Research on Social Network Sites: Facebook Use and Social Capital

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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

- SixDegrees.com: 1997
- AsianAvenue: 1999
- BlackPlanet: 1999
- LunarStorm (SNS relaunch): 2000
- MGente: 2000
- Cyworld: 2001
- Ryze: 2001
- Fotolog: 2002
- Friendster: 2002
- Skyblog: 2003
- LinkedIn: 2003
- Tribe.net, OpenBC/Xing: 2003
- Orkut, Dogster: 2003
- Multiply, aSmallWorld: 2003
- Couchsurfing: 2003
- MySpace: 2003
- Last.FM: 2003
- Hi5: 2003
- Flickr, Picaso, Mixi, Facebook (Harvard-only): 2003
- Dodgeball, Care2 (SNS relaunch): 2003
- Hyves: 2004
- Yahoo! 360: 2004
- Cyworld (China): 2004
- Ning: 2004
- QQ (relaunch): 2004
- Windows Live Spaces: 2004
- Twitter: 2006
- YouTube, Xanga (SNS relaunch): 2005
- Bebo (SNS relaunch): 2005
- Facebook (high school networks): 2005
- AsianAvenue, BlackPlanet (relaunch): 2005
- Facebook (corporate networks): 2005
- Cyworld (U.S.): 2005
- MyChurch, Facebook (everyone): 2005
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

Read 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

Michigan State University
50 friends at Michigan State University.

Kevin J. Smith  Jim Porter  Katherine Kuo

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.
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
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
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  •  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).
http://jcmc.indiana.edu/vol12/issue4/ellison.html

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

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Charles Steinfield
Cliff Lampe

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

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. R²=.46)”
<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1: Control Factors, Facebook Intensity, and Facebook X Self-Esteem Interaction</th>
<th>Scaled Beta</th>
<th>p²</th>
<th>Model 2: Control Factors, Facebook Intensity, and Facebook X Satisfaction with MSU Life Interaction</th>
<th>Scaled Beta</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.80</td>
<td>****</td>
<td></td>
<td>3.85</td>
<td>****</td>
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<tr>
<td>Gender: male</td>
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<td></td>
<td></td>
<td>-0.03</td>
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<tr>
<td>Gender: female</td>
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<tr>
<td>Ethnicity: white</td>
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<td>*</td>
<td></td>
<td>0.07</td>
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<td></td>
</tr>
<tr>
<td>Ethnicity: nonwhite</td>
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<td>*</td>
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<td>-0.07</td>
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<tr>
<td>Income</td>
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<td></td>
<td></td>
<td>0.05</td>
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<td></td>
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<tr>
<td>Year in school</td>
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<td></td>
<td>0.01</td>
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<td>State residence: in-state</td>
<td>-0.05</td>
<td></td>
<td></td>
<td>-0.07</td>
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<td></td>
</tr>
<tr>
<td>State residence: out-of-state</td>
<td>0.05</td>
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<td></td>
<td>0.07</td>
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<td></td>
</tr>
<tr>
<td>Local residence: on-campus</td>
<td>-0.04</td>
<td></td>
<td></td>
<td>-0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local residence: off-campus</td>
<td>0.04</td>
<td></td>
<td></td>
<td>0.03</td>
<td></td>
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<tr>
<td>Fraternity/sorority member</td>
<td>-0.01</td>
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<td>-0.03</td>
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</tr>
<tr>
<td>Not a member of fraternity/sorority</td>
<td>0.01</td>
<td></td>
<td></td>
<td>0.03</td>
<td></td>
<td></td>
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<tr>
<td>Hrs of Internet use per day</td>
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<td></td>
<td>-0.01</td>
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<tr>
<td>Self esteem</td>
<td>0.20</td>
<td>***</td>
<td></td>
<td>0.22</td>
<td>****</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with MSU</td>
<td>0.66</td>
<td>****</td>
<td></td>
<td>0.61</td>
<td>****</td>
<td></td>
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<tr>
<td>Facebook (FB) intensity</td>
<td>0.34</td>
<td>****</td>
<td></td>
<td>0.31</td>
<td>****</td>
<td></td>
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<tr>
<td>Self-esteem by FB intensity</td>
<td>-0.35</td>
<td>**</td>
<td></td>
<td>-0.51</td>
<td>***</td>
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</tr>
<tr>
<td>Satisfaction by FB intensity</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>N=259</td>
<td>F=18.83, ****</td>
<td></td>
<td></td>
<td>F=19.92, ****</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²=.44</td>
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</tbody>
</table>

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
Facebook makes **persistent** what would otherwise be ephemeral linkages ("Facebook me!")
Network Maintenance: Facebook enables communication among weak ties
FB facilitates social interaction through the display of identity information

<table>
<thead>
<tr>
<th>Personal Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities:</td>
</tr>
<tr>
<td>MSU Scuba Club; Jim Abernethy's Scuba Adventures; ZZ Underwater World; SCUBA Instructor; Photographer; Seapics.com</td>
</tr>
<tr>
<td>Interests:</td>
</tr>
<tr>
<td>scuba diving; underwater hockey; photography; sharks; flip cup; chaos</td>
</tr>
<tr>
<td>Favorite Music:</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>Favorite Movies:</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>Favorite Books:</td>
</tr>
<tr>
<td>Anything by Carl Hiaasen; National Geographic (I know it's not a book – shut up); The Metaphysical Club; Kurt Vonnegut's books</td>
</tr>
<tr>
<td>Favorite Quotes:</td>
</tr>
<tr>
<td>&quot;How inappropriate to call this planet Earth, when clearly it is Ocean.&quot; – Arthur C. Clarke</td>
</tr>
</tbody>
</table>
Facebook facilities social interaction by making commonalities visible.
Are all fields created equally?
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.
Longitudinal data to be presented at CSCW, 2009
Thank you!

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