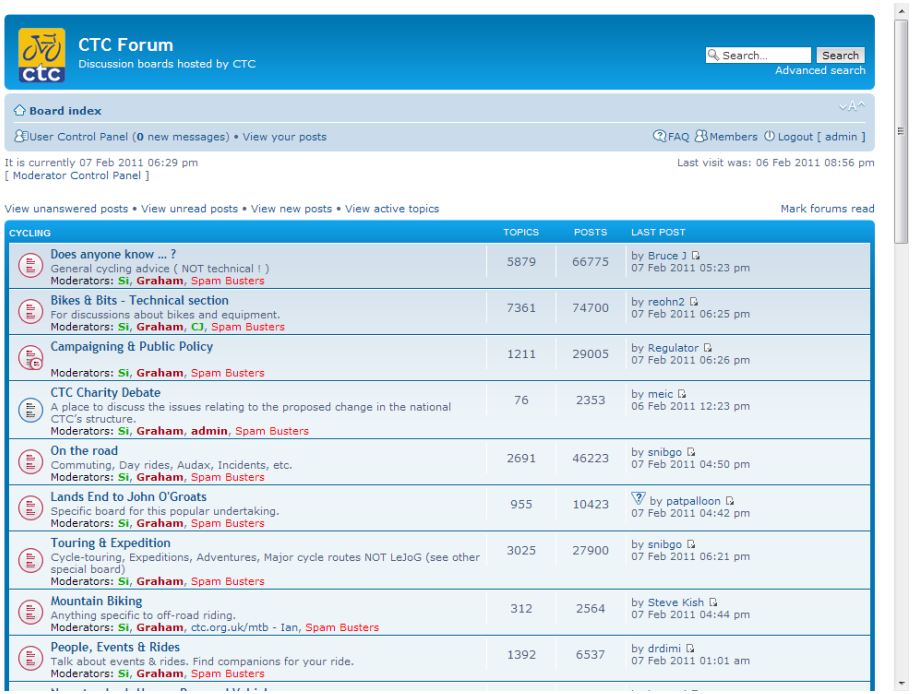
IRCs and forums were early "social"

- IRC – Internet Relay Chat, very early rudimentary application layer protocol that supported text based message exchange
  - Allow file sharing
  - Private and multi-way group chat (latter also known as channels)



