

WSRI

web science research initiative

Contents

of this presentation

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- what is Web Science
- what we do
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research / thought leadership / insight



Introduction

our motivation

- the Web has been transformational
- we need to understand it
- anticipate future developments
- identify opportunities and threats
- we have established a new discipline: Web Science



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Introduction

our aims

- understand the scientific, technical and social factors that drive the growth of the Web
- provide a global forum to collaborate on the first research effort specifically designed to study the development of the Web
- devise curricula for the new discipline of Web Science to train future generations of researchers

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Introduction

institutions - joint venture

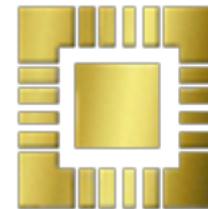
MIT's CSAIL

Leader in North America



Southampton's ECS

Leader in Europe



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Introduction directors



Tim Berners-Lee



Wendy Hall



Nigel Shadbolt



Daniel Weitzner

the reputations, experience and skills of our Directors enables us to work closely alongside academia, government, industry and donors to realize our aims

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Introduction

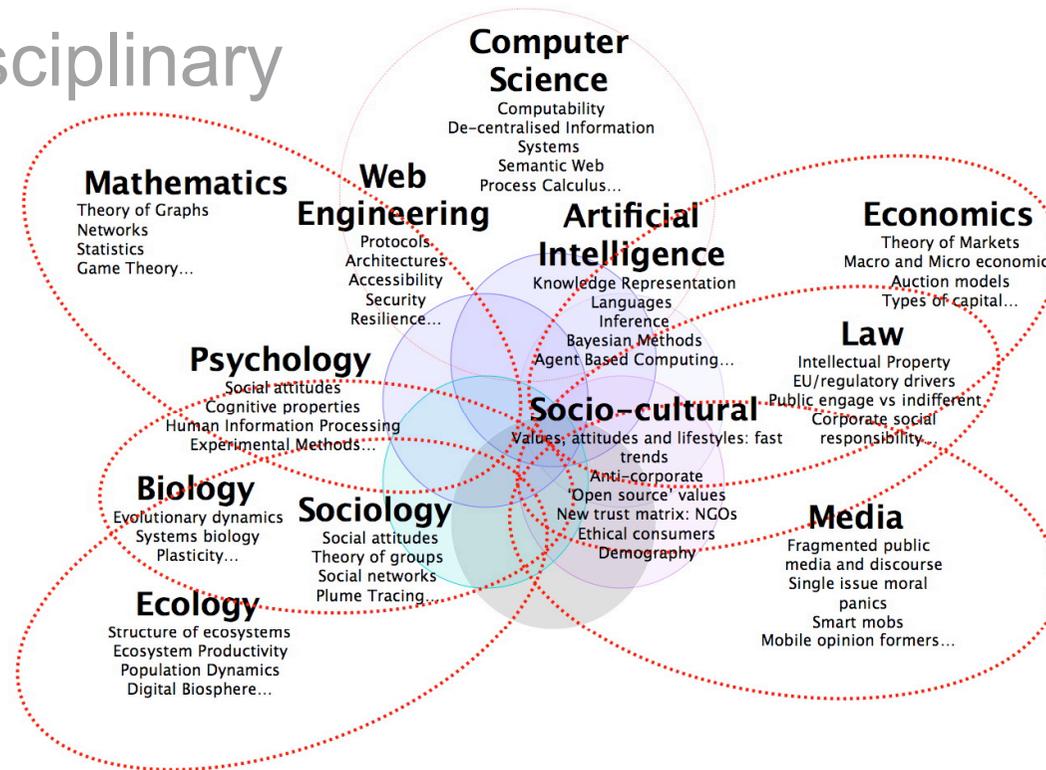
advisors

- **scientific council**
leaders in their disciplines
- **strategic advisory board**
individuals with influence
- **formulating corporate advisory board**
companies committed to Web Science

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Web Science is interdisciplinary



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Web Science is about emergence

