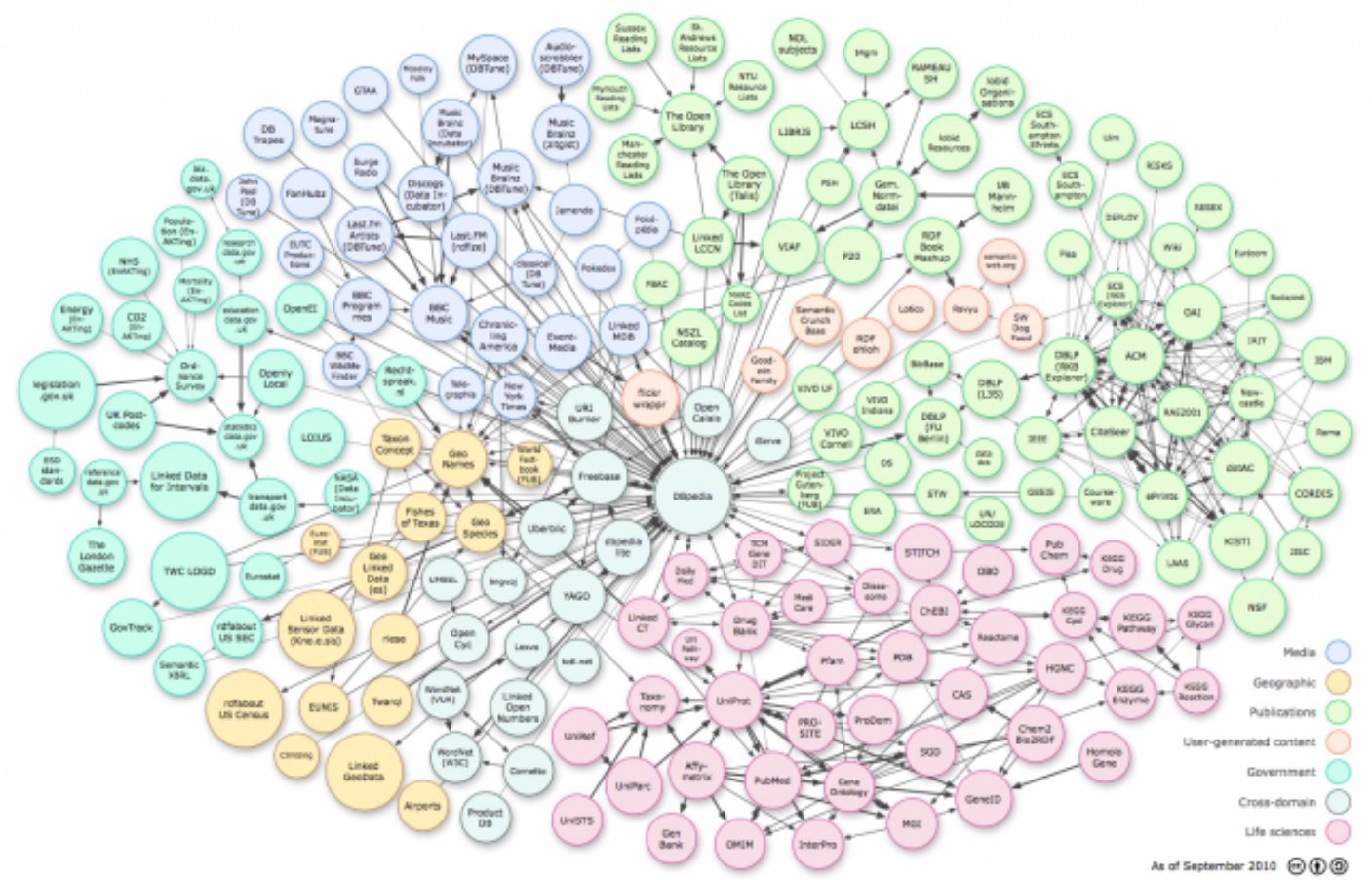
New Semantic Computing course at Concordia University

- Semantic Computing
- Teaching

Note: Please visit the Semantic Computing Course page for up-to-date information on this course.

In the next Winter Term (2010/11) I will offer, for the first time, a graduate-level research course on Semantic Computing (SOEN 691B) at the Department of Computer Science and Software Engineering. This course will provide an introduction to selected topics from Semantic Computing.



Open Linked Data Cloud
A (tentative) list of topics to be covered is:

Introduction to Semantic Computing

Introduction to Semantic Computing Paradigms and Applications; Processes, Tools, and Standards for Deriving Intelligence from (User-Generated) Content

Text Mining Systems

Foundations of Language Technology and Language Engineering; Text Mining Systems; Industry Standards; Design and Deployment of Text Mining Solutions; Information Extraction; Case Study: The General Architecture for Text Engineering (GATE)

Tagging and Tag Analysis

Social Tagging vs. Machine-Generated Tags; Folksonomies; Dynamic Navigation and Tag Clouds

Analyzing the Blogosphere

Blog Tracking; Opinion Mining; Standards: RSS, ATOM; Services: Technorati, Bloglines

Linked Data

RDF; Triplestores; SPARQL; Microformats; GRDDL; Linked Open Data; Case Studies: DBpedia, Freebase, FOAF, GeoNames

Information Repositories and Information Retrieval

Digital Object Management; Semantic Digital Libraries; Semantic Metadata; Dublin Core; Information Retrieval; Lucene; Solr; FedoraCommons; GATE Mimir; OWLIM

Ontologies and the Semantic Web

Web Ontology Language (OWL); Ontology Editors; Foundations of Description Logics; DL Reasoners; Ontology Learning; Ontology Population

Recommender Systems and Collaborative Filtering.

Theory and Implementation of Recommender Engines.

Semantic Desktops and Semantic Wikis

Integration of Semantic Technologies into Desktop Environments and Information Systems; Case Studies: Semantic MediaWiki, Nepomuk, Semantic Assistants.

Scalable Semantic Systems Engineering

Clustering and Cloud Computing Paradigms; Apache Hadoop and MapReduce; Scalable Web Crawling using Nutch.

The course places a strong focus on the practical aspects of building semantic solutions. Students will have to complete a project on a selected course topic and present their work in class.

Registration is open now.