

LIFELOGGING

A NEW BIG DATA CHALLENGE

Dr Cathal Gurrin

cathal@gmail.com & @cathal
INSIGHT, Dublin City University, Ireland

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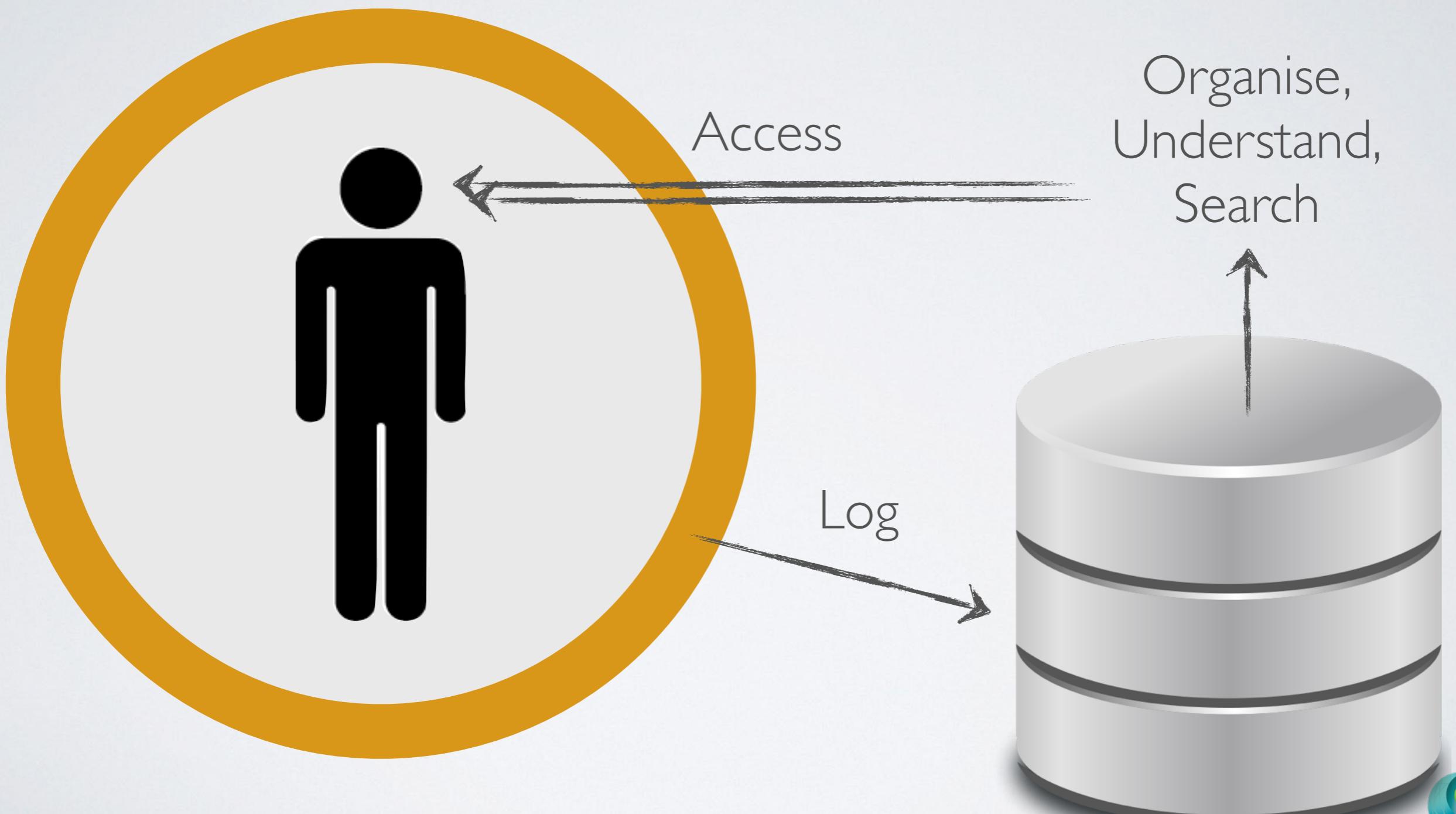
BIG DATA

Data so large and complex that it becomes difficult to process using traditional data processing applications.

