

Research on Social Network Sites: Facebook Use and Social Capital



Nicole Ellison

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Web 2.0

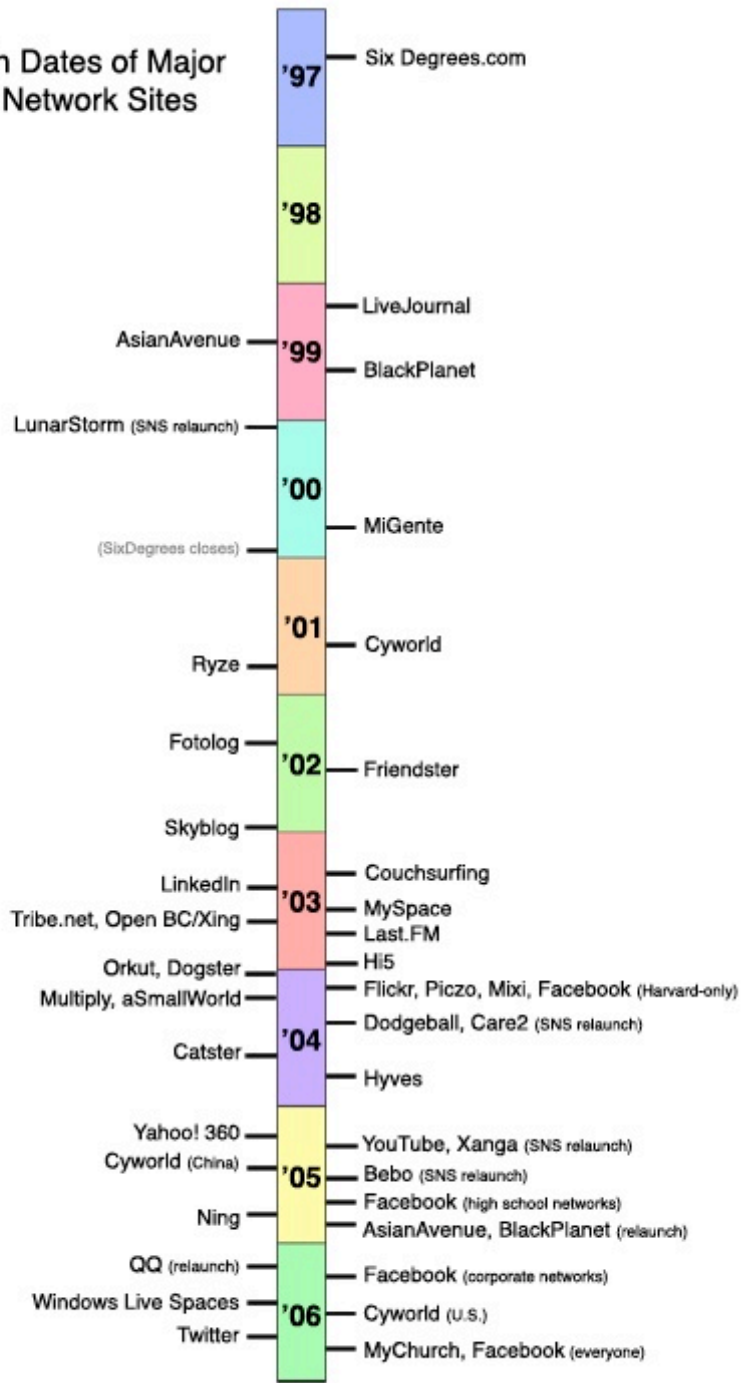
Key defining characteristics:

WWW as platform

User behavior & contributions are leveraged

Data generated by these services present unique opportunities and challenges for social scientists

Launch Dates of Major Social Network Sites





Nicole Ellison

is talking about facebook.
Updated just a moment ago edit

Networks: Michigan State University Faculty
Lansing / East Lansing, MI

Sex: Female

Relationship Status: Married to
Shawn Batt

Looking For: Friendship

Birthday: March 20

Hometown: Santa Monica, CA

Political Views: Very Liberal

Reading Guns Germs and...

View your Movies (0)

Edit My Profile

I am online now.



