

A Year in Lifelog Pictures

Cathal Gurrin

Dublin City University, Ireland

University of Tsukuba, Japan

cathal@gmail.com & @cathal

I am interested in...

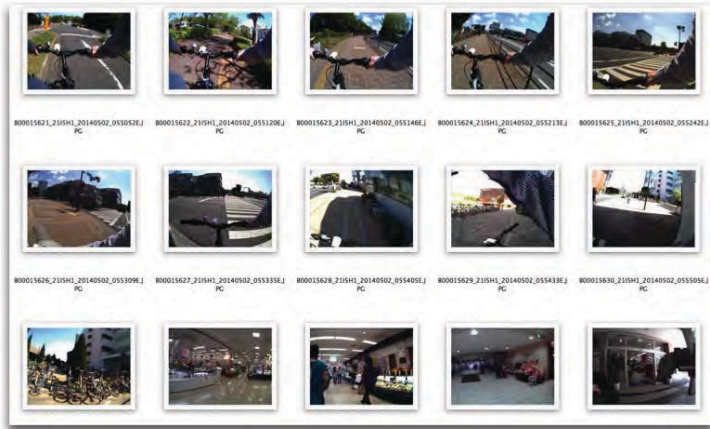
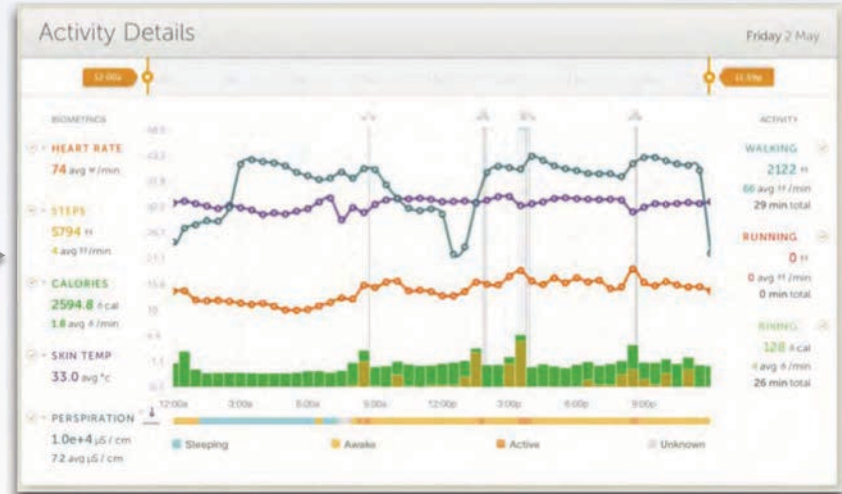
“

Lifelogging: the automatic and continuous sensing of life experience into a secure database which can support organisation, personalised access, retrieval and intervention... a digital memory.

”

“Synergy not Substitution
of human memory” (Sellen & Whitaker, 2010)