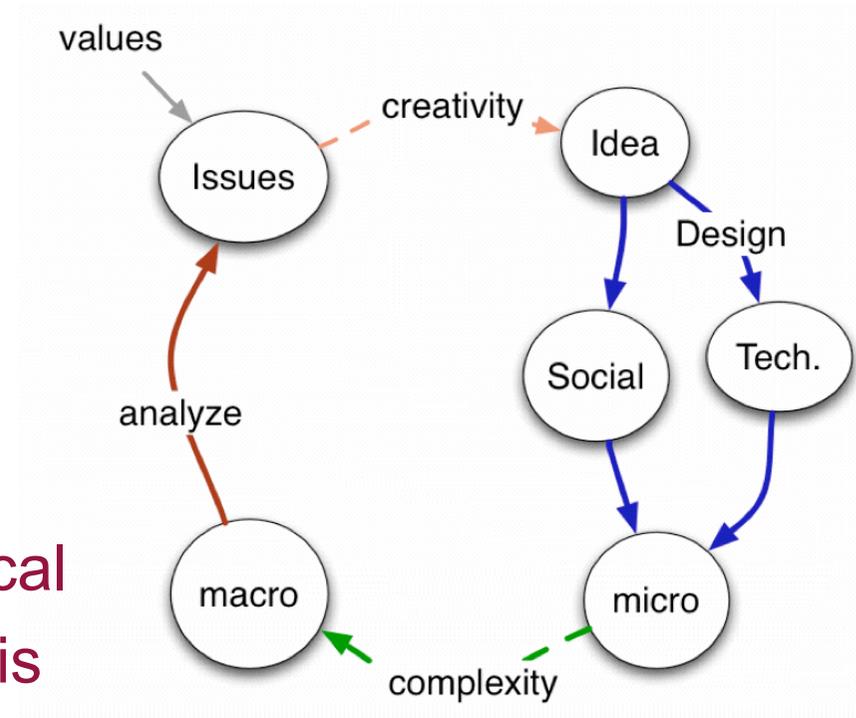
- simple principles and protocols (e.g. links) create complex structures - the Web
- simple behaviors (e.g. Blogging) create complex phenomena - the Blogosphere
- we will anticipate new principles and behaviors

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Web Science is a process of

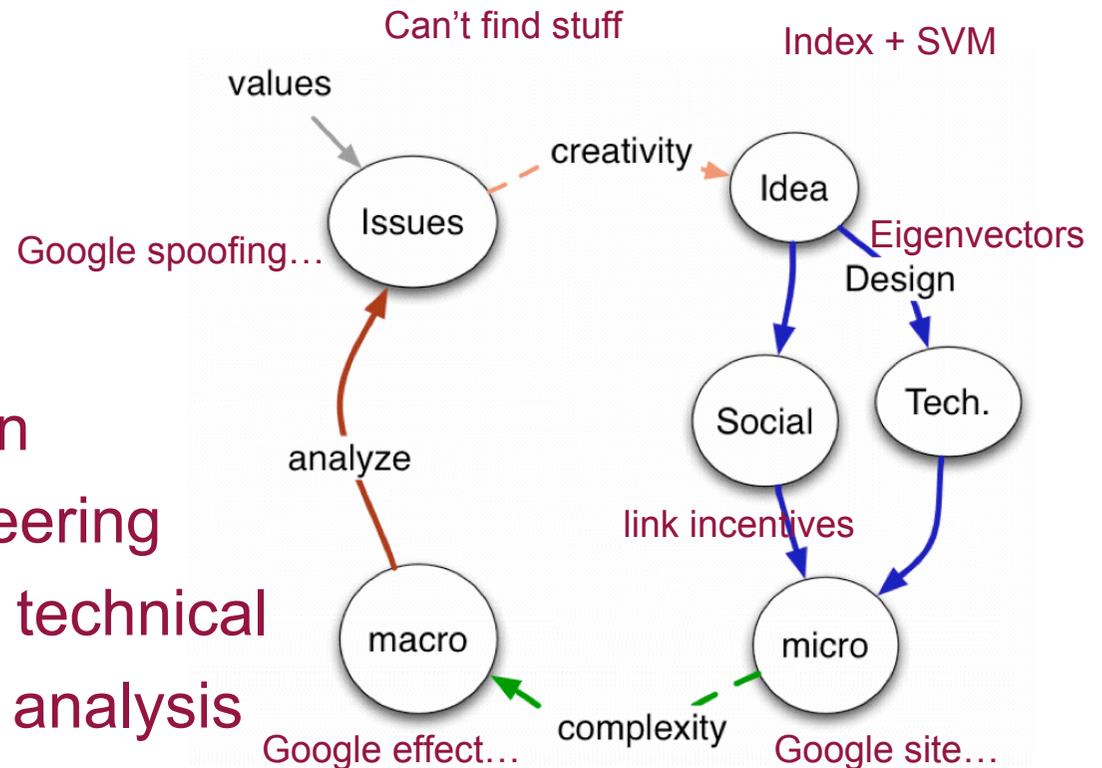
- creative innovation
- design and engineering
- the social and the technical
- interpretation and analysis