▶ Mini-Feed

▼ Information

Contact Info

Email: nellison@msu.edu

AIM: nellisonnellison

Residence: CAS 403

Personal Info

Favorite TV Shows: The Office, Simpsons, Rome, Daily Show with Jon Stewart, Slings and Arrows, 30 Rock

Favorite Movies: Little Miss Sunshine, Garden State, American Beauty, Adaptation, Eternal Sunshine of the Spotless Mind, Being John Malkovich, Lost in Translation, An Inconvenient Truth

About Me:

I am an asst. professor in the Dept. of Telecommunication, Information Studies, and Media at Michigan State University. I study social network sites, blogging, and online dating.

▼ Michigan State University

50 friends at Michigan State University.

See All



Kevin J. Smith



Jim Porter



Katherine Kuo

edit

3

10

10

SNS Research: Opportunities

Server-level data:

- Repositories of vast amounts of detailed behavioral data about individuals and their networks

- Allow researchers to study change over time

- Wide range of data (preferences, images, etc.)

Experimental interventions

- In lab

- On site (e.g., via Facebook applications)

Survey, interview data

file links to ID



December
2001

July
2003

SNS Research: Challenges

Access to server-level data

Lack of complete data (e.g., privacy settings, offline activities)

Noise in data

Rapidly changing technical capabilities & social norms

Privacy expectations of users

Already a Member? [Login](#)



facebook

Facebook is a **social utility** that **connects you** with the people around you.

Everyone can use Facebook —

[Sign Up](#)

upload photos or **publish notes** • get the **latest news** from your friends • post videos on your profile • tag your friends • use **privacy settings** to control who sees your info • **join a network** to see people who live, study, or work around you

 [Find your friends](#) ▶

or **Search** by name:

[Search](#)

[More Search Options](#) »

Facebook Research at MSU

Surveys

August, 2005: series of items in survey completed by first-year students at MSU (N= 1440)

April, 2006: random sample of 286 MSU undergraduates

April, 2007: participants from 2006 survey (N=94) plus new random sample (N=482)

April, 2008: participants from 2006 (N=93), 2007 (N=209); and new random sample (N=471)

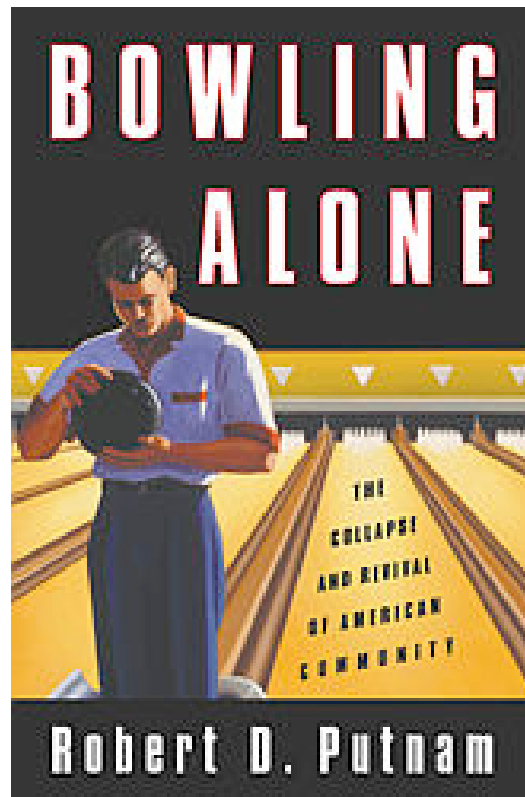
Interviews and cognitive walk-throughs

Spring, 2007: Focus on FB “Friendship” (N=18)

Automated capture of web content

Spring, 2006: Periodic downloads of the MSU Facebook site (N=30,773)

Social Capital



the resources accumulated through relationships among people;

the benefits we receive from our social relationships

Bridging Social Capital

is linked to “weak ties” (Granovetter, 1982), loose connections who may provide useful information or new perspectives for one another, but typically not emotional support

“... technologies that expand one’s social network will primarily result in an increase in available information and opportunities — the benefits of a large, heterogeneous network” (Donath & boyd, 2004).

