

Society of Networked Things

WS 2014/15

Mark Shepard

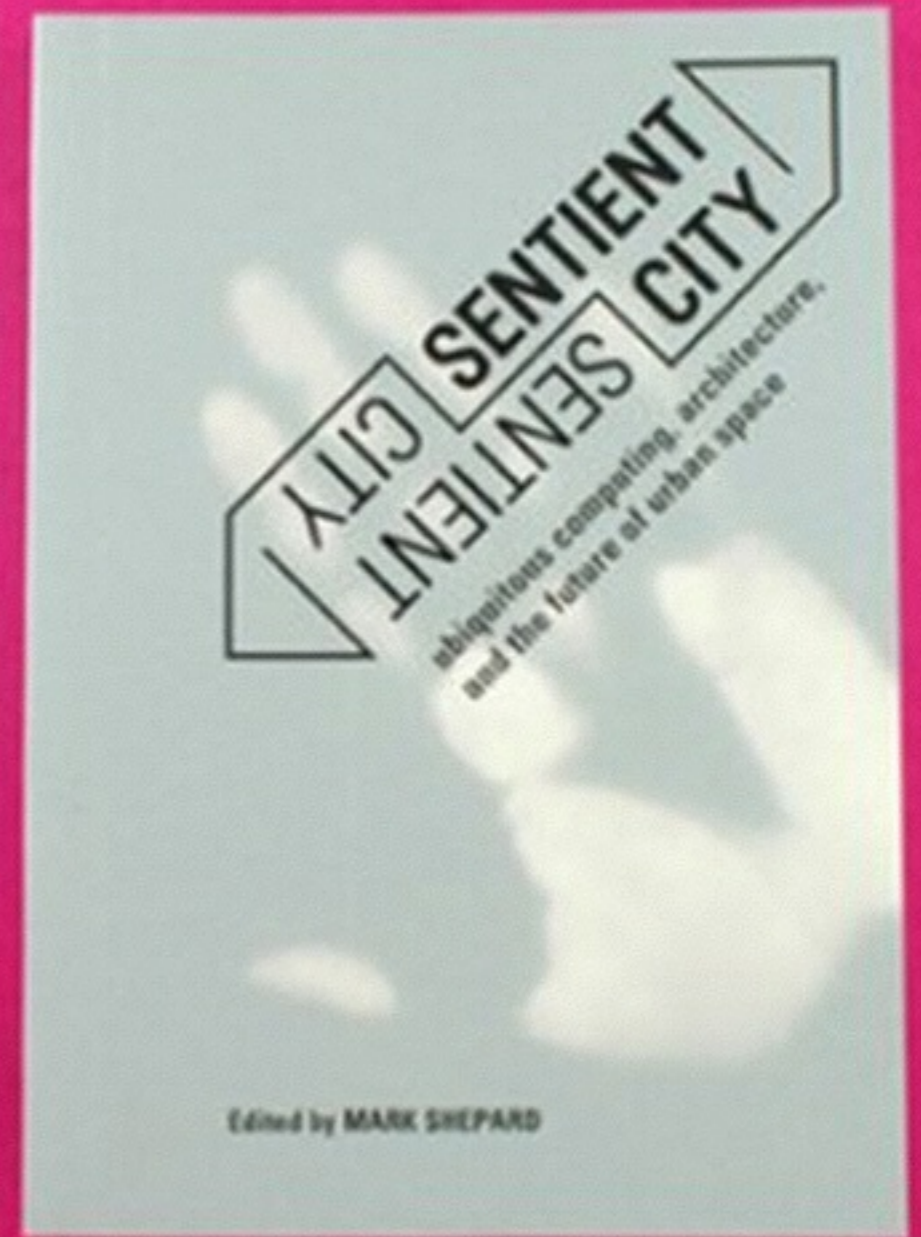
Associate Professor of Architecture and Media Study
University at Buffalo, The State University of New York

hello, my name is...

