# **The Open World:** The Philosophy of the Web

#### Project Details

- Funded via MARIE CURIE Scholarship Project PHILOWEB
- Visiting Researcher from W3C/MIT to IRI to promote interdisciplinary exchange between philosophy and Web standards
- Deliverable is a book and accompany website/blog

#### My background

- Ph.D. In Informatics from University Edinburgh (Andy Clark and Henry S. Thompson)
- First book on "Social Semantics: Meaning on the Web" should be published on Springer early in 2012
- Most well-known work The complex dynamics of collaborative tagging. WWW 2007
- Heavily involved in W3C Social Web, Security and Open Data (Semantic Web) initiatives, working with IETF and ISOC.
- Visiting researcher at Yahoo! Research Barcelona (2011), Frei Universitat Berlin (2009), Duke University Literature Program (2006-2007), Santa Fe Complex Systems Institute (2005)
- English and basic German, working on French!

### **Overview**

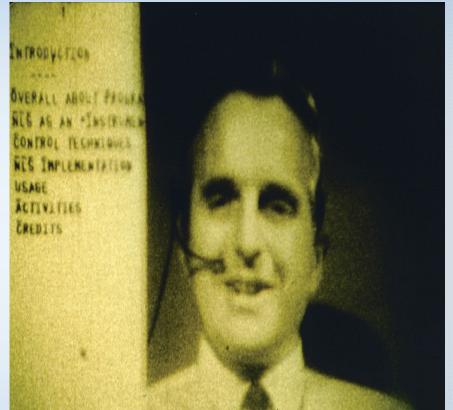
#### • Hypothesis

- The autonomous individual subject should be re-conceptualized as a dynamically co-individuated collective intelligence spread throughout biological humans and their technological environment (*the Extended Mind*)
- The philosophy of the Web must posit itself within a general organology.
- The unique philosophical contribution of the Web to organology is the realization of the concept of universality in engineering terms as the utmost limit of grammatization.
- The Web is defined as a **universal** space of names (URIs, or "Universal Resource Identifiers" such as http://www.example.org).



### Part One: The Web and the Self

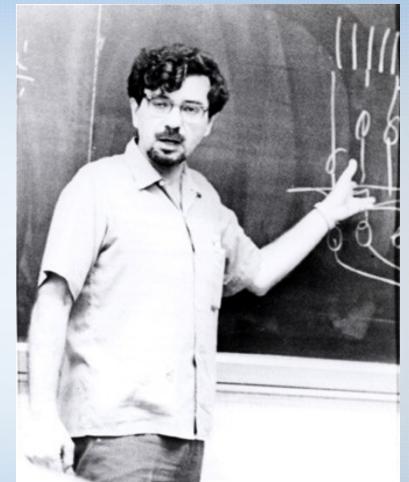
- Begin with Engelbart's hypothesis of "Collective IQ" and his work on the "Human Augmentation Project" in 1950s-1960s
  - Yet what is intelligence?
  - Logic-based artificial intelligence as a convenient Cartesian opponent in order to segue to the (early) Heideggerian concept of embodied intelligence.
  - However, this traps intelligence within the boundary of the individual human's body





### Part One: Dialectics Redux

- How do you define the body of an intelligence in the era of the Web?
- One option is to look at low latency between functional components.
- The trajectory of the Internet is to continually decrease latency over time and space.
- This can be thought of as a process of interiorization/exteriorization over time, a particular interpretation even of Hegelian dialectics.
- Critical influences: Stiegler, Maturana, Clark, Thompson, Berners-Lee





# Part Two: The Web in the World



- Moving from questions of individual intelligence to ontology – and so ontogenesis.
- Berners-Lee's vision of extending the Web beyond documents to the Web of data as explicit formal ontologies on the "Semantic Web".
- Classical problems of representation return in these new ontologies, with attendant connections to issues of reference and meaning (Russell, Kripke, Wittgenstein, Dretske, Davidson, Dummett).
- Is there a singular notion of representation that can apply across both "inner" and "external" digital representations?



### Part Two: Enaction and Search

- How to solve the **Frame Problem**, the recalcitrant problem of determining amongst some set of representations which are relevant to a problem?

- Dealt with on the Web through search engines like Google, which mediates our access web-pages via algorithms that dynamically adapt to find relevant content via massive statistics drawn from human actions.

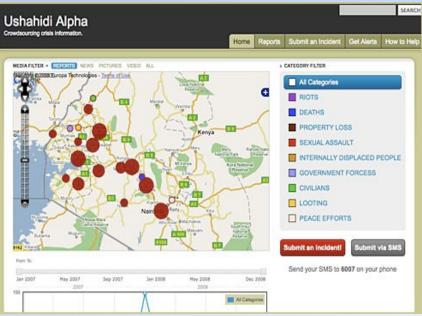
- Similar to **enaction**, 'laying down a path by walking', in which the structuring of the environment can feed and structure future actions.

- Key Readings: Cantwell Smith, Hayes, Heidegger, Wittgenstein





# Part Three: The Politics of the Web



- Tension between privacy on the Web (cryptography) and transparency.Web as a system of real-time universal surveillance, where one's every move on the Web is tracked in order to shape desire via targeted advertising.
- The terrifying vision that this unlimited collection of personal data can be transformed into a cybernetic control by the "secret state."
- Yet the means of escape from this surveillance already exist: public-key cryptography provides the astounding capacity of hiding communication on the Web, leading to technologies such as the Tor Project and Wikileaks



# Part Three: The Future of the Web

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- Google's motto to "organize all the world's information" and Berners-Lee's quest for open data may be constitutive of the wave of revolutions (from Tahir Square to #OccupyWallStreet) demanding accountability, transparency, and participation.

- The potential power of real-time public communication (Twitter) and externalized social networks (Facebook) to "crowdsource" the collective intelligence needed to solve problems

- A positive reading of cognitive mapping, namely that collective intelligence on the Web presents the possibility of actually understanding and re-organizing the flows of production, distribution, and consumption that currently evade individual human understanding.

- Key Readings: Agamben, Bogdanov, Jameson, Foucault, Pentland



