

Goal-setting, Rewards, Self-monitoring, & Sharing to Motivate Physical Activity

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slides, details @
smunson.com/talks/ph2012

MISC
Michigan Interactive and Social Computing



dub

LIVESTRONG.COM



What works? What doesn't? Why?



What works? What doesn't? Why?



GoalPost

- Goal-setting
- Self-monitoring
- Rewards
- Sharing

talk overview



Goal-setting

Rewards

Self-monitoring

Sharing



prior work & existing apps



prior work & existing apps | goal-setting

best practices: important to the individual (e.g., self-set rather than assigned), realistic



Houston daily goals set based on walking history

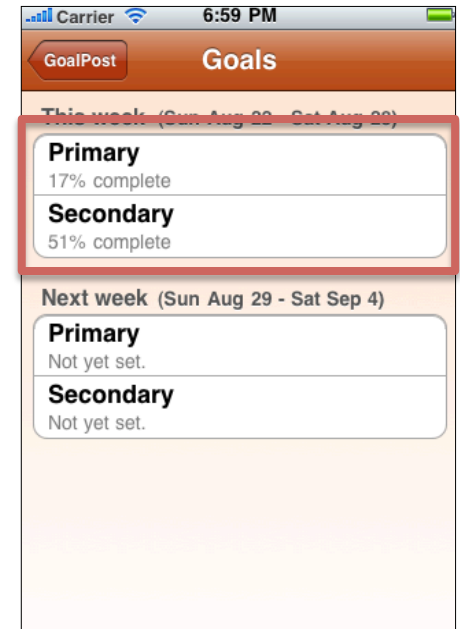
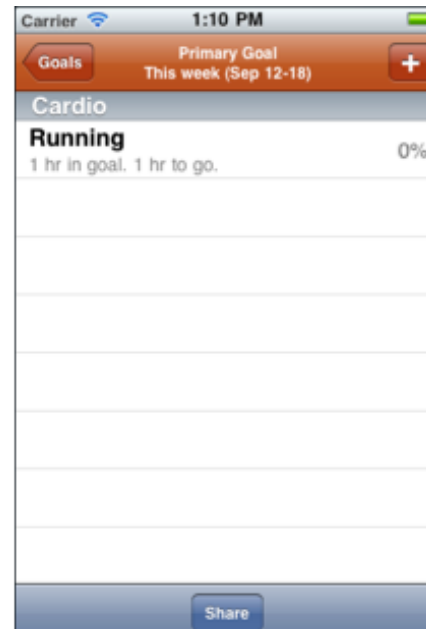
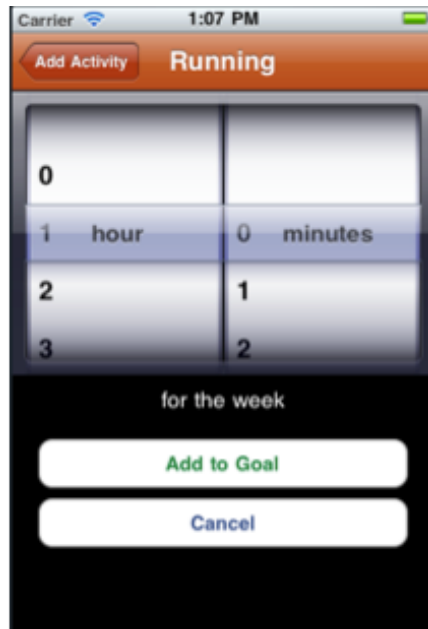
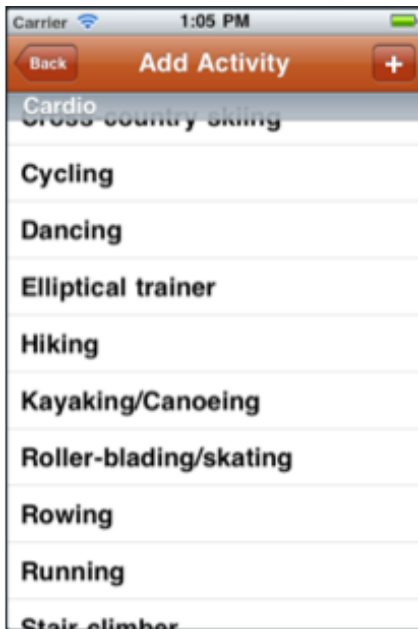


UbiFit weekly goals, set by user. Had to choose to pursue primary or backup goal, for the week.



LoseIt long term weight goal, translated to daily calorie goals.