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Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), article 1.
<http://jcmc.indiana.edu/vol12/issue4/ellison.html>

The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites

Nicole B. Ellison
Charles Steinfield
Cliff Lampe

Department of Telecommunication, Information Studies, and Media
Michigan State University

Go to a section in the article:

Abstract

This study examines the relationship between use of Facebook, a popular online social

Measures: Social Capital

Bridging Social Capital: Series of 9 questions like:

“Interacting with people at MSU makes me want to try new things”

Bonding Social Capital: Series of 5 questions like:

“If I needed an emergency loan of \$100, I know someone at MSU I can turn to”

Maintained Social Capital: Series of 5 questions like:

“If I needed to, I could ask a high school acquaintance to do a small favor for me”

Measures: Facebook Intensity

About how many total Facebook friends do you have at MSU or elsewhere?

In the past week, on average, approximately how many minutes per day have you spent on Facebook?

Series of 5-point Likert items:

Facebook is part of my everyday activity.

I am proud to tell people I'm on Facebook.

Facebook has become part of my daily routine.

I feel out of touch when I haven't logged onto Facebook for a while.

I feel I am part of the Facebook community.

I would be sorry if Facebook shut down.

Findings: Facebook use & Bridging Social Capital

The more intensively respondents used Facebook, the higher their bridging social capital scores.

“After first controlling for demographic factors, psychological well-being measures, and general Internet use, the extent to which students used Facebook intensively still contributed significantly ($p < .0001$) to bridging social capital (Adj. $R^2 = .46$)”

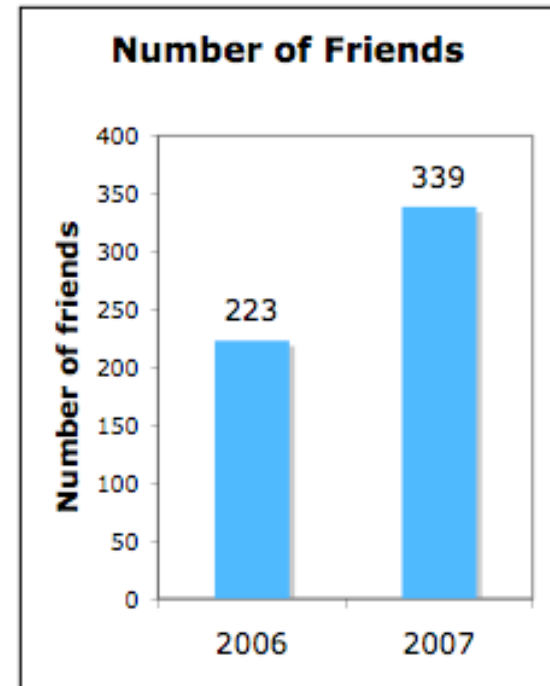
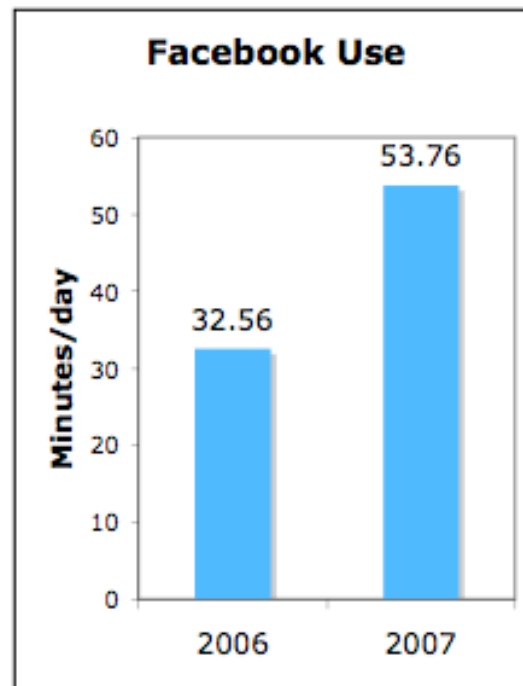
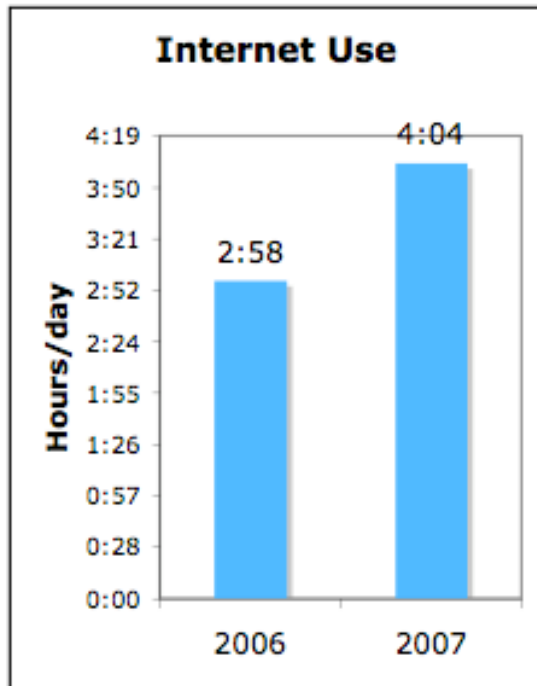
Independent Variables ¹	Model 1: Control Factors, Facebook Intensity, and Facebook X Self-Esteem Interaction		Model 2: Control Factors, Facebook Intensity, and Facebook X Satisfaction with MSU Life Interaction	
	Scaled Beta ²	p ³	Scaled Beta	p
Intercept	3.80	****	3.85	****
Gender: male	-0.02		-0.03	
Gender: female	0.02		0.03	
Ethnicity: white	0.08	*	0.07	
Ethnicity: nonwhite	-0.08	*	-0.07	
Income	0.04		0.05	
Year in school	0.00		0.01	
State residence: in-state	-0.05		-0.07	
State residence: out-of-state	0.05		0.07	
Local residence: on campus	-0.04		-0.03	
Local residence: off campus	0.04		0.03	
Fraternity/sorority member	-0.01		-0.03	
Not a member of fraternity/sorority	0.01		0.03	
Hrs of Internet use per day	-0.03		-0.01	
Self esteem	0.20	***	0.22	****
Satisfaction with MSU	0.66	****	0.61	****
Facebook (FB) intensity	0.34	****	0.31	****
Self-esteem by FB intensity ⁴	-0.35	**		
Satisfaction by FB intensity			-0.51	***
	N=269 F=18.83, **** Adj. R ² =.44		F=19.92, **** Adj. R ² =.46	

