

TOWARDS APPLIED
& REPRODUCIBLE,
GAMIFIED
INTERACTIONS

USCIAMO WORKSHOP
HOSTED BY THE 11TH INTERNATIONAL COOP
CONFERENCE, NICE, 2014

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THEORY OF GAMES & PLAY

- ✻ Using Games as an interaction paradigm in contexts that are not about play
- ✻ Modelling metaphor
 - ✻ Argumentation Games
- ✻ Using games as a test-bed for AI

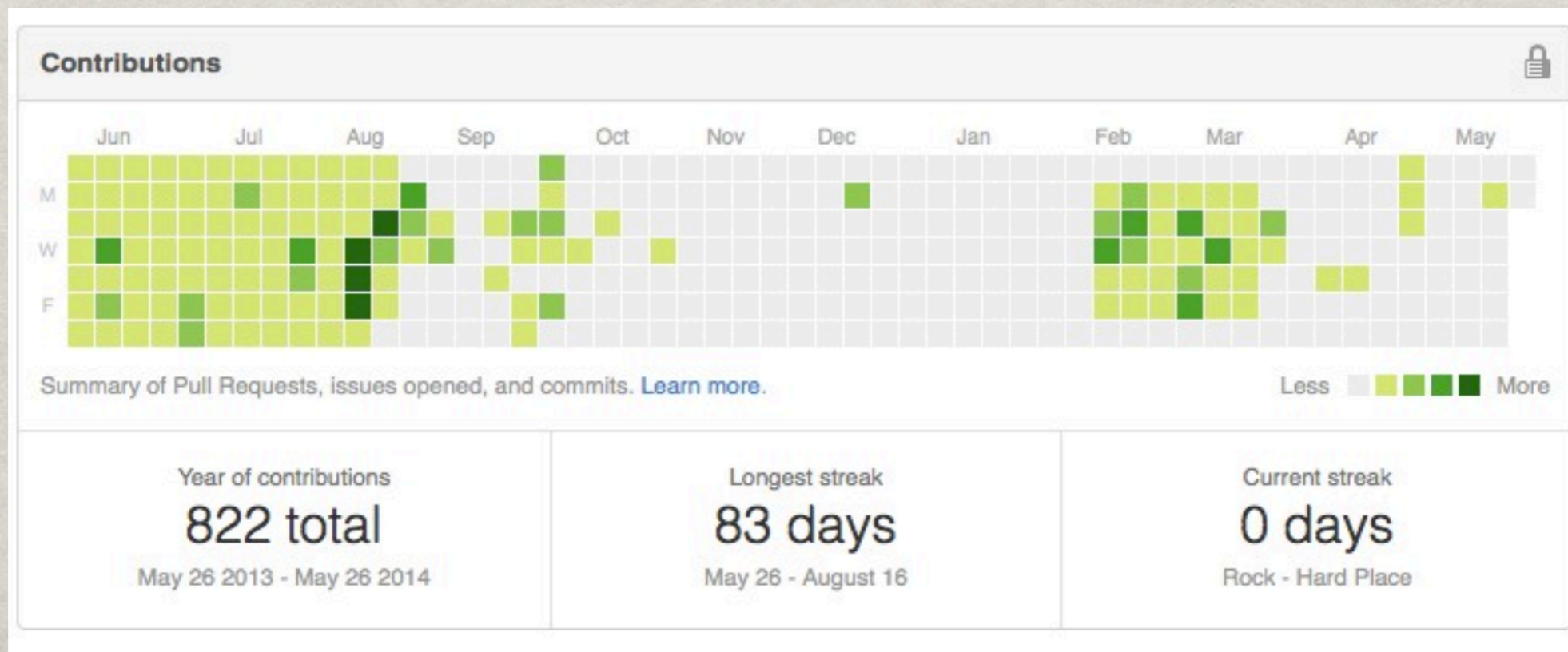
GAMES

- ✻ I am a gamer
- ✻ (when I have time)



GAMIFICATION (VICTIM/TARGET?)

- ☀ I have been successfully gamed
- ☀ At least temporarily....



