

Flowers or a Robot Army?

Encouraging Awareness & Activity with Personal, Mobile Displays

Sunny Consolvo, Predrag Klasnja,
David W. McDonald, Daniel Avrahami,
Jon Froehlich , Louis LeGrand, Ryan Libby,
Keith Mosher & James A. Landay

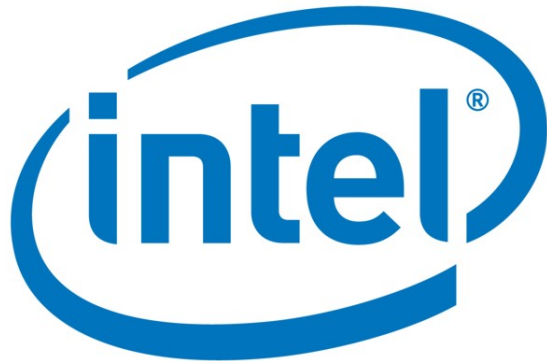
Mike Pennisi
Activating Environments



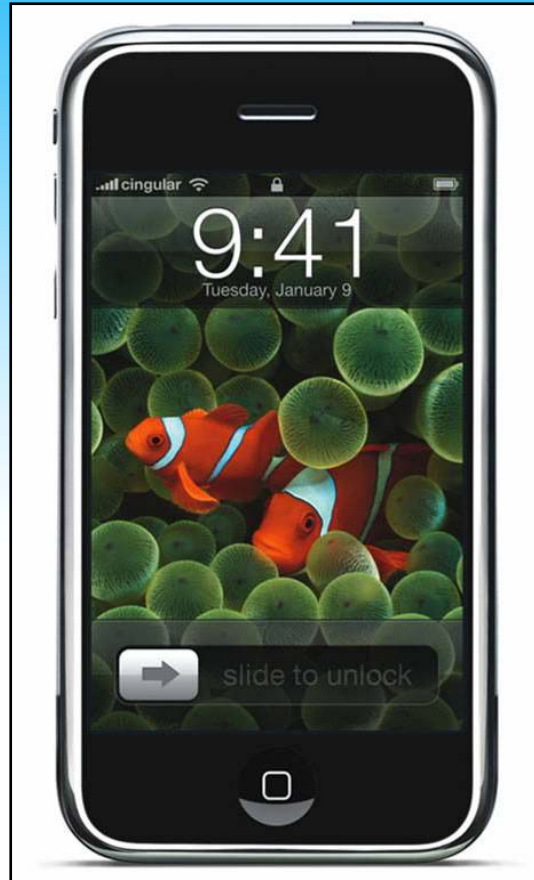
The Paper

Published in 2006

Authors from:



Background



Background

Personal != Private



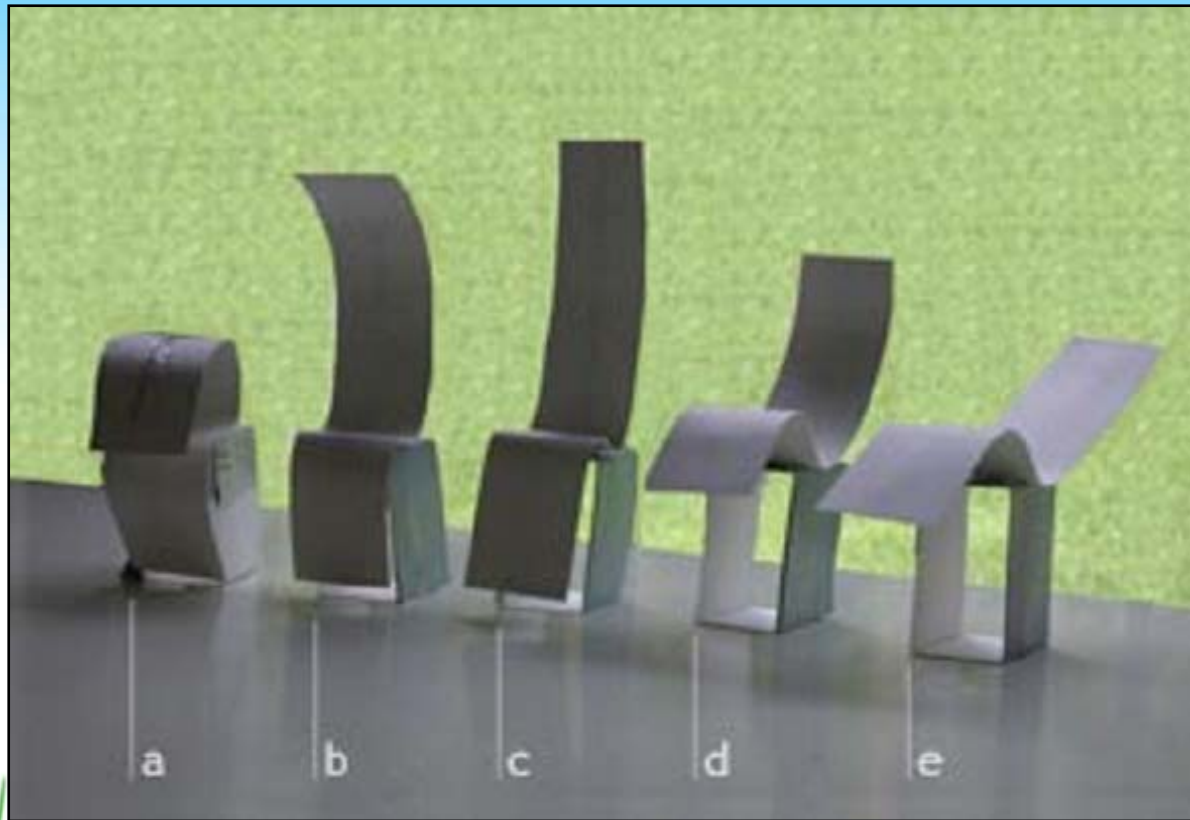
Background

“glanceable”



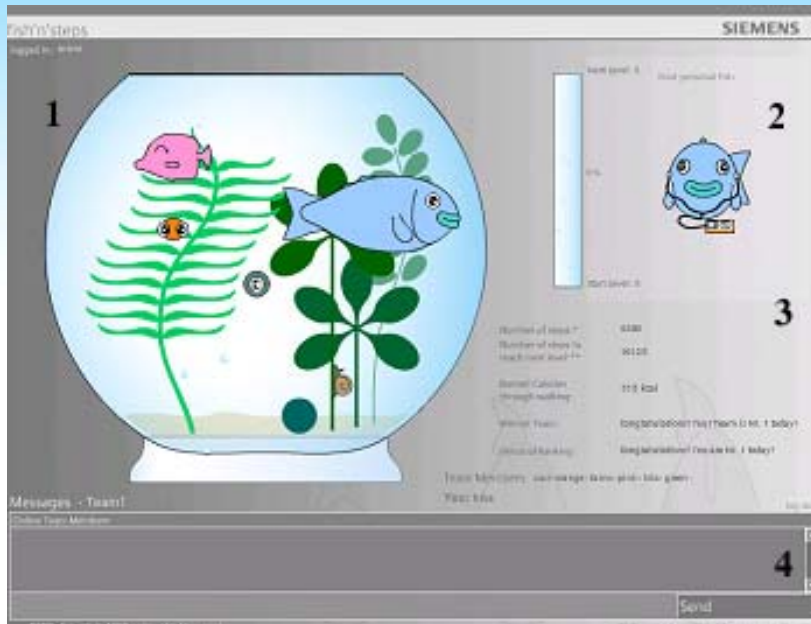
Related Work

Stylized Displays: “Breakaway”



Related Work

Stylized Displays: “Fish ‘n’ Steps”




Related Work

“Mobile phone applications that encourage self-monitoring and increase of physical activity”



Related Work

“Houston”


 **Today's Steps (Mon)**

Me **7606(f)**
[Sun 8296 (f)]

Alice **7626 (4:34p)**
[Sun 10367 (f)]

Betty **10135* (5:14p)**
[Sun 11845*(f)] (com)

Options Exit

 **Me**

Today's steps for Me
4562 (6:24p)