prior work & existing apps | goal-setting



prior work & existing apps | rewards



Houston

* next to step count when goal met



UbiFit



LoseIt



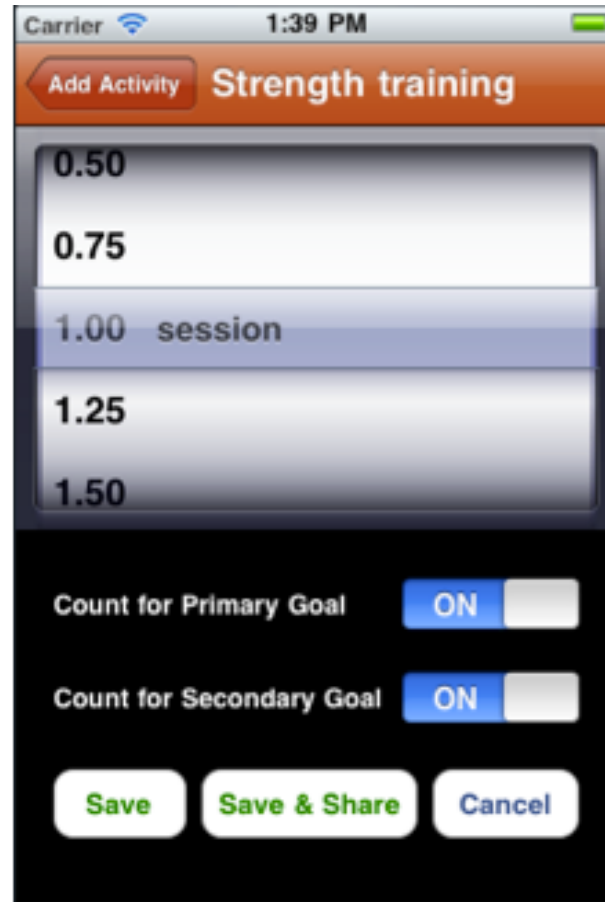
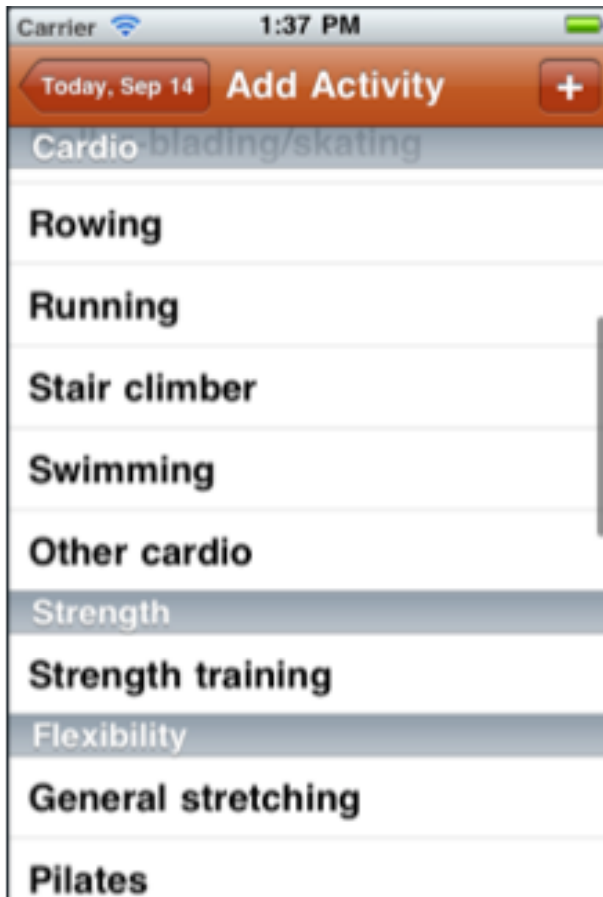
FitBit