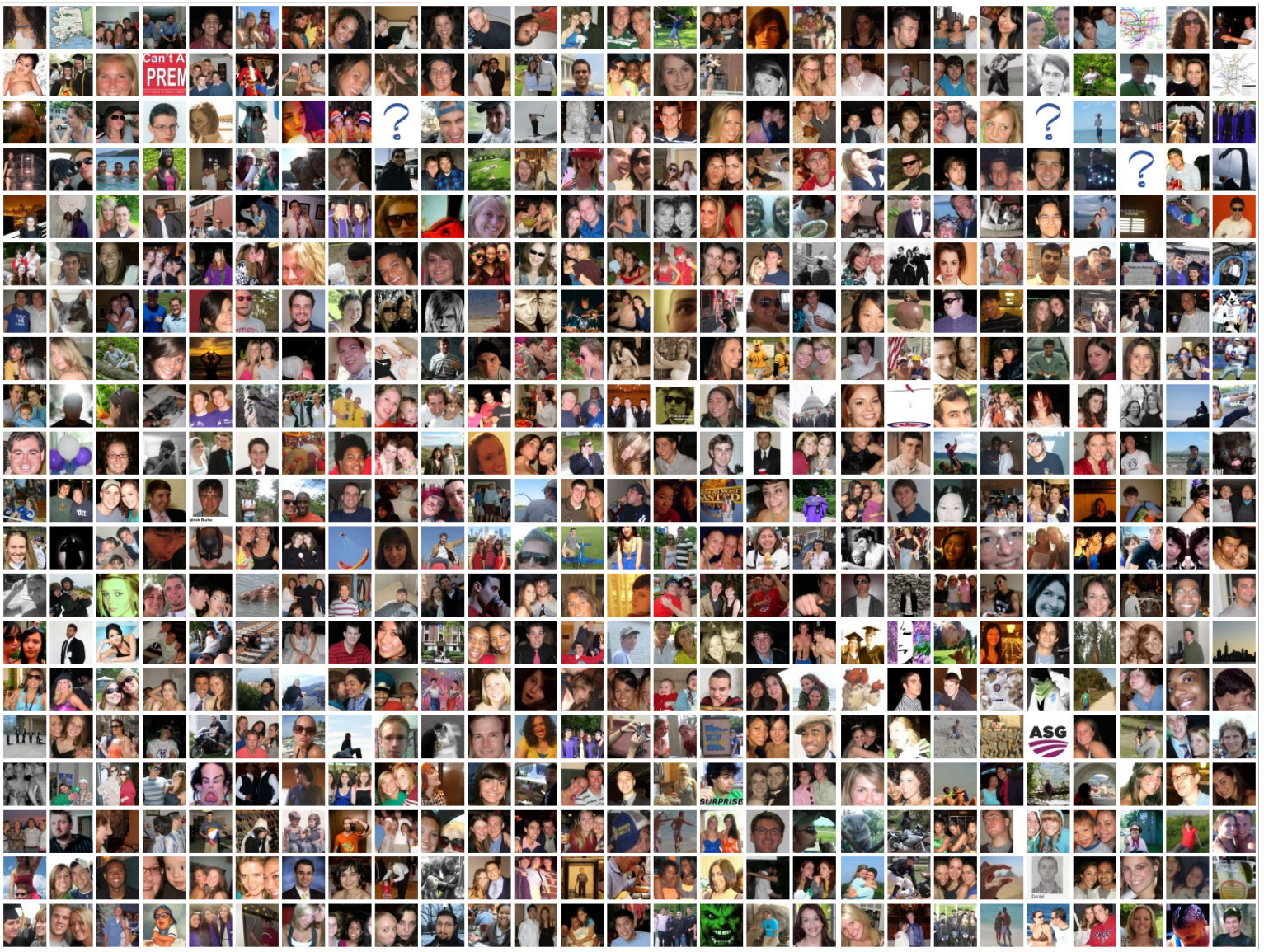
IRCs and forums were early "social"

- Forums – message boards or an online discussion site where people can hold conversations in the form of posted messages
  - Mostly one-to-many sharing of content; threaded response structure
  - Messages are often longer than one line of text, and are typically temporarily archived
  - Presence of a "moderator"



