

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

**Sean A. Munson**

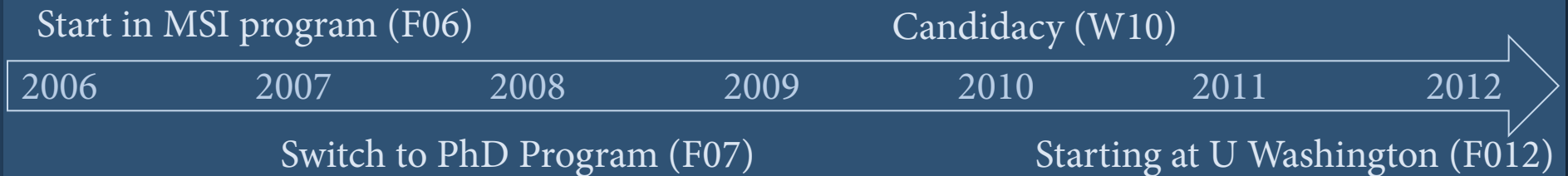
School of Information  
University of Michigan

slides and references at [smunson.com/talks/eab](http://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

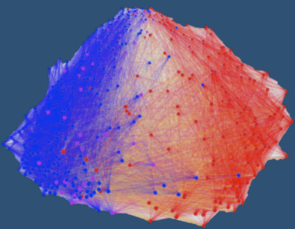


slides and references at [smunson.com/talks/eab](http://smunson.com/talks/eab)

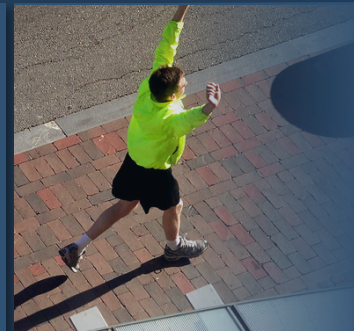
# **Swellness:** Challenges & opportunities in using social software to support health and wellness

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

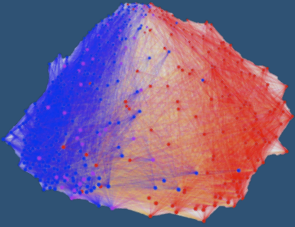
- Goals & commitments
- Choice sets & defaults
- Effective sharing
- Individual differences



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.

The screenshot displays the Facebook interface for the 3GT application. On the left, there is a form titled 'Good Things' with three input fields: 'Good thing:', 'Why did this happen: (Always private)', and 'Privacy & publicity:'. Below the form is a 'Post' button. The middle section shows a grid of photos of friends using 3GT, with the text 'your friends using 3gt' above it. The right section shows 'Recent Good Things from You' with two entries from April 18 and one from April 16.