a little bit about me



Sentient City Survival Kit (2010) - <http://survival.sentientcity.net>

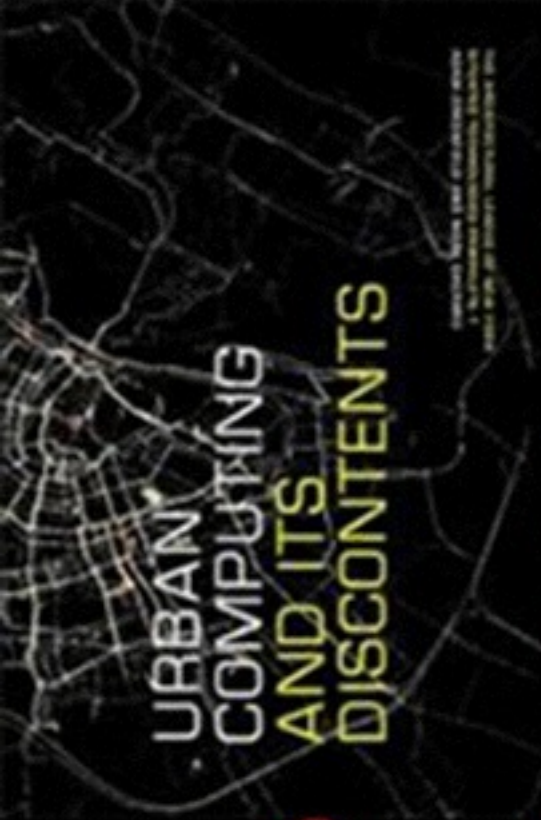


Sentient City: ubiquitous computing, architecture and the future of urban space (2011)



A SYNCHRONICITY
DESIGN FICTIONS FOR
ASYNCHRONOUS
URBAN COMPUTING

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URBAN
COMPUTING
AND ITS
DISCONTENTS

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MICRO
PUBLICPLACES

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URBAN
VERSIONING
SYSTEM
1.0

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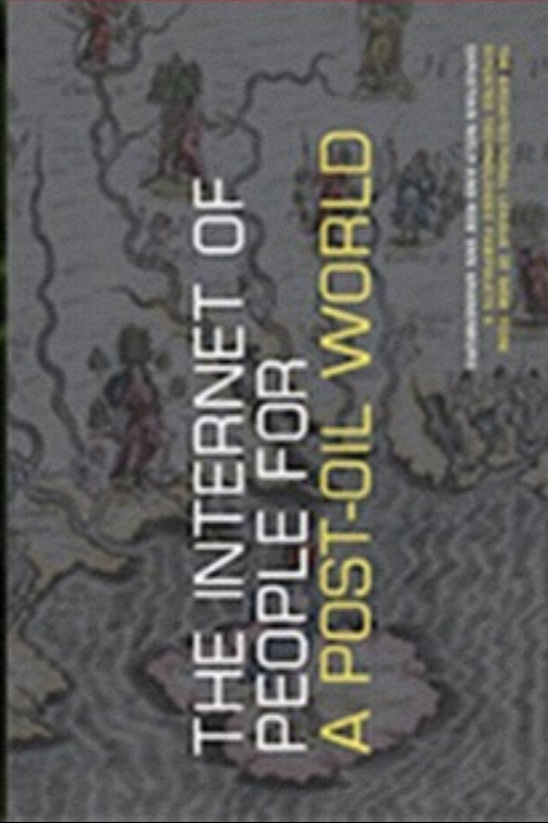
FROM MOBILE
PLAYGROUNDS TO
SWEATSHOP CITY

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COMMUNITY
WIRELESS
NETWORKS
AS SITUATED
ADVOCACY

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THE INTERNET OF
PEOPLE FOR
A POST-OIL WORLD

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SUSPICIOUS
IMAGES,
LATENT
INTERFACES

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MODULATED CITIES
NETWORKED SPACES,
RECONSTITUTED
SUBJECTS

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RESPONSIVE
ARCHITECTURE/
PERFORMING
INSTRUMENTS

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Networked Ecologies

Media Architecture Studio, Spring 2014

Situated Technologies Research Group

University at Buffalo, The State University of New York

Internet of Things?
(IoT)

Libelium Smart World

Air Pollution

Control of CO₂ emissions of factories, pollution emitted by cars and toxic gases generated in farms.

Forest Fire Detection

Monitoring of combustion gases and preemptive fire conditions to define alert zones.

Wine Quality Enhancing

Monitoring soil moisture and trunk diameter in vineyards to control the amount of sugar in grapes and grapevine health.

Offspring Care

Control of growing conditions of the offspring in animal farms to ensure its survival and health.

Sportsmen Care

Vital signs monitoring in high performance centers and fields.

Structural Health

Monitoring of vibrations and material conditions in buildings, bridges and historical monuments.

Quality of Shipment Conditions

Monitoring of vibrations, strokes, container openings or cold chain maintenance for insurance purposes.

Smartphones Detection

Detect iPhone and Android devices and in general any device which works with Wifi or Bluetooth interfaces.

Perimeter Access Control

Access control to restricted areas and detection of people in non-authorized areas.

Radiation Levels

Distributed measurement of radiation levels in nuclear power stations surroundings to generate leakage alerts.

Electromagnetic Levels

Measurement of the energy radiated by cell stations and WiFi routers.

Traffic Congestion

Monitoring of vehicles and pedestrian affluence to optimize driving and walking routes.

Smart Roads

Warning messages and diversions according to climate conditions and unexpected events like accidents or traffic jams.

