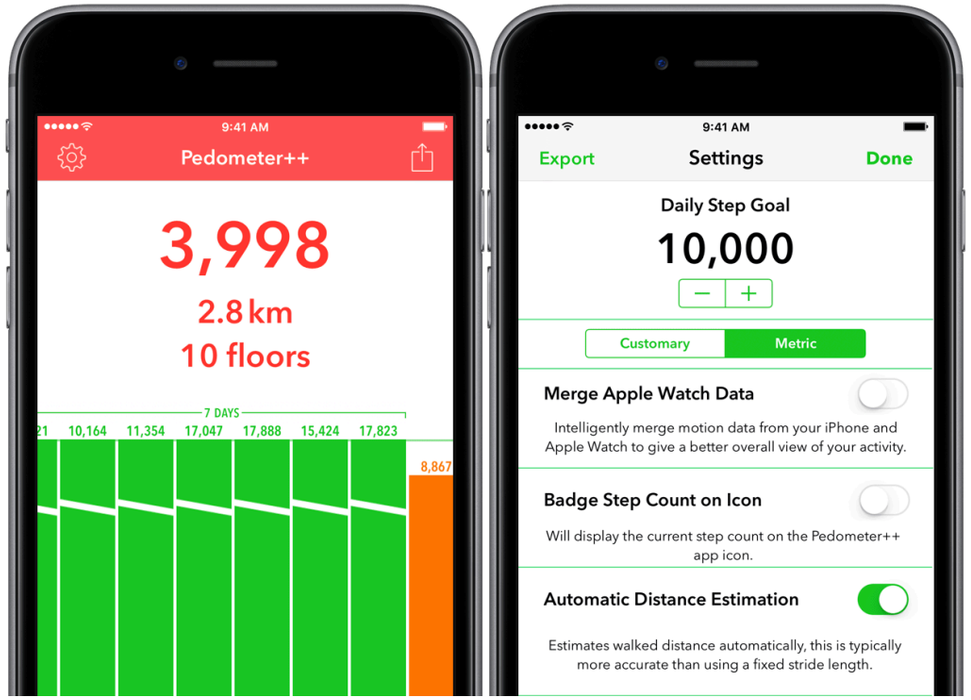
Everyday Personal Informatics

Daniel A. Epstein

Technology with tracking capability is increasingly ubiquitous

Technology with tracking capability is increasingly ubiquitous

16% of the US

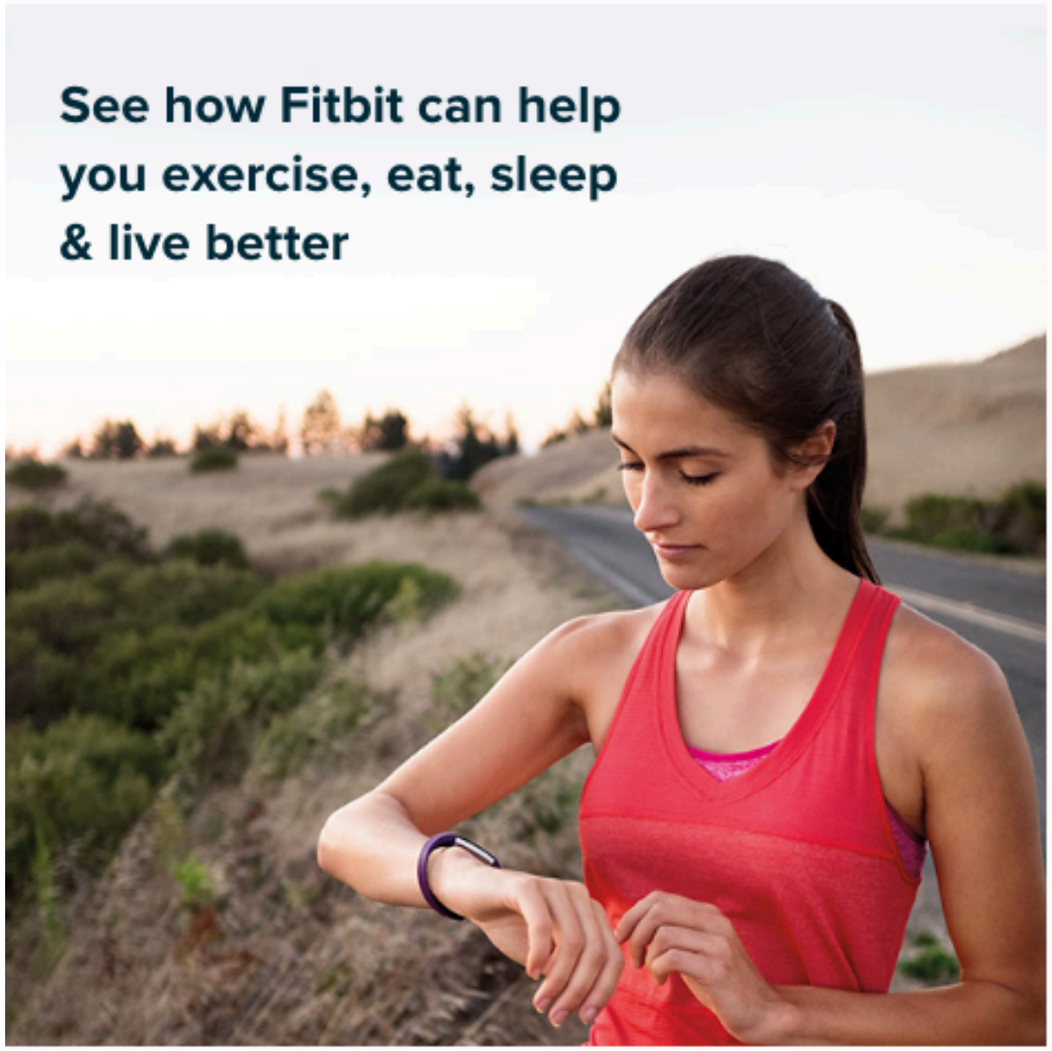


31% worldwide

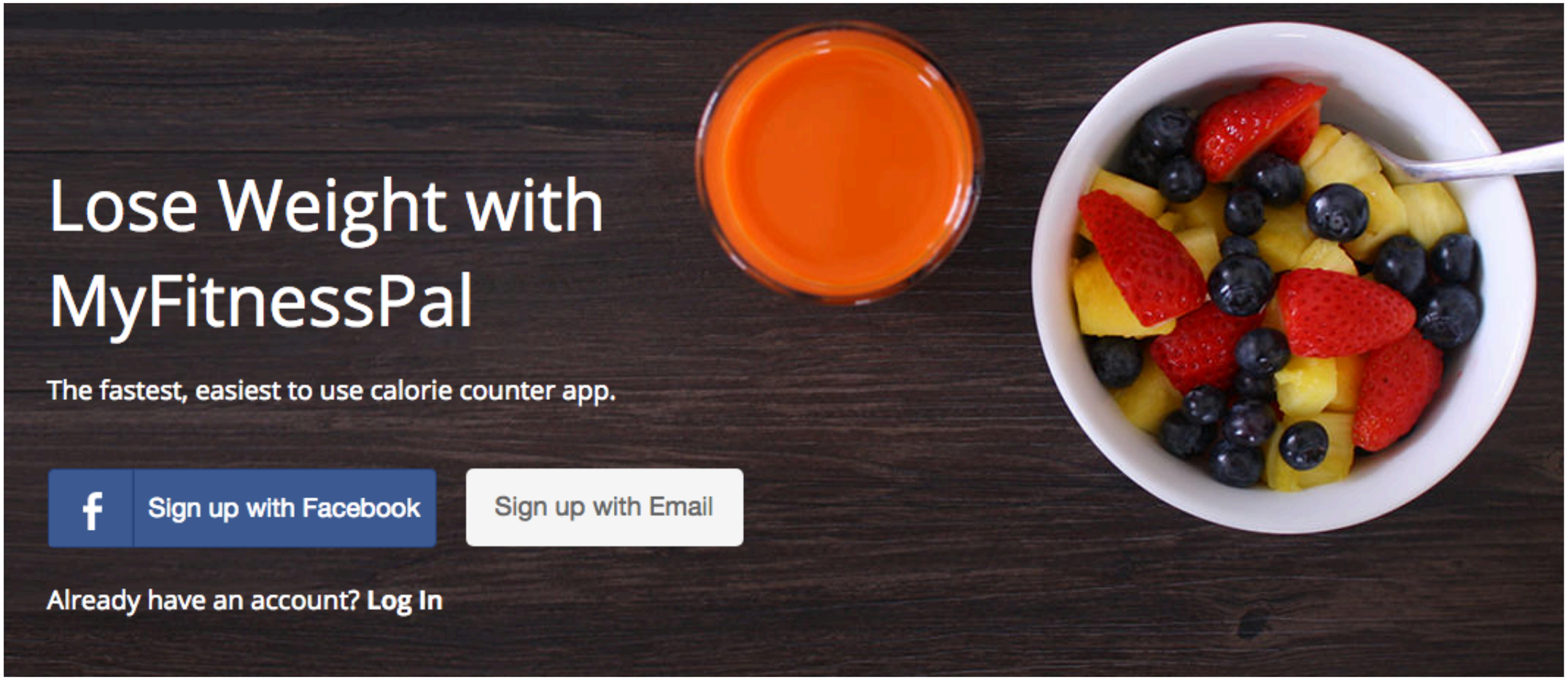
Kantar WorldPanel, 2017