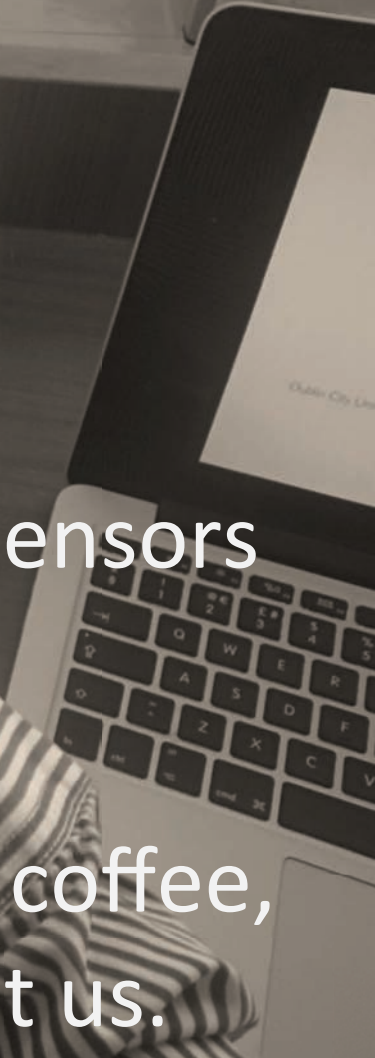
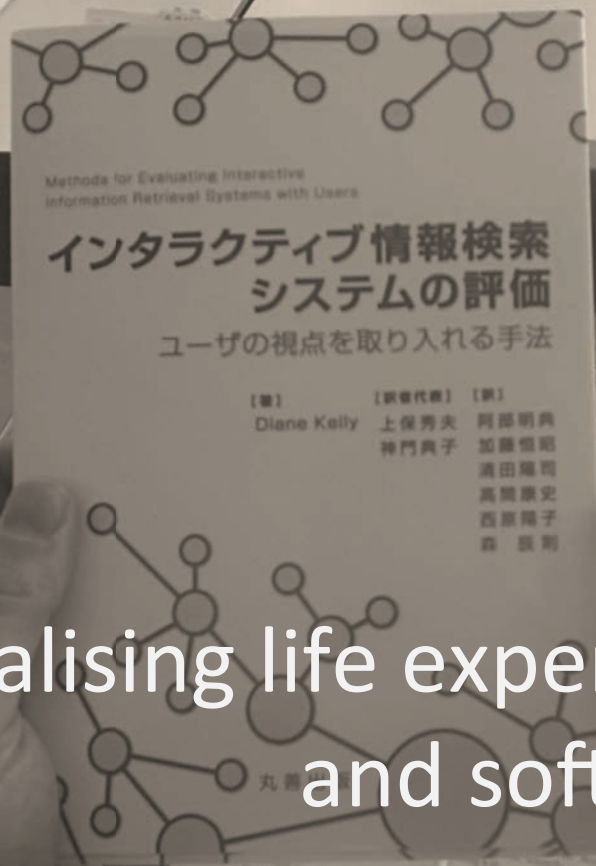
From QS to Extreme Lifelogging





Generating massive data archives
14 million images since 2006 (not photos but images)

