

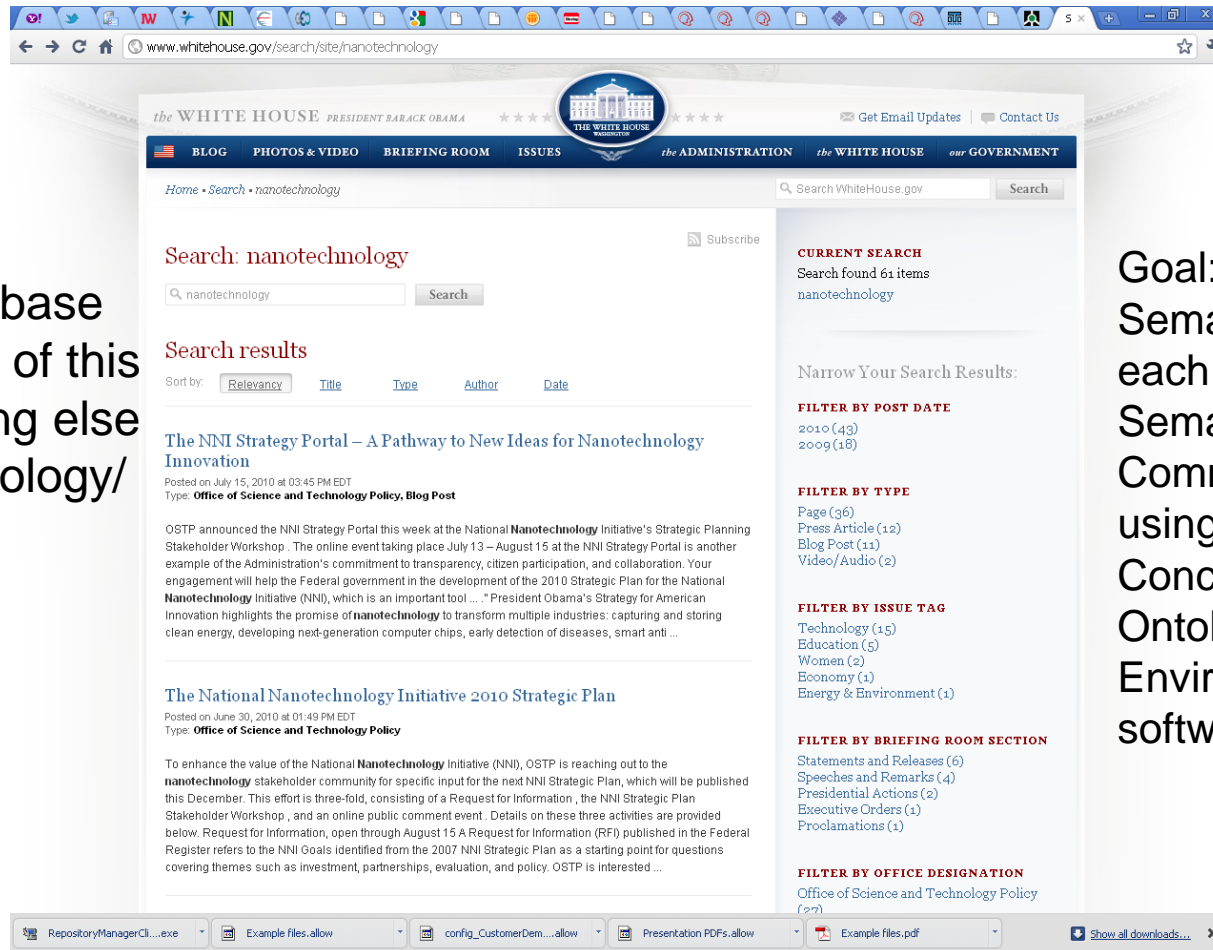
Getting to 'the 5 stars of Linked Open Data' for Nanoinformatics