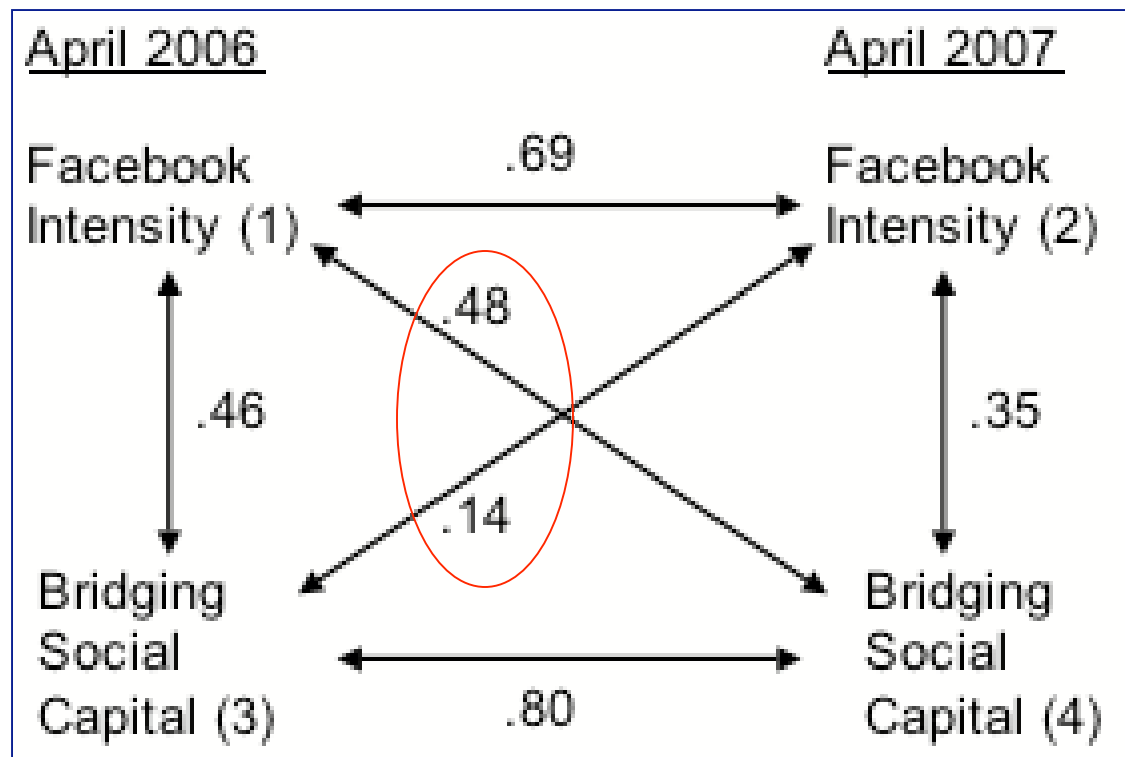
Table 6. Regressions predicting the amount of *bridging* social capital from demographic, attitudinal, and Facebook variables