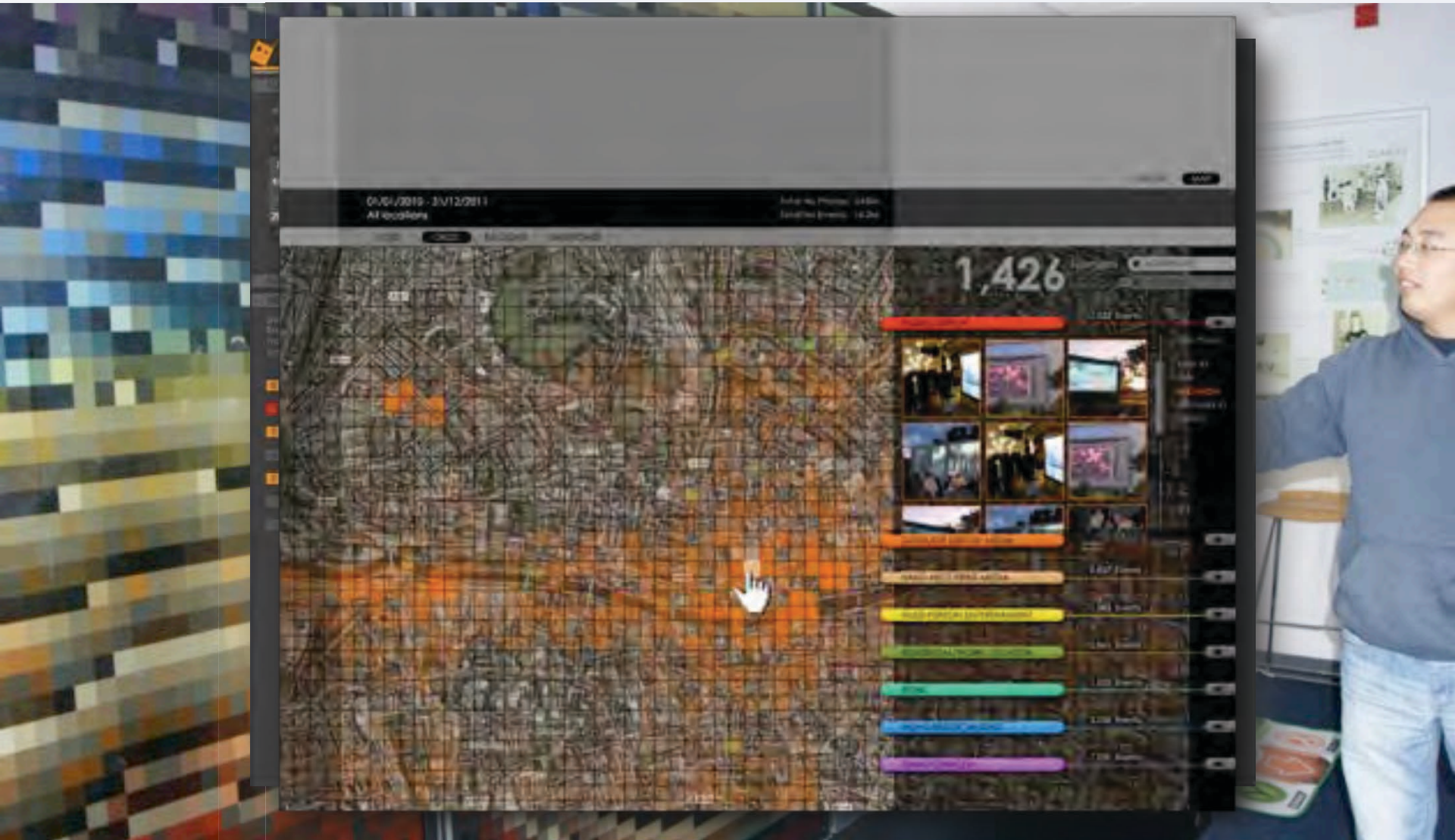
Images are mostly used to extract meaning



Externalising life experience using sensors
and software

Understanding that this is a book, a coffee,
a lecture, etc... using that to assist us.

Creating new User Experiences and Data Access Mechanisms



The Data (one TB per year)

- 2 million images & video segments
 - 2 million passive images & 50,000 active photos
- 3.9 Million GPS locations
- Hundreds of millions of sensor readings (accl, WIFI, bluetooth) & Basis watch
- Tens of thousands of WWW page views, documents, emails
- 150,000 screenshots, webcam shots, home logging
- Others: foods, cycles, walks, REPORTER, and so on...

