European Semantic Web Conference 2009

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Abstract

Sketchy notes from the European Semantic Web Conference 2009 plus two workshops.

45 papers plus 8 in-use track plus 24 on the demo track and 8 in the phd symposium in the main conference track. A good conference. Some of the issues I found interesing was "Controlled natural language English" used in wikis for making semantic information, SCOVO for dataset, the report about SPARQL not being good enough for scientific databases, where ordinary SQL has worked, the combination of tagging and ontologies. The Finnishs have large cultural ontologies.

The conference generally sees the "Semantic Web" as RDF, triples and OWL. Linked data was much mentioned.

1 Workshop: Scripting For the Semantic Web (SFSW)

Organizers of this workshop are Chris Binzer, Gunnar Aastrand Grimnes and Sören Auer. Chris Binzer was chair.

1.1 Christopher Lange: Krextor

XML instead of RDF. Advantage:

- Sequential order out of the box. No
- No need to think in tripls (compare OWL XML vs. RDF/XML)

```
<workshop xml:id="SFSW09"
 conference="#ESWC09"
 number="5"
 date="009-05-31>
 <title short"="SFSW">SCripting for the Semantic Web</title>
</workshop>
```

How to implement XML to RDF?

CL approach: Provide rules that translate XML to RDF with Krextor that is a generic XSLT-based framework. RXR. OMDoc Implementation in connection with SWiM (semantic wiki, http://swim.kwarc.info). He showed an example with conversion of hCalendar Microformat to RDF wil XLST. Related work is Swignition, XSDL and XSPARQL.

1.2 Eugenio Tacchini: Experiments with Wikipedia Cross-Language Data Fusion

Eugenio uses DBpedia. The idea is to extract and compare data from different language version of Wikipedia: RDF data fusion with conflict resolution strategies. Quality-based strategies in determining which language version of Wikipedia is "better": Democratic, edits number, filtered edits number, unique editors number, ..., geo provenance (Italien might be better than the Frensh on Rome).

Example fusions between English, German, Italien and French with an experiment with movies data part of Wikipedia. English data set augmentation: 20.82%. Second experiment was with minor planets and benchmark against MPC Orbit.

The English Wikipedia edition quality is already relatively high, difficult to improve.

Later Eugenio

1.3 Converging Web and Desktop Data with Konduit

Work of Laura Dragan: Structured data available online and on the desktop. NEPOMUK-KDE, see Wikipedia NEPOMUK_(framework) and also Soprano. Konduit has a visual programming language like interface.

```
prefix nao:
<http://www.semanticdesktop.org/ontologies/2008/08/15/nao#>
construct { ?s ?p ?o }
 where ...
```

Use case with discography: Create discographies of artist using online data mashed with local user data. Input: artist name. Output: HTML page containing the discography. Ruby script that uses RDF graphy to generate an HTML.

1.4 Pierre Antoine Champin: Tal4Rdf: Lightweight Presentation For The Semantic Web

Ordinary conversion of RDF to rendered is quite involved: RDF —> Lense —> Format —> Stylesheet —> Rendered. A lightweight presented here: RDF —> template —> rendered

TAL: a template language. Templates are valid documents with rendering instructions "hidden" in attributes.

```
tal:content='a/b/c'
tal:attributes='href a/b/c; rel d/e/f'
tal:condition='a/b/c'
tal:repeat='i a/b/c'
```

```
resource/foaf:knows/foaf:name
foaf:knows/foaf:name
foaf:knows/rdfs:label
graph/foaf:knows/rdgs:label
/foaf:knows/rdfs:label
```

An RDF part may evaluate to 0, 1 or several nodes (e.g., foaf:knows/any), and those nodes may be heterogeneous (foaf:knows/URIRefs, foaf:knows/literals, foaf:knows/blanks). Problem: no automatic concatenation of multiple values (space= line breaks?, comma? 'and', 'or', 'then 'et' 'und'?

His slides where generated with this system.

1.5 A Pattern for Domain Specific Editing Interfaces Using Embedded RDFa and HTML Manipulation Tools

Talis Aspire running University of Plymouth as resourse list for courses. RDFa. Made with http://code.google.com/p/rdfquery/ http://code.google.com/p/moriaty/

1.6 Jouni Tuominen: Ontology-based query expansion widget for information ...

Ontology-based query expansion. SAPO: Finnish spatial ontology. ONKI SKOS, see http://www.seco.tkk.fi/services/onkiskos/

See also: ESWC-paper: ONKI SKOS server for publishing and utilizing SKOS vocalbularies and ontologies as services /by Jouni Tuominen et al.)