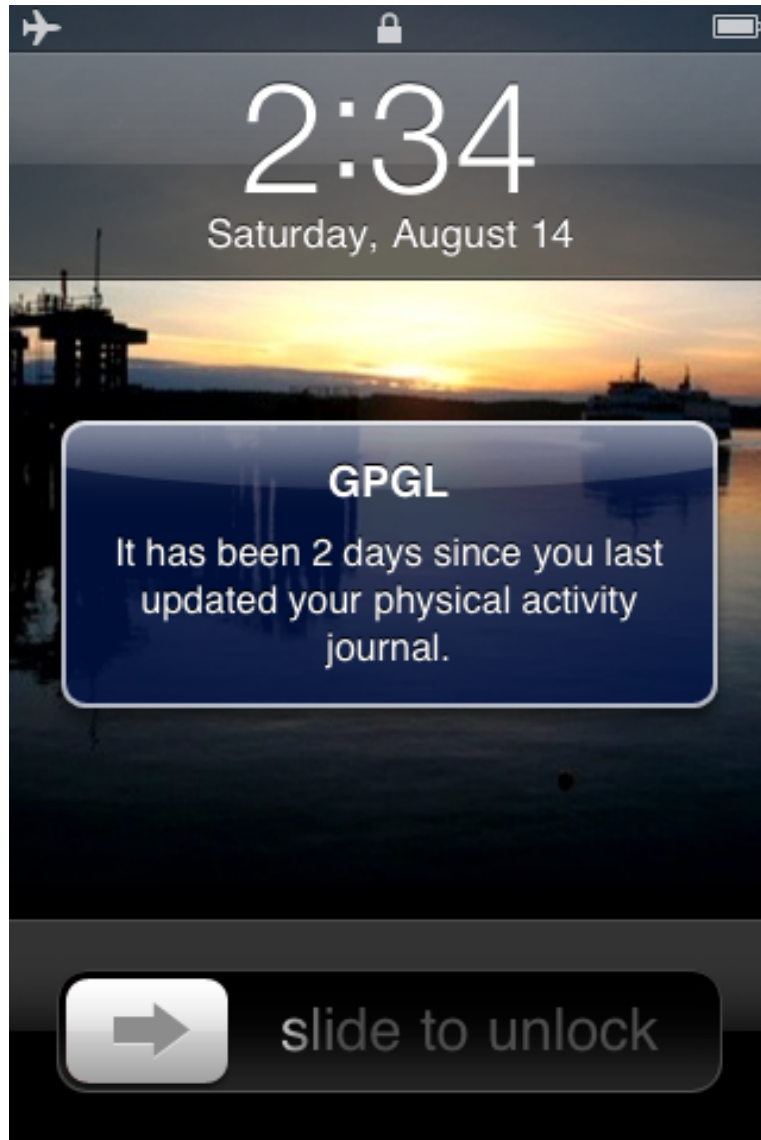
GoalPost



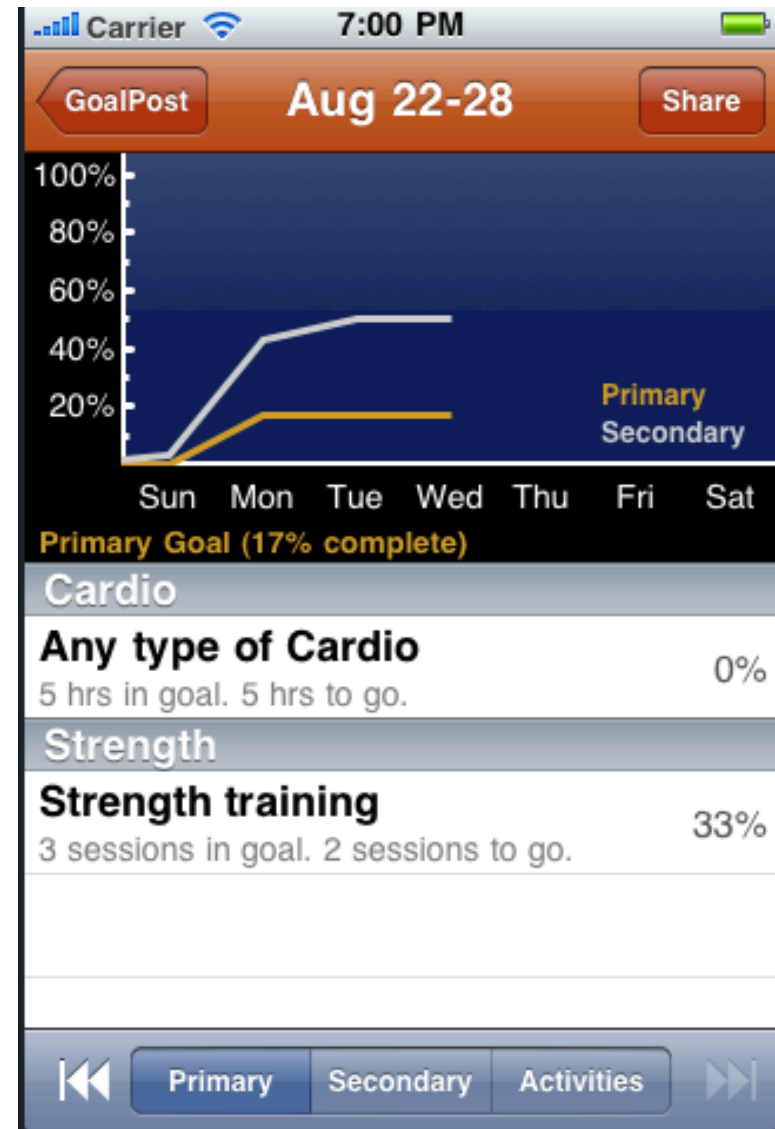
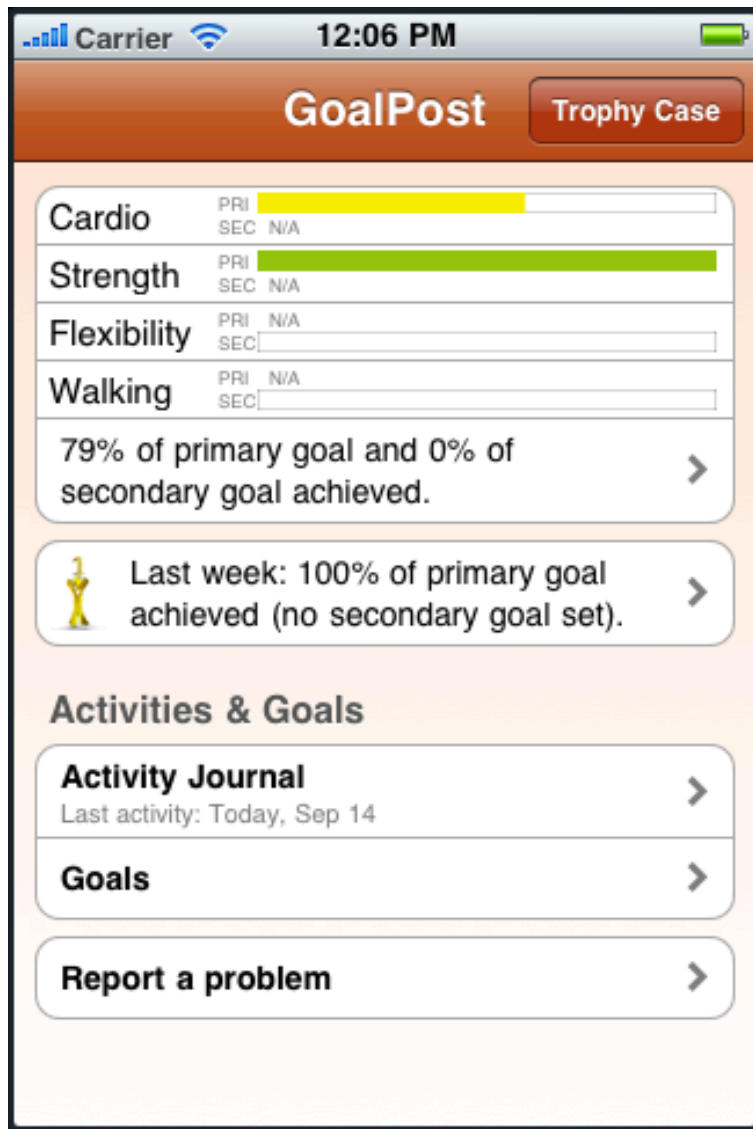
prior work & existing apps | self-monitoring



prior work & existing apps | self-monitoring



prior work & existing apps | self-monitoring



prior work & existing apps | sharing



[Redacted Name]