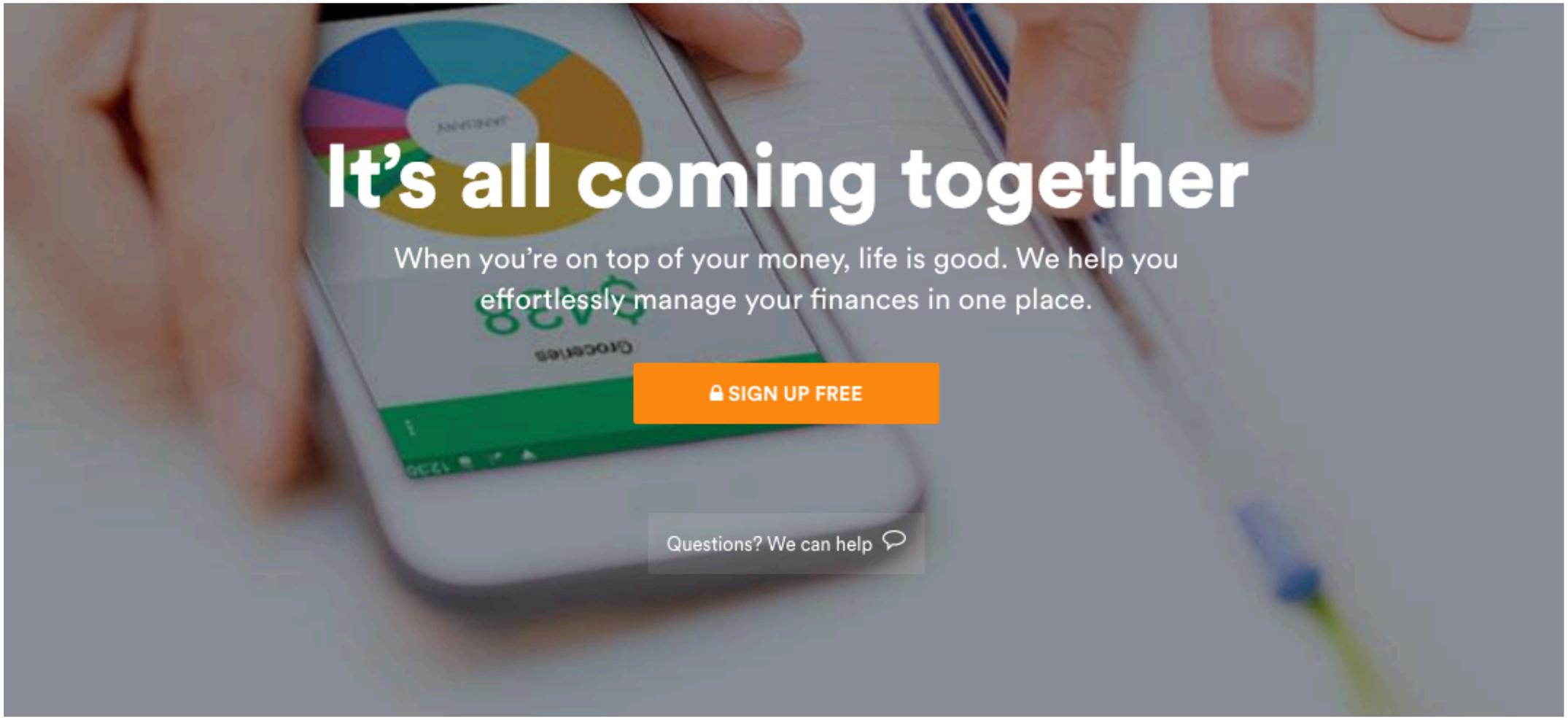
Pew Research Center Global Attitudes & Trends, 2016

fitbit®



myfitnesspal




It’s all coming together
When you’re on top of your money, life is good. We help you effortlessly manage your finances in one place.
SIGN UP FREE
Questions? We can help

30% abandon after three months

97% abandon after one week