Goal: 10000 steps
5438 steps to goal

Comment from last update
Walk

Options Back


 **Comments for Alice**

Wed 8/3 4013(2:46p)
went for a run

Sun 7/31 5153(7:17a)
a good day

Sat 7/30 6120(3:26p)
a good day

Options Back

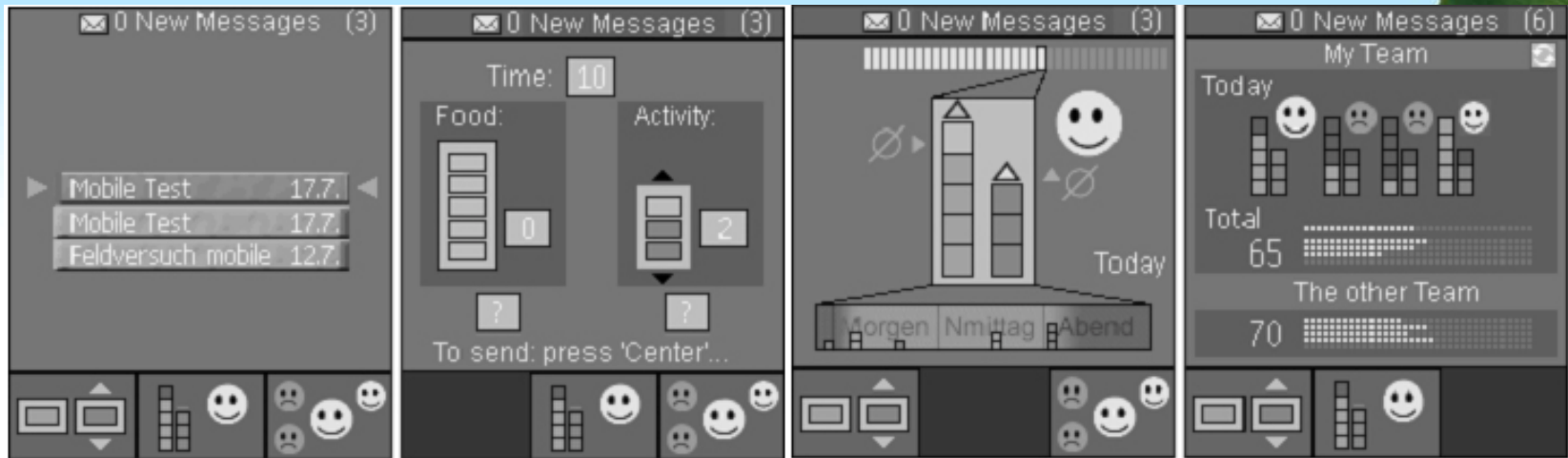
 **My Last 7 Days**

Sun	11798 *
Mon	9135
Tue	6629
Wed	14013 *
* = goal met	
Average	10135*

Options ^ Back

Related Work

“Healthy Lifestyle Coach”