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 ft

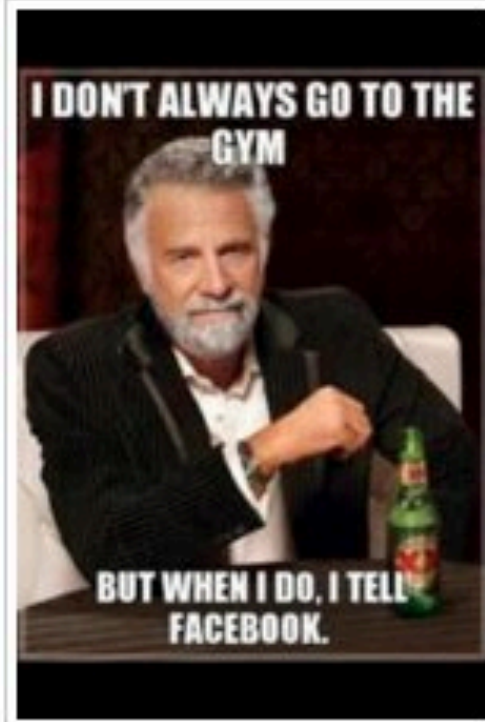


Like · Comment · Track your fitness · 38 minutes ago via RunKeeper · 

prior work & existing apps | sharing



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.

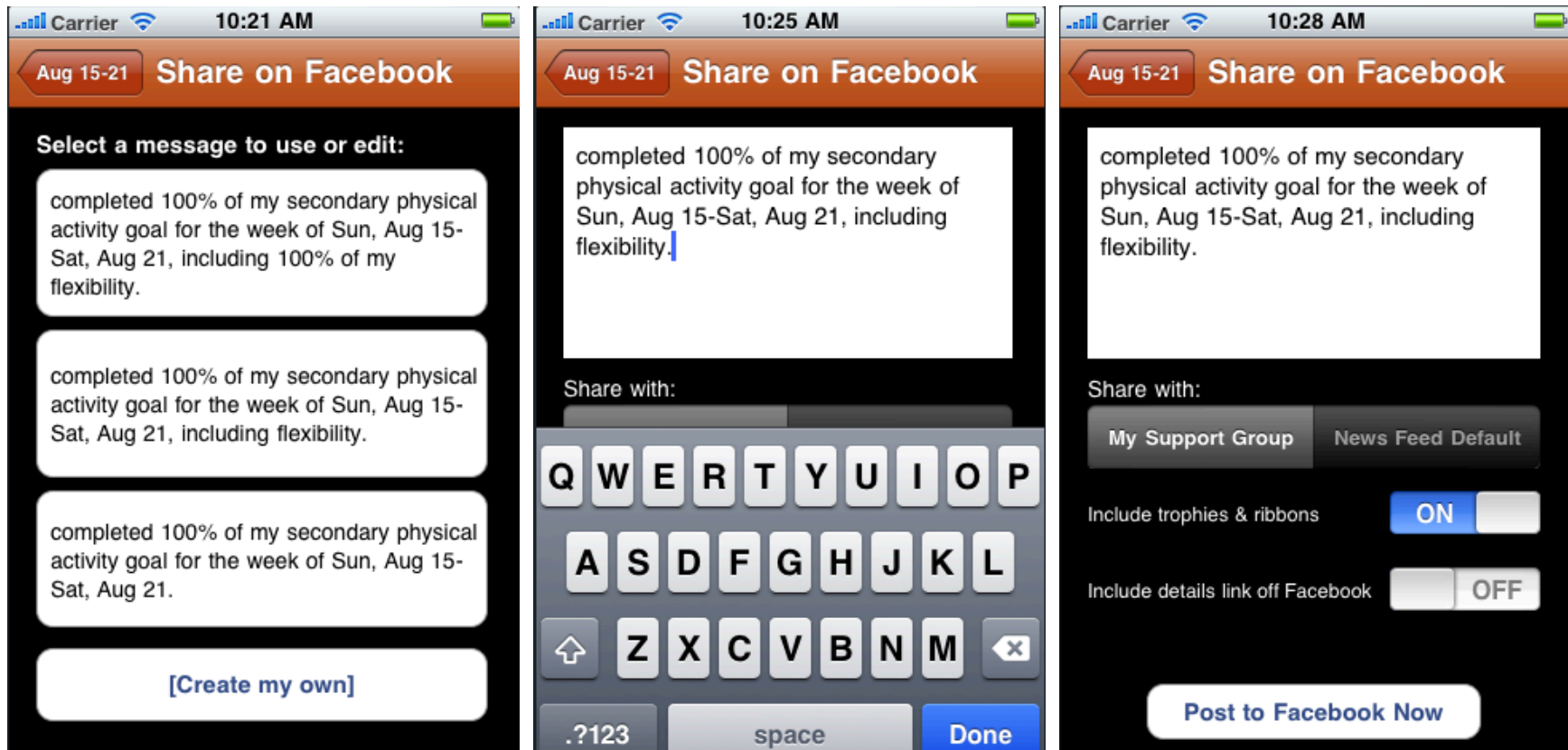
prior work & existing apps | sharing

Helps people receive **support and motivation**, be held **accountable**, and **communicate an identity**.