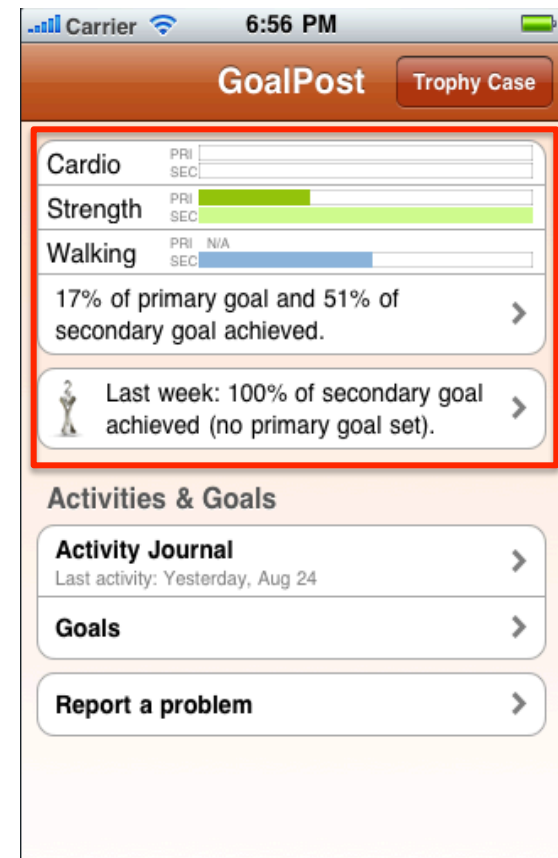
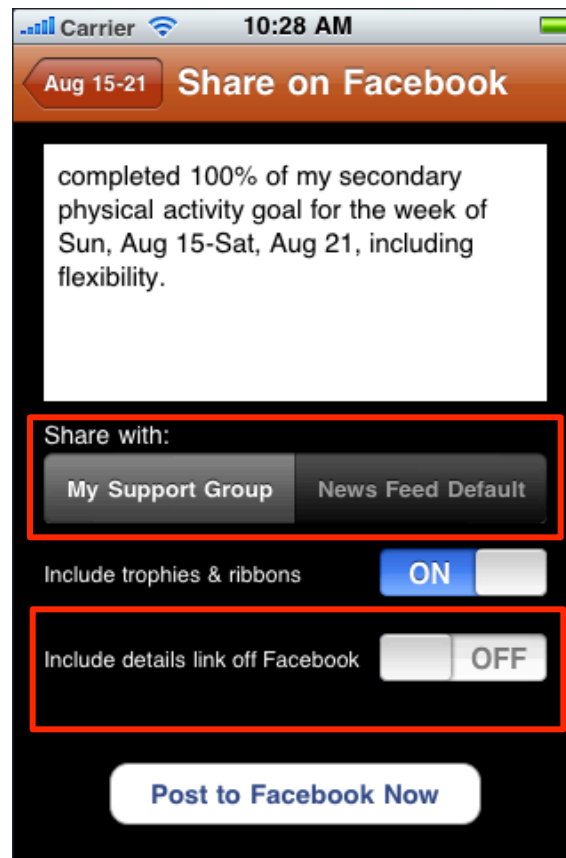
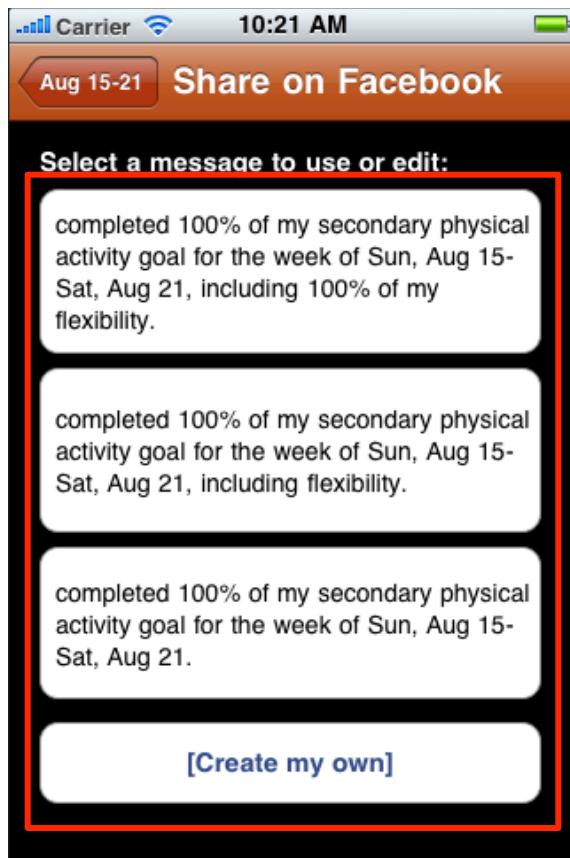
[threethings.net](http://threethings.net)

Munson SA, Lauterbach D, Newman MW, Resnick P. (2010). "Happier Together: Integrating a Wellness Application Into a Social Network Site," *Persuasive 2010*.