My research group looks at personal (little)-big data.

Active in the area since 2006.

DID THE PERSON



Extreme Lifelogging

A Personal Awareness Engine (a second memory) that knows everything about you. It is there to help you, but never to replace an organic memory.

Using body-worn and external sensors.

A ONE YEAR LIFELOG

Assumption: All data is potentially useful.

- 2 million wearable camera images
- Video / audio (hundreds/thousands of hours)
- 3.9 million location points
- Hundreds of millions of sensor readings (accl, WIFI, bluetooth, etc...) to understand the person better
- Information access, creation and communication to model semantic memory

? Semantics ?

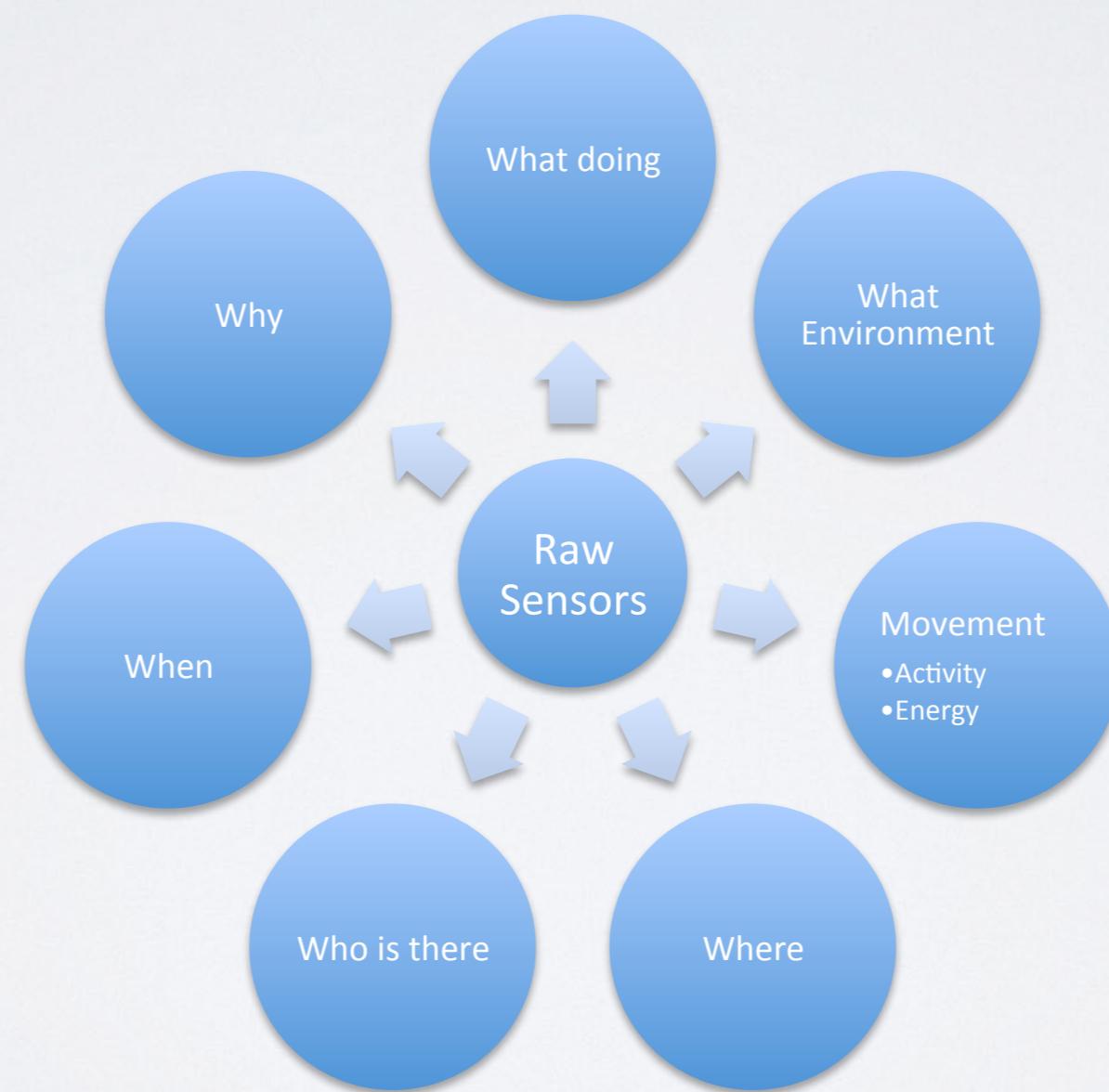


Integrating many new
sensor and feedback
sources



