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.
  – 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?
- 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

- 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 “crowd-source” 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