# GoalPost

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

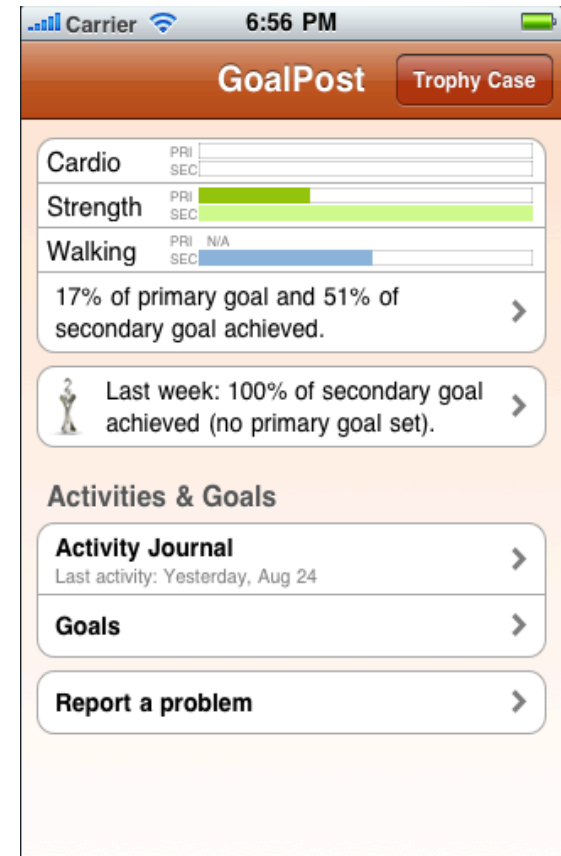
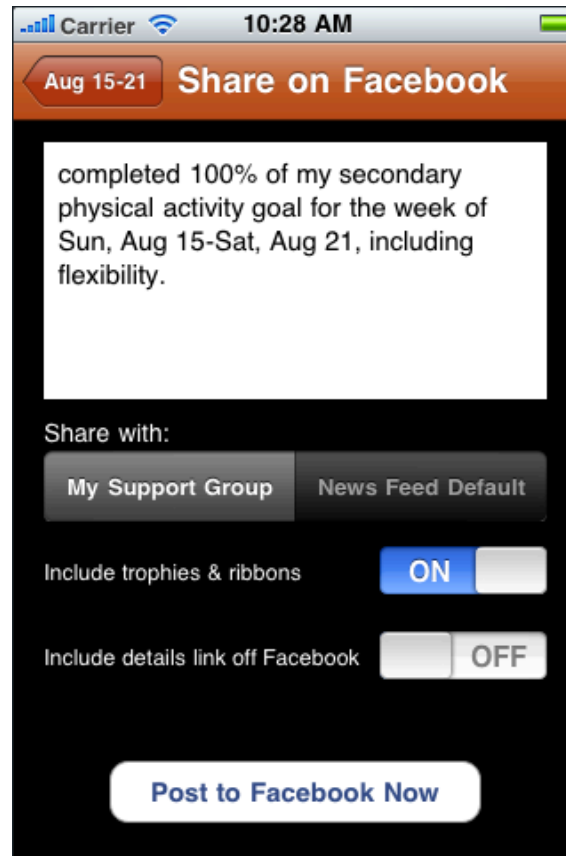
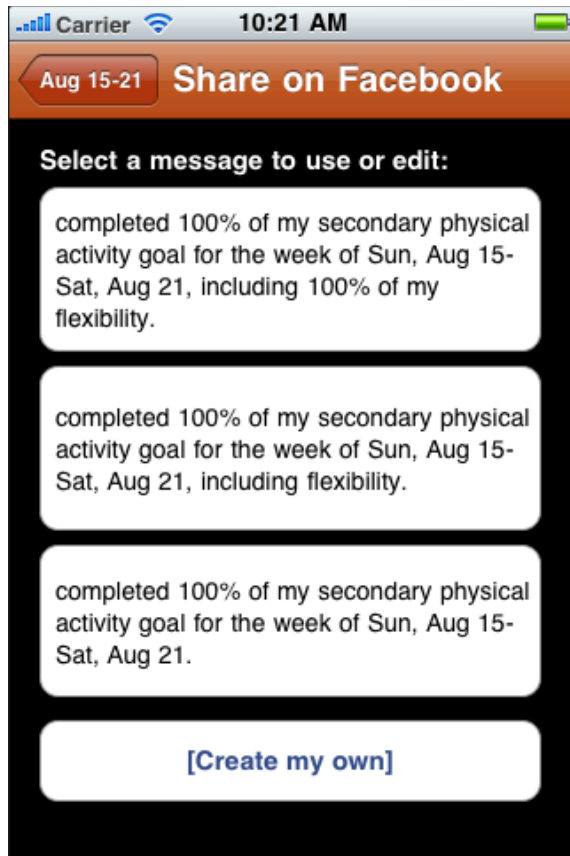


Munson SA, Consolvo S. (2012). "Exploring Goal-setting, Rewards, Self-monitoring, and Sharing to Motivate Physical Activity," *Pervasive Health* 2012.