1.7 Norman Gray, Tony Linde: SKUA

myskua.org: Sharing annotations. http://myskua.org/ http://skua.googlecode.com Considered using annottea.

Annotations for example: "bookmark this resource", "paper X is rubbish" and "I think object X is a quasar".

Tool: VOExplorer for astronomy. Spacebook builds on myexperiment.org.

Technology uses, quaestor, Jena/TDB, Jetty, Tomcat, SISC, WADL

1.8 Michael Hausenblas: RDFa in Drupal: Bringing Cheese to the Web of Data

Structured data in Content Mangaement Systems not available as machine readable format. "Content Construction Kit". Resolvabale HTTP URIs in line with the Linked Data principles, Re-use of publised ontology terms so local schema can be mapped to vocabularies like FOAF. RDFa output on site.

Cheese review site as a demo available http://drupal.deri.ie/cheese

1.9 Mariano Richo: Macros vs. scripting in VPOET

http://ishtar.ii.uam.es/fortunata OMEMO

VPOET compared with FRESNEL and Rhizomic, Semantic Media Wiki templates.

1.10 Scripting challenge

1. Ozone Browser: Augment the Web with Semantic Overlays. Web page with much RDF markup http://www.w3.org/People/Ivan/

2. Linked Data for Building a Map of Researchers. Database Researchers Map. Olaf Hartig. http://researchersmap.informatik.hu-berlin.de. SQUIN. http://squin.org (Winner of the competition).

3. RDF Schema Rendering. XLST file to render RDF Schema in a more readable format

4. Colibrary. Web service for review from different social library sites such as Amazon, aNobii and LibraryThing. http://collab.di.uniba.it/ColibraryClient/

5. The practically semantic works. Anca Luca. http://twitter.com/lucaa

6. SPARCool.

7. AJAX Widget for Semantic Query Expansion.

8. RDFa: Semantic Web for Human Beings. Gregoire Burel.

9. Tal4Rdf: Template URL, Resource URI, Graph URL.

2 4th Semantic Wiki Workshop

2.1 Tobias Kuhn: How Controlled English can Improve Semantic Wikis

Controlled natural language. Attempto Controlled English (ACE) is a controlled natural language, — concretely a subset of English. Kuhn has worked on AceWiki and performed a usability experiment with untrained users generating sentences in the controlled English. He also showed a comparison to MLL (Manchester-like language?) — a visual language. The ACE language than the visual language to convey information to the untrained user.

This paper was the winner of the best paper award.

2.2 Pavel Smrz: Information Extraction in Semantic Wikis

Smrz is part of the KiWi and he presented entity recognition and semi-automatic annotation. Finite State Automata built all lexical realization. Conflicting terms computed automatically. Can identify terms such as “Salzburg Research” and “Aalbord University”. From meeting minutes the system is able to generate tags.

2.3 Charbel Rahhal, Stephane Weiss, Hala Skaf-Molli: Undo in Peer-to-Peer Semantic Wikis

Hala Skaf-Molli from INRIA Nancy presented. Peer-to-peer wiki semantic wiki, In DEXA'09 20th International Conference on Database and Expert Systems and Applications. SWOOKI. They are currently developing a p2p extension to the MediaWiki.

2.4 Fabrizio Orlandi: Enabling cross-wikis integration by extensing the SIOC ontology

They looked at WikiOnt ontology (DERI), WIF (Wiki Interchange Format) ontology (Max Völker). The aim of Semantically-Interlinked Online Communities (SIOC) is to link social web-sites, and they decided to extended the SIOC ontology to make it compliant with wikis. Added new properties such as sioc:User subclass of foaf:OnlineAccount and sioc:latest_version. SIOC-MeiaWiki Exporter that export a MediaWiki article in RDF, which canbe browsed with tools such as "The Tabulator". Added to a triple-store Sesame + OWLIM.

2.5 Klara Weiand: What the user interacts with: Reflections on conceptual models for semantic wikis.

2.6 Rolf Sint: Combining unstructured, fully structured and semi-structured information in semantic wikis

Rolf Sint is from the KiWi project — a semantic wiki. Data synchonisation in KiWi.

Relational database structure, Sesame for semi-structured data (triple store?), Apache SOLR (based on Lucene) for storing unstructured data.