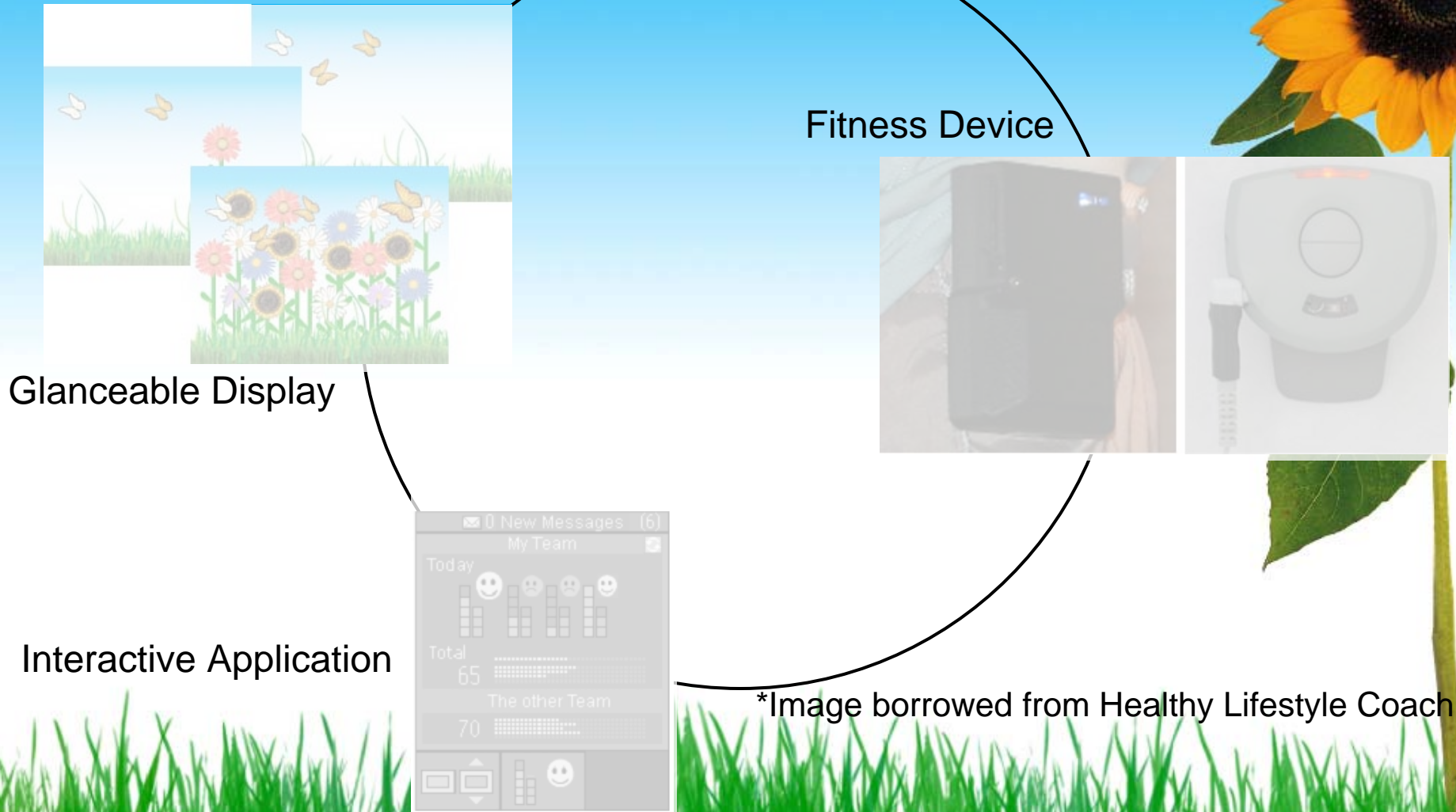
Related Work

Takeaways:

- Nice to ignore it
- Only positive reinforcement
- Simple rewards are good
- Diversify supported activity
- Self-monitoring works



The UbiFit



*Image borrowed from Healthy Lifestyle Coach

Design

- American College of Sports Medicine, American Heart Association
- Previous work (Houston)
- Survey
- Three-week field trial



Experiment Design

- Duration: 3 months
- Holiday Season
 - Thanksgiving
 - Christmas
 - New Year's Eve



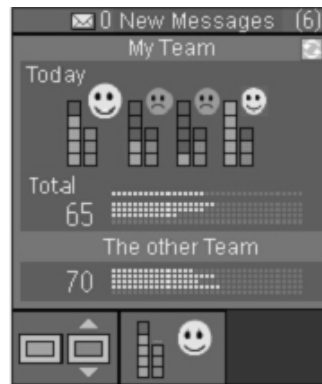
Experiment Design

Three “conditions”:

Glanceable Display



Interactive Application



Fitness Device

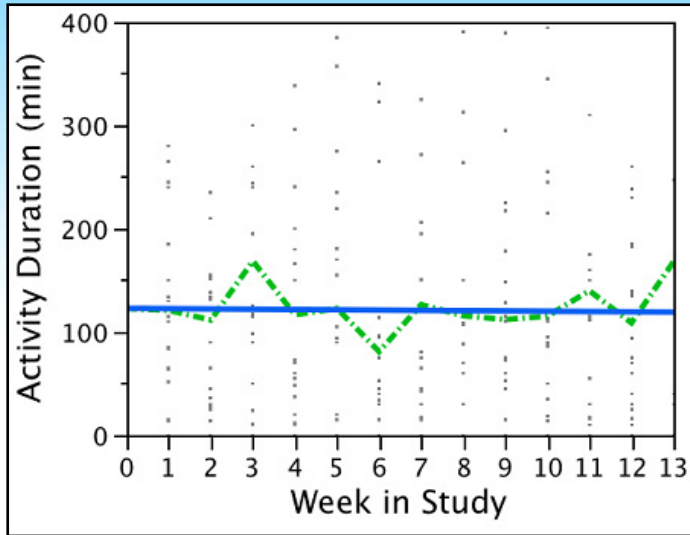


Participants

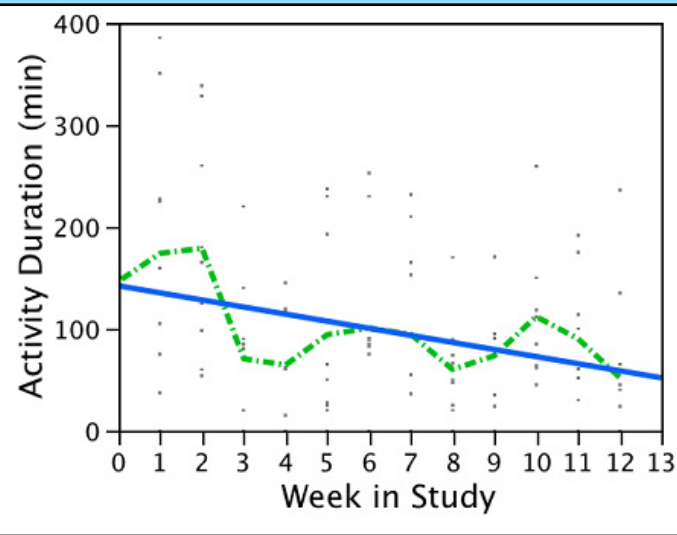
- 28 people total
- Evenly distributed across “conditions”
- All used study’s phone as their primary phone



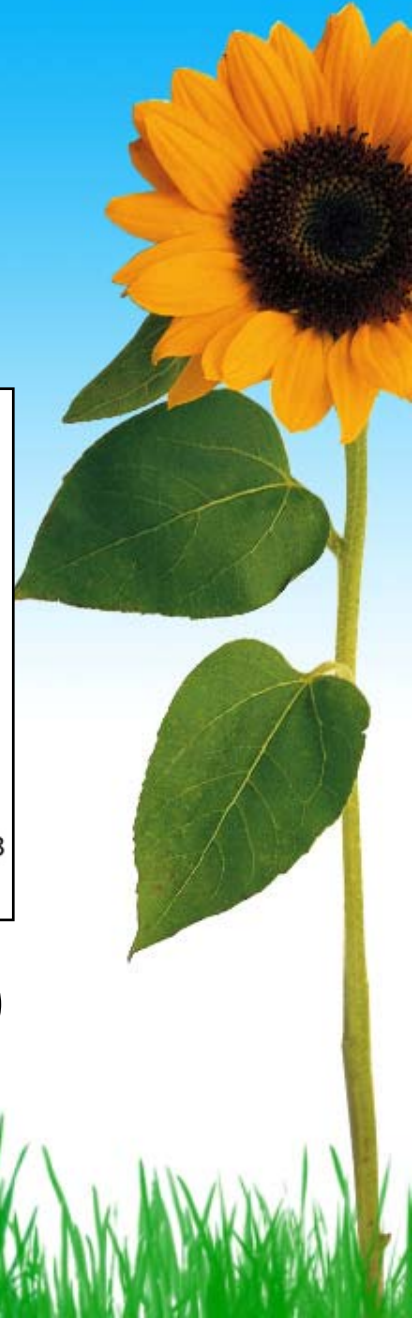
Effectiveness of Glanceable Display



(with display)



(without display)



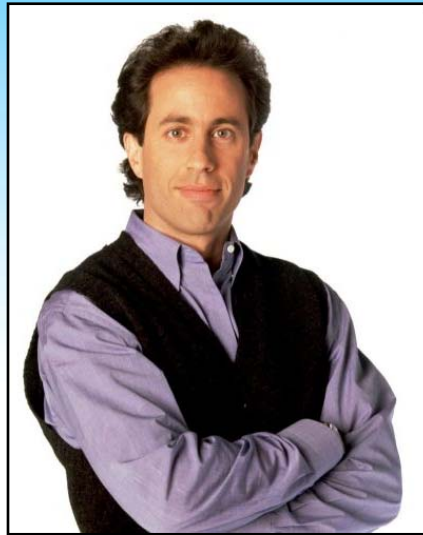
Effectiveness of Glanceable Display

“I could see my progress if I was—
how much more I needed to do to
get to my goal... And I could see
the butterfly and think, ‘I did it last
week, you can do it again this
time.’”