Notes: ¹ Nominal factors expanded to all levels. ² Continuous factors centered by mean, scaled by range/2. ³ * p<.05, ** p<.01, *** p<.001, **** p<.0001. ⁴ Only one interaction term was entered at a

Social Capital & Facebook Use: Which came first?

(Either direction is equally plausible)





Cross-lagged Correlation:

Association between **Facebook use in '06 and social capital in '07** is significantly stronger than the association between **social capital in '06 and Facebook use in '07**

Mechanism: Bridging Social Capital & Facebook Use

Facebook's social and technical affordances helps individuals accrue social capital by facilitating:

the **creation** of a larger social network (thus more weak ties)

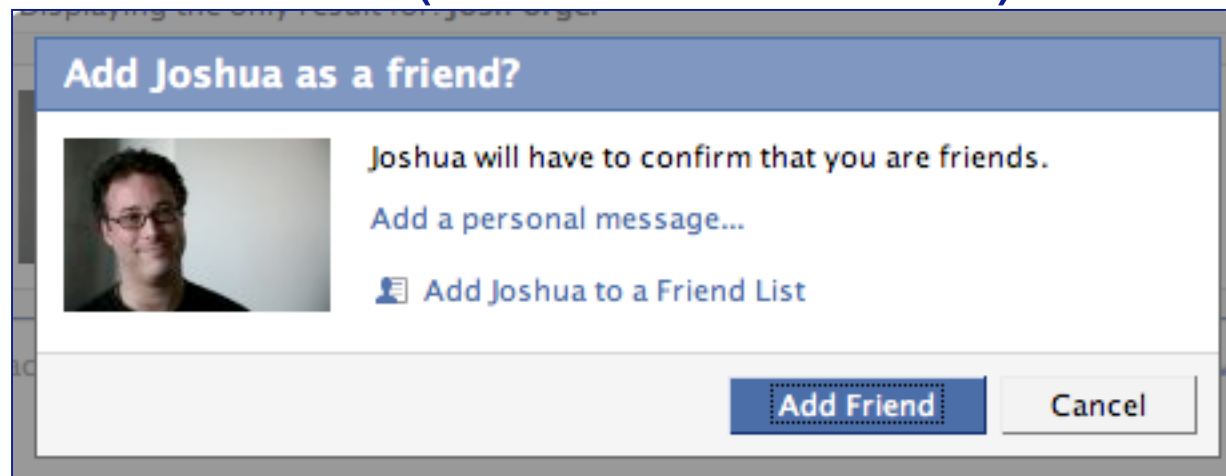
the **maintenance** of this larger network
social interaction within the network

The Facebook logo, consisting of the word "facebook" in white lowercase letters on a blue rectangular background.

facebook

Facebook is a **social utility** that **connects** you with the people around you.

Facebook makes **persistent** what would otherwise be ephemeral linkages (“Facebook me!”)



Network Maintenance: Facebook enables communication among weak ties



- [View Photos of Cliff \(24\)](#)
- [Send Cliff a Gift](#)
- [Compare Yourself with Cliff](#)
- [View Cliff's Movies \(61\)](#)
- [Play Scrabulous with me](#)
- [Send Cliff a Message](#)
- [Poke Him!](#)

▼ Information

Contact Info

Email:	nellison@msu.edu
AIM:	nellisonnellison
Residence:	CAS 403

▼ The Wall

Displaying 10 of 57 wall posts. [Wall-to-Wall](#) | [See All](#)

Write something...