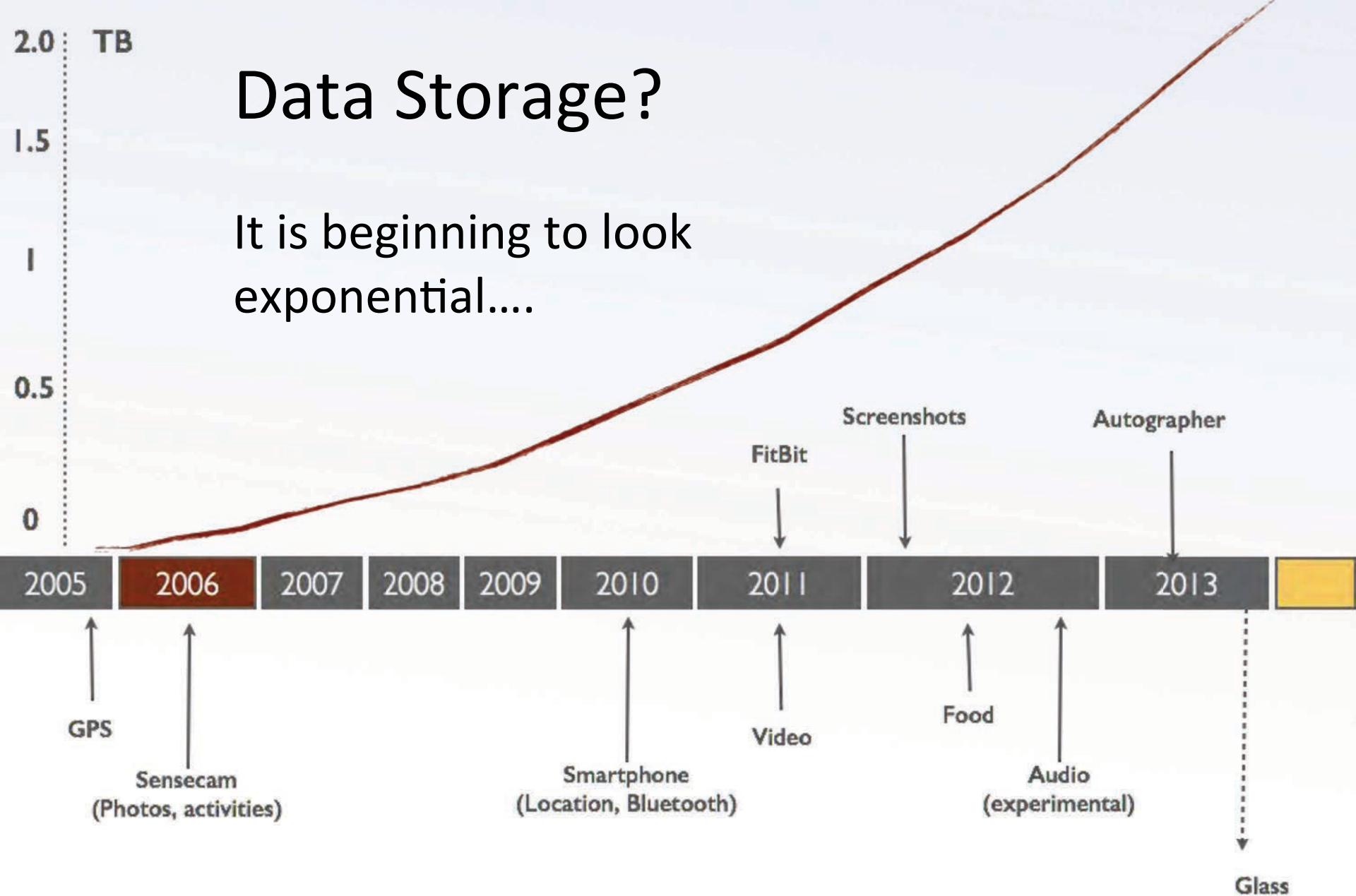
How?