2.7 Lieber: WikiTaaable: A semantic wiki as a blackboard for a textural case-based reasoning system

Querying a cooking recpe: "I want a dessear with rhubarb bu without chocolate". If not recipe exists, an existing recipe is adapted. Now WikiTaaable based on SemanticMediaWiki.

2.8 Joachim Baumeister: Engineering on the Knowledge Formalization Continuum

Second opinion system for rescue workers.

2.9 Marco Rospocher: MoKi

Used in a Knowledge Management course at TU Graz. Twin tools: Clip-MoKi which ais for clinical protocols. http://moki.fbk.eu

2.10 Myself

2.11 Amparo Cano: Meta-social wiki — Towards an interlinked knowledge in a decentralized social space

2.12 Frederico Durão: Analysis of Tag-Based Recommendation Performance for a Semantic Wiki

Part of the KiWi project from the Aalborg University. Matching tags between users to provide ranking of pages.

2.13 Jochen Reutelshöfer: An Extensible Semantic Wiki Architecture

KnowWe Extensions

2.14 Sebastian Schaffert: KiWi – A Platform for Semantic Social Software

"Wiki page can be display in TagIT" KiWik architecture: Entity database (relational database), RDF store (relational database)

2.15 Mariano Rico: VPOET Templates to Handle the Presentation of Semantic Data Sources in Wikis

Google-gadget. (GG-VPOET) http://...gmodules.com...

2.16 Josef Holy: Semantic Wiki In The Enterprise

Josef Holy, Social Network Designer at sun Microsystems. 'The 2.0ols'. Hundreds of intranet wikis. External wiki, forums, code-forge http://www.kenai.com, social networks, twitter, Facebook, LinkedIn. KIWI Scope: Customer Engineering Community (CEC). SunSpace: CEC built on top of Confluence Wiki. Missing notion of relevance and quality: Measuring quality or relevance in the social systems by watching activities, such as create, modify, download, view, rate, comment, tag. Pull/Push. Expert discovery. Need for a value system.

2.17 Discussion

Google Gadget and script tag. http://zembly.com.

Semantic wiki feature matrix

- informal and formal representation of knowledge.
- reasoning
- social aspects (not just data, people)

IkeWiki, Rhizome, Kaukolu, COW, Platypus, Makna, SemperWiki, Semantic MediaWiki. AceWiki. Annotation granularity: Pink Floyd, Eisenhower. Biggest application of semantic wiki: BibleWiki(?) http://www.biblewiki.be/wiki/Main_Page, Chickipedia http://www.chickipedia.com/ .

3 Welcome

232 submissions and 45 accepted: almost 20% acceptance rate. Problem with Wireless.

3.1 Keynote: Matthias Wagner: Keys, Money and Mobile Phone

"Most essential objects to be carried around in everyday life": Keys, money, mobile phone. NFC.

4 Demo track. Tuesday session

4.1 Aba-Sah Dadzie: The XMediaBox: Sensemaking through the Use of Knowledge Lense

Visualization toolkit: http://prefuse.org
http://www.x-media-project.org/

4.2 Controlled Natural Language for Semantic Annotation

Evaluation: SemNotes and Nepomuk KDE.

4.3 Battery low

5 Web services. Tuesday session.

5.1 Bioinformatics Web-services

Guessimate is on 3000 bioinformatics Web-services. Annotation of Web-services exists such as "Emma". Taverna, myGrid, myExperiment. BioCatalogue is a single registration point for Web service providers. The work described will be part of BioCatalogue

Collect service semantics from bioinformatics articles. Use "Stanford parser". Use myGrid ontology semantic labels.

Looked at 2120 fulltext BMC Bioinformatics artciles, 471 descriptors from myGrid/Feta. The sentence in formel articles are complicated. Tried to look at informal sources, such as email, they were too informal.

Journal of BioMedical Semantics (BioMed Central).

6 Ontologies and Natural language. Tuesday session.

6.1 Frame detection

"Super-Sense Tagger" (SST, Ciaramita and Altun 2006) hidden markov model. Abox. FrameNet. Europarl corpus contains about 30M documents extracted from the proceedings of the European... VerbNet, PropNet. Test on three frames: Killing, JudgmentCommunication, and Commerce.

6.2 Andrea Tagarelli: Word sense disambiguation for XML structure...

Clustering semantially related XML documents. Map tag names to semantic concepts (lexical meaning). "Synset graph". meronym. holonym.