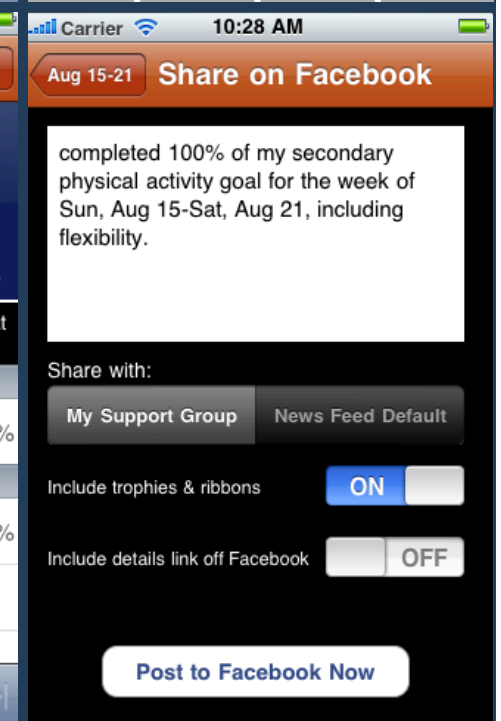
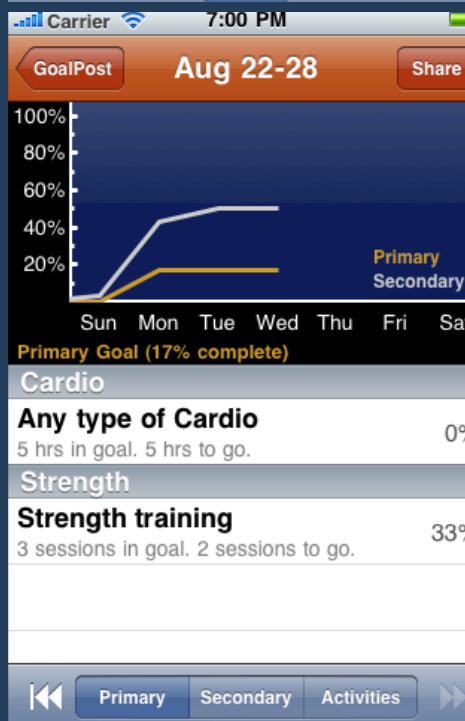
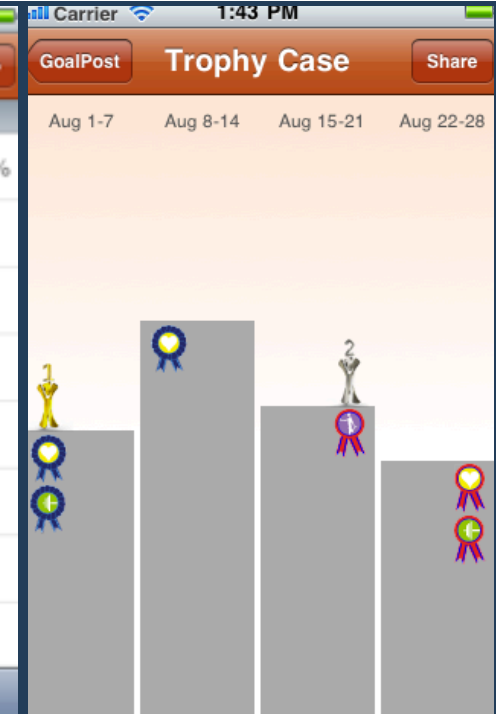
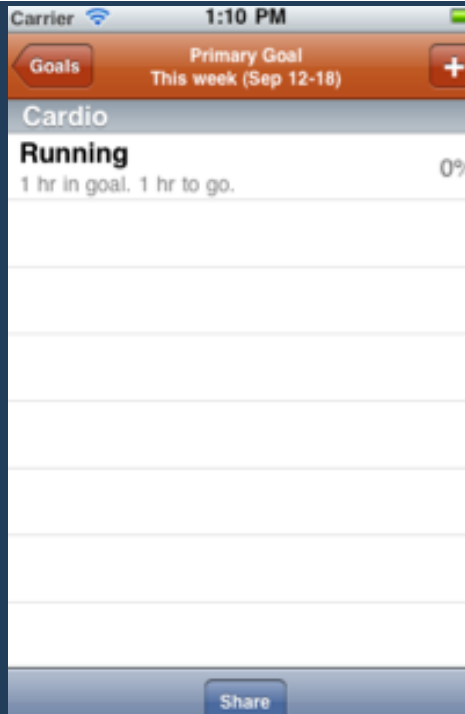
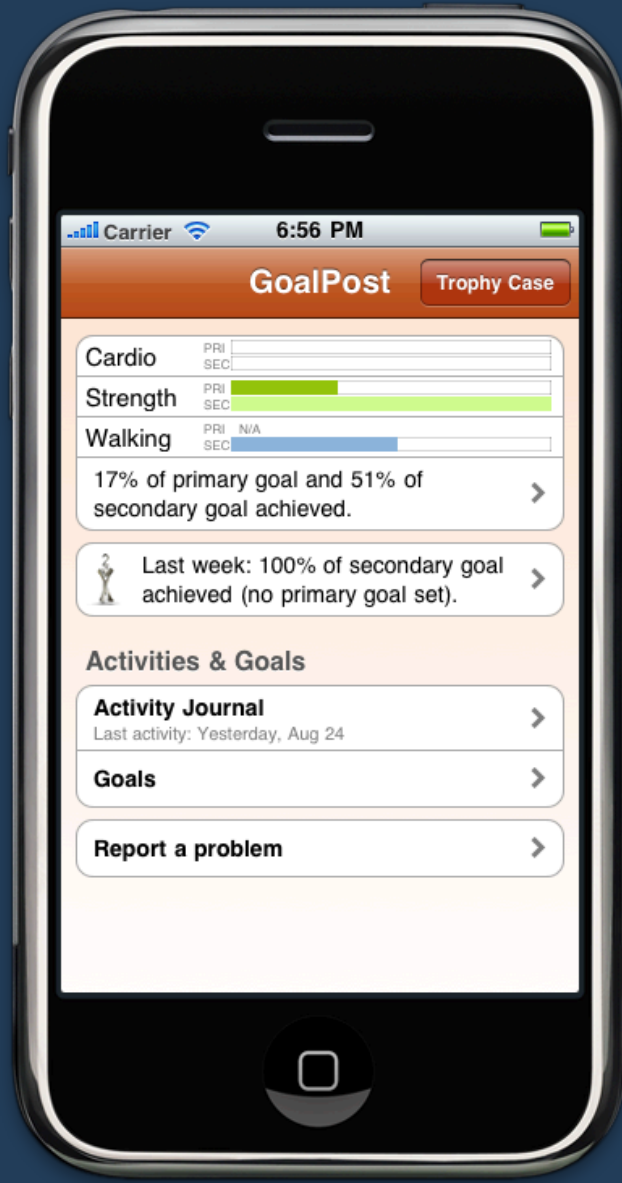
... but comes with **risk** of violating norms, appearing boastful or boring, and revealing weaknesses too broadly.