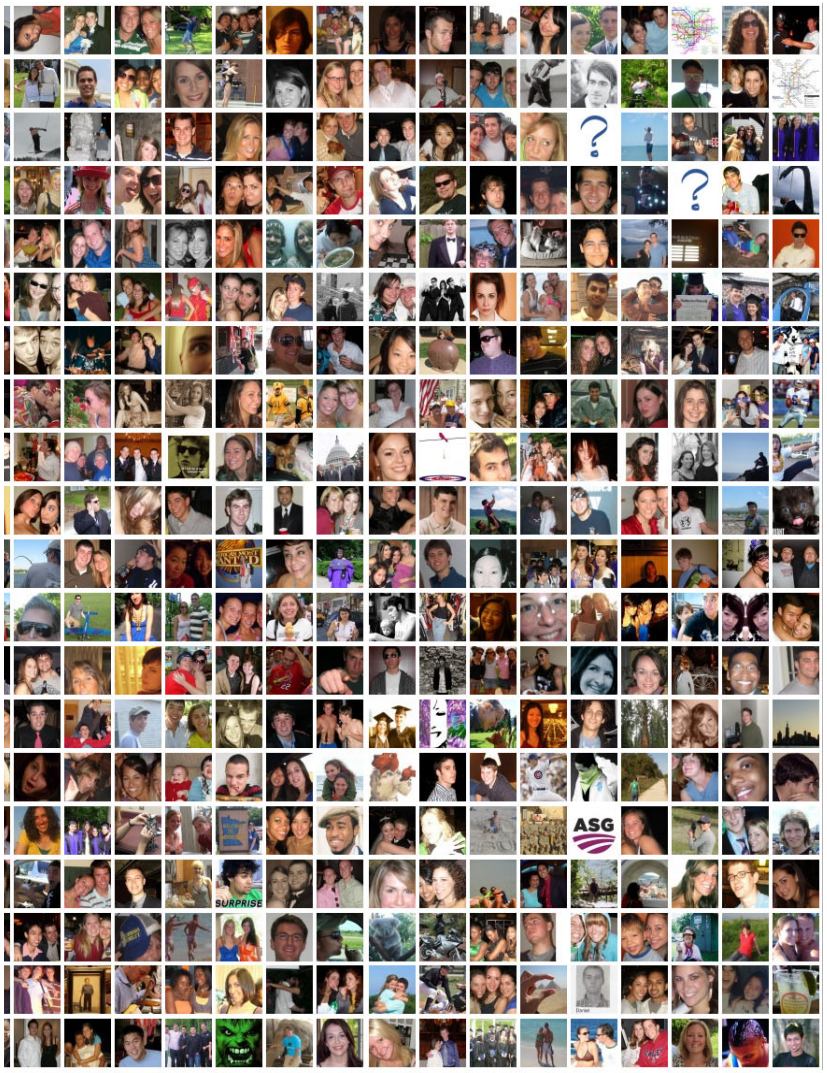
The advent of modern social computing came when digital systems began to process user-generated content and make use of it for their own purposes – which often involved producing new functionality and value for their users

Two central tenets of social computing



People

- Motivating participation
- Maintain existing connections
- Suggest new connections
- Derive utility from connections
- Manage diversity of connections
- Efficient communication modes
- Manage privacy, identity
- Cohorts, communities, groups



Two central tenets of social computing

Content

- Constantly streaming source of information
- Noise and quality
- Credibility
- Relevance/significance
- Serendipity/freshness
- Summarization/aggregation
- Spam
- Troll, malicious behavior

Theoretical and Infrastructural Basis of Social Computing

- Social Computing is a cross-disciplinary research and application field with theoretical foundations including both ***computational*** and ***social sciences***
- To support social interaction and communication, it relies on:
  - Communication
  - Human Computer Interaction
  - Sociological, Psychological, Economic, and anthropological theories
  - Social network analysis

What attracts people most, it would appear, is other people.

— William Whyte

The Social Life of Small Urban Spaces

- Whyte led the Street Life project in the 1970s, and began investigating the various dynamics of urban spaces.
- He focused on the city, and studied New York City's parks, plazas, and various informal recreational areas like city blocks -- a total of 16 plazas, 3 small parks.
- Goal: 1) *why do some city spaces work for people while others don't*, and 2) *what the practical implications might be about living better, more joyful lives in our urban environment.*

https://www.youtube.com/watch?v=IsVZxanrL7s

Group Discussion

How is an understanding of street behavior relevant to the study of behaviors on social computing systems?

How is an understanding of street behavior relevant to the study of behaviors on social computing systems?

What are your key observations (find two) and how do they relate to social computing systems?

Observation 1: People gathered and conversed in the most unexpected (crowded) places

Observation 2: People love to gossip and talk about mundane topics; they gathered in specific places and had conversations that were fairly brief or fairly long

Observation 3: Conversations had silence and people used reciprocal gestures and movement; streets were a congenial place for expression of these activities

Observation 4: Cities across the world are distinct, but on the streets people acted more or less the same despite underlying contrasts in cultures and practices

Observation 6: Large cities vs. small cities – differences exist in terms of density, pace, nature and types of social activities. But similarities outweigh differences.

Summary: Urban design needs to account for creating physical places that facilitate civic engagement and community interaction