7 Science 2.0

Fausto Giunchiglia, David De Roure (eScience, social web site for scientits, MyExperiment), Maurizio Machese (LiquidPub project, OpenSource Science), Andrei Voronkov (EasyChair), Anita de Waard (Elsevier).

Giunchiglia: The world of scientific publications has been largely oblivious to the advent of the Web. The current approach encourages authors to write many (possible incremental) papers to get more tokens of credit, generating often unnecessary dissemination overhead for themselves and the reviewers. It does not encourages re-use.

Marchese: 1665: Philosphical Transactions of the Royal Society of London; 1665: Journal des Scavans; 1731: introduces peer review: Royal Society of Edinburgh's Medical Essays and Observations ScienceBlogs, Connotea, ... "Liquid" scientific contribution.

David De Roure: MyExperiment: A repository of research methods. 600 Teverna workflows. MyExperiment in iGoogle, Taverna, Facebook, Windows 7. "The provenance of Electronic data": Communication of the ACM.

Anita de Waard: FEBS Letters Structured Digital Abstracts. SDA concept (Gerstein et al.) "machine readable XML summary of pertinent facts. Started April 9, 2008: implemented in ScienceDirect. OKKAM project. OKKAM entity editor in MS Word. Linguistics: Type (fact, result), tense (past, present - changes even in sentences), markers (booster, additive). "Structured Rhetorical Abstracts for Neuroscience". The Elsevier Grand Challenge. Confernece: the Future of Research Communication, Boston 9-11 2010.

Andrei Voronkov, University of Manchester: The Future of Reviewing. EasyChair (presently the most succesfull conference submission system): 160'000 users, 4'400 conference, 210'000 submissions, 128'000 PC memebers, up to 5'500 users per day, 385'000 reviews plus 80'000 superseded reviews, 90'000 lines of code. Reviewing in Computer Science is very different from the reviewing in other conferences. Reviewing models: Open, closed, in between. Reviewers: incompentent, have not time, biased, personal interests/conflict of interest; reviewing process: badly organized, using wrong evaluation criteria. Evaluation: Using metrics, discussions, (sometimes) voting. Novelties: Online discussion, author's response, shadow PC. New ways of reviewing: evaluation of reviewing, swiss tournament system, voting, claim-based model.

There are conferences that awards "best reviewer". D3E: Open review.
Anita like "slow science".
Cathedral (paper), bazar

8 Craig A. Knoblock: Discovering and Building Semantic Models of Web Sources

Craig is from Fetch Technologies and Geosemble Technologies. Automatically build semantic models for data and services available on the larger Web, essential mining the deep Web.

- Discover related sources
- Determine how to invoke the sources
- Learn the syntactive structure of the sources
- Identify the semantic types of the data
- Building semantic model of thedata
- Validate the correctness of the results

Discover related sources: "Seed source", e.g., a weather source, http://wunderground.com. Generate candidate sources. use of Delicious. Probabilistic model to classify whether it is a relevant or not.

Detemine how to invoke the sources: Try different data types to input to the form and get back some results. Gazen & Minton: Discovering Web Structure. URL patterns: http:///www.bookpool.com/sm/0321349806. Page template (what text are changed between pages). HTML structure. Extracted data can be represented in the data, but don't know what is means.

Semantic typing: assign column information ("this is the temperature". Lerman, Plangprasopchok & Knoblock. Domain-independent language to represent the structure of data as patterns. [(3DIGIT) 3DIGIT - 4DIGIT].

Inducing source definition(?): source1($zip, lat, long) :- centroid(zip, lag, long)

Source modeling: synonyms had to be represented as data source, e.g., need to know the mapping between airline names and codes.

DEIMOS crawls de.liciou.us for find sources. Test on flight, geospatial and weather Web sources.

Related work: ILA & Category translation (Perkowitz & Etzioni, 1995) iMAP (Dhamanka et al. 2004), Metadata-based classification of data types used by Web services and HTML forms (Hess & Kushmerick, 2003), Woogle: Metadata-based clustering of data and operations used by Web services (Dong et al., 2004).

Mining semantic description of bioinformatics Web resources (Afzal et al. ESWC 2009), Automatic annotation of Web Services (Belhajjame et al., 2006).

In discussion: The system is actually able to handle javascript, since much data is represented in directly in JavaScript and the template matching will find this.

