

# CS 6474/CS 4803

## Social Computing:

### Social Computing Theories: Social Capital

*Munmun De Choudhury*

[munmund@gatech.edu](mailto:munmund@gatech.edu)

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# Social Capital

## A Conceptualization of Social Capital

Social capital addresses 3 important questions:

1. **Sociality.** The motivational drives of human behavior and action in social contexts;
2. **Sociability.** Concerned with people's tendency to associate with others or in groups;
3. **Social embeddedness.** Mechanisms of social integration and reproduction.

Social capital broadly refers to the resources accumulated through the relationships among people (Coleman, 1988).

Bourdieu and Wacquant (1992) define social capital as “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p. 14).

Social capital is defined as “social networks and the associated norms of reciprocity and trust that arise from those networks” (Putnam, 2000)

Know your social capital  
– Class Activity o

Social Capital Focuses on:

- *Who knows Whom*
- *The Character of these Networks*
- *The Strength of our Ties*
- *Levels of Trust*
- *Levels of Reciprocity*

# Bonding and bridging social capital (Putnam)

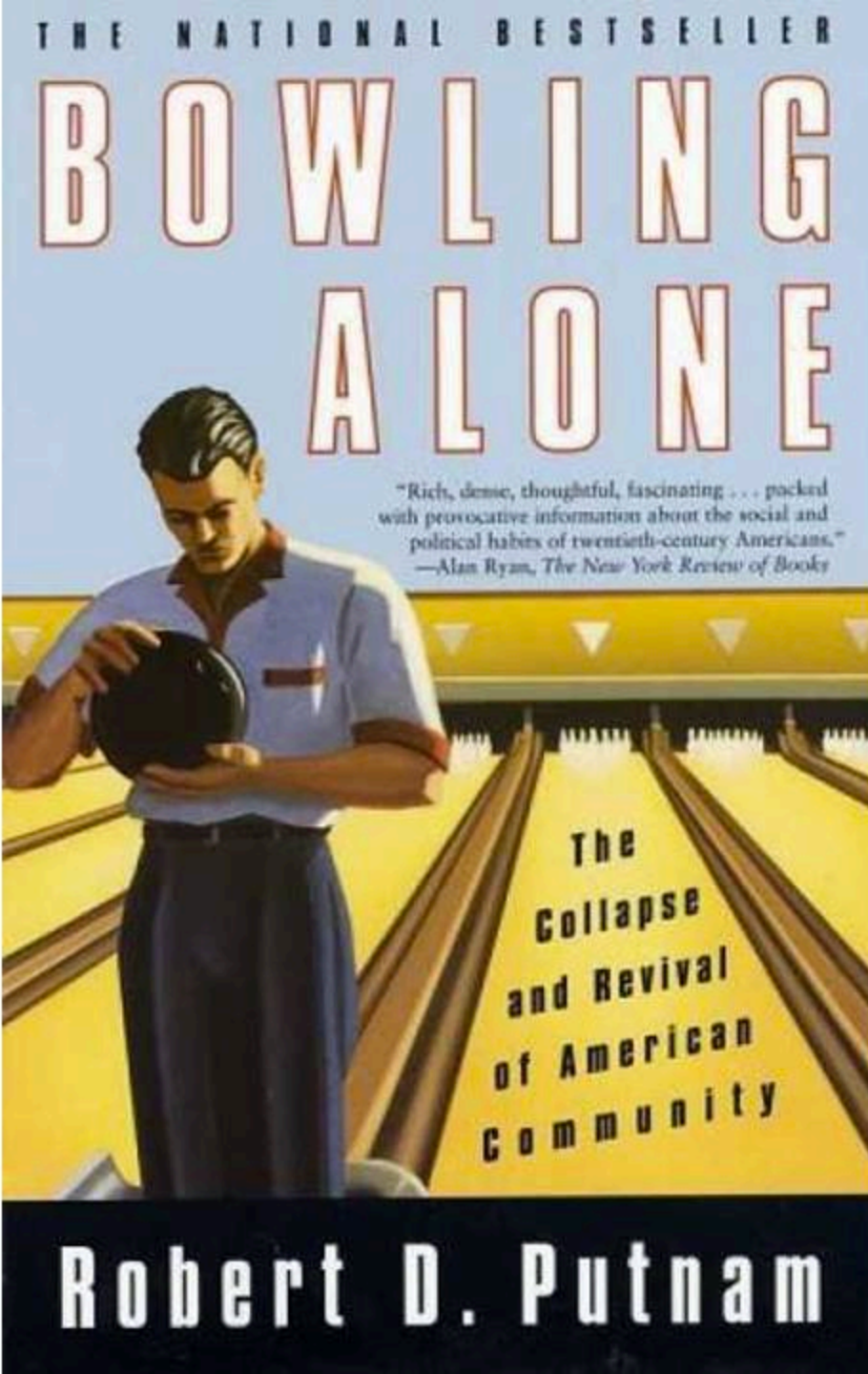
## 1. Bonding (Putnam)