2014

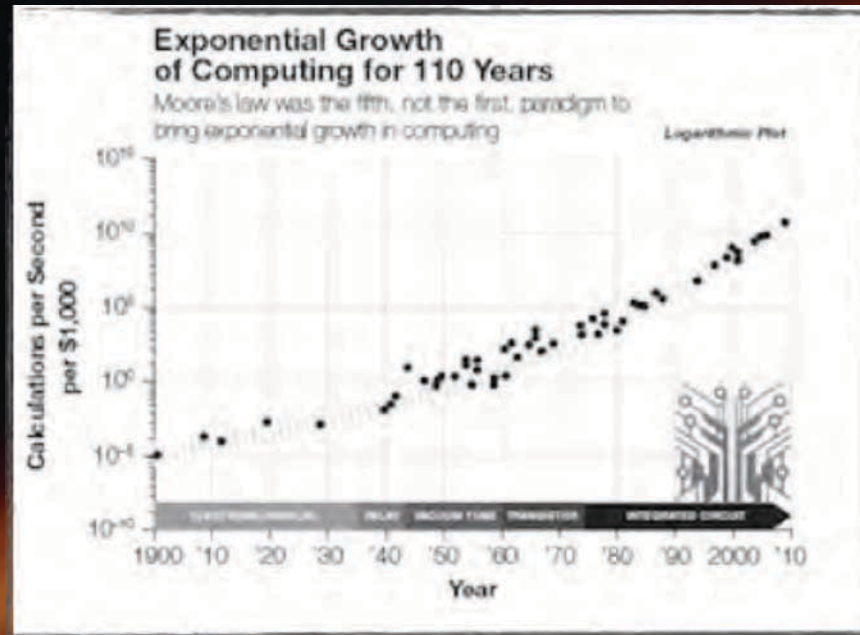


Data Storage?

It is beginning to look exponential....

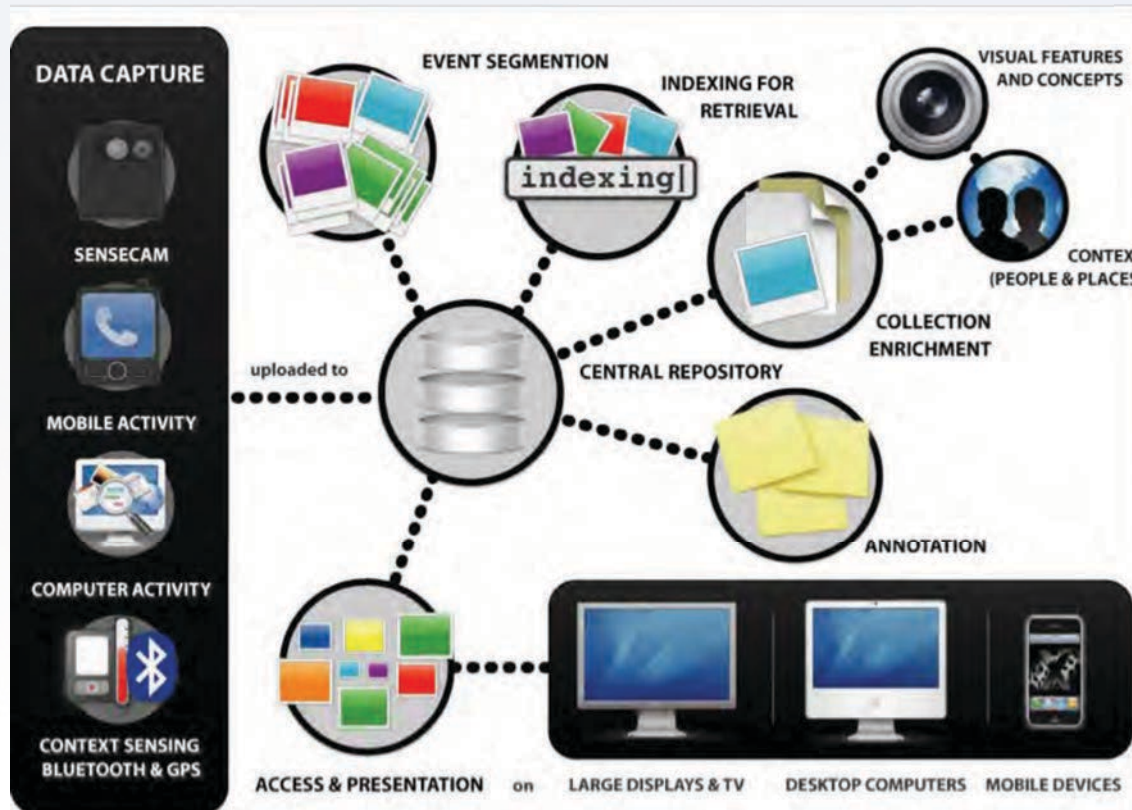


But that's ok....



Iphone 5S was 60,000 times more powerful than Apollo 11's Guidance Computer

Why?



I am a researcher... I want to develop Search Engines for the Self. We found a 75% failure rate to find memories without search.

Why?

