Swellness: Challenges & opportunities in using social software to support health and wellness

Sean A. Munson

School of Information
University of Michigan

slides and references at smunson.com/talks/eab
Swellness: Challenges & opportunities in using social software to support health and wellness

Sean A. Munson

School of Information
University of Michigan

<table>
<thead>
<tr>
<th>Start in MSI program (F06)</th>
<th>Candidacy (W10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2009</td>
</tr>
<tr>
<td>2007</td>
<td>2010</td>
</tr>
<tr>
<td>2008</td>
<td>2011</td>
</tr>
<tr>
<td>2009</td>
<td>2012</td>
</tr>
<tr>
<td>Switch to PhD Program (F07)</td>
<td>Starting at U Washington (F012)</td>
</tr>
</tbody>
</table>

slides and references at smunson.com/talks/eab
**Wellness**: Challenges & opportunities in using social software to support health and wellness

How can **theory** and **knowledge of individual preferences** lead to the design of digital choice environments that better nudge?

- Goals & commitments
- Choice sets & defaults
- Effective sharing
- Individual differences

Exposure to diverse political views

Improving health & wellness
Exposure to diverse political views

Improving health & wellness

How can software best support **health & wellness**?

Using health & wellness applications as experiment sites, what can I learn about **theories of influence**?
How can software best support **health & wellness**?

Using health & wellness applications as experiment sites, what can I learn about **theories of influence**?
How can software best support health & wellness?

Using health & wellness applications as experiment sites, what can I learn about theories of influence?
How can software best support health & wellness?

Using health & wellness applications as experiment sites, what can I learn about theories of influence?

**Exploratory work:** When and how can sharing be a nudge in health & wellness applications?
Online Health Communities & Facebook

14-person interview study
online recruitment from a variety of online health communities

Some people use a combination of Facebook and Online Health communities to help meet health needs, with each space furthering different goals.

Newman MW, Lauterbach D, Munson SA, Resnick P, Morris ME. (2011). "It's not that I don't have problems, I'm just not putting them on Facebook": Challenges and Opportunities in Using Online Social Networks for Health, CSCW 2011.
3GT

Positive psychology exercise around recording everyday good things. (Seligman et al 2005)

Increase adherence & efficacy by sharing publicly & receiving feedback?

Field deployment, open enrollment.
Analysis of use logs and interviews with users.

GoalPost
iOS application to track physical activity, set goals, and monitor progress, with ability to share on Facebook.

GoalPost
4-week field deployment, 23 professionally recruited participants
12 with sharing features, 11 without

Adapt an intervention (or design a new one) to leverage the Internet’s affordances

↓

Pilot

↓

Controlled lab trial

↓

Causal inferences
Adapt an intervention (or design a new one) to leverage the Internet’s affordances.

Controlled field trial ➔ Causal inferences

Pilot ➔ Refine ➔ Open beta ➔ Interviews, analysis

Repeat until compelling

The diagram illustrates a cycle of iterative process involving pilot trials, refinement, open beta testing, and interviews/analysis, concluding with causal inferences.
SHARING AS A NUDGE

Receive:
• emotional support
• accountability & motivation
• advice
• impression management

But face challenges with:
• building, shaping, and selectively accessing one’s network
• risk of violating norms
• managing impression while meeting health needs
Limited Sharing…

for fear of violating norms, revealing weaknesses, or appearing boring or boastful.
**LIMITED SHARING...**

for fear of violating norms, revealing weaknesses, or appearing boring or boastful.
**Limited Sharing…**

for fear of violating norms, revealing weaknesses, or appearing boring or boastful.

“Mostly when I make things private, it’s more because I think they’d be boring or insignificant to my friends, not because they’re actually things I wouldn’t want my friends to know about. I just don’t want to clog up their Facebook with it…. A lot of the people I’m friends with wince about having games and other non-status update things all over their pages. **And so I don’t want to get winced about.**”

– 3GT participant
Limited Sharing…

for fear of violating norms, revealing weaknesses, or appearing boring or boastful.