The challenge is to extract meaning from the sensor data.

Data Analytics & BigData Analytics



AND DEVELOP PROTOTYPES FOR REAL-WORLD EVALUATION

With partner collaborators (e.g. healthcare partners, market research partners, hardware manufacturers) and based on our own understanding.

UNDERSTAND THE CONTEXT



desk

monitor

desktop_computer

screen, CRT_screen

laptop, laptop_computer

notebook, notebook_computer

mouse, computer_mouse

file, file_cabinet, filing_cabinet

studio_couch, day_bed

radio, wireless

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VISUAL EVENT-MEMORY

DAILY VISUAL DIARY

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QUANTIFIED SELF ANALYSIS

COLOUR OF LIFE

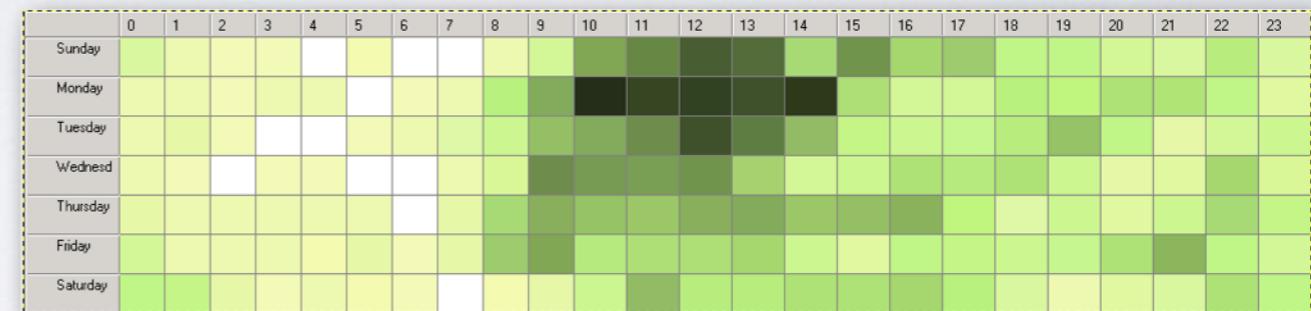
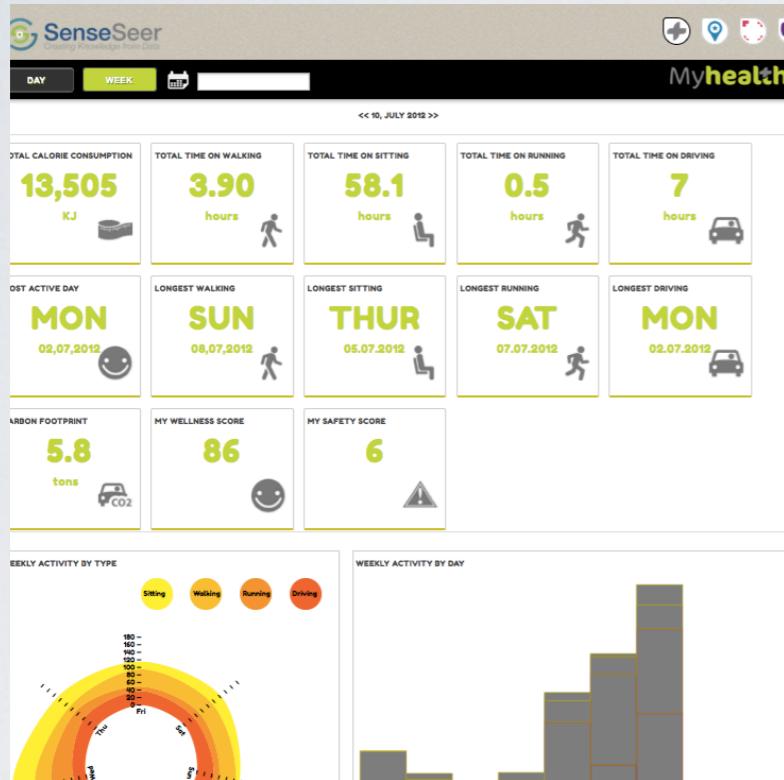