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Web Science is for example

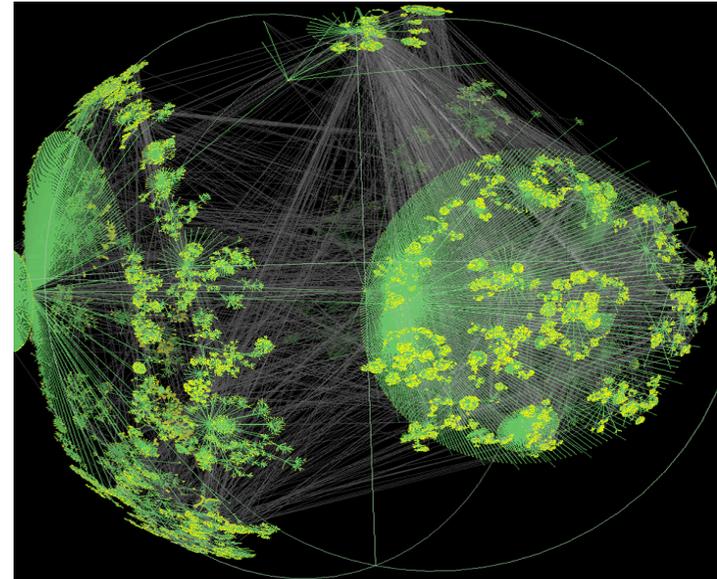
- creative innovation
- design and engineering
- the social and the technical
- interpretation and analysis



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Web Science is not a pipe dream

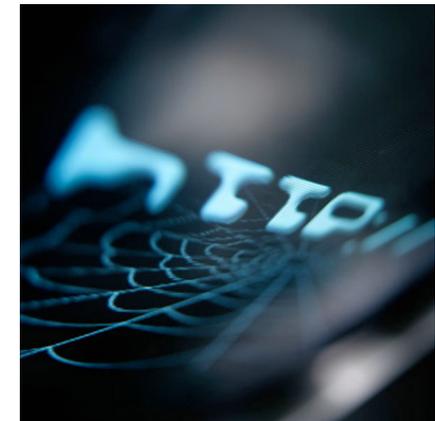
- scale free
- power laws
- small worlds
- hubs and authorities



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What we do research

- the structure of the Web
- effective protocols for the Web
- social effects on the Web
- meaning in the Web
- fragmentation of the Web
- rates of change on the Web...