Gartner Market Research, 2016

Helander, Kaipainen, Korhonen, Wansink. Factors Related to Sustained Use of a Free Mobile App for Dietary Self-Monitoring with Photography and Peer Feedback: Retrospective Cohort Study. J Med Internet Res, 2014

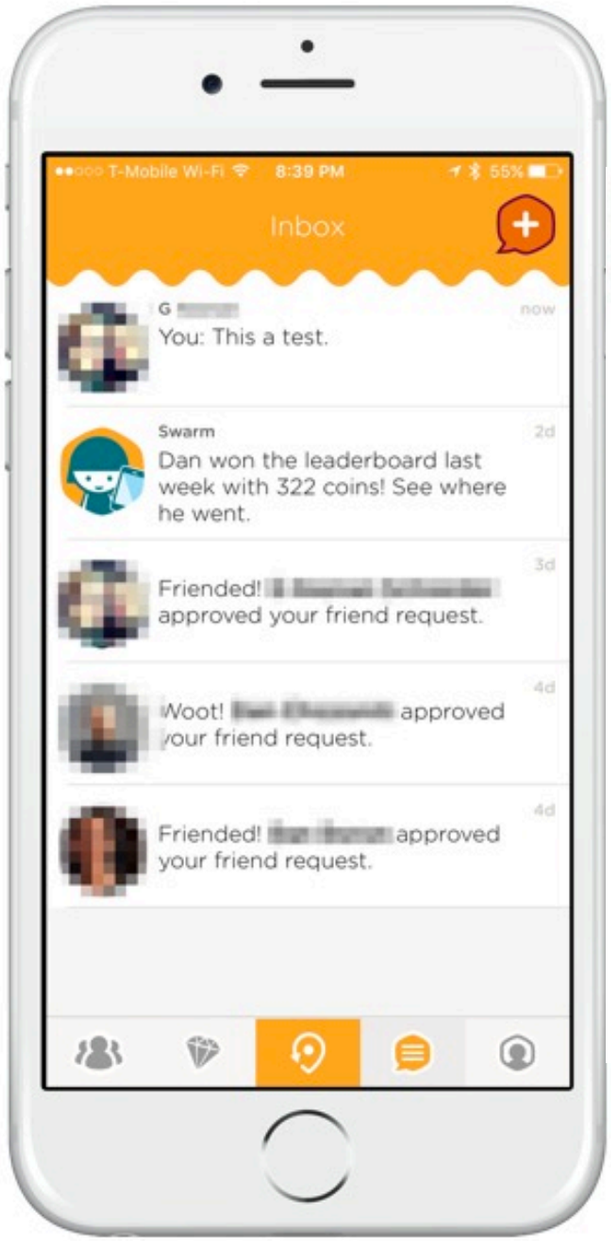
People have a lot of frustrations with tracking tools

