Exploring the Effects of Social Networking on Students’ Perceptions of Social Connectedness, Adjustment, Academic Engagement, and Institutional Commitment

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Presentation Overview

- Research Setting and Context
- Background and Literature Review
- Research Questions
- Method
- Results
- Implications
- Guidelines for Future Research
Indiana University Purdue University Indianapolis (IUPUI)

- Downtown Indianapolis
- Public comprehensive four year institution
- Over 200 academic programs
- Doctoral/Research Intensive
- Enrollment – 30,383
  - Undergraduate – 22,119
  - Graduate – 8,264
IUPUI Students

- Large number of under-prepared students struggling to balance work and school commitments.
- 7% admitted conditionally.
- 41% of first-year students are first-generation college students.
- 86% of first-time, full-time students plan to work while attending college.
- 76% of first-time, full-time students commute to campus.
The Net Generation

- Born 1980 or later
- No strangers to technology
- Most were using computers by the age of 16–18 (Oblinger, 2005)
- More so than previous generations,
  - Are more visual communicators
  - Have better spatial skills
  - Learn more inductively
  - Able to easily transition between real and virtual worlds (Oblinger, 2005)
Use of Social Networking Services has exploded in recent years as “nearly 500 million people worldwide live their lives—or versions of them—on Facebook” (Fletcher, *Time Magazine*, 2010, p. 32).
Types of Social Networking

- **Facebook**
  - Most popular SNS today
  - Originally designed at Harvard to support the college community but now open to the public (Boyd, 2009)
  - 85% of college students are on Facebook (Arrington, 2005)

- **MySpace**
  - Originally designed to compete with Friendster, but became popular with bands (Boyd, 2009)
  - Teenagers began joining in high numbers in 2004

- **Blogs**
  - Online journal, such as LiveJournal

- **Twitter**
  - “Real-time information network...that lets you share and discover what’s happening” (Twitter, 2010)
  - “Tweets” send messages to people “following” you via web, phone or other mobile device

- **University Sponsored Site**
  - Oncourse – Indiana University’s web–based environment for online course material and discussion forums
    - Provides location for students to download class information and upload student work
    - Includes online gradebook, chat room, discussion forum, messaging, and link to university email
How Are Students Using SNS?

- Maintain existing and offline relationships (Boyd, 2007)
- Social, relaxing time
- Highly personal space (The College Board, 2008)
- Tendency to reveal a great deal of personal information
- May have very little value as a recruitment marketing tool (The College Board, 2008)
- Aggressive use of SNS for college marketing could backfire (The College Board, 2008)
1/3 of surveyed high school seniors were concerned about how colleges might use information they posted in SNS (The College Board, 2008).

Current college students quoted “Facebook can unfairly skew a professor’s perception of a student in a student environment (Hewitt, 2006)."
In 2007, Facebook issued a “call for the education community to create robust education programs to interact with Facebook (Heiberger, 2008)"

Numerous educators feel Facebook has potential to increase student engagement (Muñoz, 2009), (Junco, 2009), (Young, 2008), (Heiberger, 2008)

Some studies have shown positive effects from Faculty friending students on Facebook (Mazer, 2007)
One goal for an urban institution would be for commuting students to develop a sense of community.

- Hargittai found that SNS was used less by students living at home than those living on campus (2007).
- Would miss the benefit the university attempts to provide.
What types of SNS are students using (e.g., Facebook, My Space, University Sponsored and Created Social Networking Sites, Twitter, Blogs, etc.)?

To what extent are students using SNS to connect with each other for social and academic purposes?

To what extent are students using SNS to connect with university faculty, staff, advisors, and administrators for social and academic purposes?
Research Questions

- To what extent are students using more traditional technologies to connect with each other and university personnel for social and academic purposes?
- Are there differences in social networking and traditional technology use based on students’ demographic characteristics, enrollment status, academic performance levels, and credit hours earned?
- Does students’ level of use of SNS and other information technologies significantly predict their feelings of social connectedness, college adjustment, academic engagement, and institutional commitment?
Procedure

- Web-Based Survey Administered to Random Sample of 2,400 students
- 399 Responded
- Response rate: 17%
- Sent with link via University e-mail.
- Participation was voluntary
- Students were entered into a drawing with the chance to win $100.00 cash as an incentive for completing the survey.
# Participants

<table>
<thead>
<tr>
<th>Female</th>
<th>72%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age</td>
<td>23 (range 18–56)</td>
</tr>
<tr>
<td>Full–Time</td>
<td>76%</td>
</tr>
<tr>
<td>Credit Hours Earned</td>
<td>41.68.</td>
</tr>
<tr>
<td><strong>H.S. GPA</strong></td>
<td>3.17</td>
</tr>
<tr>
<td>SAT score</td>
<td>974</td>
</tr>
<tr>
<td>Cumulative College GPA</td>
<td>2.87</td>
</tr>
</tbody>
</table>

**Ethnicity**
- 72% – Caucasian
- 12% – African American
- 4% – Asian American
- 3% – Latino
- 4% – International
- 4% – Other

- Bolded items significantly different from non–respondents.
Measures: Independent Variables

- **SNS Students**
  - Use of Facebook, MySpace, Jag 4.0, Twitter, or Blogs to communicate with other students attending IUPUI
  - 8–Item Scale ($\alpha = .77$).

