DTEDI

Topic: Web for robots and human society.

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Big Picture

- Intl. Information Infrastructure
  → World Wide Web
  → Giant Global Graph
    - Sir Tim Berners-Lee (2007)
    - http://dig.csail.mit.edu/breadcrumbs/node/215
- GGG
  - ~ Semantic Web
    - W3C
  - And **Social Web**?
    - Sociology ~ Social Media

Semantic Web

- Methods and technologies to allow **machines** to understand the meaning of information on the Web.
  - Questionable feasibility of W3C approach; microformats
- Common framework that allows **data** to be shared and reused across applications.
  - Documents such as HTML page are readable by humans. Data are readable by machines.
- Autonomous **agents**, metadata, relations
  - smarter than common web browsers or thermostat ;-)
- RDF, ontologies, SPARQL, reasoning, …
- *Where are the people? And social dynamics?*

Examples

- DBpedia
  - A community effort to extract structured information from Wikipedia.
  - One of Linked Open Data's datasets
- Friend of a Friend
  - FooF describe persons, their activities and their relations to other people and objects.

Web as a Kind of Social Media

- Media = channel or tool to deliver data.
  - One-to-one, one-to-many (mass media), **many-to-many**
- User-generated content
  - Prosumer (A. Toffler, 1980, M. McLuhan 1972)
  - E.g. player generated content (common in RPG)
  - Value given by not so many to many
    - Participation inequality (aka 90–9–1 rule),
      e.g. Wikipedia: 99.8–0.2–0.003
      J. Nielsen: http://www.useit.com/alertbox/participation_inequality.html
    - Membership Lifecycle (Amy Jo Kim, 2000)

Papers

- Information Retrieval: *Access Rights in Enterprise Full-text Search*
  - Kasprzak, J. - Brandejs, M. - Čuhel, M. - Obšívač, T. In ICEIS 2010: Proceedings of the 12th International Conference on Enterprise Information Systems, Volume 1: Databases and Information Systems Integration. 2010. vyd. Funchal, Portugal : INSTICC – Institute for Systems and Technologies of Information, Control and Communication, 2010. od s. 32-39, 8 s. ISBN 978-989-8425-04-1.
  - → So-called virtual tokens are suitable for social metadata too
- Data mining & e-learning
  - CELDA 2009, Rome: *Advantages of Versatile E-learning Tools*
  - ECEL 2010, Porto: *Towards text mining in technology-enhanced learning*

TODO

- Social software and user attributes identification
  - Identity, Reputation, Presence, Relationships, Groups, Conversations, Sharing, Participation inequality, …
  - Critical Mass, Network Effect and other sociodynamics terms
    - Roots of Net's and Web's Success (?)
- Described by informatics terms
  - Mainly from graph theory: node centrality, topology, bridge, reach, …
- Data Warehouse for Data Mining & Social Network Analysis
  - Which metrics we are in need to store for aforementioned?
- Data which hlep us to understand what is happening “at the bottom” of MU (and IS MU).

T. O.

- Let's network. :-)
  - http://cz.linkedin.com/in/obsivac
  - https://is.muni.cz/osoba/obsivac
  - http://twitter.com/obsivac
  - …

  - Wikinomics Forum 2010, sobota 4. 12., UISK FF UK
    - wikinomie.cz

How web influenced society?

- Knowledge sharing
- Crowdsourcing (J. Howe, Wired Mag, 2006)
  - Outsourcing tasks to community
  - The Wisdom of Crowds (J. Surowiecki, 2004)
- Network society (M. Castells, since 1996)
  - Step further from information (aka postindustrial) society
- Attention Economy, Economy of Free, Link Economy, Wikinomics