- ▶ Generated by strong ties. Considered essential in every society. Concerns over loss of bonding social capital prevalent in related scholarship (see also our earlier notes on communities)
- ▶ Bonding social capital is the *effect* of maintaining strong ties

## 2. Bridging (Putnam)

- ▶ Weak ties at play; 'bridges' more essential than other weak ties. Complementing or making up for loss of strong ties and increasing in importance in modern urban societies and CMC
- ▶ Bridging social capital is the *effect* of maintaining bridges





## Rise and Decline of League Bowling

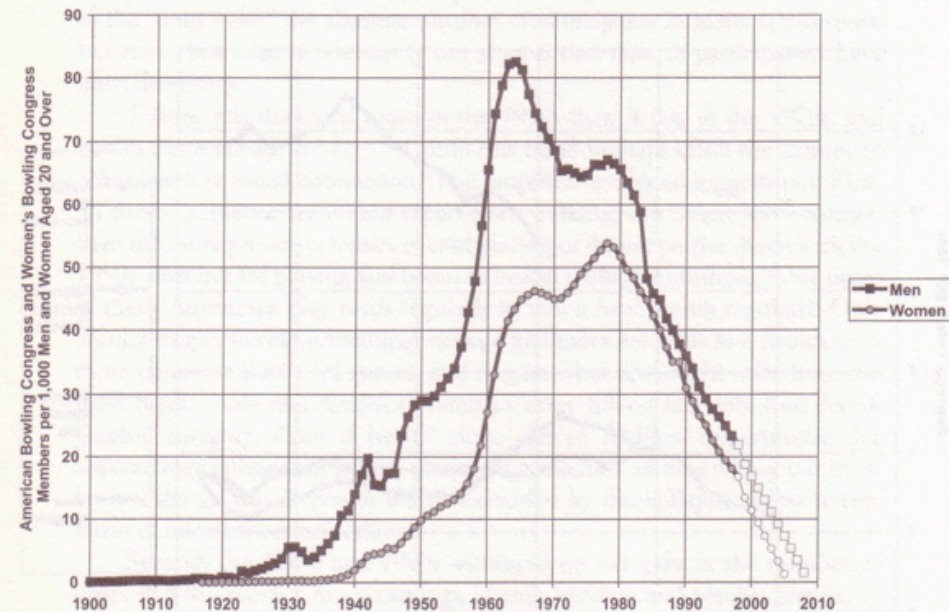


Figure 26: The Rise and Decline of League Bowling

Putnam's book was controversial  
– he disregarded newer  
organizations and forms of social  
capital



Critics like sociologist Claude Fischer said that “Putnam neglects the emergence of new forms of supportive organizations on and off the Internet”

# Dimensions of social capital

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## Maintained (Ellison et al.)

- ▶ Social capital salvaged by CMC after physical disconnection from offline social network (implies some social capital lost by physical disconnection, e.g., move to another place for work or study)

# The Benefits of Facebook

## “Friends:” Social Capital and College Students' Use of Online SNS

# Summary

- One of the earliest studies examining the relationship between the usage of Facebook and the formation and maintenance of social capital
- Survey study based on N=286 undergraduate students
- Findings:
  - Intensity of Facebook use was correlated with bridging and bonding social capital, however more for bridging than bonding
  - For users with low self-esteem and low life-satisfaction, Facebook use can promote psychological well-being
  - Facebook helps convert latent ties into weak ties
  - Facebook use supports the “poor gets richer” hypothesis

H1: Intensity of Facebook use will be positively associated with individuals' perceived bridging social capital.

H2: Intensity of Facebook use will be positively associated with individuals' perceived bonding social capital.

H3a: The relationship between intensity of Facebook use and bridging social capital will vary depending on the degree of a person's self esteem.

H3b: The relationship between intensity of Facebook use and bridging social capital will vary depending on the degree of a person's satisfaction with life.