One frustration: People do not receive enough support from others online

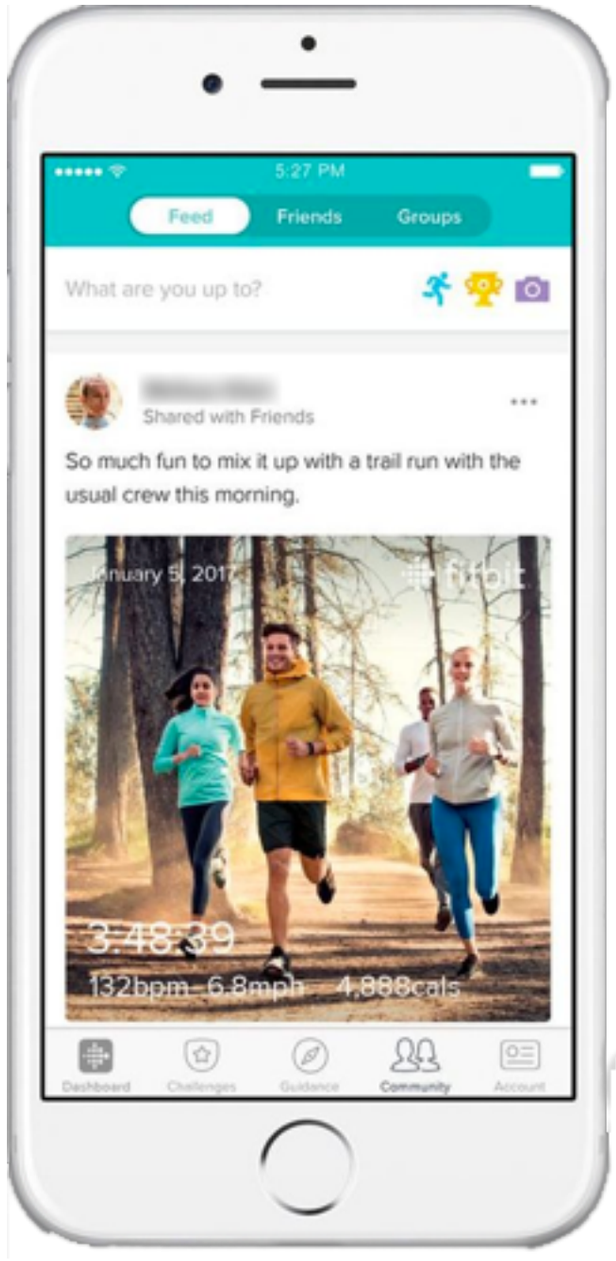
Advice

Support

Celebration


T-Mobile Wi-Fi 8:39 PM 55%
Inbox
G now
You: This a test.
Swarm 2d
Dan won the leaderboard last week with 322 coins! See where he went.
3d
Friended! approved your friend request.
4d
Woot! approved your friend request.
4d
Friended! approved your friend request.

went on a 3.82 mi run using Nike. — with .
Awesome day for a run!
Distance 3.82 mi
Pace 7:06 min/mi
Duration 00:27:08
Finish
Start
San Francisco
MARINA DISTRICT
Bay St
Polk St
Lombard St
RUSSIAN HILL
NORTH BEACH
© 2012 NAVTEQ © 2012 Microsoft Corporation
Like · Comment · August 24 at 12:47pm ·
and 10 others like this.


5:27 PM
Feed
Friends
Groups
What are you up to?
Shared with Friends
So much fun to mix it up with a trail run with the usual crew this morning.
January 5, 2017
fitbit
3:48:39
132bpm 6.8mph 4,888cals
Dashboard
Challenges
Guidance
Community
Account

This kind of support isn’t common

"So I was kind of bummed. I was disappointed in my friends… it'd be really awesome if you could, you know, support me or help me [be more active] when I post things. ***Nobody cared.*****"**

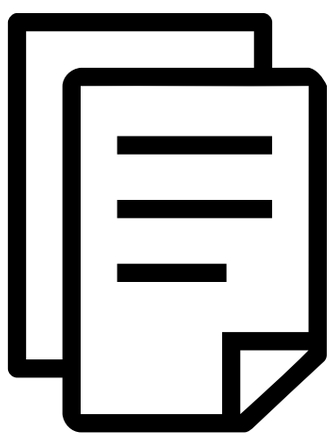
This is common

Lin, Mamykina, Lindtner, Delajoux, Strub. Fish'n'Steps:
Encouraging Physical Activity with an Interactive Computer Game. UbiComp 2006

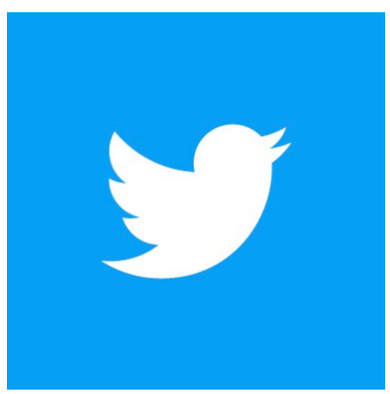
Munson, Consolvo. Exploring Goal-Setting, Rewards, Self-Monitoring,
and Sharing to Motivate Physical Activity. PervasiveHealth 2012

Liu, Dabbish, Kaufman. Supporting Social Interactions with
Expressive Heart Rate Sharing Application. IMWUT 1, 3, 2017

How can designs help people receive the feedback they want when sharing tracked data?



47 papers from CHI, CSCW, UbiComp, etc.