Hwang et al 2010, Munson et al 2010, Skeels et al 2010, Newman et al 2011

prior work & existing apps | sharing



GoalPost app



study

23 subjects, Seattle metro area, gender balanced
contemplation, prep, action stages of TTM

12 with sharing, **11** without

21-49 years old

4⁺ week field trial

Office visit at beginning to install & introduce app

5 intra-study surveys

Semi-structured interviews after study

results | goal-setting

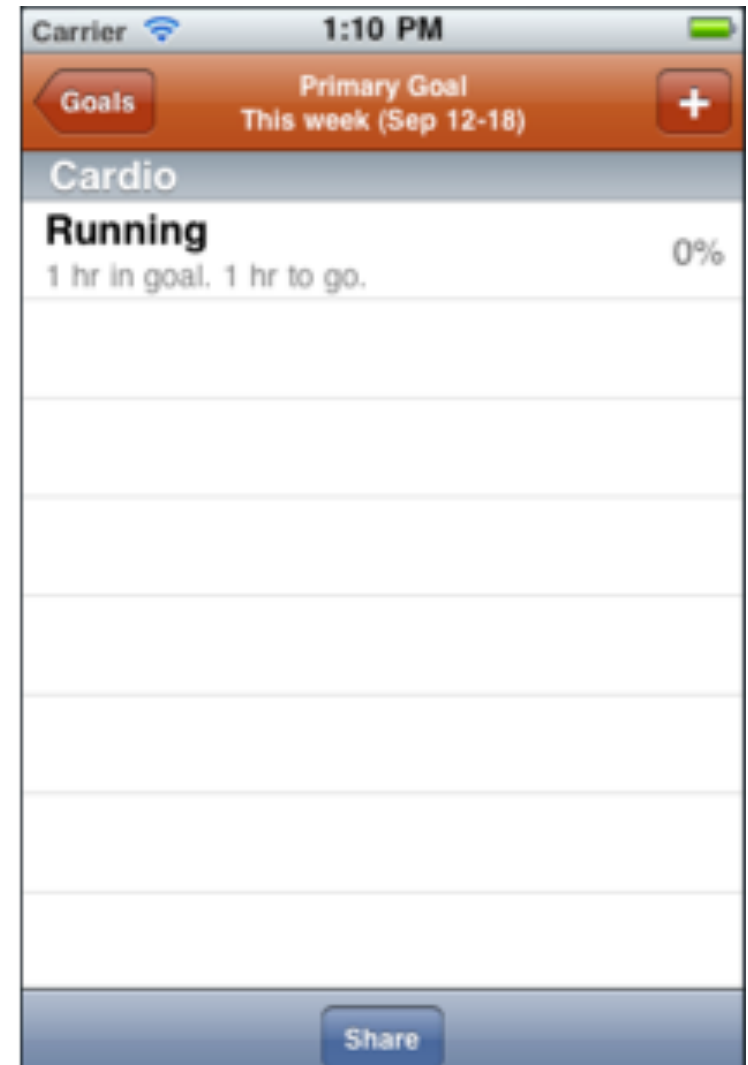
On average:

- 3.8 primary goals (achieving 22%)
- 2.3 secondary goals (achieved 14%)

Simple, enjoyable to set,

“just simply entering the goals—there was something about, ‘I’ve got to swim twice,’ that was **kind of a charge.**”

