

## "Smarter" Home for fun, lifestyle and sustainability

#### **Charles Cai**

Team Socialogix
25/26 June 2015
REHACK - eCommerce Hackathon for a Sustainable Future
<a href="http://rehack.io">http://rehack.io</a> #ReHack



### About Me

Twitter: @caidong

LinkedIn: <u>charles-cai</u>

GitHub: charles-cai

Email: <a href="mailto:charles.cai@socialogix.net">charles.cai@socialogix.net</a>



Day job: Head of Data Science for a major Oil and Gas trading company After-hours: Entrepreneur, Big Data & Machine Learning Evangelist, Speaker



## Spot the missing bit!

Hint: FMCG products only (Fast-moving consumer goods)

#### "Smarter" Connected Home

- an IoT foundation for innovative customer engagement









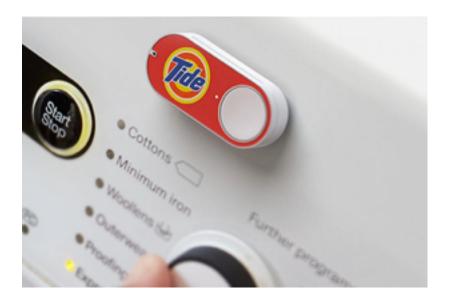








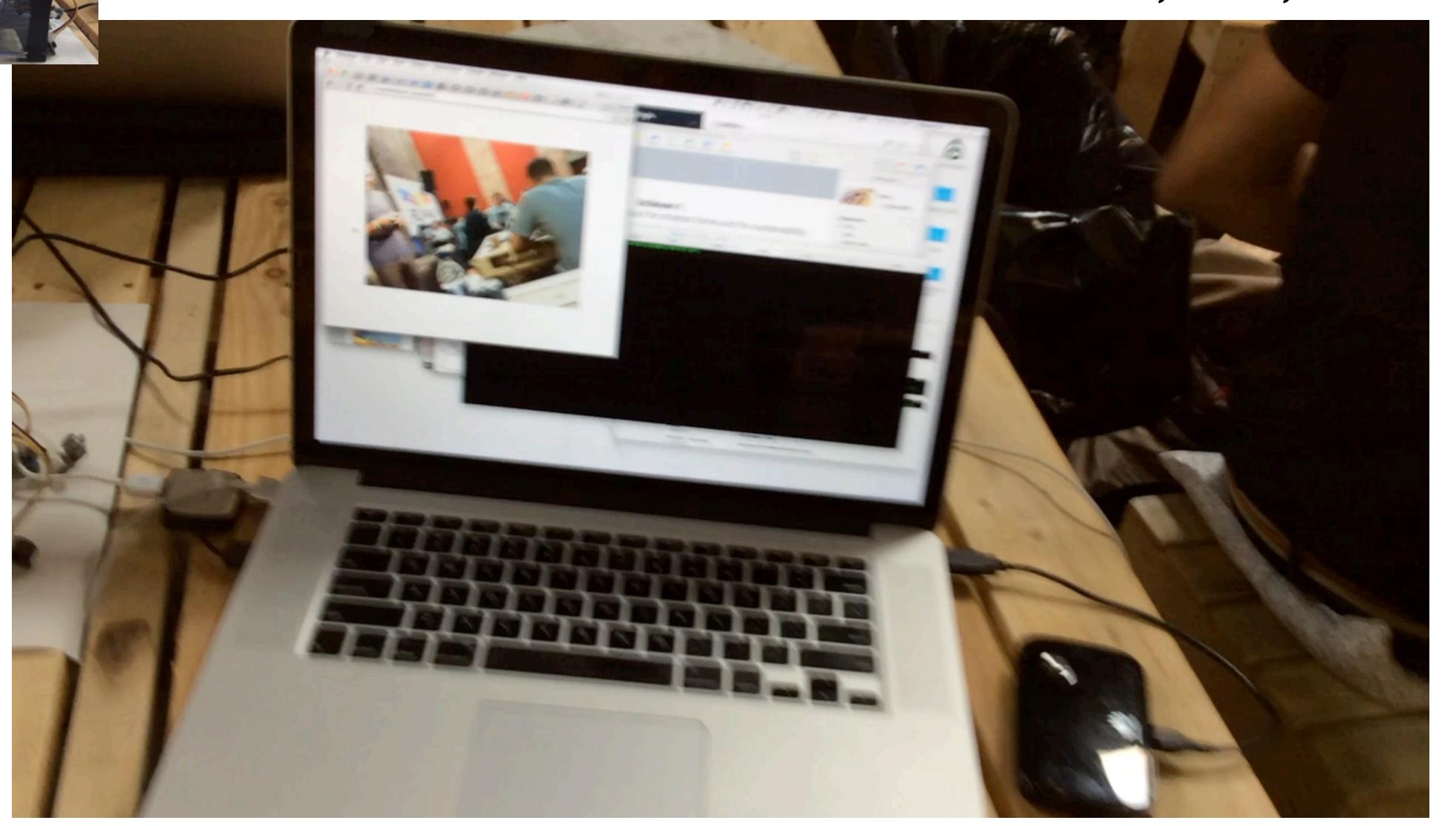






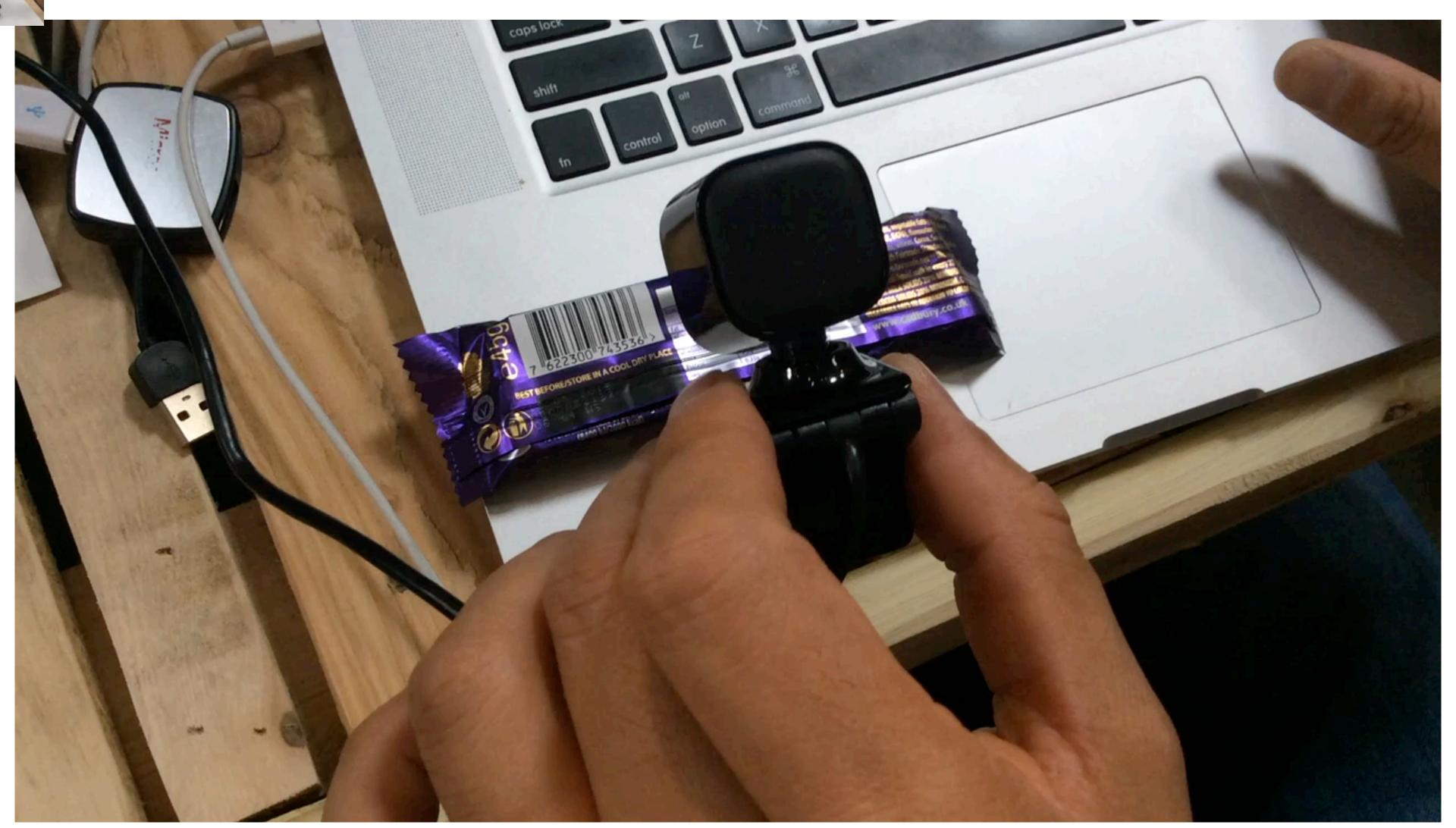


Multi-sensors: temperature, humidity, light, noise, air quality Mulit-wireless + I/O connections: bluetooth, wi-fi, USB webcam





### Multi-function webcam: Security camera + Barcode Scanner



# Use Case #1 - Sustainable Packaging - leveraging consumption pattern

- Gamilification of data collection / sharing
- Learning the consumption patterns
- Recommend greener products
- e.g. recommend bulk, green packaged products to reduce waste and environment impact











## Use Case #2 - Intelligent Environmental Impact Advisor

- It's midnight IoT clock