Smart Lighting

Intelligent and weather adaptive lighting in street lights.

Intelligent Shopping

Getting advices in the point of sale according to customer habits, preferences, presence of allergic components for them or expiring dates.

Noise Urban Maps

Sound monitoring in bar areas and centric zones in real time.

Water Leakages

Detection of liquid presence outside tanks and pressure variations along pipes.

Vehicle Auto-diagnosis

Information collection from CanBus to send real time alarms to emergencies or provide advice to drivers.

Item Location

Search of individual items in big surfaces like warehouses or harbours.

Waste Management

Detection of rubbish levels in containers to optimize the trash collection routes.

Smart Parking

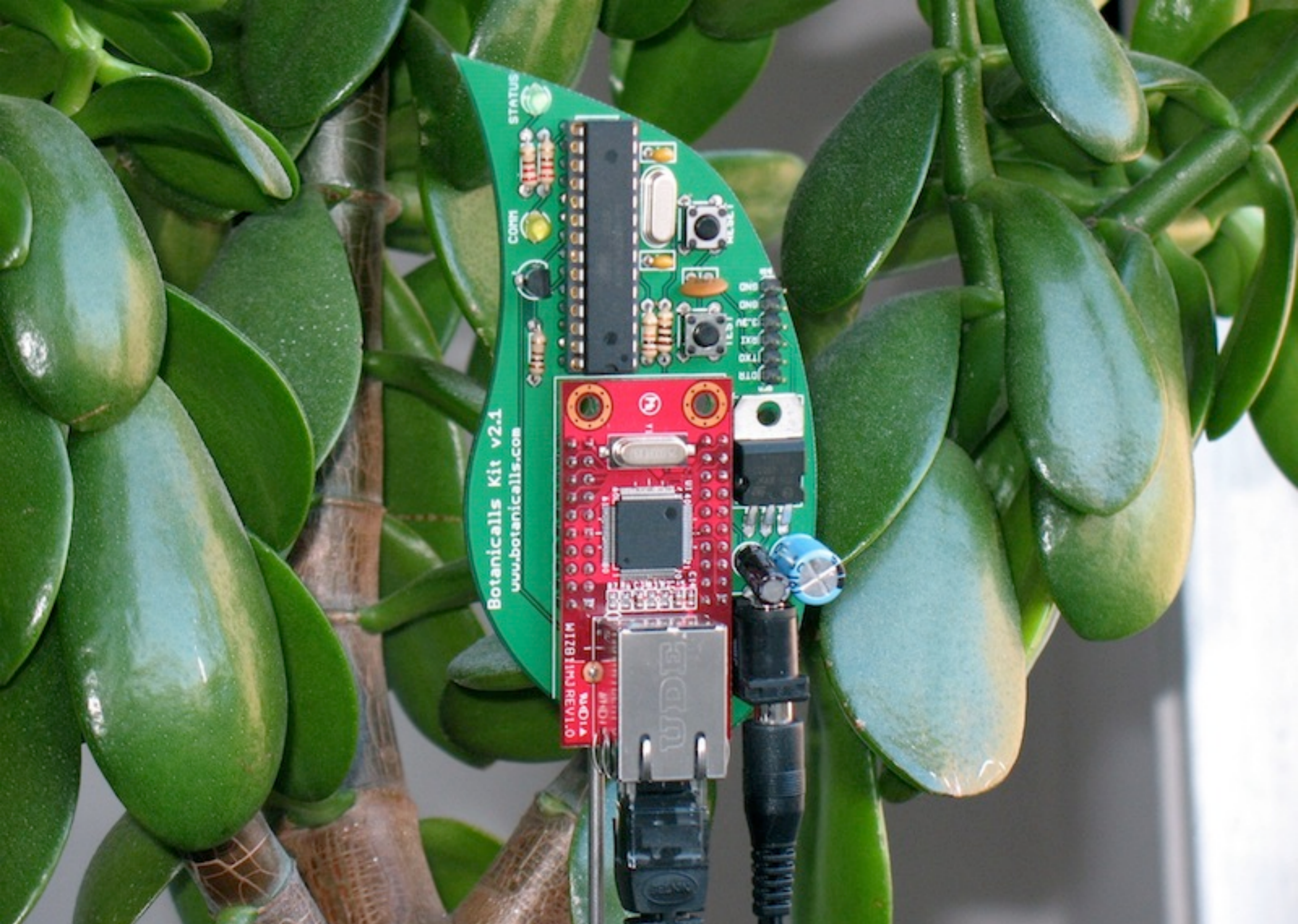
Monitoring of parking spaces availability in the city.