Thought about using RSS feeds, but one of the problems is that it is a push technology.

9 Ontology matching

9.1 Universität Mannheim

The task is for example matching two persons from different ontologies. Multiple matchers used, and machine learning (naive Bayes, decision trees) used to weight the result.

Matcher features: Matcher found, matcher confidence, matcher vote. Structural features: type of correspondence, node position. Lexical features: string equivalence, number of token ratios, mean significance, wordnet coverage. Ontology features: Ontology ratios.

OAEI Benchmark Data, OAEI Conference data.

What they found that adding a feature would make the matching better so a simple heuristics was just as good as a machine learner: the majority vote by the matchers. The majority vote outperforms even the optimal individual matchers by up to 15%.

10 Semantic Web architectures

10.1 RDB2RDF use in astronomy databasing

Conversion and querying relation database in astronomy with RDF.

Extract-transform-load: Jena and Sesame. Query-direct conversion: D2RQ or SquirrelRDF.

Large (up to 152) number of attributes (columns) in the astronomy database.

Limitation of SPARQL: range shorthands, arithmetic in head, math functions, trigonometry functions, sub queries, aggregate functions, casting. Only 9 out of 18 SQL queries could be represented in SPARQL. Only 5 queries completed with SPARQL.

D2RQ and SquirrelRDF quite slow due to some self-joins expression. Jena also slow. Sesame quite fast.

[Gray et al., 2009]

11 In use track

11.1 ONKI SKOS Server for publishing and utilizing SKOS vocabularies and ontologies as services

SKOS is for thesauri, taxonomies, classification schemes. SKOS supports ISO 2788.

ysa.xml -¿ SKOS. ONKI SKOS project page http://www.seco.tkk.fi/services/onkiskos Ontology Library Service: http://www.yso.fi

11.2 Kim Viljanen: Ontology Libraries for production use: The Finnish Ontology Library Service ONKI

FinnONTO project 2003-2010. Smartmuseum 2008-2010.

Requirements for an ontology library service

- Designing the ontology

- Populating the ontology
- Publishing the ontology
- Finding, comparing, commiting
- Support for semantic content creation
- Supporting end-user application with functionalities
- Support for semantic application creation

Use Protégé. Subversion.

Quality control. Gate keeiping: Selecting trusted participants for ontology development. To enforce reuse use Creative Commons. Browser-based metadata editor SAHA.

Publishing ontologies: Ontology added to subversion repository, URI normalization original URIs are transofrmed to persistent numeric URis (PURI)

ONKI Web Service, REST Web Service.

12 Lightning talks

Gnowsis.com — "helping people to remember": They are doing something with Nepomuk.

Tobias Kuhn: Controlled natural lanaguge is more understandable than a common formal language. "How to evaluate controlled natural lanagues". preproceedings of the workshop on Controlled Natural Language (CNL 2009). This is the man that also presented the study in the Semantic Wiki workshop and work in the AceWiki.

HandSchuh: "Hypotheses, Evidence and RElationships Project", LiquidPub. Not clear what this was.

Who was that. What happens if a resource becomes unavailable. Three obtions: "Ignore it" (404 error), Inform the link source: Either the data source itself provides update infos (see Triplify)or a separate service prodicind update infor (DSNotify)

Comment from the floor: "Consistency doesn't scale"

Chris Binzer: Semantic Web and Billion Triples Challenge. Lost of challenges around: identify resolution, schema mapping, data fusion, quality assessment.

Jerome Euzenat: Alignments for the linked data web. Send your alignments between data source, before the end of June. Any format (SQL, SPARQL, OWL whatever). Better if everything is available on the web.

Robert Barta: What a Topic Maps user would expect SPARQL 2.x to deliver?

Talis Connected Commons. Free data hosting in the Talis Platform. For public domain data (CC0 ODC PDDL), up to 50 million triples and 10Gb of content in perpetuity. SPARQL endpoint http://www.talis.com/platform/cc

Christopher Lange: Semantic Markup in the Layered Cake. Krextor.