- It's quiet noise sensor / PiR sensor
- It's bright light sensor
- —> Someone forgot to turn off the lights!



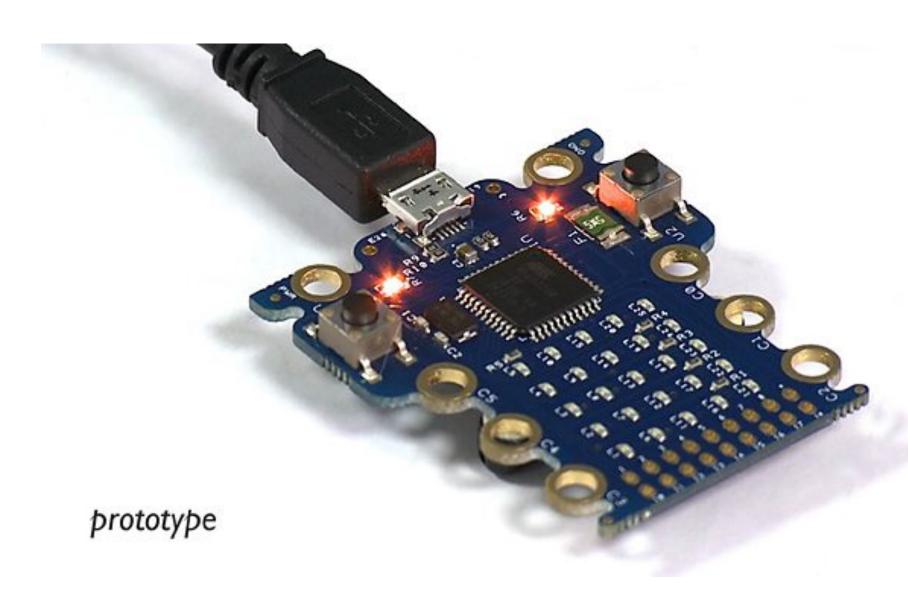
## Use Case #3 - Intelligent Environmental Impact Advisor

- It's hot temperature sensor
- It's dry outside humidity sensor
- It's your usual weekend washing time movement sensor + machine learnt from history pattern
- —> A nudge to recommend not to use machine dry but the lovely sunshine outside

# Use Case #4 - Mood detection background music player

- It's raining humidity sensor + barometer sensor + internet weather report
- It's boring noise sensor
- —> automatically select an Internet Radio channel to play inspiring music

