



# 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](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](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)



# 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

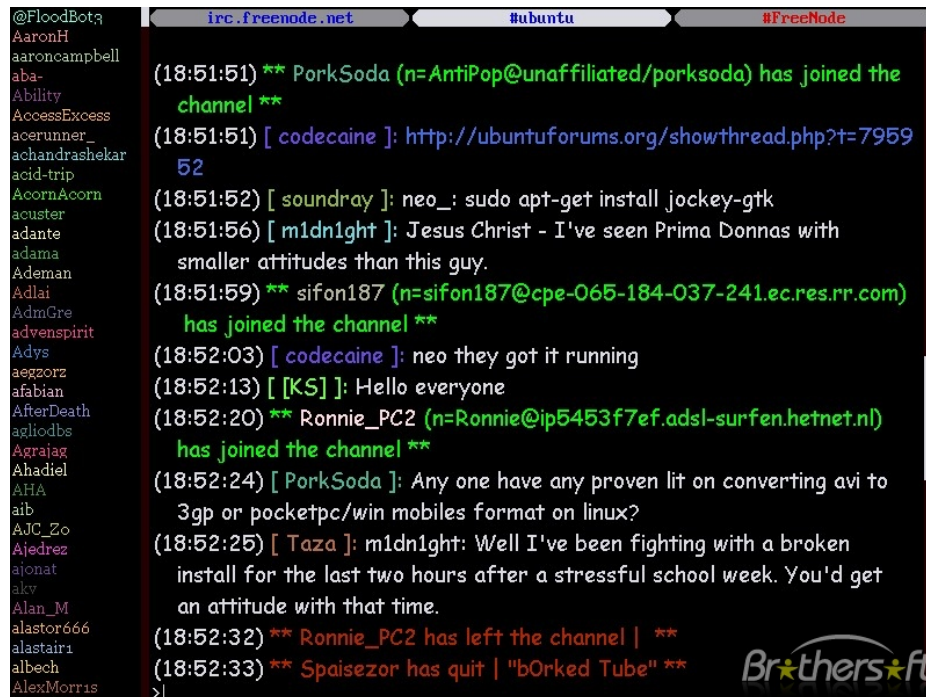


# Revisiting the history...

"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)



```
@FloodBot3
AaronH
aaronocampbell
aba-
Ability
AccessExcess
acerunner_
achandrashekar
acid-trip
AcoornAcoorn
acuster
adante
adama
Ademan
Adlai
AdmGre
advenspirit
Adys
aegzorz
afabian
AfterDeath
agliodbs
Agrajag
Ahadiel
AHA
aib
AJC_Zo
Ajedrez
ajonat
aky
Alan_M
alastor666
alastair1
albech
AlexMorris
>
```

irc.freenode.net #ubuntu #FreeNode

(18:51:51) \*\* PorkSoda (n=AntiPop@unaffiliated/porksoda) has joined the channel \*\*

(18:51:51) [ codecaine ]: <http://ubuntuforums.org/showthread.php?t=795952>

(18:51:52) [ soundray ]: neo\_: sudo apt-get install jockey-gtk

(18:51:56) [ m1dn1ght ]: Jesus Christ - I've seen Prima Donnas with smaller attitudes than this guy.

(18:51:59) \*\* sifon187 (n=sifon187@cpe-065-184-037-241.ec.res.rr.com) has joined the channel \*\*

(18:52:03) [ codecaine ]: neo they got it running

(18:52:13) [ [KS] ]: Hello everyone

(18:52:20) \*\* Ronnie\_PC2 (n=Ronnie@ip5453f7ef.adsl-surfen.hetnet.nl) has joined the channel \*\*

(18:52:24) [ PorkSoda ]: Any one have any proven lit on converting avi to 3gp or pocketpc/win mobiles format on linux?

(18:52:25) [ Taza ]: m1dn1ght: Well I've been fighting with a broken install for the last two hours after a stressful school week. You'd get an attitude with that time.