Olaf Hartig: Beware of cLOD (crippled LOD) Linked Open Data. From floor: Distributed access control. Chris Binzer: A machine readable license. Talis has done legal work to be presented at the ISWC. Scheuffert: Privacy in linked data.

myideabox.org

What makes for a good ontology? Somewhat abstract entry. Example “street” and “street number”

2009 Triplification Challenge http://triplify.org/Challenge/2009 9th August 2009.

13 Alan F. Smeaton’s keynote: Video, semantics and the sensor Web

Alan is head for CLARITY project (2008-2013) and from Centre for Sensor Web Technologies at the Dublin City University. Sensor Web uses Lifelogging, tennis, cycling, environment. TRECVid: semantics from video. The ’old’ Web —> The Social Web (blog, wiki) —> Sensor Web (wireless sensor web). Multi-model sensing for sports.

Lifelogging: Save for posterity and example of traditional lifelogging is family photos. Lifelogging devices: miniaturising, increasing battery life. Microsoft Research has constructed the SenseCam. Person who wears the camera: ca. 3.5M SenseCam Images of his life. “Total Recall” little sign of decay as he remembers most when presented again. Advanced Image Matching to detect reoccuring objects, e.g., a juice bottle. Trajectory estimation. Activity Recognition: 27 “concepts”: outputs manually judged on approximately 95’000 images by 5 users. “But what do people want?”: Group the images semantically. Event augmentation: receiving geotagged images.

Second sensor application: Tennis. Polar heart rate monitor, BodyMedia SenseWear ArmBand (galvanic skin repsonse, heat flux, skin temperature, accelerometer, Foster Miller vests (respiration, body temperature, heart rate, GPS, ...), audiovidual, Ubisense localisation, own development: 6 DOF wearable inertial sensing platform (WISP) developed for Tyndall 25mm Mote, “synthetic metals” in soles of shoes and in cloths, optical detection of pH induced colour changes (for dehydration). Stroke analysis

Third sensor application: Round Ireland cycle race: Cycling endurance non-stop 1,350 miles solo or team of four, some hiles, mostly flat. In order to complete the strategy and pacing are key: When to rest, how to pace. Cycle sensor. On bike heart rate, GSR, respiration, fluid intake, food intake sweat analysis, blood analysis, rest and recovery techniques, massage. On bike: WIMU gives yaw and roll, in/out saddle, power gauge gives power output, speedo give speed and cadence, some direct feedback. Environement: Weather, wind, temperature, RH, road surface, wet(dry, video tracking using geo-spatial measurement jeep based on MIT.

Fourth sensor application: Environment monitoring of River Lee in Cork in Ireland — a tidal river. The conductivity changes as the water gets more salty.

CLARITY Sensor Webs: Events are detemined by aggregating across sensors should be done automatically. LSCOM semantics.

Vision of a glocal wholly integrated wireless sensor network Web.

14 In-use track

14.1 ? and Georgi Kobilarov: Media meets the semantic Web

BBC Journalism. CMS and auto-categorisation. Taxonomy. What went wrong: Labour intensive, journalist did not want to re-use content, benefits were not immediately tan-

gible. Move to use metadata for user facing propositions, drivers: search engine optization, scalable navigation. 8 million Google referral. One page per concept of interest to the BBC. BBC using the musicbrainz id. DBpedia example shown with "Jamaica" longitudinal/lattitude. DBpedia also used in connection with statistical categorization. Automated cross-linking. Benefits of Linked Data. A page for every: News event, events, place. Geonames.

Georgi:

```
dbpedia:BBC p:network_name
  "British Broadcasting Corporation (BBC)"
```

How to find DBpedia URIs: http://lookup.dbpedia.org/api/search.asmx keyword search implemented in Lucene, boost resource with article in-links, includes synonyms. BBC CIS "Mary (1985 sitcom)" (tv brand, 1985, sitcom) -¿ DBpedia resource. Supported similarity metics, string similarity based on q-grams, string similarity based on the Haro distance metric, ... "It's all about linking data"

14.2 Chris Clark from Talis: A resouce list management tool based on linked open data principles

"talis Platform", "talis aspire" sold to universities. Linked Open Data: use URIs as names for things, Use HTTP URIs so that people can look up those names. Include links to other URIs, so that they can discover more things Why do links break?

```
PREFIX bibo: http://vocab.org/resourcelist/schema
PREFIX list:http://vocab.org/aliiso/schema
PREFIX aiiso: http://vocab.org/aiiso/schema
```

aiiso:Institution

"Find the most referenced journal in UK Universities": need for linked periodicals. Identifier: eRDF (what is that?)

14.3 Knarig Arabshian from Alcatel-Lucent Bell Labs: Ontology-based service discovery front-end interface for GloServ

Service discovery: SLP, Jini, UDDI, UPnP, Google Local, Yahoo Local, Menupages.