H4a: The relationship between intensity of Facebook use and bonding social capital will vary depending on the degree of a person's self esteem.

H4b: The relationship between intensity of Facebook use and bonding social capital will vary depending on the degree of a person's satisfaction with life.

# Thoughts and additional findings

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- ▶ Main target audience for Facebook profile seem to be old friends and then current friends and acquaintances from immediate environment; but strongest results of study are with respect to the effects of weak ties (bridging social capital)
- ▶ FB more valuable in bridging for users with low self-esteem and/or dissatisfaction with professional and/or social environment



# Thoughts and additional findings

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- ▶ Main target audience for Facebook profile seem to be old friends and then current friends and acquaintances from immediate environment; but strongest results of study are with respect to the effects of weak ties (bridging social capital)
  - ▶ Possible interpretation: users maintain FB pages for their friends and closer circle of acquaintances but FB is actually most helpful in the management of weak ties
- ▶ FB more valuable in bridging for users with low self-esteem and/or dissatisfaction with professional and/or social environment
  - ▶ Possible interpretation: CMC helps users overcome social or psychological barriers to communication

Ellison et al. find that college students' intensity of Facebook use was more predictive of bridging social capital versus bonding (46% vs. 22% explanation of variance in the data).

How would it generalize to the FB of today?

# Class Activity 1

What can Facebook do, in terms of design changes, to promote better bonding of social capital i.e., enable people access their strong ties and their resources better?

# Social Capital on Facebook: Differentiating Uses and Users

# Summary

- Goal: differentiate use of Facebook based on time spent on the site; compare between people varying in self-esteem and social communication skill
- Overcome bias of self-reported surveys by utilizing longitudinal data from server logs
  - Focus on longitudinal panel data from 415 Facebook users
- Characterize communication into directed and undirected
- Findings:
  - Directed communication helps maintenance of social ties; undirected communication leads to bridging
  - No relationship between number of friends and self-esteem
  - Passive use of Facebook to consume news assists those with lower social fluency as they draw value from their connections
  - Receiving messages—but not sending them—is linked to increases in bridging social capital

	1. Base model		2. FB activity		3. Communication skill		4. Self-esteem	
	$\beta$	(SE)	$\beta$	(SE)	$\beta$	(SE)	$\beta$	(SE)
Intercept	3.86 ***	(0.03)	3.86 ***	(0.03)	3.85 ***	(0.03)	3.86 ***	(0.03)
Bridging social capital (lagged)	0.47 ***	(0.04)	0.45 ***	(0.04)	0.41 ***	(0.04)	0.41 ***	(0.04)
Age	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
Male	-0.17 ***	(0.05)	-0.17 **	(0.05)	-0.14 **	(0.05)	-0.16 **	(0.05)
<b>Major life changes</b>								
Moved	0.14	(0.09)	0.14	(0.09)	0.12	(0.08)	0.13	(0.09)
Lost job	-0.34 **	(0.11)	-0.32 **	(0.11)	-0.25 *	(0.11)	-0.30 **	(0.11)
Time on Facebook	0.05 .	(0.03)	-0.05	(0.04)	-0.04	(0.04)	-0.04	(0.04)
<b>Facebook activities</b>								
Directed communication (in)			0.14 **	(0.05)	0.12 **	(0.05)	0.13 **	(0.05)
Passive consumption			0.05	(0.04)	0.04	(0.04)	0.04	(0.04)
Broadcasting			-0.02	(0.06)	0.01	(0.06)	0.00	(0.06)
<b>Individual differences</b>								
Communication skill					0.08 **	(0.03)		
‡Communication skill X Directed communication					-0.07 *	(0.03)		
‡Communication skill X Consumption					-0.07 *	(0.03)		
‡Communication skill X Broadcasting					0.00	(0.04)		
Self-esteem							0.06 *	(0.03)
‡Self-esteem X Directed communication							-0.07 **	(0.03)
‡Self-esteem X Consumption							-0.04 .	(0.02)
‡Self-esteem X Broadcasting							-0.01	(0.03)
	Adj. R <sup>2</sup> = 0.30		R <sup>2</sup> = 0.32		R <sup>2</sup> = 0.34		R <sup>2</sup> = 0.34	
*** $p < .001$ ** $p < .01$ * $p < .05$ . $p < .10$ N=415								

Predicting bridging social capital



## Class activity 2

Why is it important or relevant to study social capital in this class?