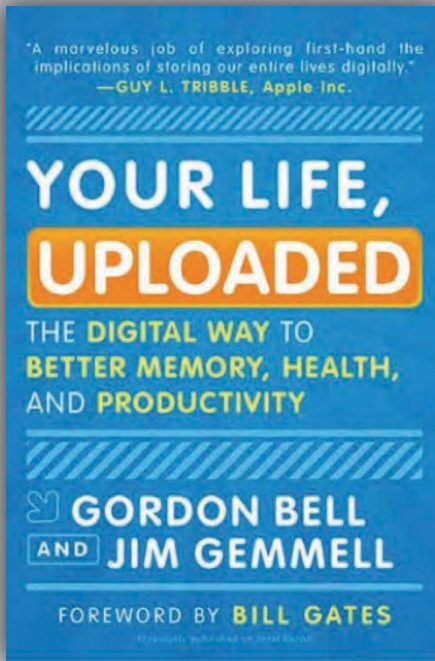


I want my memory externalised

*I have a 2x probability of Alzheimers and
I don't trust 'medical discoveries'*



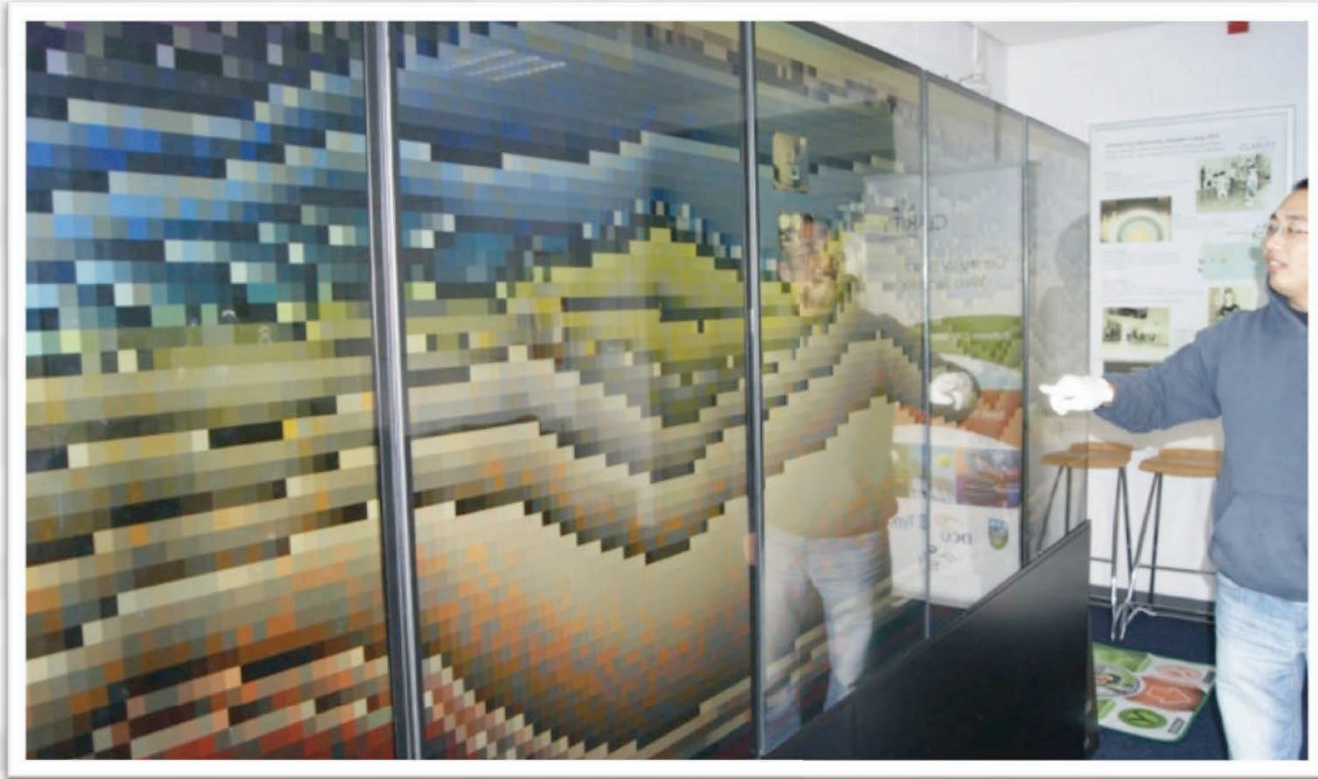
Why?