– GP9



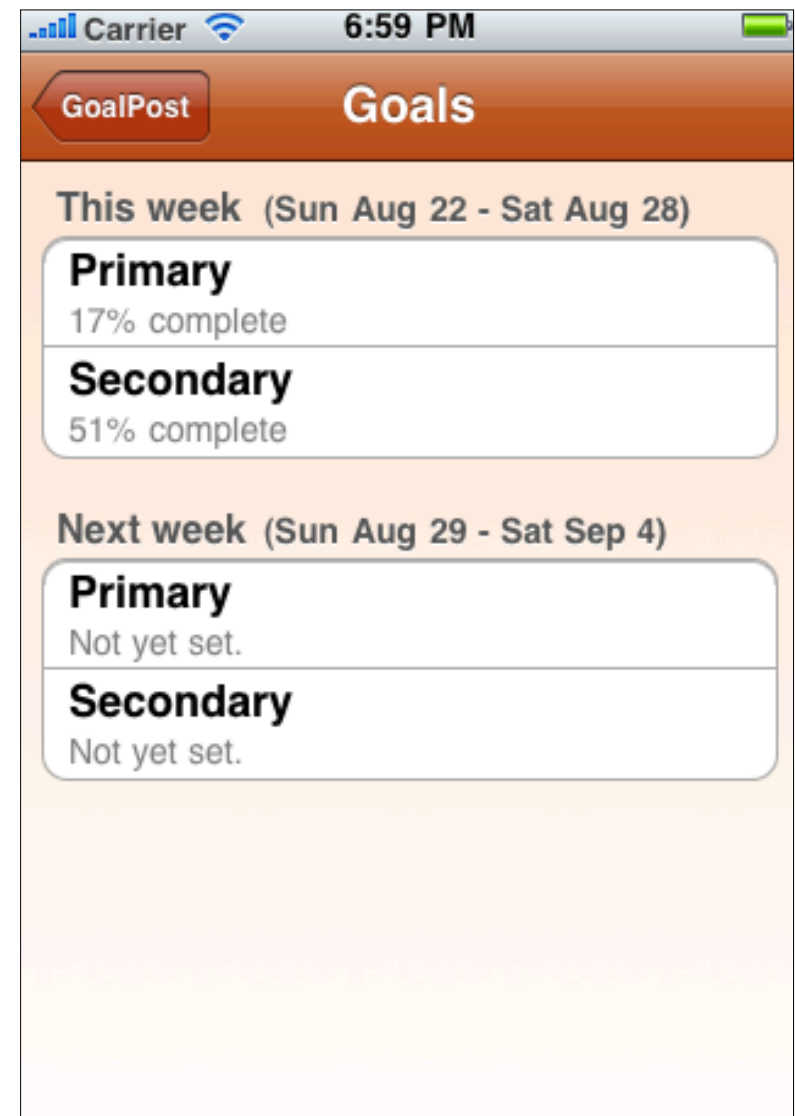
results | goal-setting: primary & secondary

19 set secondary & primary goals at least once.

- Routine &
 - stretch (10)
 - variety (4)
 - backup (3)
- Stretch & backup (2)

14 would continue to do so.

Motivated them to try to go above & beyond, but not be too hard on themselves when not meeting stretch goal.



results | rewards



3 of 23 reported being motivated by the medals and trophies

it was just kind of that little satisfaction of like—**I have a little gold trophy.**

– GP1

I really wanted the trophy thing.

– GP7

results | rewards



3 of 23 reported being motivated by the medals and trophies

Everyone else was **apathetic or negative**.

“It really didn’t do anything for me. Because **I knew I’d met my goals when I entered it** and I was like okay, turn it off”

– GP8

results | rewards



3 of 23 reported being motivated by the medals and trophies

Everyone else was **apathetic or negative**.

- didn't offer **new information**

lame

– GP8

a gimmick

– GP9, GL20

unnecessary

– GP3, GP5, GL16

results | rewards



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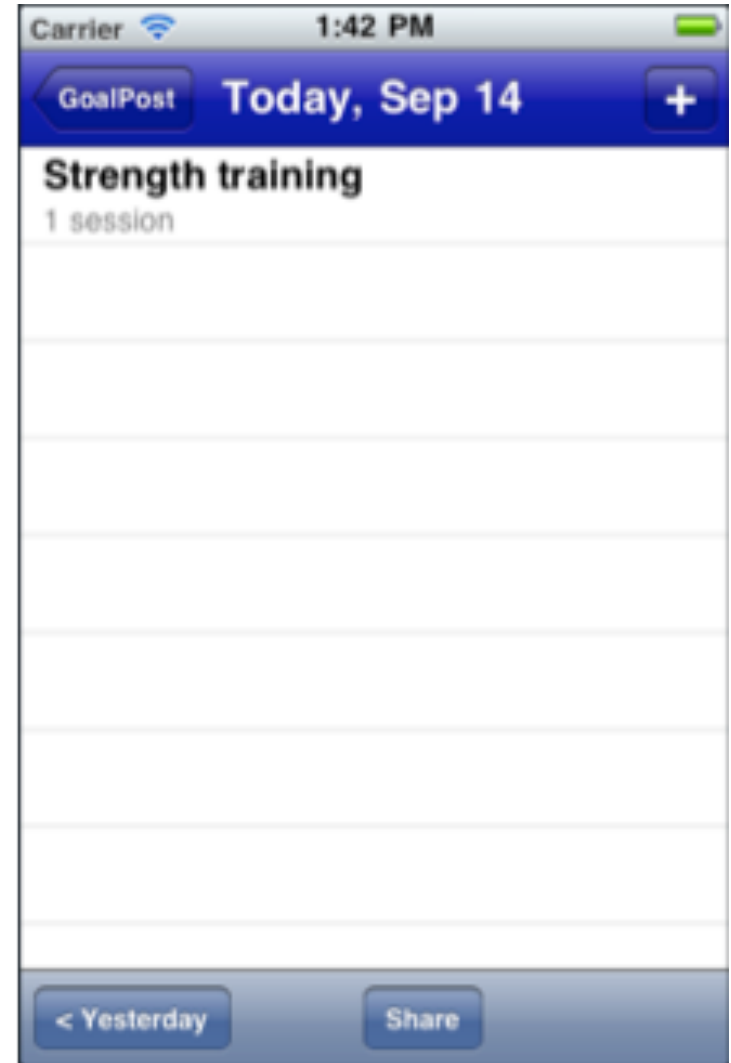
- didn't offer **new information**
- not useful on top of **existing motivation**

results | **self monitoring**

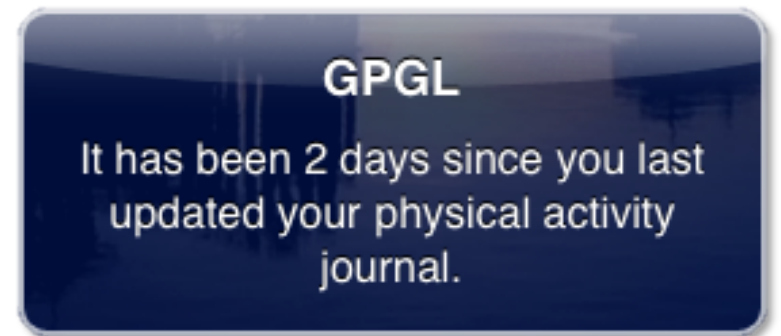
results | self monitoring: journaling

journaling activities was
“a reward”

“it’s always with you... you're
just like, ‘Ba ba ba, done.’”