(18:52:32) \*\* Ronnie\_PC2 has left the channel | \*\*

(18:52:33) \*\* Spaisezor has quit | "bOrked Tube" \*\*

Br\*thers\*ft

# 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”

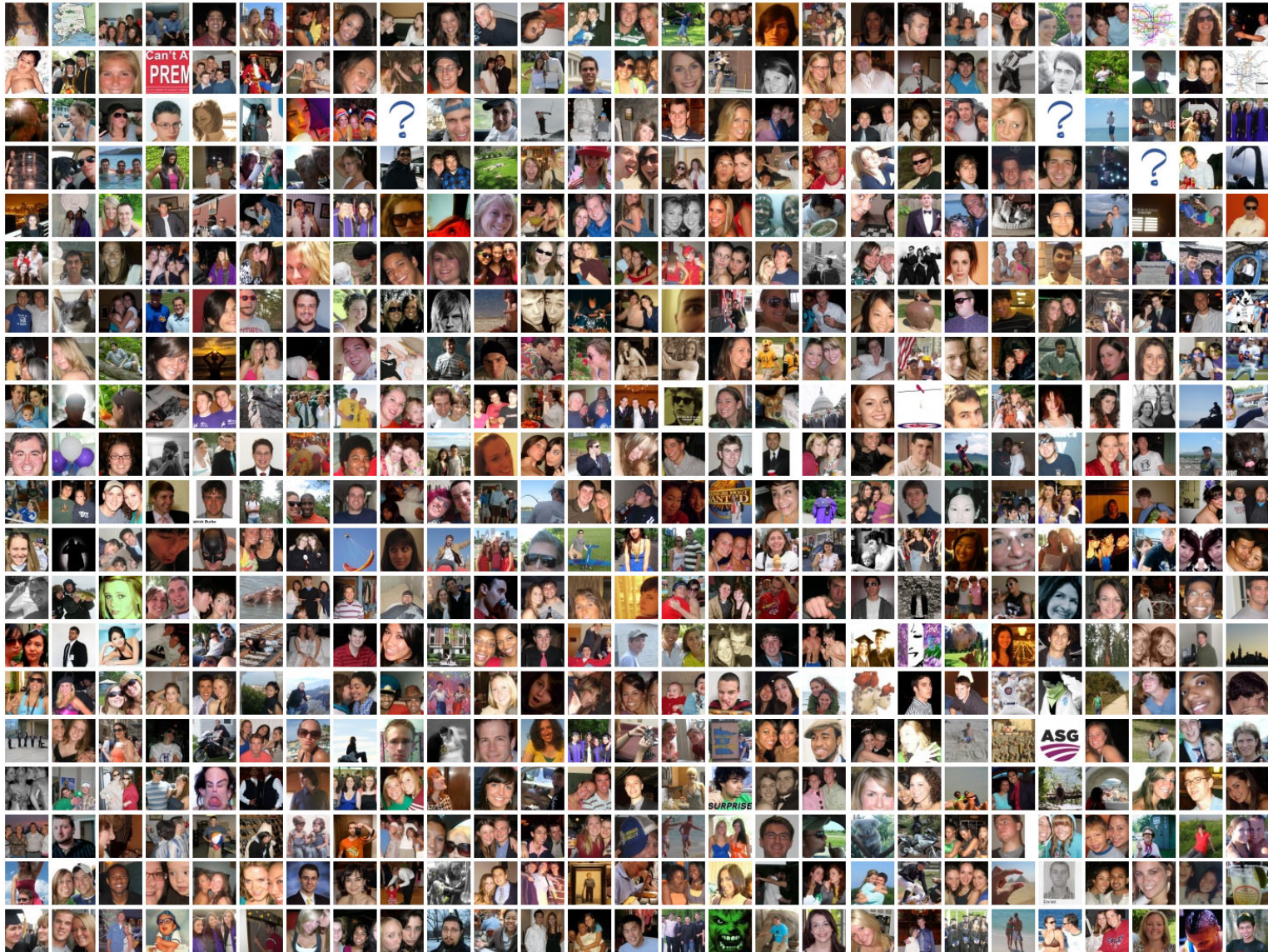


The screenshot shows the CTC Forum website interface. At the top, there is a blue header with the CTC logo and the text "CTC Forum Discussion boards hosted by CTC". Below the header, there is a navigation bar with links for "Board index", "User Control Panel", "FAQ", "Members", and "Logout". The main content area displays a table of discussion boards under the "CYCLING" category. The table has columns for "TOPICS", "POSTS", and "LAST POST".