- participant F10



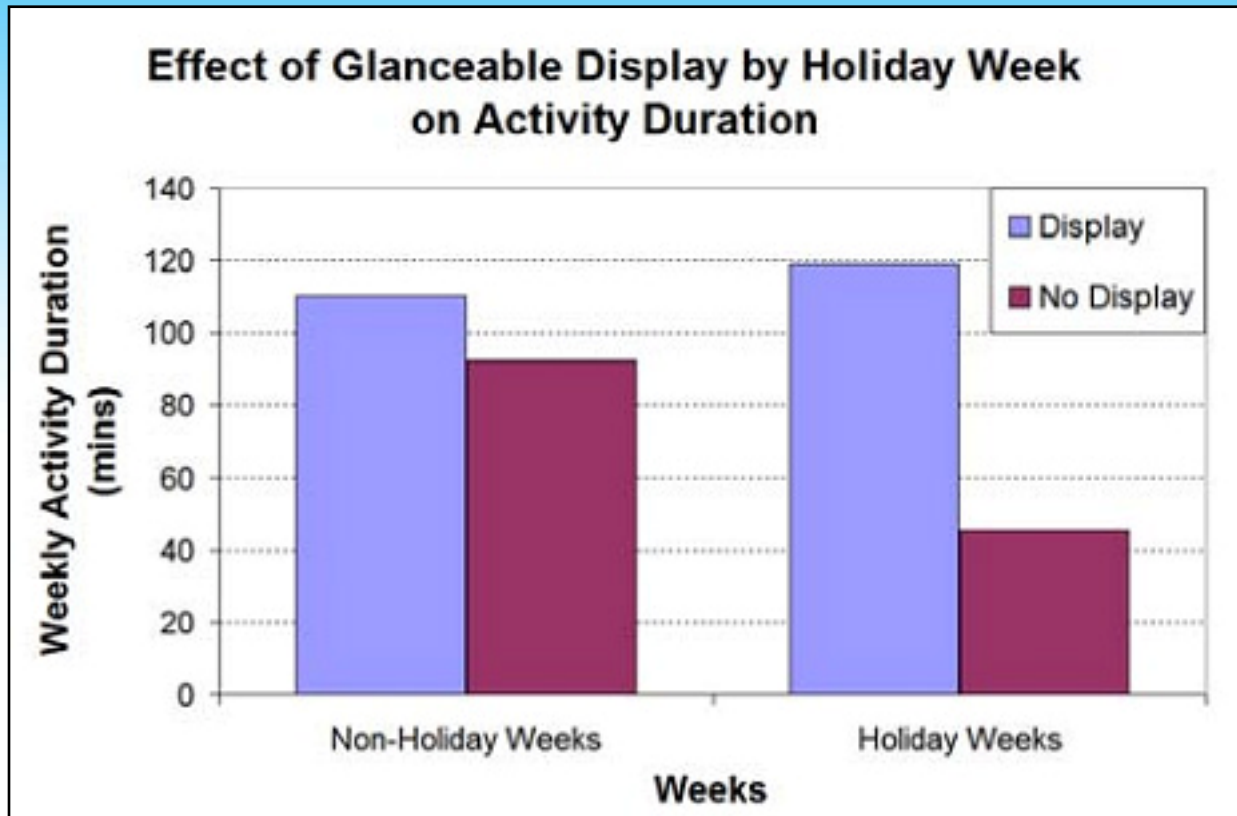
Effectiveness of Glanceable Display



Jerry's calendar system



Effectiveness of Glanceable Display



Metaphors

“Stripper theme” suggested by
survey participants
and three-week trial participants
and field study participants.



Metaphors

“...it would be nice to have a more like dudely kind of motif for it [the glanceable display]...Like a robot. If you could amass a robot army...I’d run a lot!”

- participant F7



Novelty Effect

“How do we, as ubicomp researchers, confidently know when and if we have overcome novelty in our studies of early-state, novel prototypes?”



UbiGreen

Investigating a Mobile Tool for Tracking and Supporting Green Transportation Habits



design:
use:
build:

¹ university of
washington



² Intel Research, Seattle



³ HCI Institute,
CMU

Tawanna Dillahunt

http://www.cs.cmu.edu/~tdillahu/index_files/Research.htm

tree



polar bear