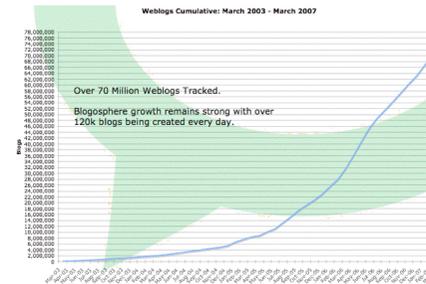


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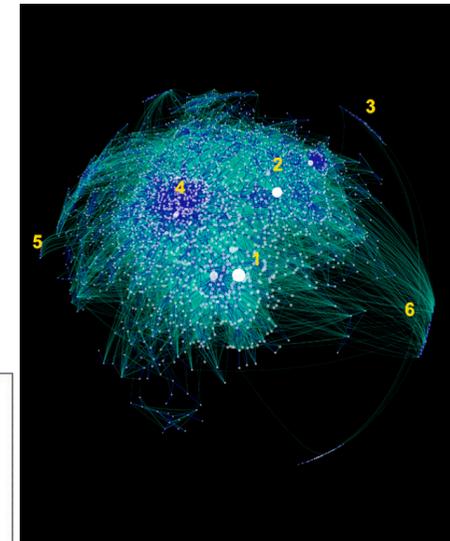
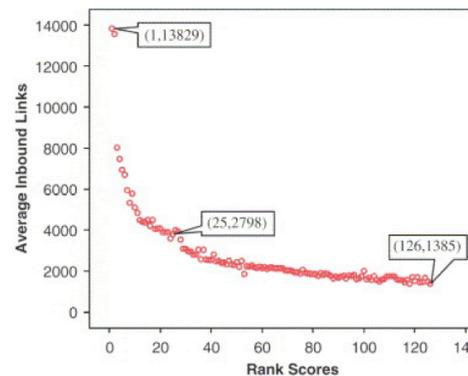


What we do research

- by understanding the scientific, technical and social factors that drive the growth of the Web we can understand past Web phenomena
- e.g the Blogosphere



Top Blog sites



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What we do research

- by understanding the scientific, technical and social factors that drive the growth of the Web we can anticipate future Web phenomena
- e.g the data Web

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Figure 8 Browsing the Structured Data Web for Proteomics

What we do

application research - provenance example

- Media Standards project
- creating protocols for media provenance
- development of basic journalism standards code of practice for digital media
- funding from MacArthur Foundation



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What we do

thought leadership

- a global forum of experts to raise awareness, lead thinking and disseminate information
- provide corporations, governments and regulators with the capability to anticipate future developments

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Toward More Transparent Government Workshop on eGovernment and the Web

18 - 19 June 2007
United States National Academy of Sciences
Washington DC, USA

Agenda

Nearby: [Workshop Page](#) | [Call for Participation](#) | [Papers](#)

Day 1: Monday, 18 June 2007

8:30 - 9:00 Conference Check In and Continental Breakfast (must be registered)

9:00 - 9:15 Opening the Workshop

- Daniel Weitzner (W3C/MIT), chairs' welcome, introductions and logistics [\[slides\]](#)

9:15 - 9:45 Keynote: *Unlocking the Power of Public Sector Information*

- Carol Tullo (Office of Public Sector Information, United Kingdom) [\[slides\]](#)

9:45 - 10:30 Adapting to new social and economic dynamics of information flow on the Web

Chair: Nigel Shadbolt (University of Southampton)

- Carol Tullo (Office of Public Sector Information, United Kingdom)
- Ari Schwartz (Center for Democracy & Technology)
- Mills Davis (Project10X/SICoP)

10:30 - 11:00 Coffee Break

11:00 - 11:30 Keynote: *Widescale data integration: opportunities and challenges*

- Tim Berners-Lee (W3C/MIT) [\[slides\]](#)



What we do education

- collaborate to develop degree courses and curriculum
- modify and extend, evolve current courses
- build capacity for this new field
- motivated students tackling a real and important set of challenges



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Where we are launch November 06

“Web Science represents a pretty big next step in the evolution of information. This kind of research is likely to have a lot of influence on the next generation of researchers, scientists and, most importantly, the next generation of entrepreneurs who will build new companies from this.”

Dr Eric Schmidt, CEO, Google Inc.



“Web Science research is a prerequisite to designing and building the kinds of complex, human-oriented systems that we are after in services science.”

Irving Wladawsky-Berger, VP,
Technical Strategy and Innovation, IBM
Corporation.

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Where we are

WSRI Operational Phases

Phase 1: Nov 06 to Nov 07

Launched the concept and targeted activities

Phase 2: Dec 07 to Nov 08

Establish a lean organization in America and Europe

Phase 3: Dec 08 onwards

Build a global organization and expand activity base

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Where we are

funding requirements

- early start up and phase one funding provided by MIT and Southampton
- project funding received, more in pipeline
- require \$60m over three years to complete Phase 3

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Web Science

why this matters

- the Web matters
- an essential part of humanity
- understanding the Web is a major challenge as big as any other global cause



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