Golf Courses

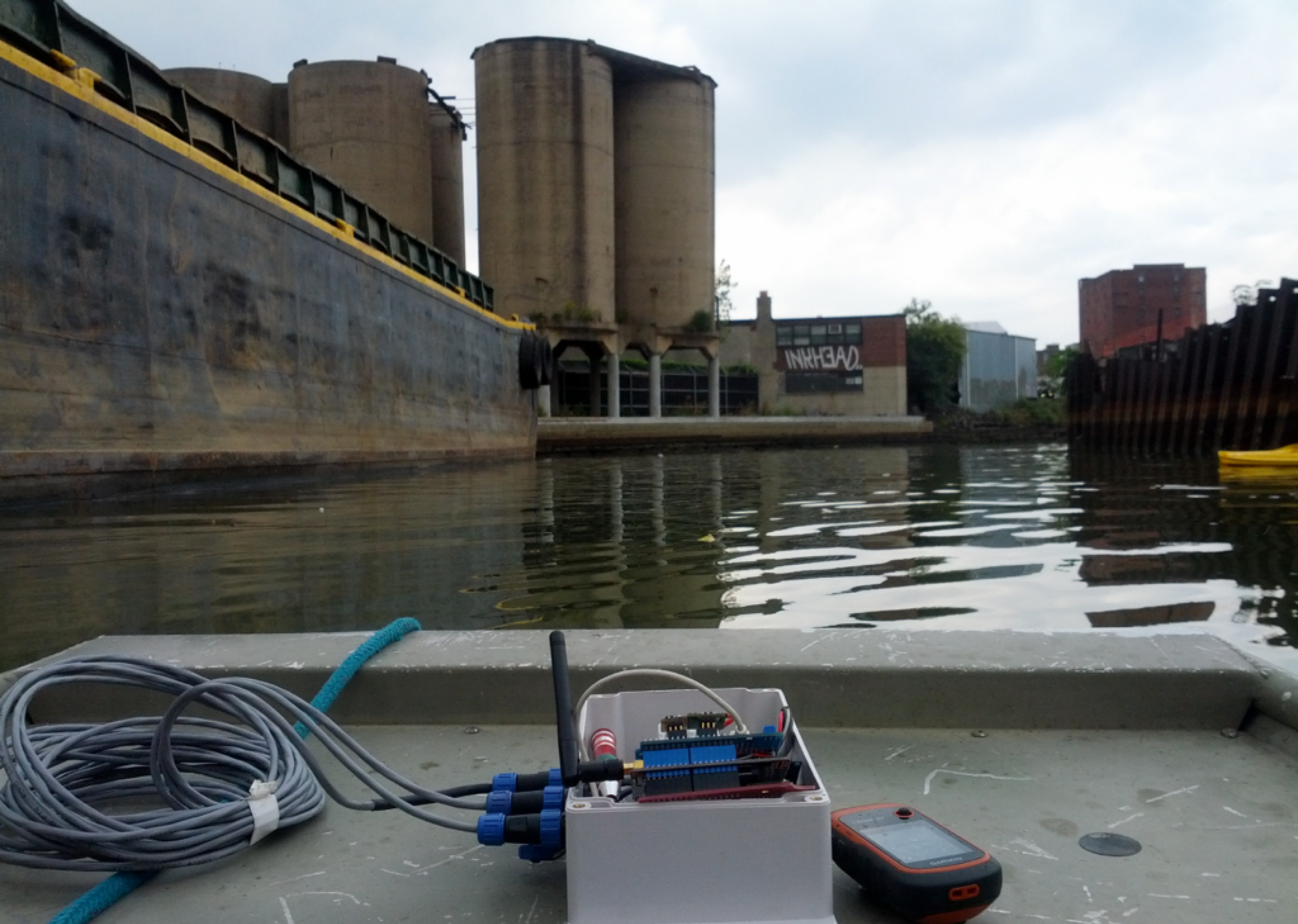
Selective irrigation in dry zones to reduce the water resources required in the green.

Water Quality

Study of water suitability in rivers and the sea for fauna and eligibility for drinkable use.