	TOPICS	POSTS	LAST POST
<b>Does anyone know ... ?</b> General cycling advice ( NOT technical ! ) Moderators: <b>Si, Graham, Spam Busters</b>	5879	66775	by Bruce J 07 Feb 2011 05:23 pm
<b>Bikes &amp; Bits - Technical section</b> For discussions about bikes and equipment. Moderators: <b>Si, Graham, CJ, Spam Busters</b>	7361	74700	by reohn2 07 Feb 2011 06:25 pm
<b>Campaigning &amp; Public Policy</b> Moderators: <b>Si, Graham, Spam Busters</b>	1211	29005	by Regulator 07 Feb 2011 06:26 pm
<b>CTC Charity Debate</b> A place to discuss the issues relating to the proposed change in the national CTC's structure. Moderators: <b>Si, Graham, admin, Spam Busters</b>	76	2353	by meic 06 Feb 2011 12:23 pm
<b>On the road</b> Commuting, Day rides, Audax, Incidents, etc. Moderators: <b>Si, Graham, Spam Busters</b>	2691	46223	by snibgo 07 Feb 2011 04:50 pm
<b>Lands End to John O'Groats</b> Specific board for this popular undertaking. Moderators: <b>Si, Graham, Spam Busters</b>	955	10423	by petpalloon 07 Feb 2011 04:42 pm
<b>Touring &amp; Expedition</b> Cycle-touring, Expeditions, Adventures, Major cycle routes NOT LeJoG (see other special board) Moderators: <b>Si, Graham, Spam Busters</b>	3025	27900	by snibgo 07 Feb 2011 06:21 pm
<b>Mountain Biking</b> Anything specific to off-road riding. Moderators: <b>Si, Graham, ctc.org.uk/mtb - Ian, Spam Busters</b>	312	2564	by Steve Kish 07 Feb 2011 04:44 pm
<b>People, Events &amp; Rides</b> Talk about events & rides. Find companions for your ride. Moderators: <b>Si, Graham, Spam Busters</b>	1392	6537	by drdimi 07 Feb 2011 01:01 am

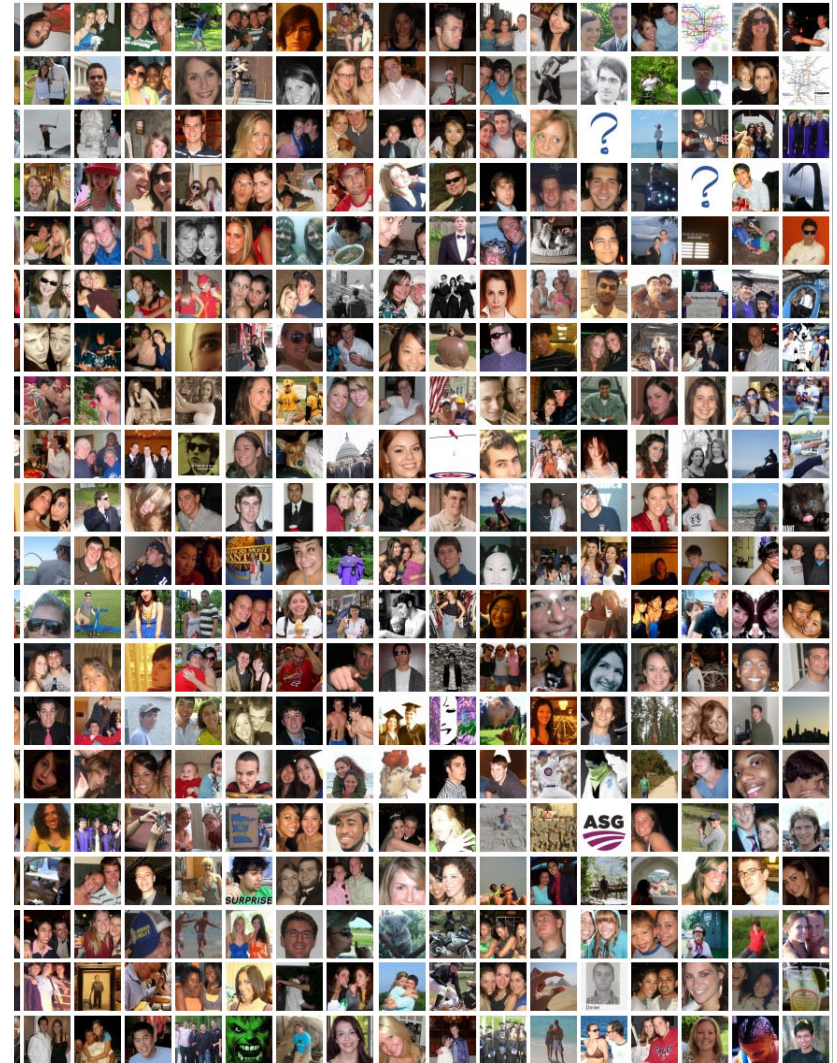
The advent of modern social computing came when digital systems began to process user-generated content and make use of it for their own purposes – which often involved producing new functionality and value for their users

# 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



Emergency Kittens

@EmrgencyKittens



Following

Just helping you pick out some clothes!

↩ Reply ↻ Retweet ★ Favorite ⋮ More



RETWEETS  
715

FAVORITES  
1,102



8:40 AM - 18 Aug 2014

Flag media

# Content

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



**Emergency Kittens**  
@EmrgencyKittens



Following

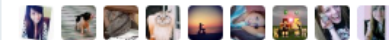
Just helping you pick out some clothes!

← Reply ↻ Retweet ★ Favorite ⋮ More



RETWEETS  
715

FAVORITES  
1,102



8:40 AM - 18 Aug 2014

Flag media



# 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