A Year in Lifelog Pictures

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

I have a 2x probability of Alzheimer's and I don't trust 'medical discoveries'
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?

The Importance of Automatic Analysis. Software is enabling, but it is complex.
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 lifeloggger 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.
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?
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

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<tr>
<th>Intimate Relations</th>
<th>Socializing</th>
<th>Relaxing</th>
<th>Pray/worship/meditate</th>
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<tr>
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<td><img src="icon.png" alt="Group" /></td>
<td><img src="icon.png" alt="Drink" /></td>
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<td>Exercising</td>
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<td>Shopping</td>
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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/Autographe
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

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