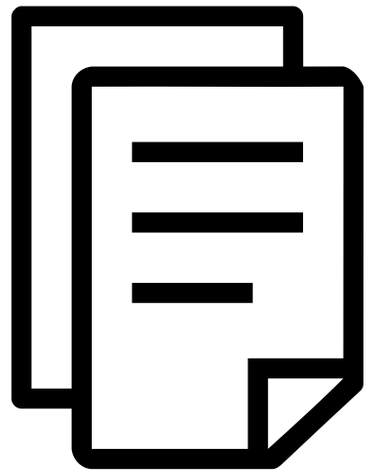


read and inductively coded 5,000 tweets with #RunKeeper

Epstein, Jacobson, Bales, McDonald, Munson. From “nobody cares” to “way to go!”: A Design Framework for Social Sharing in Personal Informatics. CSCW 2015

Most content was entirely system-generated

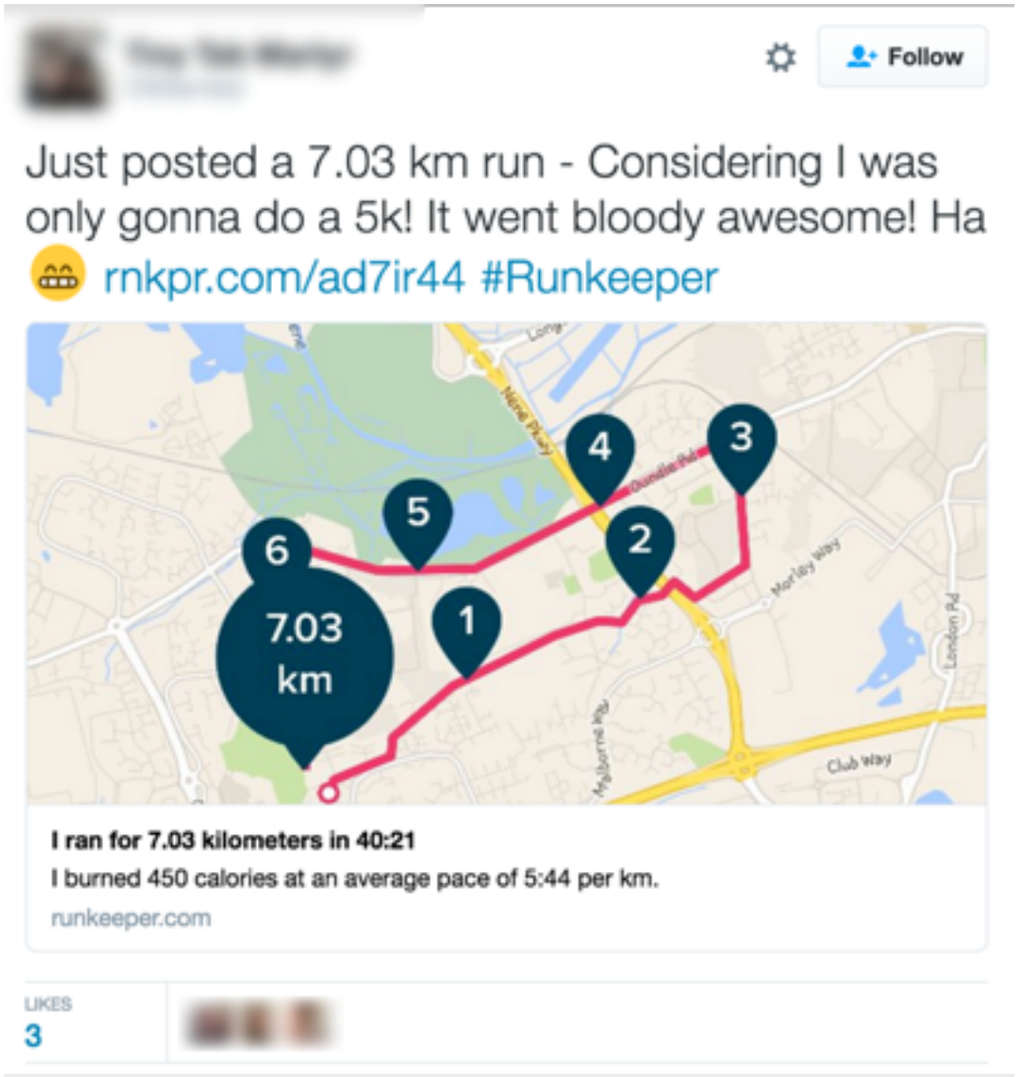
74% of tweets



65% of papers

Reactions align with post content

Entirely system-generated tweets received **fewer replies,**
(Z=-4.63, p<0.001, 95% CI 1.94-5.12)
fewer favorites
(Z=-5.25, p<0.001, 95% CI 0.51-1.11)



Explained importance

Photos from the activity

“*First training run for my 10K!*”

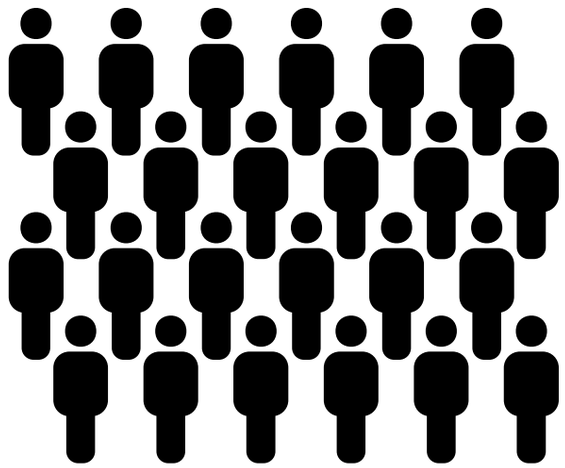
“*First run back from injury!*”

.....