- **SNS Faculty**
  - Use of Facebook, MySpace, Jag 4.0, Twitter, or Blogs to communicate with university faculty, administrators, and staff
  - 7–Item Scale ($\alpha = .78$).

- **Traditional Technologies Student**
  - Use of University e-mail, OnCourse, or cell phone to communicate with other students attending IUPUI
  - 3–Item Scale ($\alpha = .72$)

- **Traditional Technologies Faculty**
  - Use of University e-mail, OnCourse, or cell phone to communicate with university faculty, administrators, and staff
  - 3–Item Scale ($\alpha = .67$)
Measures: Dependent Variables

- **Social Connectedness**
  - “I am able to develop close friendships with other students”
  - 7-item scale ($\alpha = .87$)

- **College Adjustment**
  - “I fear that I may not be able to cope with the stress of college” (reverse coded)
  - 5-item scale ($\alpha = .73$)

- **Academic Engagement**
  - About how many hours do you spend in a typical 7-day week preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)”
  - Cum GPA included; 23-item scale ($\alpha = .84$)

- **Institutional Commitment**
  - “I talk up this college to my friends as a great place to go to school”
  - 9-item scale ($\alpha = .88$)
We did not employ Structural Equation Modeling (SEM) procedures due to the exploratory nature of this investigation.

We did not specify a theoretical model with intervening or mediating variables as there is a dearth of existing research and theory to guide the development of a theoretical model based on students’ use of SNS.

“Even small errors in positioning variables or including paths can create havoc all over a model and result in the solution suggesting erroneous inferences” (Maruyama, 1998, p. 5).
Data Analysis

- Employed hierarchical multiple regression procedures.
- Step 1: Academic preparation variables (high school GPAs, SAT scores), age, gender, ethnicity, first-generation status, enrollment status, credit hours completed, and cumulative GPA.
- Step 2:
  - SNS Students
  - SNS Faculty
  - Traditional Technologies Students
  - Traditional Technologies Faculty
- Dependent Variables:
  - Social Connectedness
  - Academic Engagement
  - College Adjustment
  - Institutional Commitment
Data Analysis

- ANOVAs with post-hoc tests to explore if there were differences in SNS and use of traditional technologies to interact with students, faculty, advisors, administrators, or staff based on gender, ethnicity, age, enrollment status (full-time or part-time), or first-generation status.

- Multiple regressions were conducted to determine if there were differences in use of SNS or traditional technologies based on levels of academic performance and credit hours earned.
Data Analysis

- The open-ended survey responses were uploaded into ATLAS-TI, a software program that assists in qualitative data analysis.
- The first step of the data analysis coding process utilized a Selective Coding process.
- Through the Open Coding process student responses were arranged into specific topical theme categories.
- Theme categories were considered to be “emerged or notable” if 5% or more of students responded in a similar manner.
How Students Using Social Networking?

- A total of 395 (99%) students reported that they use Facebook.
- Only 88 (22%) reported that they use their own personal MySpace page.
## What SNS and Information Technologies Using?

<table>
<thead>
<tr>
<th>Information Technology</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>228</td>
<td>82%</td>
</tr>
<tr>
<td>OnCourse</td>
<td>59</td>
<td>21%</td>
</tr>
<tr>
<td>University (IU) E-mail</td>
<td>49</td>
<td>18%</td>
</tr>
<tr>
<td>MySpace</td>
<td>31</td>
<td>11%</td>
</tr>
<tr>
<td>Not Use</td>
<td>13</td>
<td>5%</td>
</tr>
<tr>
<td>Twitter</td>
<td>12</td>
<td>5%</td>
</tr>
</tbody>
</table>
Most Effective Way For University Faculty, Staff, Administrators, And Advisors To Communicate With Students (N=398)

<table>
<thead>
<tr>
<th>Communication Method</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>27</td>
<td>7%</td>
</tr>
<tr>
<td>Twitter</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>OnCourse</td>
<td>192</td>
<td>48%</td>
</tr>
<tr>
<td>University E-mail</td>
<td>123</td>
<td>31%</td>
</tr>
<tr>
<td>Face- to-Face</td>
<td>54</td>
<td>14%</td>
</tr>
<tr>
<td>Texting</td>
<td>1</td>
<td>0%</td>
</tr>
</tbody>
</table>
## Low Percentage of Students Use University Facebook Sites (N=399)

<table>
<thead>
<tr>
<th>Facebook Site</th>
<th>N</th>
<th>% Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Created University Facebook Page</td>
<td>30</td>
<td>8%</td>
</tr>
<tr>
<td>University Facebook Page</td>
<td>8</td>
<td>2%</td>
</tr>
<tr>
<td>Personal Facebook</td>
<td>280</td>
<td>70%</td>
</tr>
</tbody>
</table>
Use Facebook for Communication with Friends and Family.