GAMIFICATION

- ✱ Everybody knows about games
- ✱ (many people will admit to enjoying them ;)
- ✱ Games + Non-Gaming Context = SUCCESS
- ✱ Exciting + less-exciting = More Exciting
- ✱ PROBLEM: Anecdotal & ad hoc
- ✱ *How do we build reliable, repeatable gamified interactions?*
- ✱ *Are these interactions generally applicable?*

(POTENTIAL) SOLUTION

- ✱ 1. Build models of aspects of gamification
- ✱ 2. Apply those models (in a range of contexts)
- ✱ 3. Refine models

- ✱ **Achieve repeatable & reliable gamified interactions**
- ✱ **The 'model' should be generically applicable**

APPROACH:

- ✿ Build a (basic, formal) model [ongoing]
- ✿ Test it out (in SUPERHUB) [ongoing]
- ✿ Refine & expand the model based on our experiences [future work]

SUPERHUB

- ✿ Increase sustainable urban travel
- ✿ Provide a mechanism that encourages reflection on personal behaviours
- ✿ Encourage users to engage in better behaviours
- ✿ Goal of sustainable, long term, behaviour change

GAMIFICATION IN SUPERHUB

- ✻ Track own behaviours
- ✻ Set goals
- ✻ Manage progress
- ✻ Self-set challenges
- ✻ Points Accumulation/Level Achievement
- ✻ + Real World Rewards

Ongoing challenges



Money

No challenge set!



Calories

No challenge set!



Emissions

Ends in 1 week

Succeeding!

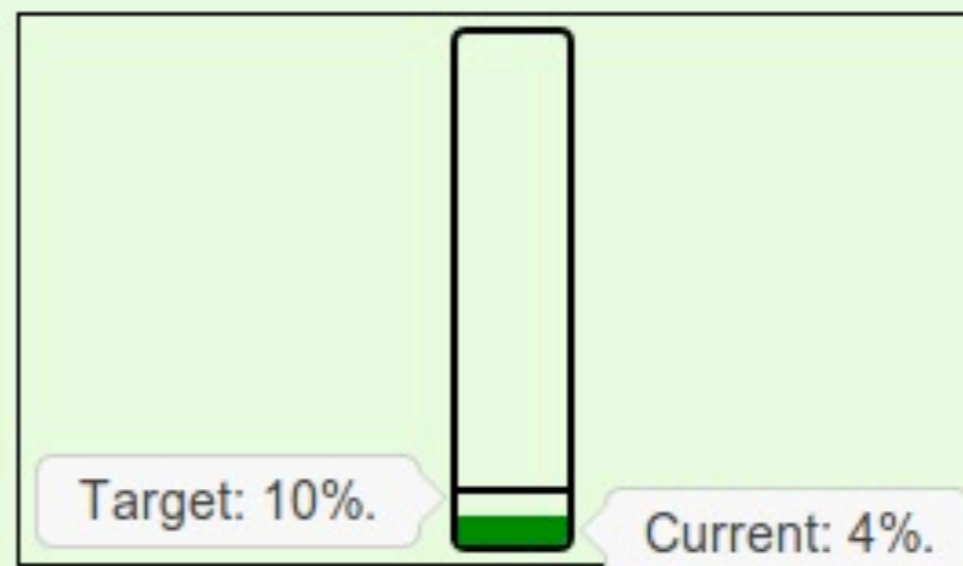


In the 5 journeys you've planned and taken:

You could have emitted: 50 g of CO2

But you chose to emit : 2 g of CO2

Their quotient is your score: 4 % [What's this?](#)



Great! Keep it up and you'll get **90** points!

ONGOING CHALLENGE

FUTURE WORK

- ✻ Management
- ✻ Extrinsic Challenges
- ✻ Social Feedback/Comparison, e.g.
leaderboards, group challenges, peer support
- ✻ Other problem domains....

CONCLUSIONS

- ✻ Obviously a lot of work remaining to complete
- ✻ Complete formal model (aiming for technical report initially)
- ✻ Trials results (August-November, 2014)
- ✻ Further publication reporting trial results

THE TEAM

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✻ (University of Helsinki)

✻ Michael Schlafli, Judith Masthoff, & Paula Forbes

✻ (University of Aberdeen)

✻ Silvia Gabrielli

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