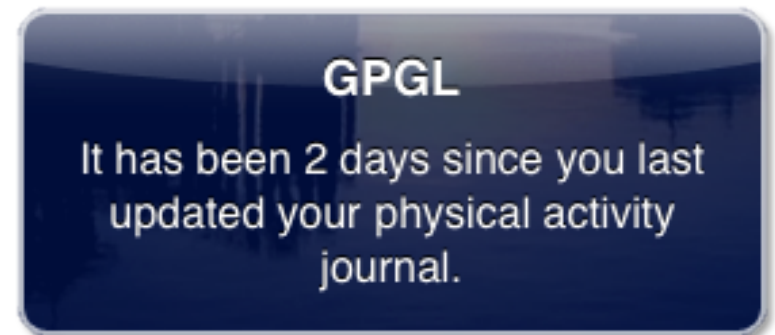


results | self monitoring: pop-up reminders



Most popular feature for 15 participants

results | self monitoring: pop-up reminders



Most popular feature for 15 participants

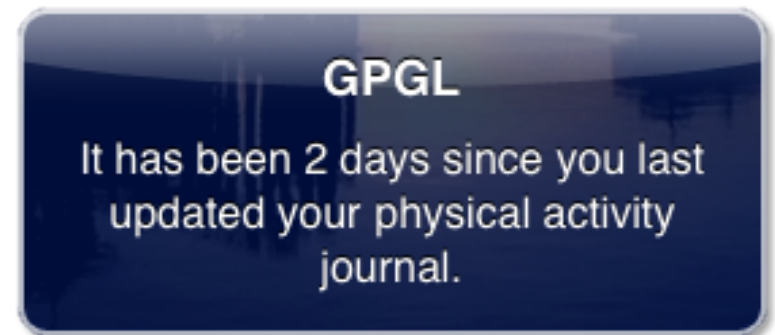
I think it was kind of a nice realization in terms of what I am and am not doing and it was, you know, **without having to have, you know, sort of mom** or someone else involved going, “Oh, you haven’t been exercising.”

– GP1

results | self monitoring: pop-up reminders

it was annoying, but that's why I liked it. ...there's always that voice in the back of your head just saying, “Stay on the couch. Relax. Eat those potato chips.” And so that [the pop-up reminder] was kind of **like the angel on the shoulder** telling you to go do something.

– GP3



Most popular feature for 15 participants

It was a **love-hate relationship** but, yeah, it was good for me.

– GP8

results | self monitoring: badge reminders

Some appreciated the persistent, subtle notification.



Others hated that they couldn't make it “*go away*” like other iOS badges.

... but this encouraged two participants to exercise to have something to journal.

results | sharing

10 out of 12 shared at least once, but...

4 shared with only an empty support group

still limited by fears of violating norms, revealing weaknesses, or appearing boring or boastful.

3 configured a support group

results | sharing

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.

– GP12

results | **sharing:** support group

Because she's **accepting** and she wouldn't get sick of my posts. When we were talking about this and choosing a support group, all I could think of was that *Farmville* thing where I'm always seeing that someone has a cow. **That is so annoying. I didn't want to annoy another person.**

– GP7

results | **sharing:** support group

... my friend liked my post, my *GoalPost*, and that **made me feel good that she was at least looking at it.**

She was **the only one** out of my whole support group that looked at it.... I only got responses from my one friend that was here locally, even though I told [my support group] about it.

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 do that when I post things. Nobody cared.

– GP11

results | sharing

GP7: 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?

GP7: I thought it was going to save me, yeah.

RESEARCHER: Did it?

GP7: No. And I'm so discouraged.

results | **sharing:** some good news?

1 of 12 GoalPost users found a new exercise partner & started going to the gym more.

“I actually did get something out of it... Because **it is possible to have the whole world see it.** Yeah. Yeah. The phone is like... my personal being. You’re not going to see it, but that’s [Facebook] definitely out there. If it’s on the net it’s on the net.”

– GP9

where next?

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Goal-setting Use simultaneous secondary *and* primary goals. Evaluate in controlled trial.

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Goal-setting

Use simultaneous secondary *and* primary goals. Evaluate in controlled trial.

Rewards

Issues with literal, expected rewards.
Further study of reward features needed.

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- Goal-setting** Use simultaneous secondary *and* primary goals. Evaluate in controlled trial.
- Rewards** Issues with literal, expected rewards. Further study of reward features needed.
- Self-monitoring (reminders)** Use reminders. Explore reminder-only apps. Evaluate vis-à-vis SMS.

where next?

- Goal-setting** Use simultaneous secondary *and* primary goals. Evaluate in controlled trial.
- Rewards** Issues with literal, expected rewards. Further study of reward features needed.
- Self-monitoring (reminders)** Use reminders. Explore reminder-only apps. Evaluate vis-à-vis SMS.
- Sharing** More refinement needed. Automated lists? Effects of Facebook timeline & “frictionless” sharing?

thank you!

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