### BBC: The Micro-Bit

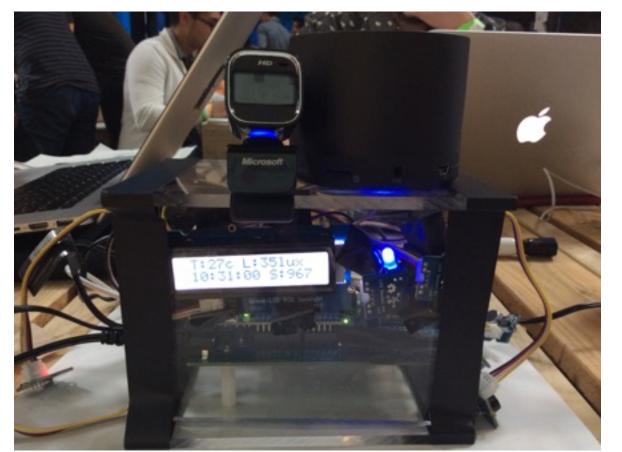


BBC is building **one million** micro computers for **UK**'s new digital generation...

#### **Unilever-1**

Unilever's 1st IoT product for Smarter Home, Sustainable Home for the global market!







Designed by Socialogix

#### **Open Source Software + Open Source Hardware**

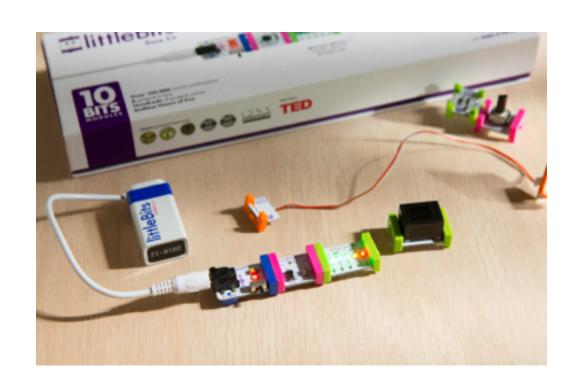
Modular: IoT "Lego" + Cloud and **low cost**Social good for Developed Countries + Developing Countries
Gamilification for healthier lifestyle: sensors + wearables



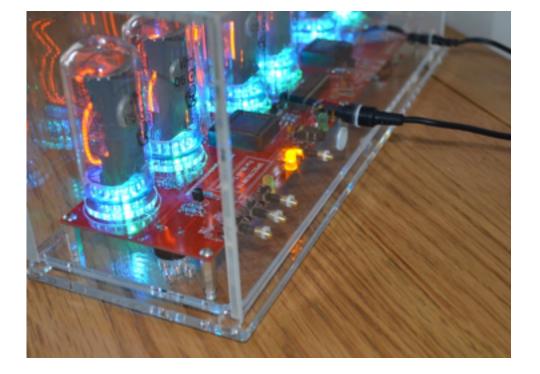


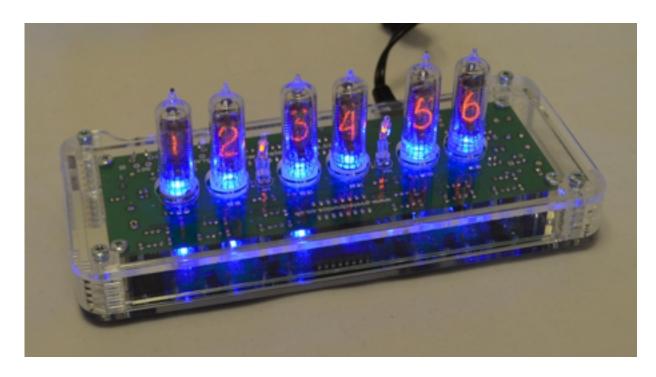








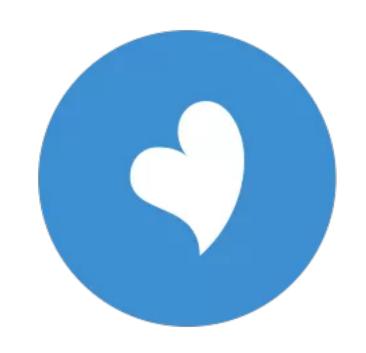




### Unilever-1

Unilever's 1st global loT product for

# a Smarter Home a Sustainable Home



Data-driven
healthier lifestyle
via environmental
and bio-sensors



Machine learning based shopping behaviour change



loT - it's not being creepy, it's being relevant - for fun, for profit and for sustainability - more use cases: crowdsourcing air quality data, gamilify to be a responsible citizen, ...