I want to know myself and be more productive

Self Improvement through knowledge and surrogate memory. Benefits for: healthcare, productivity, learning and sharing.

Learning?



The Necessity and Value of Data Abstraction.

Summarise and Organise Automatically

Learning?



My VISUAL DIARY with SENSICAM Size: 75,000 photos (30 days)

29 May 2006 19 EVENTS

29 May 2006

I was chatting with David at the conference in July. Oufs it the chris today! :D :D

SIMILAR EVENTS
92 Similar Events have been found. Click on the photo to (open) at photos within the Event.

Sort by: **DATE** | SIMILARITY | PEOPLE

- 13:20 (Dundee, 10m 42s) 15 APR 2006
- 15:40 (Dundee, 18s 00s) 11 APR 2006
- 10:10 (Dundee, 23s 10s) 13 APR 2006
- 14:00 (Dundee, 15s 30s) 13 APR 2006
- 11:26 (Dundee, 19s 21s) 12 APR 2006
- 09:01 (Dundee, 05s 00s) 13 APR 2006
- 12:14 (Dundee, 05s 00s)



Learning?

Lifelogging does not yet sense enough!

No taste, touch, smell.... No emotion, mood, thoughts, discovery, etc..

We can know if you were eating, maybe even what you were eating, but not if you enjoyed it.

Better sensors in the future. EEG!

Learning?

The data contains the **'truth'** about what the lifelogger did.

Protection from Data Leakage. People will want to access it. Need a secure hosting service.

Learning?

The lifelogger should be separated from their data.

Data can be problematic...

I think that we will be separated from our own data in the future. A secure hosting service managing it on our behalf.

Learning?

Your privacy or mine?

In my experience, the lifelogger has the most to loose!

Learning?

Too lazy to curate anything... unless it is at capture time...

And people don't really mind wearable cameras, in my experience.

Learning?

Four Reasons for Lifelog Access

I believe that the benefits will outweigh the costs. We will be able to remember everything (if we wish).

Issues / Concerns

Privacy

We should have access policies so we see only what we should

The software controls access on our behalf

Issues / Concerns

Security

I believe it is a personal archive though it is very tempting for some people to try to access it. So how to protect it?

Issues / Concerns

Sharing and Trust!

Sharing a lifelog becomes an expectation. I have seen trust issues arise when it is not available.

Future Plans

Real-time Lifelogging with real-time feedback

Visual and Sensor Analytics in real-time

Future Plans

Privacy by Design

*Building the software with privacy in mind, e.g .
negative face detection & access policies.*

Future Plans

Intimate Relations	Socializing	Relaxing	Pray/worship/meditate
			
Eating	Exercising	Watching TV	Shopping
			
Preparing food	On the phone	Napping	Taking care of Children
			
Computer/internet	House work	Working	Commuting
			

Artificial Intelligence-based life analytics

Information Retrieval, Data Analytics, Computer Vision, Human Computer Interaction... all together making the QS for Lifelogs