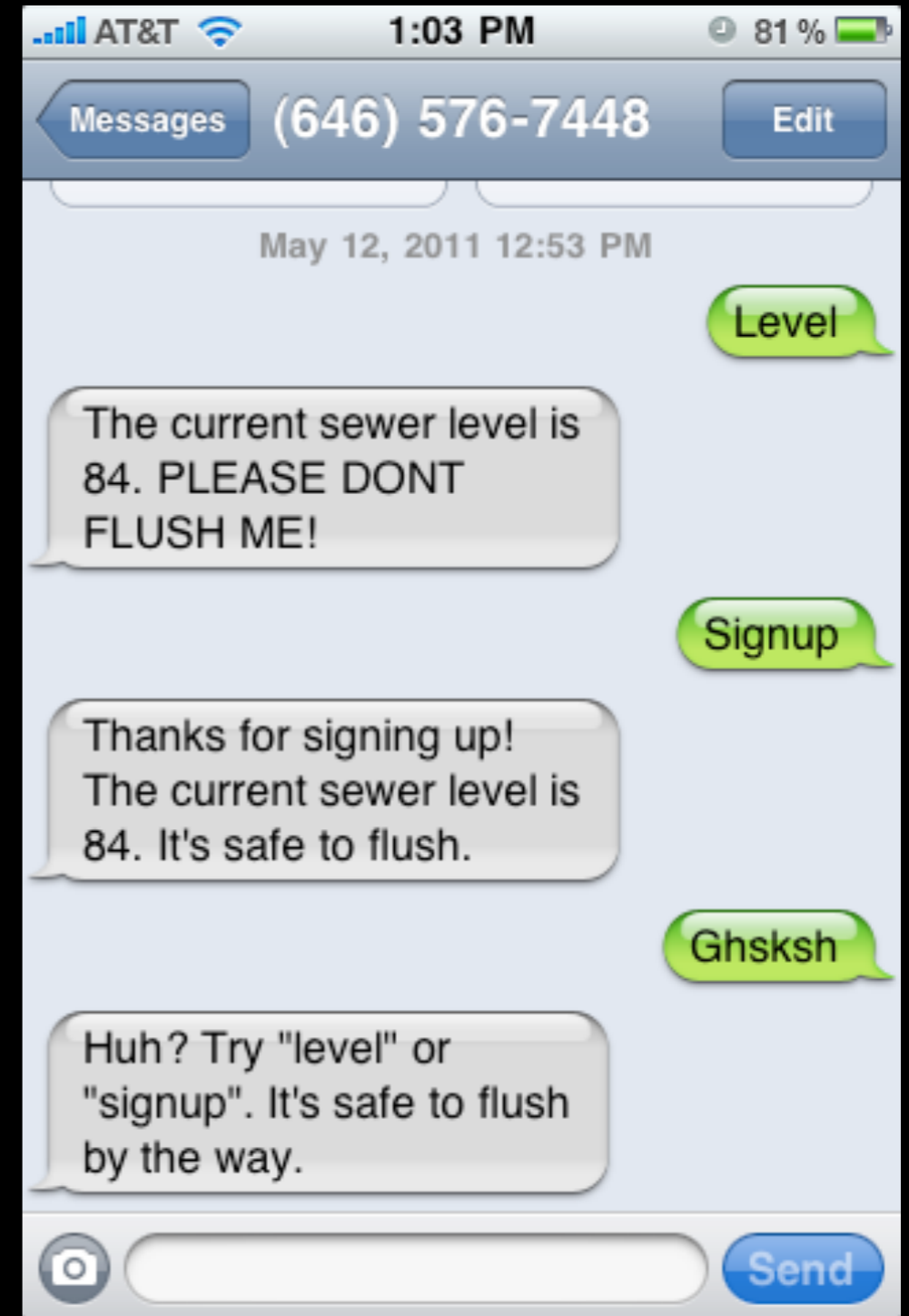




Don't Flush Me (2012) - <http://dontflush.me>