“ ”

Explained importance

Photos



97 participants

Saw 5 tweets each

“I found this post interesting”

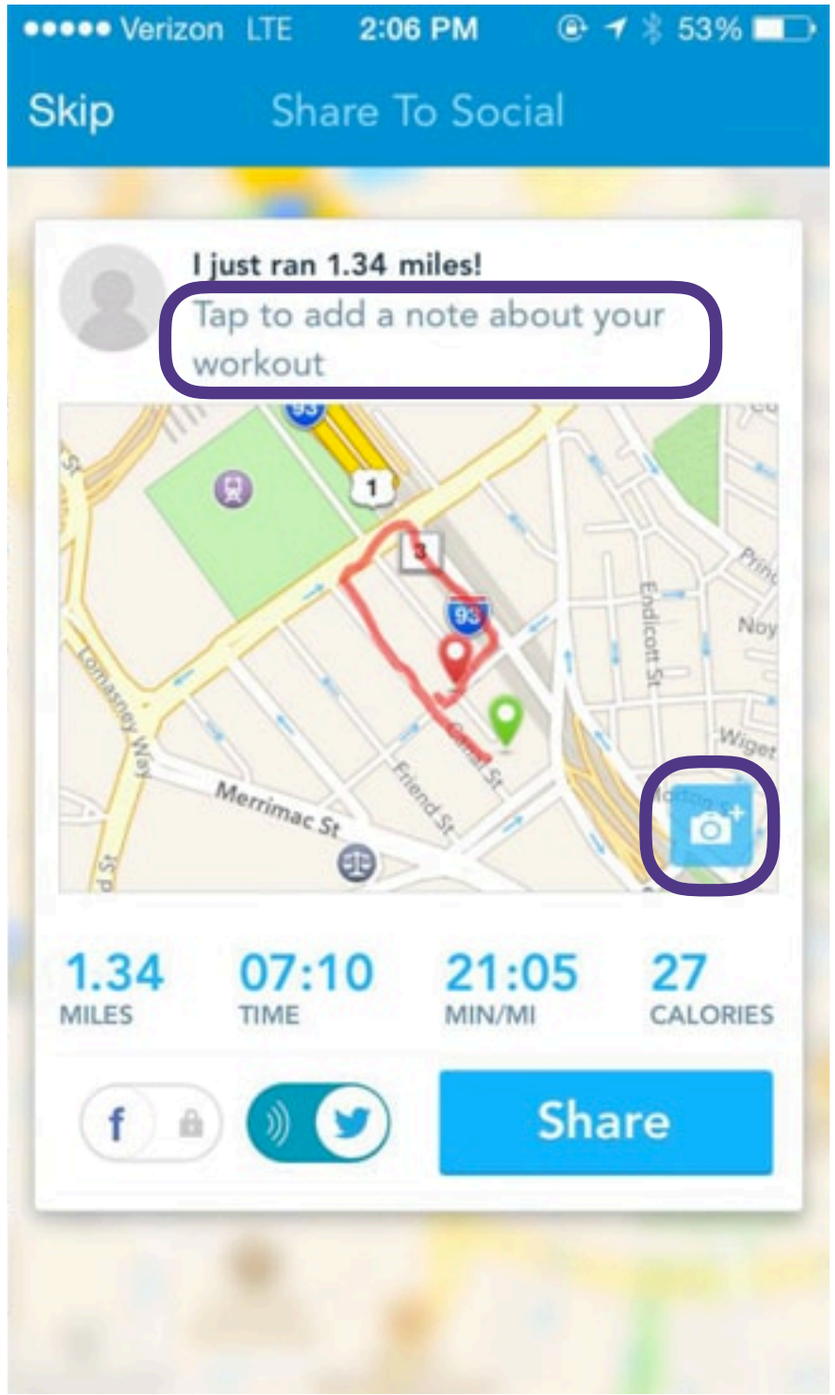
When the post explained the importance of a run. $F_{1,366}=5.86$, $p<0.05$

When the post included a picture. $F_{1,361}=8.25$, $p<0.01$

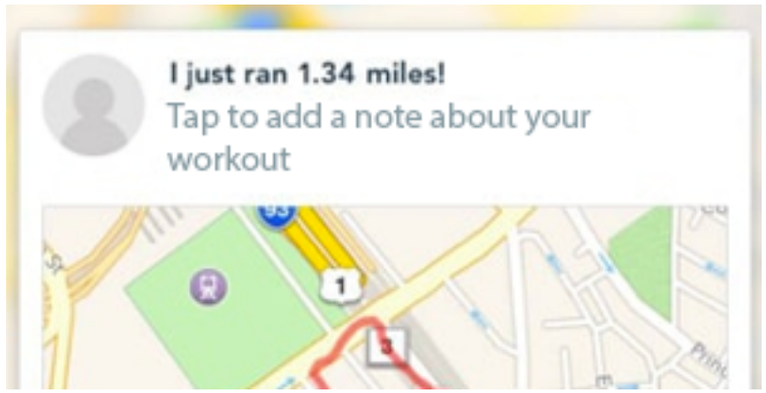
“I would respond to this post”

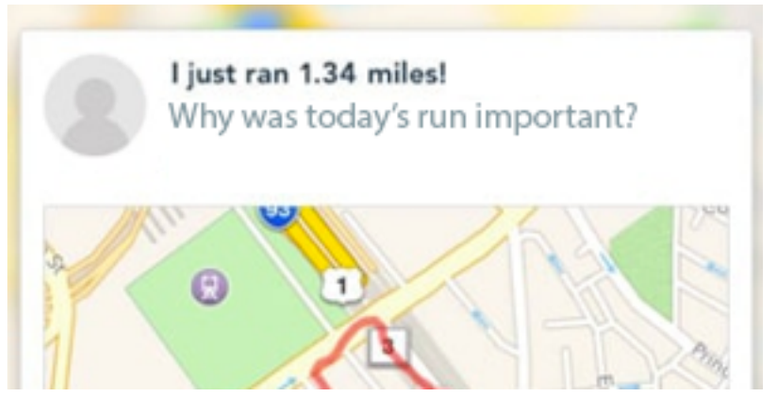
When the post explained the importance of a run. $F_{1,381}=20.18$, $p<0.0001$

The posting process promotes system-generated content



Runkeeper


I just ran 1.34 miles!
Tap to add a note about your workout


I just ran 1.34 miles!
Why was today's run important?