# Why Social Capital

## Goal of Social Capital:

- *Raising Social Capital to improve one's standing in a community (e.g. using bridging capital to increase awareness of disability access issues in a community)*
- *Targeted at Specific Problem-Solving (e.g. using bonding capital to connect a job seeker with someone with similar career goals)*

The first paper utilizes college students as participants. How could this attribute have affected the findings? E.g., there's a strong case of college students wanting to maintain social capital with friends from high school. But how does this generalize to other settings?

# Class Activity 3

The papers we studied today focus on the role of Facebook in social capital. Do the findings extend to other platforms as well? Give examples of bonding/bridging social capital on a social media, an online forum, and an anonymous / ephemeral site. (Examples in the handout)

## ELEMENTS

## HOW FACEBOOK MAKES US UNHAPPY



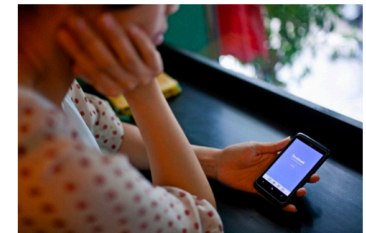
By Maria Konnikova September 10, 2013



Ellison et al. also found that Facebook usage was found to interact with measures of psychological well-being. How does it contrast with the perception of today that Facebook makes people depressed?

No one joins Facebook to be sad and lonely. But a new study from the University of Michigan psychologist Ethan Kross argues that that's exactly how it makes us feel. Over two weeks, Kross and his colleagues sent text messages to eighty-two Ann Arbor residents five times per day. The researchers wanted to

know a few things: how their subjects felt overall, how worried and lonely they were, how much they had used Facebook, and how often they had had direct interaction with others since the previous text message. Kross found that the more people used Facebook in the time between the two texts, the less happy they felt—and the more their overall satisfaction declined from the beginning of the study until its end. The data, he argues, shows that Facebook was making them unhappy.



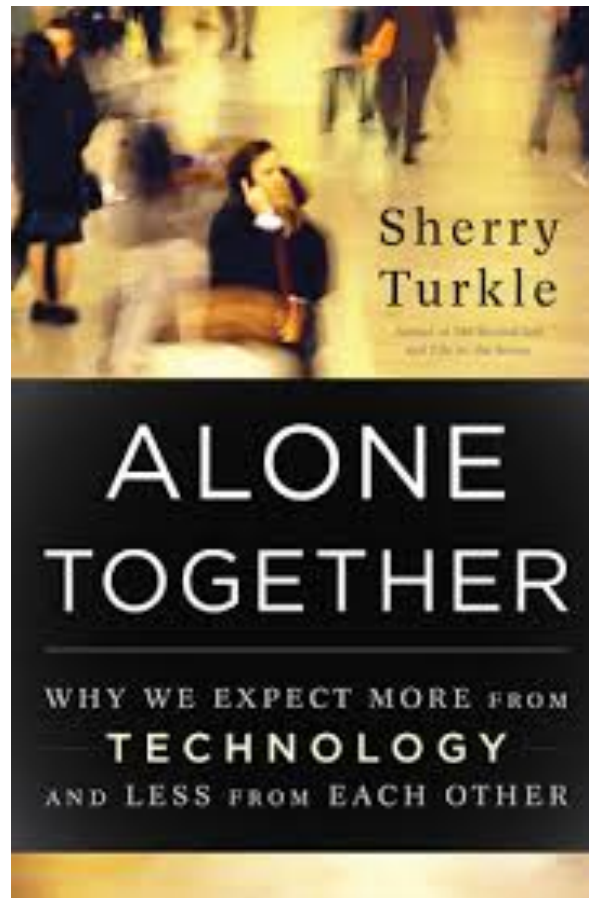
Research into the alienating nature of the Internet—and Facebook in particular—supports Kross's conclusion. In 1998, Robert Kraut, a researcher at Carnegie Mellon University, found that the more people used the Web, the lonelier and more depressed they felt. After people went online for the first time, their sense of happiness and social connectedness dropped, over one to two years, as a function of how often they used the Internet.

Does algorithmic design impact how  
people derive benefits from social capital?  
E.g., curation of items on the News Feed



## Class Activity 4

Is greater access to social capital *always* a good thing? Cite a case where it is not.



“Drawn by the illusion of companionship without the demands of intimacy, we confuse postings and online sharing with authentic communication. We are drawn to sacrifice conversation for mere connection.” – Sherry Turkle