Enhanced Understanding of Self



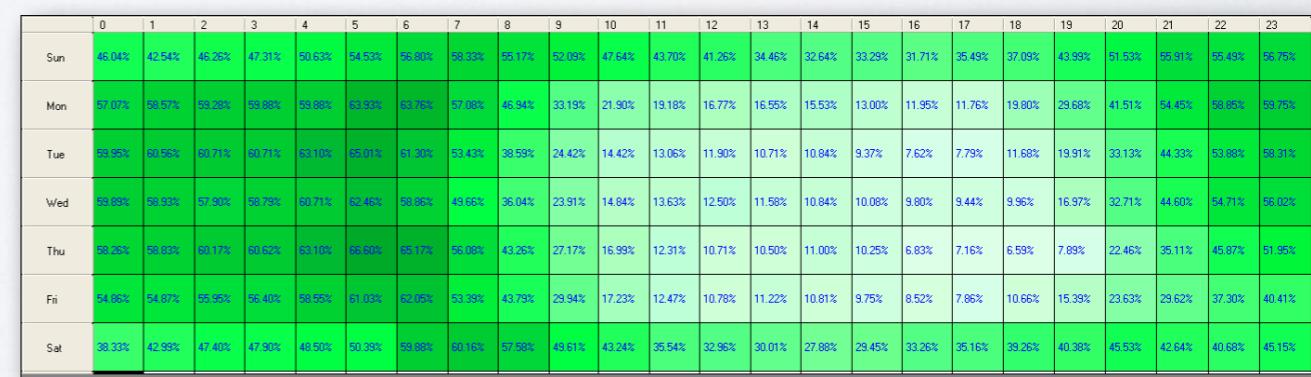
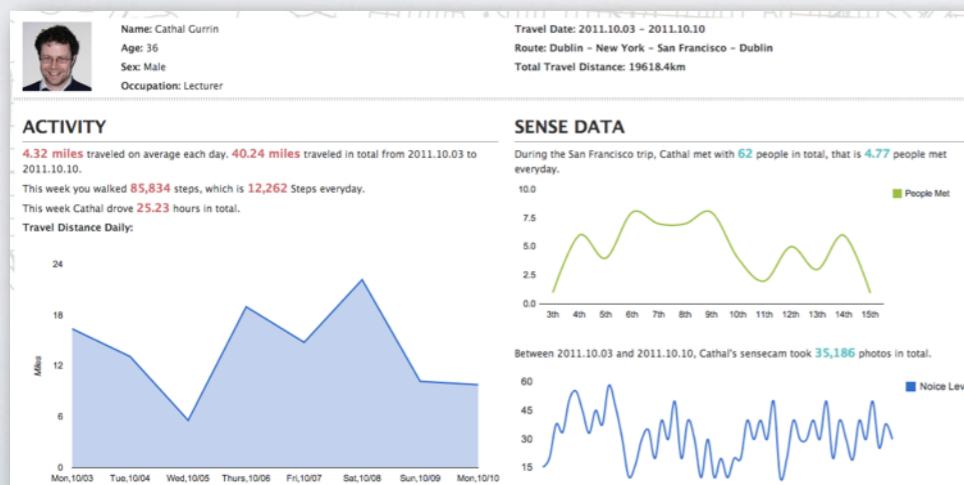
QUANTIFIED SELF ANALYSIS