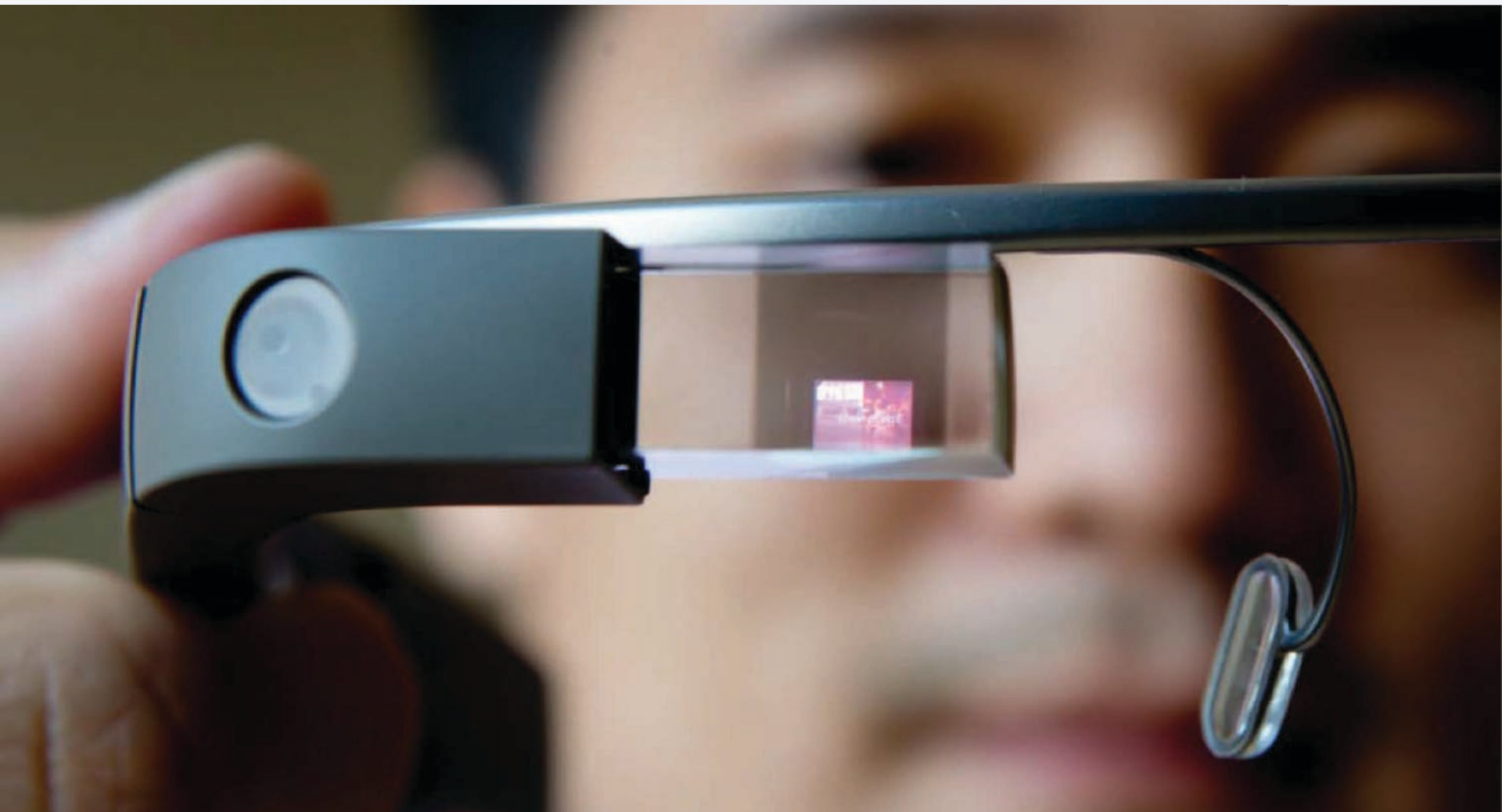
New Technologies have always raised concerns
... but we now carry them all in our pocket...



Prototype real-time Life Analytics in 2014

We are seeking alpha-testers.

Glass, Smartphone & Narrative/Autographer



Thank you!

Thanks to the Ernesto, Gary & team for the opportunity to talk and share!

*Thanks to all my collaborators
(Rami Albatal & Graham Healy are both here)*

If you share our vision, please let me know

@cathal - cathal@gmail.com