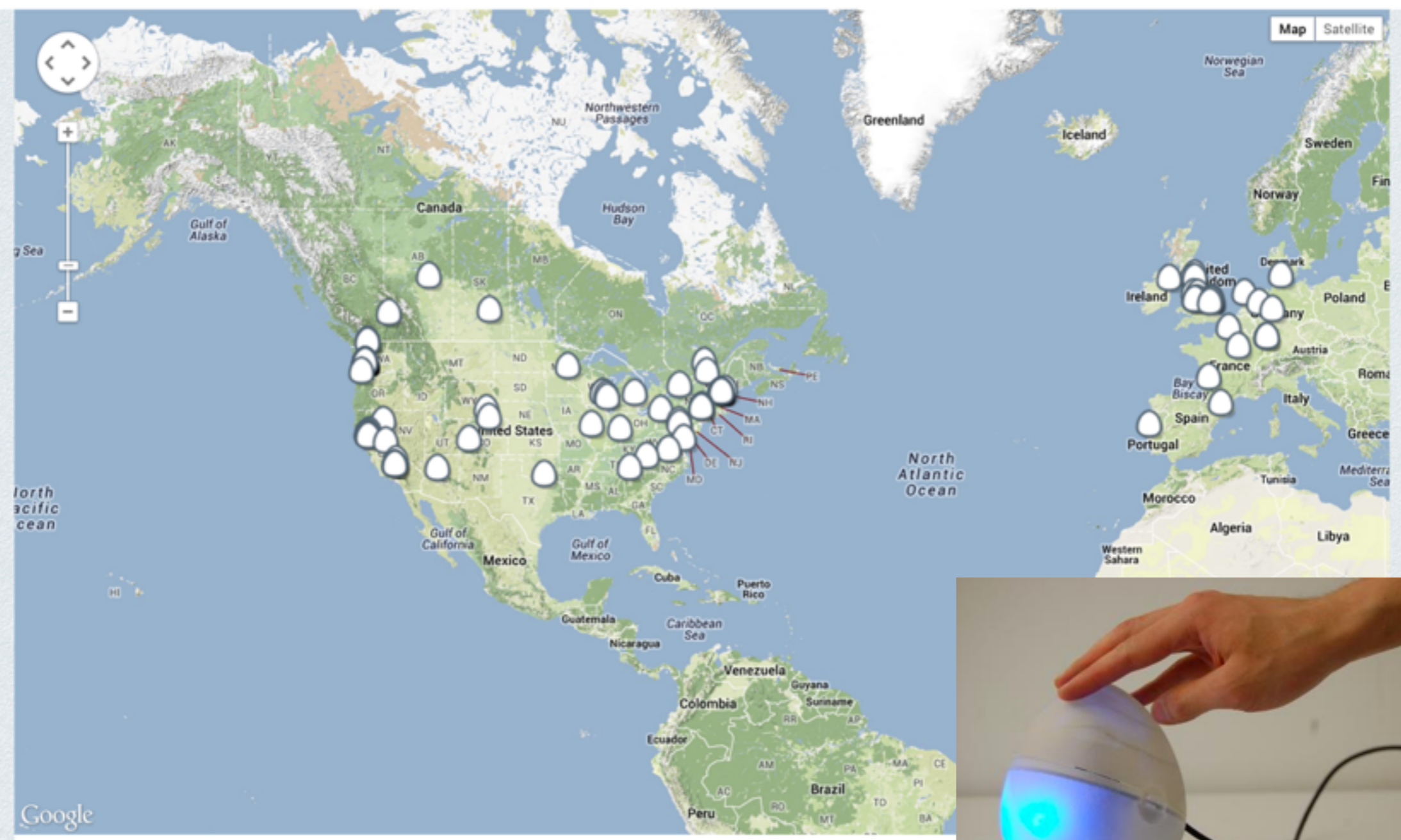
Don't Flush Me (2012) - <http://dontflush.me>