HEALTH, SOCIAL, SECURITY



Activity Understanding

Lifestyle Infographics



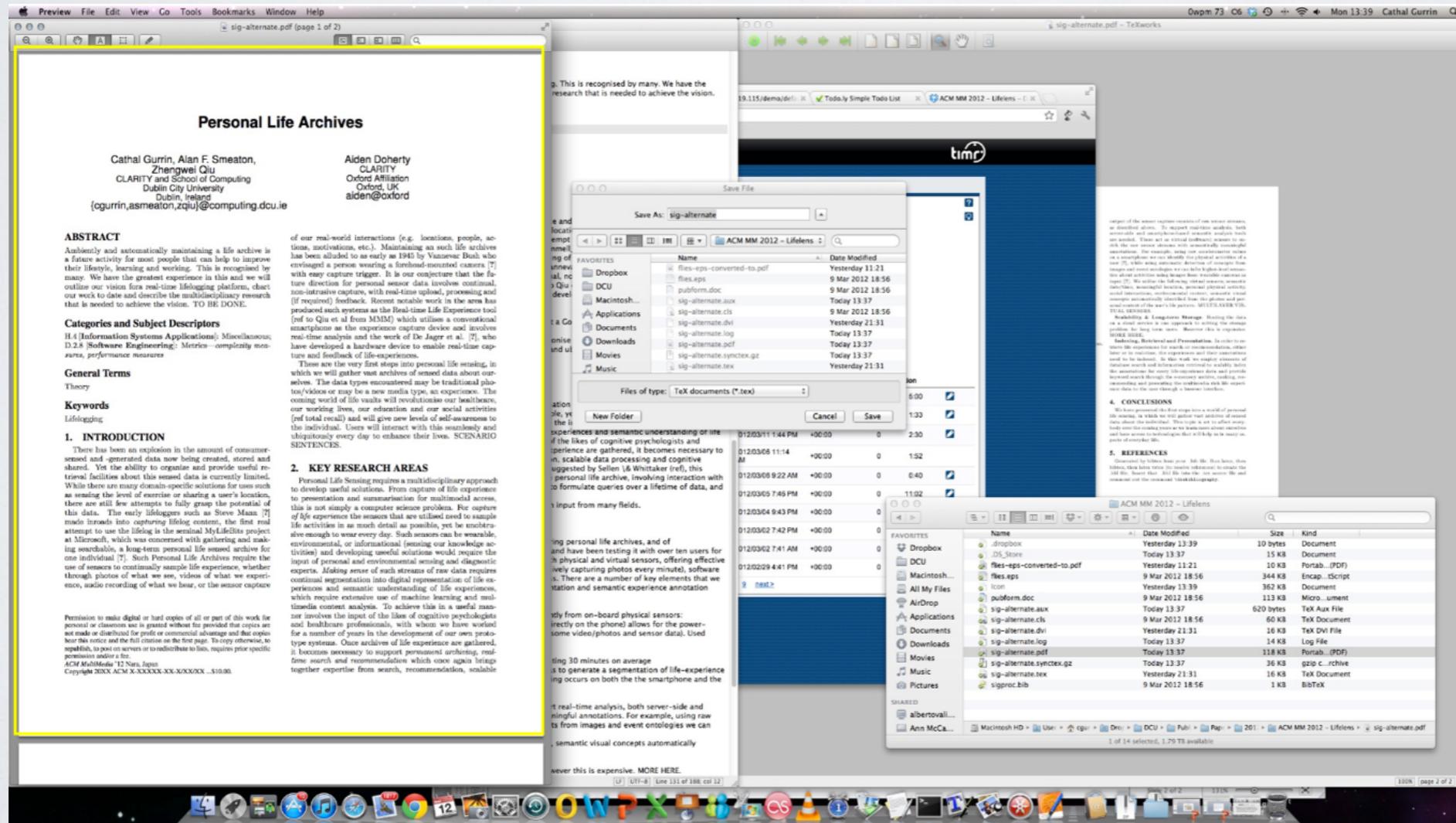
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ENHANCING PRODUCTIVITY