- “Facebook, to stay in touch with family members and friends.”
- “I use Facebook, in order to communicate with friends, peers, and relatives.”
- “Facebook. Simply to keep up with my friends and family. They are numerous and phone calls/texts would take up too much of my time if I called or texted each one of them once a week.”
Use Facebook for Communication with “Distant” Friends and Family.

- “Facebook – re-uniting with old friends.”
- “I use Facebook to stay in touch with family members in other states.”
- “I use facebook to communicate with friend here and from high school.”
- “Facebook really though its just to keep in contact with my friends back home in another state.”
- “I use facebook to connect with old high school friends. I never considered it to connect with my fellow IUPUI students.”
- “Facebook– so I can keep up with friends from high school that attend other colleges.”
- “Facebook to stay in touch with friends back home (2.5 hour drive away).”
Use Facebook for Communication with IUPUI Classmates, Friends, and Peers

- “I mainly use Facebook to keep in touch with friends at IUPUI and add new friends when I am in new classes and meet new people.”
- “I mainly use Facebook. Facebook allows me the chance to be connected with new friends that I have made during my time here at IUPUI…”
- “I use facebook to communicate with my friends from here and friends that I have made at IUPUI.”
- “I use Facebook to communicate with friends and other students from IUPUI. We talk about school related topics, as well as daily life.”
Facebook Not for University/Academic Use

- “Facebook – most of my friends/family – not for teachers/classmates.”
- “I use Facebook the most to talk to friends but not for faculty members or students.”
- “I use Facebook, but only to communicate with friends. Never for anything pertaining to school.”
- “I use Facebook most of the time to communicate with friends. I would communicate with professors on this site but I think it would be a bit inappropriate.”
- “Though, I do not use facebook to talk to my friends I am making at IUPUI about school. Facebook is more for my life outside of school.”
- “I can easily communicate/interact with my friends and family all the time through facebook. To contract my professors, I'd rather use Oncourse or IUPUI email. It's weird if I had my teacher on facebook—not against it, but a little uncomfortable with a current teacher of mine being able to see what I'm like outside of class.”
Notable Findings

- There was no relationship between College GPA and SNS use with faculty or students or use of traditional technologies to interact with faculty and students.
- International Students used SNS with other students, as well as with faculty, advisors, staff, and administrators significantly more than all the All Other students.
- The more credits hours the student earned, the less they used SNS with students and the more they used SNS with faculty.
- The older the students were, the more likely they used SNS and traditional technologies with faculty, staff, and administrators.
- However, older students were significantly less likely to use SNS with students.
Effects of Social Networking on Students’ Perceptions of Social Connectedness

- Social Networking with Students
- Traditional Technologies with Students
- Social Networking with Faculty, Advisors, Administrators, and Staff
Effects of Social Networking on Students’ Perceptions of College Adjustment

- Traditional With Other IUPUI Students (University e-mail, OnCourse, cell phones)
Effects of Social Networking on Students’ Academic Engagement Levels

- Social Networking with Faculty, Advisors, Administrators, and Staff
- Traditional Technologies with Faculty, Advisors, Administrators, and Staff
Effects of Social Networking on Students’ Institutional Commitment

- Traditional Technologies with other IUPUI Students
Limitations

- Sample may have been prone to technology use due to e-mail link to a web-based survey!
- Not able to make casual inferences.
- It is possible that other factors and intervening variables not accounted for in this study such perceived need and desire for social connections or availability of other forms social and academic interactions may have affected the outcomes in unknown ways.
Implications

- Use of Social Networking Services does not have significant negative effects on academic performance and engagement.
- Use of SNS with students positive implications for feeling socially connected.
- Students tend to use University E-mail and OnCourse for academic purposes.
- Virtual interactions with faculty, advisors, staff, and administrators seem to have positive effects on academic engagement.
Many highly academically engaged students may use SNS such as Facebook to communicate with and connect with faculty members, administrators, advisors, and staff. Students do not necessarily want university faculty and staff to initiate the connection. The best course of action may be to stay out of students’ social space, but remain open to the possibility that some students may wish to interact with university personnel in virtual spaces for academic purposes.
The very personal and social nature of social networking sites such as Facebook may serve to make these spaces inappropriate venues for university faculty members, administrators, advisors, and staff to enter without invitation. The cultural norms that govern faculty-students interactions in educational settings may not apply to social networking sites and university leaders should take this into account when attempting exploit these sites for official university business.
Guidelines for Future Research

- So what is the student’s mental model of SNS compared to University faculty, staff, administrators, and advisors?
  - How are they picturing using it?
  - How are university officials picturing them using it?
  - Do these two models coincide enough to meet the goal of the university’s official use?

- Exploratory investigation may provide some testable hypotheses and conceptual models for improving understanding of how the use of social networking services and other technologies enhances or inhibits positive educational outcomes.