# GoalPost

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



Munson SA, Consolvo S. (2012). "Exploring Goal-setting, Rewards, Self-monitoring, and Sharing to Motivate Physical Activity," *Pervasive Health* 2012.





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



Pilot



Controlled lab trial



Causal inferences

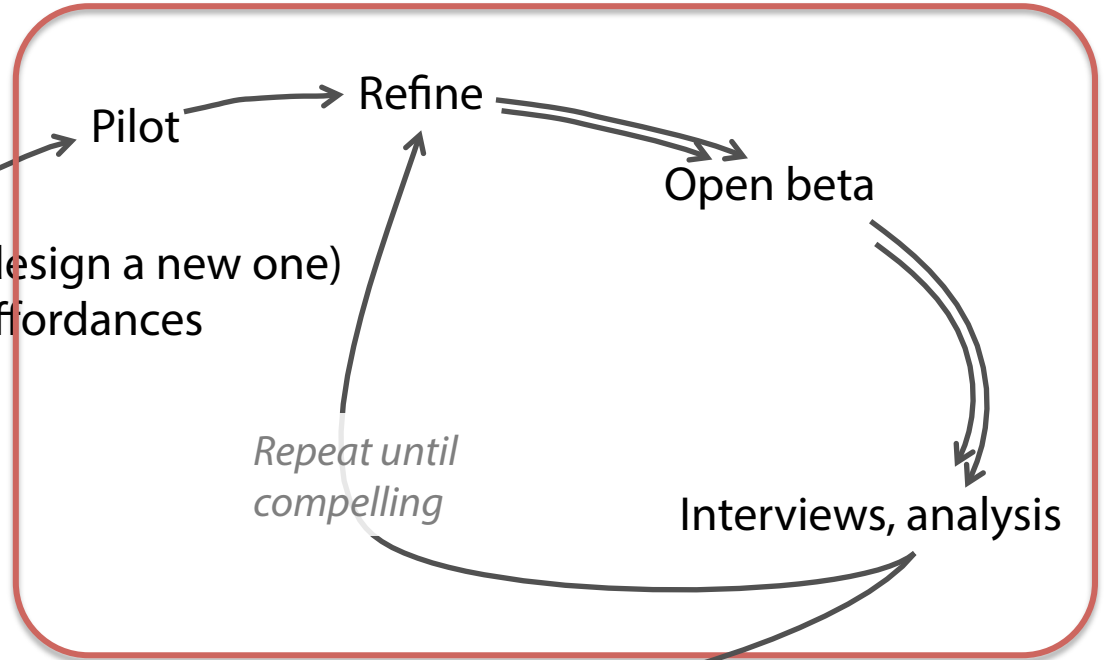




Adapt an intervention (or design a new one)  
to leverage the Internet's affordances

Controlled field trial

Causal inferences



## 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.



shared George Takei's photo.



### Wall Photos

It's how they "work-out" their insecurities.

By: George Takei

Like · Comment · Share · 39 minutes ago ·

4 people like this.



### Just completed a 8.12 mi run with RunKeeper

Duration 1:10:46 | Calories Burned 1281

Average Pace 8:43 / mi | Average Speed 6.88 mph | Elevation Climb 544 f

Like · Comment · Track your fitness · 38 minutes ago via RunKeeper ·

## 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.



## COMMUNICATING AN IDENTITY

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.