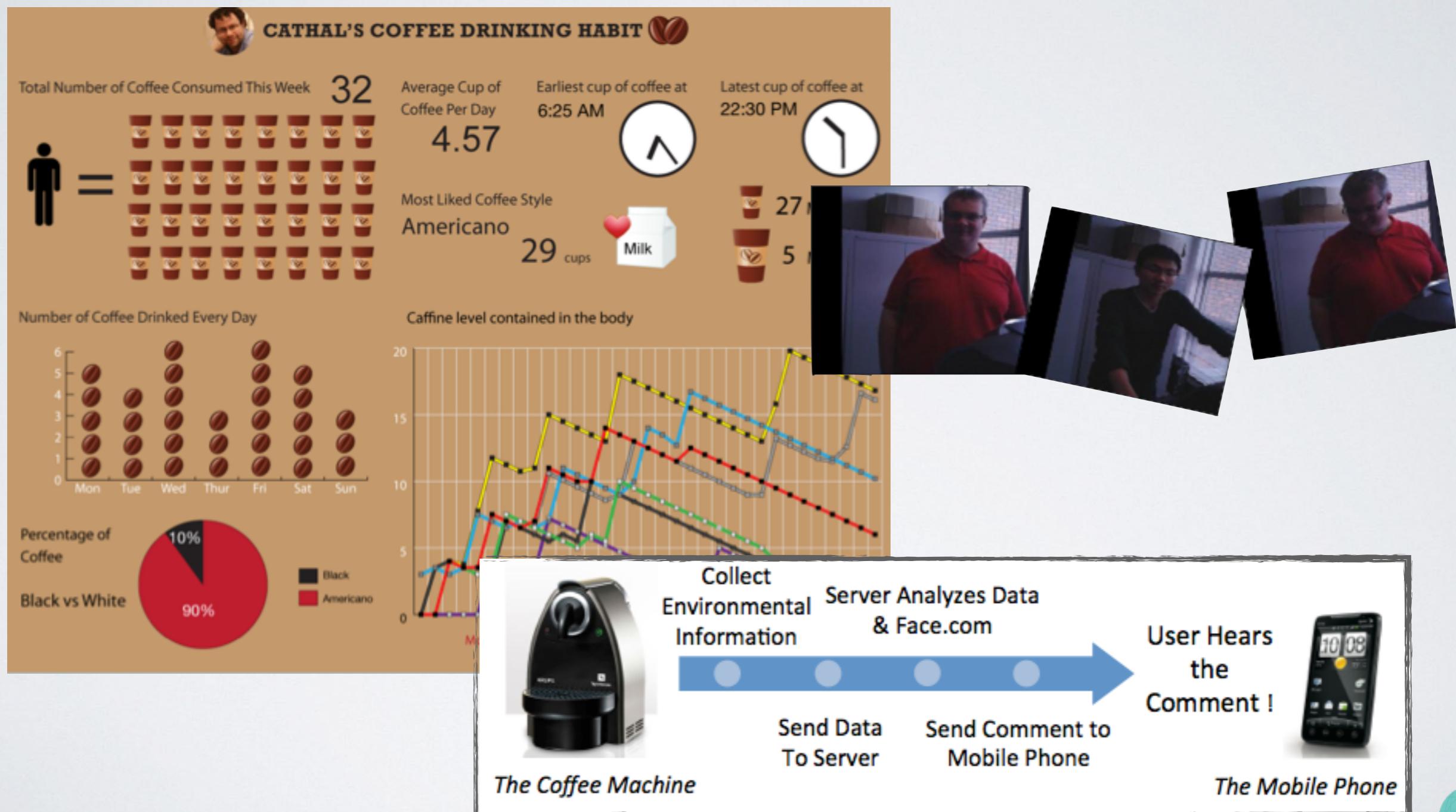
I HAVE READ IT BEFORE... SOMEWHERE

Information Recall



OBJECT ENHANCEMENT

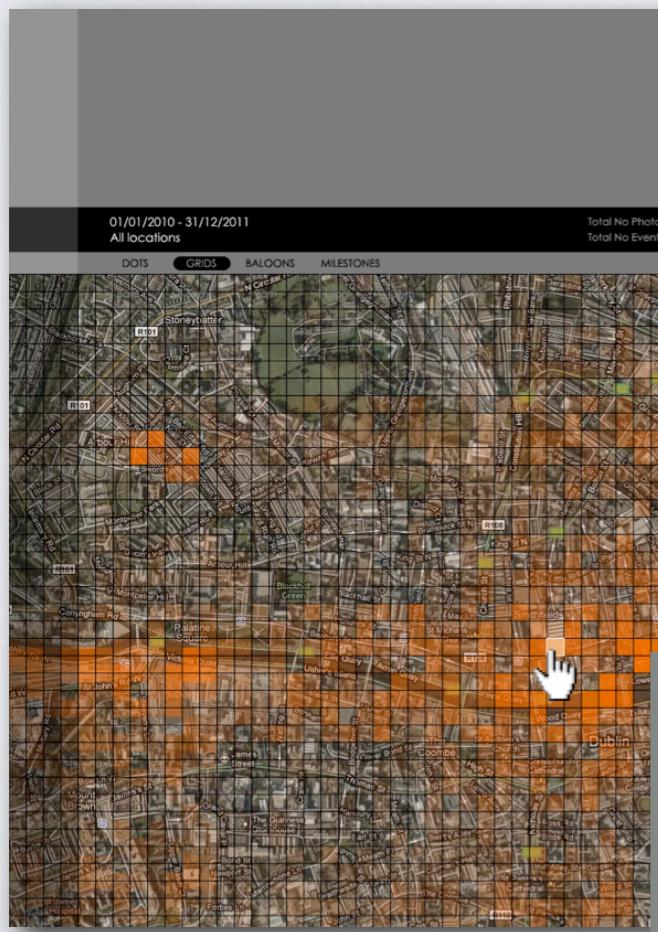
DEVICE PERSONALITIES & ROBOTICS



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MEMORY SEARCH

Finding Items from
the past...



WHILE BEING PRIVACY-AWARE

The screenshot displays the GLASS web application interface. At the top, the title "GLASS" is visible, along with a user profile for "Cathal" (Edit Profile), showing 26 photos and 10 friends. Below the profile is a "Calendar" section for November 2013, with the date 25/11/2013 selected. The "Friends" section shows a list of users: Tengqi, Brian, Rami, Kevin, and Stefan, each with a "REMOVE" button. On the right side, the "Gallery View" shows a single photo of a person standing outside a building with large windows, taken at 12:04:24. The photo has a redacted face. The interface includes navigation links for "Gallery", "Upload Files", and "Log Out".



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THANK YOU FOR YOUR ATTENTION

cathal@gmail.com & @cathal

<http://wwwcomputing.dcu.ie/~cgurrin/>

Any Questions?