14.4 Battery low

15 Tagging and Annotation II session

15.1 Fuzzy annotation of Web data tables driven by a domain ontology

Want to extract symbolic data and numerical data. Extraction of tables from HTML and PDF formats. After that semantic annotation. Related: Tableseer.

15.2 Huariren Lin: An integrated approach to extrating ontological structures from folksonomies

15.3 Stuart Taylor : Reducing ambiguity in tagging systetms with folksonomy search expansion

Tag ambiguity (I): music song called "Free bird" tags result in images about birds, band: "Kiss", Dutch band: "Focus" and a search on YouTube results on videos about Ford Focus. Taggr.

16 Closing

Best paper: research track: "Query trust in RDF data with tSPARQL" (best paper), "Concept search" (special mention); In-use track: "Media meets semantic web" (best paper), "A resource list management tool for undergraduate students based on linked open data principles" (special mention); Scheuffert "Kiwi" (best paper — they voted for themselves!); Maria-Esther Vidal "BioNav"; PhD symposium: Christian Meilicke, "The relevance of reasoning and alignment incoherence in ontology matching" (best paper), Fouad Zablith , "Evolva" (special mention); Carola Carstens: "Effects of using a research context" (special mention).

ESWC 2010: Lora Aroyo (chair), Eero Hyvönen. Aldemar Knossos. 30 May. Extended Semantic Web Conference. Go beyond core Semantic WEb topics. Areas: Social Web, Mobile Web, Sensor Web, Web of data, Web Science, Ontologies and Reasoning, Software and services, Use Cases. Continue with the social experiment, expand with experiments on mobility.

References

[Gray et al., 2009] Gray, A. J. G., Gray, N., and Ounis, I. (2009). Can RDB2RDF tools feasibily expose large science archives for data integration. In Aroyo, L., Oren, E., Traverso, P., Ciravegna, F., Cimiano, P., Heath, T., Hyvönen, E., Mizoguchi, R., Sabou, M., and Simperl, E., editors, *The Semantic Web: Research and Applications: 6th European Semantic Web Conference, ESWC 2009 Heraklion, Crete, Greece, May 31–June 4, 2009 Proceedings*, volume 5554 of *Lecture Notes in Computer Science*, pages 491–505, Berlin/Heidelberg. Springer.

Lora Aroyo, Paolo Traverso, Fabio Ciravegna, Philipp Cimiano, Tom Heath, Eero HyvA¶nen, Riichiro Mizoguchi, Eyal Oren, Marta Sabou, Elena Paslaru Bontas Simperl: The Semantic Web: Research and Applications, 6th European Semantic Web Conference, ESWC 2009, Heraklion, Crete, Greece, May 31-June 4, 2009, Proceedings. Lecture Notes in Computer Science 5554, Springer 2009, ISBN 978-3-642-02120-6. Invited Talks. view.Â Craig A. Knoblock: Discovering and Building Semantic Models of Web Sources. 2. view. The 6th Annual European Semantic Web Conference (ESWC 2009) will present the latest results in research and applications of Semantic Web technologies. ESWC 2009 will also feature a tutorial program, system descriptions and demos, a posters track, a Ph.D. symposium and a number of collocated workshops. The calls for these events are separate and can be found on the conference Web site (http://www.eswc2009.org/). ESWC 2009 is sponsored by STI2, Semantic Technology Institutes International. For more information on STI2, please visit http://www.sti2.org. Submissions. ESWC 2009 welcomes the submission of original research and application papers dealing with all aspects of the Semantic Web. This book constitutes the refereed proceedings of the 6th European Semantic Web Conference, ESWC 2009, held in Heraklion, Crete, Greece, in May/June 2009. The 45 revised full papers of the research track presented together with the abstracts of 4 keynote lectures were carefully reviewed and selected from more than 250 submissions. The papers are organized in topical sections on applications, evaluation and benchmarking, ontologies and natural language, ontology alignment, ontology engineering, query processing, reasoning, search and identities, semantic Web architectures, semantic Web services, and tagging and annotation. The semantic Web in-use track covers knowledge management; business applications; applications from home to space; and services and infrastructure. Categories: Mathematics\\Applied Mathematicsematics. Year: 2009. Edition: 1.Â   Printed in Germany Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India Printed on acid-free paper SPIN: 12774173 06/3180 543210.