Microsoft Research
Faculty Summit
2014
15th Annual
Community Impacts of Social Media versus Traditional Internet

Andrea Kavanaugh
Predictors of Community Involvement

Socio-economic Status
Education
Income

Extroversion, Activism
Talkative, Outgoing
Highly engaged in local community

Life Cycle Stage
Increasing through late middle age
Decreasing in older age
Mediating Predictors of Involvement

Staying Informed
Keeping up with local news & information
See construct

Group Membership
Participation in local groups
Church, social clubs, civic organizations

Political Discussion Network
Frequency of discussion with others
Heterogeneity of network (knowledge, agreement)
Role of Media Use in local Involvement

Traditional Internet
Email
Web browsing

Social Media
Social Network Sites: Facebook, MySpace, Google+, LinkedIn
Blogs, Micro-blogs, Photo/video sharing

Use Media for Civic Purposes
Use Email and Web to stay informed, post info for other citizens
Use Social Media to stay informed, comment, share information
Traditional Internet versus Social Media

The Internet (specifically email and web browsing) has made me become more involved in local issues that interest me.

Compared with traditional Internet (i.e., email and web browsing), social media (i.e., Facebook, Google+) has helped me become more involved in local issues that interest me.
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>.522**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Membership</td>
<td>.164**</td>
<td>.073</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Collective Efficacy</td>
<td>.074</td>
<td>.111*</td>
<td>.132**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Extroversion</td>
<td>-.121**</td>
<td>-.028</td>
<td>.149**</td>
<td>.094*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Staying informed</td>
<td>.384**</td>
<td>.577**</td>
<td>.167**</td>
<td>.184**</td>
<td>.049</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Activism</td>
<td>.249**</td>
<td>.199**</td>
<td>.453**</td>
<td>.201*</td>
<td>.219**</td>
<td>.358**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. PD Network</td>
<td>.329**</td>
<td>.327**</td>
<td>.238**</td>
<td>.198**</td>
<td>.147**</td>
<td>.615**</td>
<td>.467**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Internet Civic</td>
<td>.261**</td>
<td>.188**</td>
<td>.273**</td>
<td>.147**</td>
<td>.073</td>
<td>.458**</td>
<td>.480**</td>
<td>.522**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Soc media-civic</td>
<td>.022</td>
<td>-.090</td>
<td>.236**</td>
<td>.102*</td>
<td>.127**</td>
<td>.180**</td>
<td>.441**</td>
<td>.309**</td>
<td>.498**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11. Internet involved</td>
<td>.208**</td>
<td>-.026</td>
<td>.117*</td>
<td>.165**</td>
<td>.243**</td>
<td>.165**</td>
<td>.238**</td>
<td>.183**</td>
<td>.331**</td>
<td>.272**</td>
<td>1</td>
</tr>
<tr>
<td>12. SM involve</td>
<td>-.50</td>
<td>-.300**</td>
<td>.056</td>
<td>.013</td>
<td>.267**</td>
<td>-.061</td>
<td>.140**</td>
<td>.068</td>
<td>.266**</td>
<td>.418**</td>
<td>.550**</td>
</tr>
</tbody>
</table>
Traditional Internet Effects Path Model

\[ \text{Education} \rightarrow .02^* \rightarrow \text{Informed (.52)} \]
\[ \text{Age}^2 \rightarrow .67^{***} \rightarrow \text{Member (.40)} \rightarrow .46^{***} \rightarrow \text{Activism (.31)} \]
\[ \text{Extravert} \rightarrow .64^{***} \rightarrow \text{Discussion Network (.52)} \rightarrow .47^{***} \rightarrow \text{Online Civic (.30)} \]

\[ **p<.01, ***p<.001 \]
Social Media Effects Path Model

* p<.5, ** p<.01, *** p<.001
Integration: Multiple Tools, Sources

Tools and platforms
News articles, calendars, photos/videos
Public discussion forums, newsgroups, Public Social Network Sites, Twitter

Content Sources
Individuals: residents, non-residents
Institutions: government, community organizations, media

Making technology adapt to needs of users
Problems of local content aggregation: low volume, topic modeling
Local content when, where and how users want it
Fundamental to facilitating community involvement
Acknowledgements

Collaborators
Manuel Perez-Quinones, John Tedesco, Naren Ramakrishnan
Kumbirai Madondo, Ji Wang, Siddharth Krishnan

NSF SES-1111239
Save the planet and return your name badge before you leave (on Tuesday)