“It's just kind of embarrassing to me… I jogged for 20 minutes today, let me tell 200 people, many of which I haven't talked to in years … Who cares?... I don't want to share with someone that I, you know, they comment on it, oh yeah I ran a marathon, good to go 20 minute runner guy.”

– GoalPost participant
LIMITED SHARING...

for fear of violating norms, revealing weaknesses, or appearing boring or boastful.

“There are some people I wouldn’t care about if they saw [posts I might make about my health on Facebook] but I got people, you know, from my high school and that I am friends with that I haven’t talked to in 25 years. And I have no desire for them to know about my weight issues or weight status.”

– OHC Participant
GOALPOST USER: I’m really depressed. If Facebook can’t save me, I don’t know what will help me lose weight.

RESEARCHER: Did you think Facebook was going to help?

GOALPOST USER: I thought it was going to save me, yeah.

RESEARCHER: Did it?

GOALPOST USER: No. And I’m so discouraged.
Facebook is “like a **standup comedy routine**… I have had people send me a private message of ‘wow, your life is so great! You know you do this, this, and this and all these fun things happen’ And I tend to think ‘you know, you’re only seeing what I want you to see.’ … It’s not that I don’t have problems, I’m just not putting them on Facebook.”

– **OHC Participant**
COMMUNICATING AN IDENTITY

“On Facebook, I am not afraid to post anything about my running… I kind of like to ‘out’ my running ability now… I really like to talk about my running on Facebook, because I’m so darn proud of it…”

“They’re just so surprised I’m running and they’ll say like ‘fantastic’ and ‘when are you going to run?’ And so yeah, I’m getting the feedback I want. I’m finally getting… some positive feelings from those people that I couldn’t get back in high school.”

– OHC Participant
But wanting something social

of the 55 active 3GT participants…

24 invited friends

25 looked at friend profiles

of 4188 3GT pageviews…

660 were of a friends’ Good Things

1 of 12 GoalPost users found a new exercise partner & started going to the gym more.
“I got a TON of comments…. Lots of people said they liked that, and they responded to that and congratulated me… so yeah, people do definitely comment on them when they are created from Facebook and publicized [in newsfeeds].”

– 3GT participant
“It would have been cool to have somebody reacting to, like you said, the sort of social interaction over the content of the posts that I’ve done… To have some of these things – “oh, I see you posted something”, or just some reaction. Because sometimes it feels like you’re out there, putting stuff out in the world and you’re not getting any feedback, you know?”

- 3GT Participant
appropriate “selfcasting” >>> privacy
3GT
Social variation of positive psychology exercise around recording everyday good things.
Current work: Moving beyond the share button.

• Improved sharing & efficacy evaluation

• Goals & Commitments
  – Primary and secondary goals
  – Social commitments
Commitments
Social variations of commitment contracts
(Giné, Karlan, Zinman 2008; Bryan, Karlan, Nelson 2010)
Commitments

Social variations of commitment contracts

(Giné, Karlan, Zinman 2008; Bryan, Karlan, Nelson 2010)
Exposure to diverse political views

Social software for health & wellness
Improving health & wellness

Exposure to diverse political views

How can **theory** and knowledge of individual preferences lead to the design of digital choice environments that better nudge?

- Goals & commitments
  - Multiple goals
  - Social commitments
- Choice sets & defaults
- Effective sharing
- Individual differences
thanks!

Collaborators
Paul Resnick
Mark W. Newman
Margaret E. Morris
Debra Lauterbach
Caroline Richardson
Sunny Consolvo
Jeremy Canfield
Brian Ford
Peter Andrews

Funding
Intel sponsored research & PhD Fellowship
University of Michigan Rackham Graduate Program – Research Grant

more at smunson.com/talks/eab
How can theory and knowledge of individual preferences lead to the design of digital choice environments that better nudge?

- Goals & commitments
  - Primary & Secondary Goals
  - Social Commitments
- Choice sets & defaults
- Effective sharing
- Individual differences

more at smunson.com/talks/eab