Posting

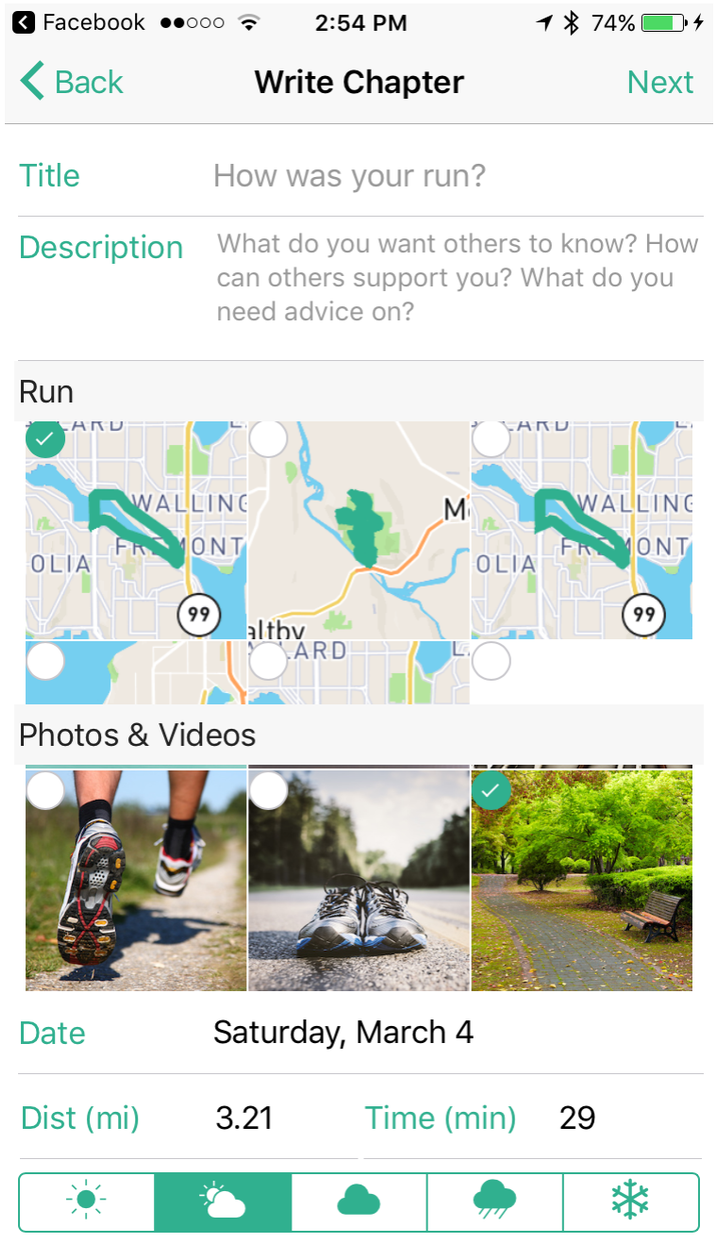
Posting → Authoring

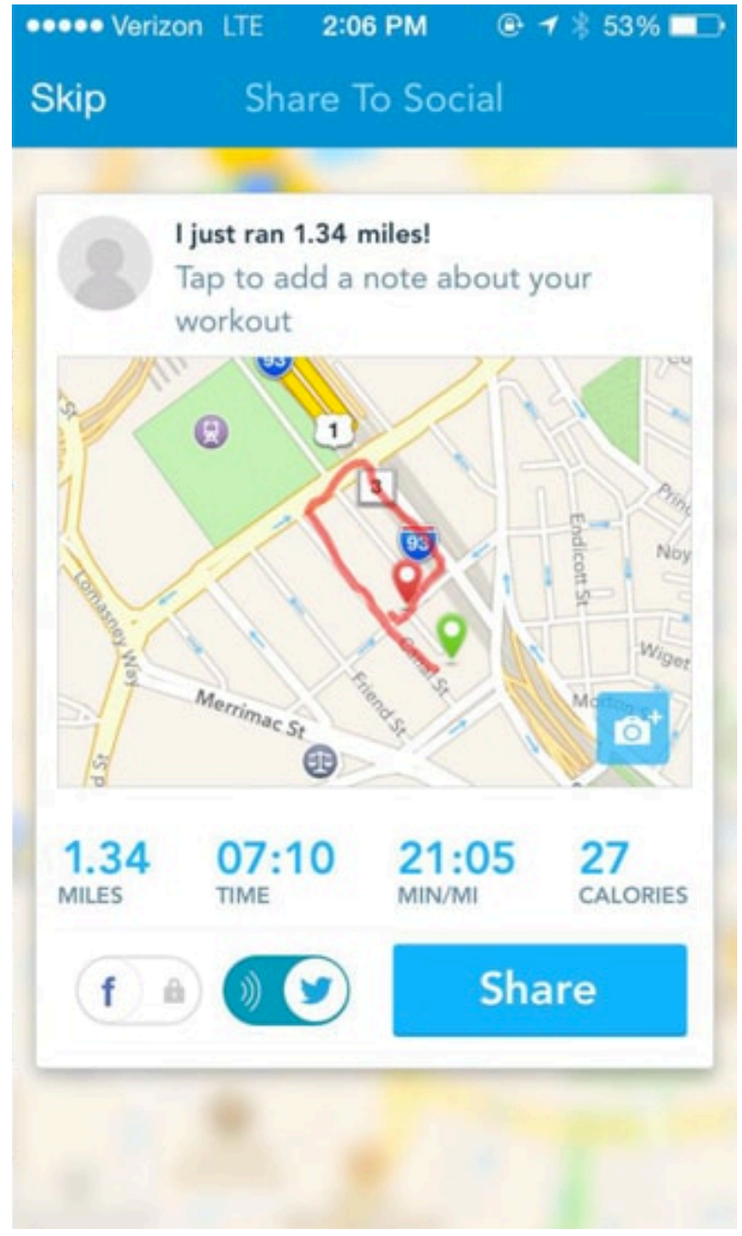
Yarn: a structured authoring experience

Prompts which promote describing importance

Yarn

Runkeeper





Prominently suggest including photos

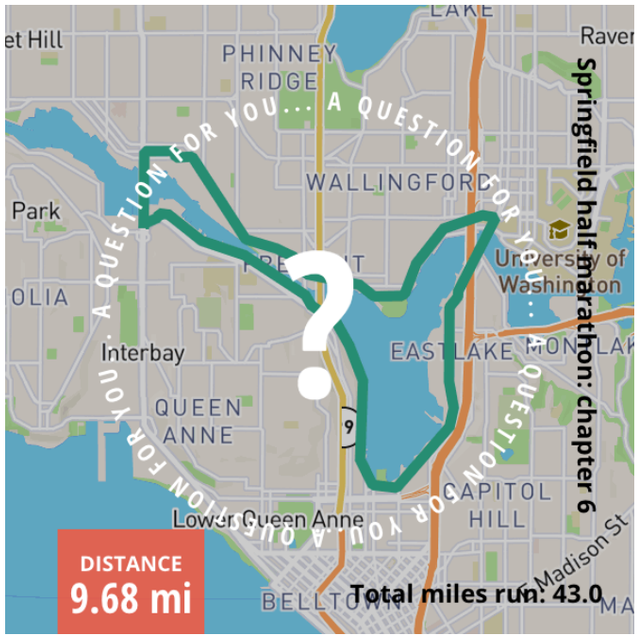
Advice

Support

Celebration

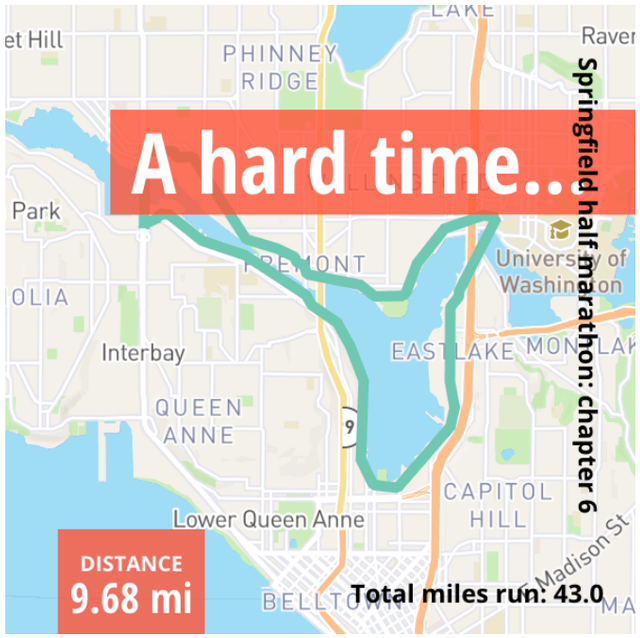
Visual templates to reflect sharing goal

For advice



A question

For support



A hard time

To celebrate

My journey

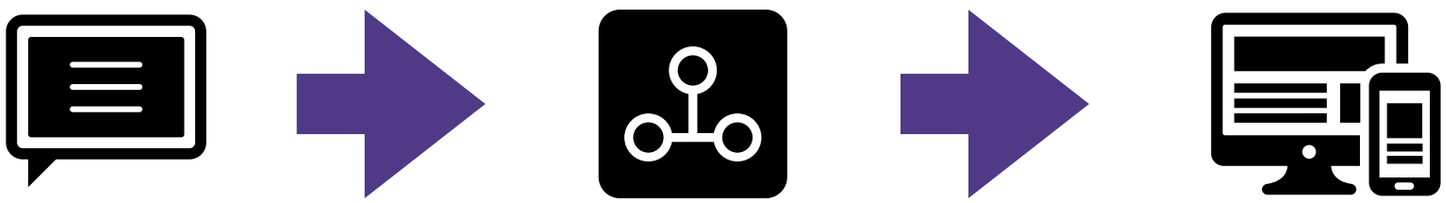
Yarn scaffolded more explanation, more interesting visuals

"*the prompts were good... having those fields where you could put what you were working on and what things you were actually encountering...* ***it just focused me and allowed me to write a lot.***" (p2, diy)

"*Yarn kind of motivated me to do different trails, since I'm taking photos and stuff* ***it made me want to venture out to different areas.***" (p10, running)

Designs do not help people create the type of content others want to respond to

A structured process for authoring interesting content

Everyday Personal Informatics

Daniel A. Epstein