Beyond Badges: Gamification in the Kukui Cup

Philip Johnson, plus 11 fellow developers, and 418 intrepid players, all from the beautiful University of Hawaii Honolulu, HI USA
gamification:
The use of game design techniques and mechanics to solve problems and engage audiences.

(wikipedia)
"The last decade was social. The next decade is games."
"To solve the world's problems, we need to play games online for at least 21 billion hours a week."
gamification: now scaling the "Peak of Inflated Expectations"

Gartner Hype Cycle (2011)
"I've suggested the term exploitationware as a more accurate name for gamification"
Research Questions:

1. Can game mechanics support the goals of the Kukui Cup?
2. What are the unintended consequences?
Kukui Cup in a Nutshell

1,035 first year students
**Kukui Cup in a Nutshell**

- **3 weeks, 3 rounds, 24 events**
- **418 players, 850 hours**
- **(4,094 unique visitors, 170,000 hits)**
Kukui Cup in a nutshell

Competition 1: Use the least energy
Kukui Cup in a nutshell

Competition 2: Learn the most about energy
Using gamification to support the Kukui Cup

(besides the obvious: points, scoreboards, badges)
#1: Use game mechanics to connect "real world" to "virtual world"
#1: preliminary results: More education correlates with more conservation
#2: Use "leveling up" to transition local to global, simple to complex

Forest

Canopy
#2 preliminary results: Canopy did not provide a compelling experience
#3: Raffle Game* incentivizes all players, not just elite.

*Thanks to Balaji Prabhakar, BECC 2010!

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</table>
#3 preliminary results: Raffle Game effective after 100 points earned.
#4: Social bonus incentivizes group play

The Reppun family has been living on their farm and growing taro, coffee, and other food in beautiful Waimea valley for over 20 years. Though they have the Internet, they don't have any power lines. See how they live off the grid in comfort and style through hydro-electric and solar power. You'll take a bus over to Windward side, hike into the valley to their farm, and see an amazing blend of school and next generation Hawaii. Make sure you eat breakfast beforehand because you won't be back until after lunch.

Make sure to wear clothes and shoes that you don't mind getting wet or muddy on the farm!

Reserve your seat on the bus by clicking the I want to sign up button below. Meet in the Hale Aloha courtyard, from there we'll get on the bus. Don't be late!
#4 preliminary results: social bonus used by 20% of players
What's next

Surveys and focus groups to improve insight into gamification techniques.
• Are conservation behaviors sustained?
• Is energy literacy improved?

Improved design for Kukui Cup 2012.
• Many ideas for how to improve game mechanics based on Kukui Cup 2011.
Mahalo nui loa!

See our poster tomorrow at noon!

And our video at the BECC Film Fest!
Design Goal:

Intrinsic motivation

Extrinsic motivation

Unmotivated w.r.t. energy