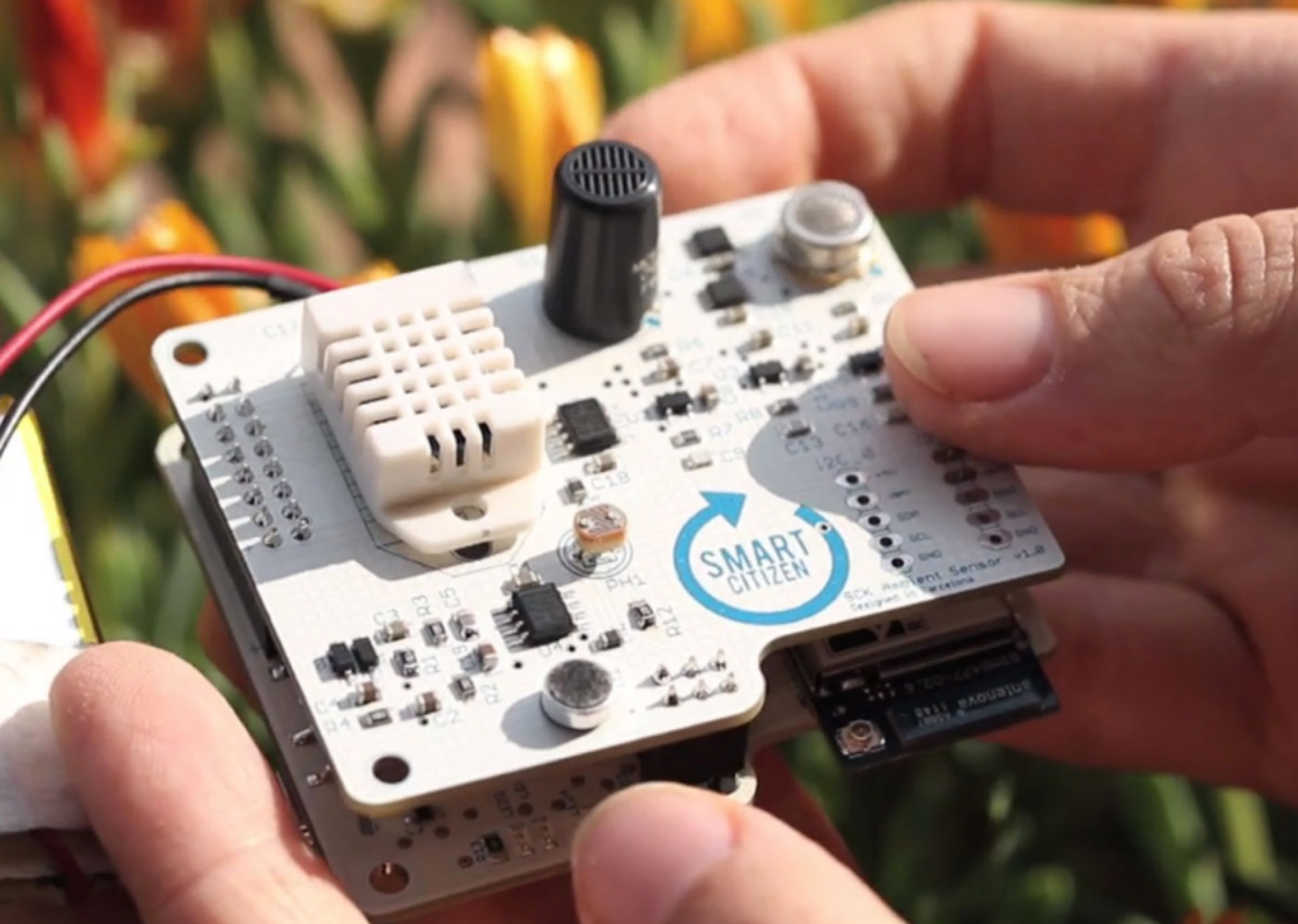


Serial Number

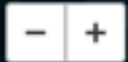
ADD MY EGG



Air Quality Egg (2012) - <http://airqualityegg.com/>



Smart Citizen Platform (2012) - <http://www.smartcitizen.me/>



CITIZENS

SHARE



Temple Monitor

Ponferrada, España

SCK 1.0

LAST UPDATE: 20/06/14 6:22:52 AM

TEMP 30.5

HUM 36.7

LIGHT 68.1

NOISE 50

KC₂ CO 108

KC₂ NO₂ 95

NETS 5



SHARE SENSOR

0

SENSORS



CITIZEN OWNER

neapolisdavid

Vilanova i la Geltrú, Spain



SENSOR INFORMATION



Neapolis_David

SHOW IN MAP

B, Espanya

indoor

Smart Citizen Kit v1.0

Last Update: 28 seconds ago (2014-07-07 06:30:06 UTC)

LAST UPDATE: IN A FEW SECONDS

Neapolis_David

SCK 1.0

FILTER:



SHOW LAST:

DAY

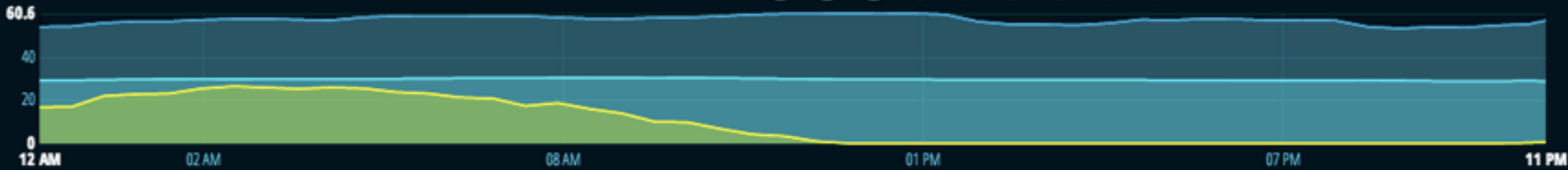
90.7%



TEMPERATURE



29



LOGIN

NEWS

COMMUNITY

APPS

DOCS

STORE

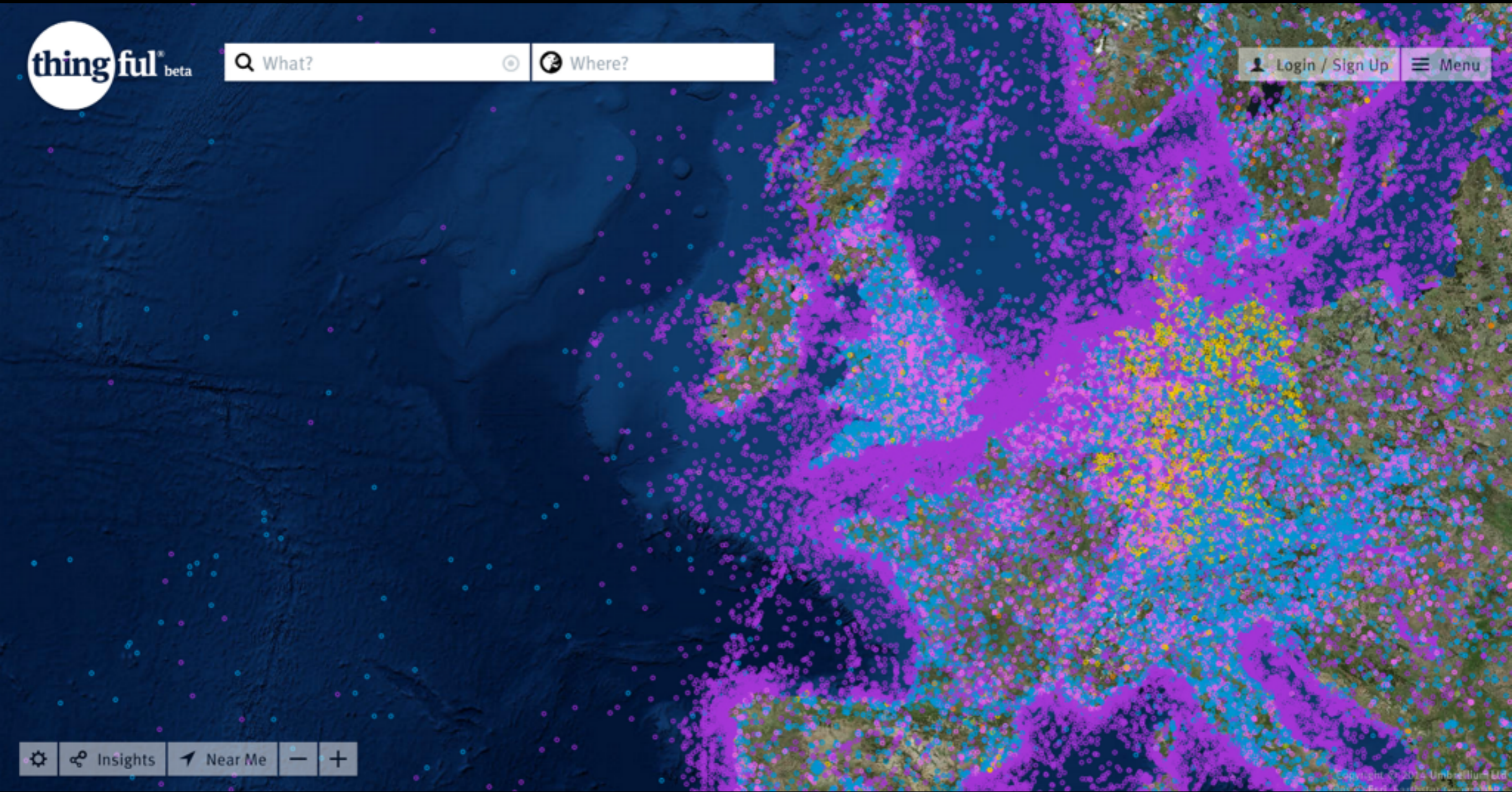
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Society of Networked Things? (SoNT)

- What happens when humans become a minority on the Internet?
- What new qualities might this emerging society of networked things exhibit?
- How might we imagine alternative relations between people and things within such a society?

Structure

- Tuesday: group sessions
presentations/discussions/workshops
- Wednesday: individual consultations
- Week notes via email

Schedule

Subject to change. Refer to the [Media Wiki](#) for the latest information.

21.10.2014	Introduction
	CONCEPT DEVELOPMENT
28.10.2014	Presentation/discussion: Network Theory, Internet of Things / IoT
04.11.2014	Presentation/discussion: Responsive Things, Sociable Objects
8-9.11.2014	Workshop: fingies (together w/ IFD Project)
11.11.2014	REVIEW: presentation of preliminary concepts
	PROTOTYPE DEVELOPMENT
18.11.2014	Workshop: Arduino Yun / Temboo.
25.11.2014	Workshop: Data wrangling: scraping, parsing, cleaning, manipulating data
02.12.2014	Workshop: TBD
09.12.2014	Workshop: TBD
16.12.2014	REVIEW: review of working prototype
	INSTALLATION DEVELOPMENT
06.01.2015	Presentation/discussion: Networked Performance
13.01.2015	Group work session
20.01.2015	Group work session
27.01.2015	Final Review w/ invited critics
29-30.01.2015	Performance (together w/ IFD Project)
03.02.2015	Documentation

Special Guests! (TBC)

- Aram Barthol: <http://datenform.de/>
- Chris Woebken: <http://www.woebken.net/>
- Julian Oliver: <http://julianoliver.com/>

For next week:

- Read:
Julian Bleecker, *A Manifesto for Networked Objects — Cohabiting with Pigeons, Arphids and Aibos in the Internet of Things*
(link to PDF is on Media Wiki)
- Prepare:
5-10 minute presentation of your previous work