Attach: Share Link

[Post](#) Give a Gift to Cliff

FB facilitates social interaction through the display of **identity information**

Personal Info

Activities:	MSU Scuba Club; Jim Abernethy's Scuba Adventures; ZZ Underwater World; SCUBA Instructor; Photographer; Seapics.com
Interests:	scuba diving; underwater hockey; photography; sharks; flip cup; chaos
Favorite Music:	dave matthews band, weezer, guster, ray charles, the beetles, alkaline trio, the white stripes, ben harper, trick daddy, thelonious monk, black eyed peas, norah jones, guns n' roses, nirvana, outkast, miles davis, kanye west, gorillaz, john coltrane, electric six
Favorite Movies:	i'm a james bond junkie; jaques cousteau's ocean adventures; blue planet; JAWS, the abyss, the italian job, mr. and mrs. smith, anchorman, bourne identity/supremacy, the usual suspects, ronin, pirates of the caribbean, fifth element
Favorite Books:	Anything by Carl Hiaasen; National Geographic (I know it's not a book - shut up); The Metaphysical Club; Kurt Vonnegut's books
Favorite Quotes:	"How inappropriate to call this planet Earth, when clearly it is Ocean." - Arthur C. Clarke

Facebook facilitates social interaction

[View Cliff's Friends \(311\)](#)

Searching for people from your networks who match the following:

Interests:

Displaying 1 - 10 of 13 search results.

Barack Obama (One Million Strong for Barack)

Information

Group Info

Type: [Common Interest - Politics](#)
Description: **BARACK OBAMA IS HEADED TO THE WHITE HOUSE...BUT WE NEED HELP ... YOUR HELP to get him there.**

Members


This group has 572,338 members.

[See All](#)

by making
commonalities
visible

Are all fields created equally?

Profile edit Friends ▾ Inbox (4) ▾ home account privacy logout



Nicole Ellison
is in the redwoods. Beautiful.
Updated 16 hours ago

Networks: Michigan State University Faculty
Lansing / East Lansing, MI

Sex: Female

Relationship Status: Married to
Shawn Batt

Looking For: Friendship

Birthdays: March 20

Hometown: Santa Monica, CA

Political Views: Very Liberal

View Photos of Nicole (1)
View Nicole's Friends (196)
Are you like Nicole
Get more Super Wall posts
Send Nicole a Message

Mini-Feed
Displaying 10 stories See All

Today

Nicole and Joshua Orgel Culbreath are now friends. 6:19am

Yesterday

Nicole is in the redwoods. Beautiful. 5:38pm

Information

Contact Info

Email: nellison@msu.edu

AIM: nellisonnellison

Residence: CAS 403

Personal Info

Activities: Reading, cooking, traveling, dark chocolate (my new hobby), hanging out with an adorable 4-toothed baby

Favorite TV Shows: The Office, Simpsons, Rome, Daily Show with Jon Stewart, Slings and Arrows, 30 Rock

Favorite Movies: Little Miss Sunshine, Garden State, American Beauty, Adaptation, Eternal Sunshine of the

“Profile Elements as Signals in an Online Social Network” (Lampe et al.)

When predicting size of network, amount of information in profile less important than whether the field is filled out or not

Referents index (high school, home town) most important predictor of number of friends, followed by **contacts** and then **interests**.

Referents provide **common ground** for interactants & **reduce the transaction costs** involved in locating others.

‘Interests’ may be perceived as **less trustworthy than verifiable fields such as high school**

Ellison, N. Steinfield, C. & Lampe, C. (2007). The benefits of Facebook 'friends': Exploring the relationship between college students' use of online social networks and social capital. (In *Journal of Computer-Mediated Communication* <http://jcmc.indiana.edu>)

Lampe, C., Ellison, N. and Steinfield, C. (2007). A Familiar Face(book): Profile Elements as Signals in an Online Social Network. (In CHI Proceedings)

Lampe, C., Ellison, N. and Steinfield, C., (2006). A Face(book) in the Crowd: Social Searching vs. Social Browsing. (In CSCW Proceedings)

Steinfeld et al., (in press). Online Social Network Use, Self Esteem, and Social Capital: A Longitudinal Analysis., *J. of Applied Developmental Psychology*

Longitudinal data to be presented at CSCW, 2009

Thank you!



nellison@msu.edu