## BUT WANTING SOMETHING SOCIAL

**“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*

## BUT WANTING SOMETHING SOCIAL

**“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.

facebook

### Good Things

Good thing:

Why did this happen:  
(Always private)

Privacy & publicity:

your **friends** using 3gt

3gt from all **friends**

- ### Recent Good Things from You
- April 18
- another round of happy class nostalgia v malcolm invited me, I moved my mee
  - 4.5hr of #si182 office hours makes me v the course has come. Nice job @presnic Eytan invited me; I had invited him w
- April 16
- 1 somewhat successfully sort of died na

**Sean Munson**  
logout

**769** GOOD THINGS **0.8** PER DAY

YOUR TOP GOOD THING WORDS  
3gt alex aston day delicious dinner  
finally fun **good** great hike last  
made more new night out run time up

YOUR TOP REASON WORDS

### Post a Good Thing

Good thing:

Why it happened:

Public:

Post to Facebook wall:

### Good Things

You · Everyone

**Nancy Munson** 0 cheers (Cheer) comments 10 hrs

Got a very cool pair of running shoes that should be my Boston shoes!



v2



**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)

**Where does my money go if I don't succeed?**

Recipient of Stakes:  Anti-Charity  Charity  Friend or Foe

Select an organization you hate. Don't worry. We won't tell 'em who sent it.

Pick an anti-charity:


- ✓ Please choose
- Abortion: Americans United for Life
- Abortion: NARAL Pro-Choice America Foundation
- Environmental: Nature Conservancy
- Environmental: The National Center for Public Policy Research
- Gay Marriage: Freedom to Marry
- Gay Marriage: Institute for Marriage and Public Policy
- Gun Control: Educational Fund to Stop Gun Violence
- Gun Control: NRA Foundation
- Political: George W. Bush Presidential Library
- Political: William Jefferson Clinton Presidential Library

**Amount at stake**

Amount at stake for each report:

You will be billed \$10.00 for any reporting p

- 1) You report that you were unsuccessful; or
- 2) Your Referee reports that you were unsuccessful; or
- 3) You fail to make a required report by the end of the second day (11:59 P.M.) following a required reporting day.





# Commitments

## Social variations of commitment contracts

(Giné, Karlan, Zinman 2008; Bryan, Karlan, Nelson 2010)

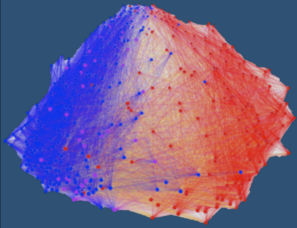
**What will be the consequences?**

Select your consequence type  --

- I will post an embarrassing story.
- I will reward myself.
- I will owe someone (e.g., doing the chores or buying them a coffee).
- I will write my own consequences.

**Who will see it?**

Visible to all of my Facebook friends

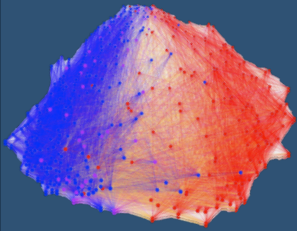


Exposure to diverse political views



Social software for health & wellness





Exposure to diverse political views



Improving health & wellness



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!***

Sean A. Munson

samunson@umich.edu  
@smunson

## Collaborators

Paul Resnick

Mark W. Newman

Margaret E. Morris

Debra Lauterbach

Caroline Richardson

Sunny Consolvo

Jeremy Canfield

Brian Ford

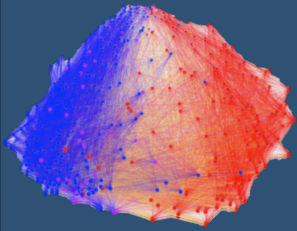
Peter Andrews

## Funding

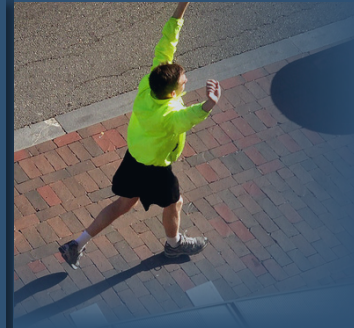
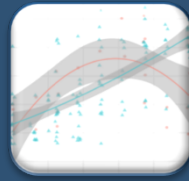
Intel sponsored research & PhD Fellowship  
University of Michigan Rackham Graduate  
Program – Research Grant

more at [smunson.com/talks/eab](http://smunson.com/talks/eab)

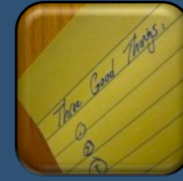




Exposure to diverse political views



Improving health & wellness



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](http://smunson.com/talks/eab)