Mills Davis, Project10x, and Brand
Niemann, Semanticcommunity.net

November 4, 2010

White House Blog: Nanotechnology

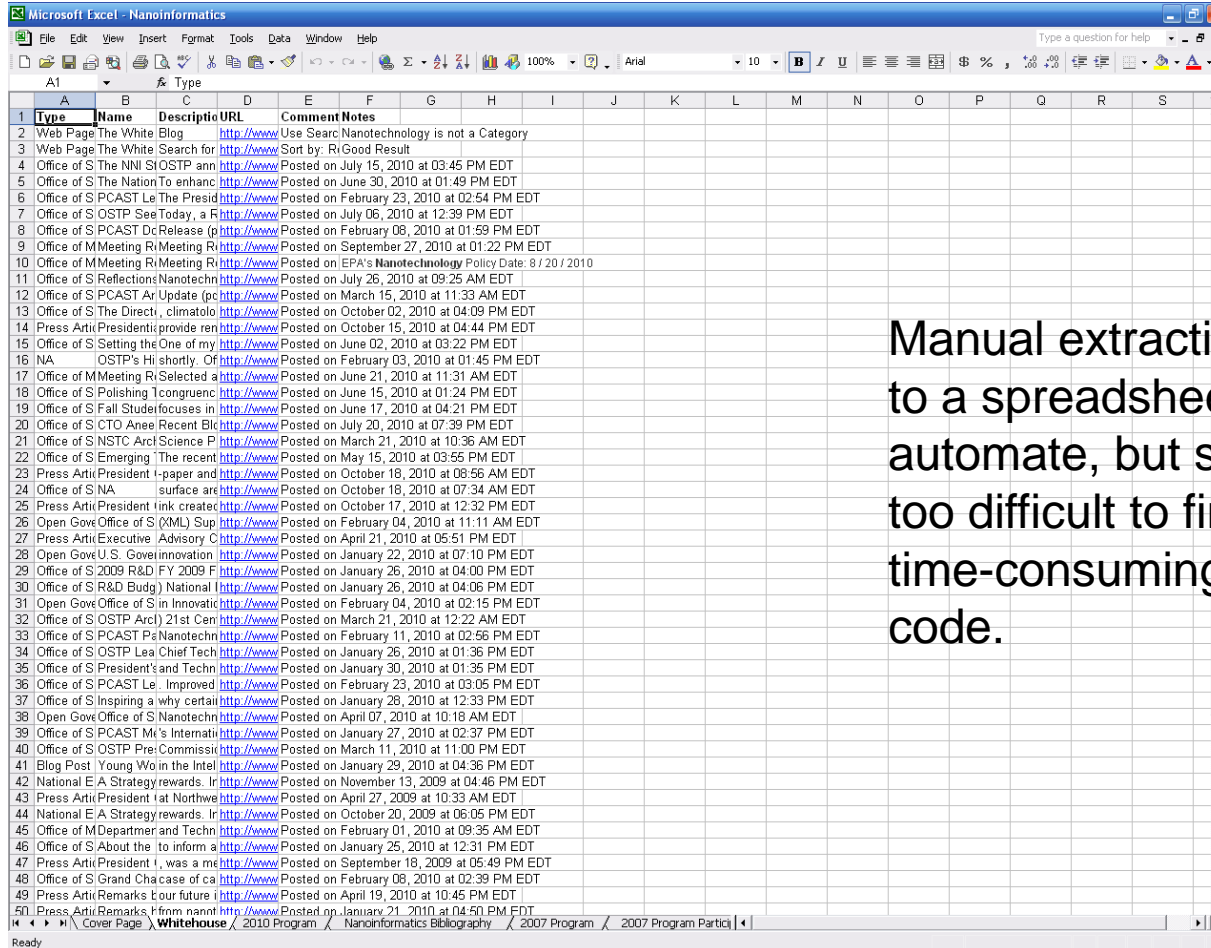
Need: A database to keep track of this and everything else in nanotechnology/informatics!



Goal: Provide Semantic Data in each of our Semantic Community Wikis using Spotfire and Concept-map Ontology Environment softwares.

<http://www.whitehouse.gov/search/site/nanotechnology>

White House Blog: Nanotechnology



Type	Name	Description	URL	Comment Notes
Web Page	The White Blog		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Use Search Nanotechnology is not a Category
Web Page	The White Search for		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Sort by: R: Good Result
Office of S	The NNI SIOSTP ann		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on July 15, 2010 at 03:45 PM EDT
Office of S	The Nation To enhanc		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on June 30, 2010 at 01:49 PM EDT
Office of S	PCAST Le The Presid		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on February 23, 2010 at 02:54 PM EDT
Office of S	OSTP See Today, a R		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on July 06, 2010 at 12:39 PM EDT
Office of S	PCAST DcRelease (p		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on February 08, 2010 at 01:59 PM EDT
Office of M	Meeting R: Meeting R		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on September 27, 2010 at 01:22 PM EDT
Office of M	Meeting R: Meeting R		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on EPA's Nanotechnology Policy Date: 8 / 20 / 2010
Office of S	Reflection: Nanotechn		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on July 26, 2010 at 09:25 AM EDT
Office of S	PCAST Ar Update (pc		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on March 15, 2010 at 11:33 AM EDT
Office of S	The Directi, climat		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on October 02, 2010 at 04:09 PM EDT
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NA	OSTP's Hi shortly. Of		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on February 03, 2010 at 01:45 PM EDT
Office of M	Meeting R: Selected a		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on June 21, 2010 at 11:31 AM EDT
Office of S	Polishing T congruenc		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on June 15, 2010 at 01:24 PM EDT
Office of S	Fall Studer focuses in		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on June 17, 2010 at 04:21 PM EDT
Office of S	CTO Anee Recent Blc		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on July 20, 2010 at 07:39 PM EDT
Office of S	NSTC Arc Science P		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on March 21, 2010 at 10:36 AM EDT
Office of S	Emerging T the recent		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on May 15, 2010 at 03:55 PM EDT
Press Art	(President) t-paper and		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on October 18, 2010 at 08:56 AM EDT
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Open Gove	Office of S (XML) Sup		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on February 04, 2010 at 11:11 AM EDT
Press Art	(Executive) Advisory C		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on April 21, 2010 at 05:51 PM EDT
Open Gove	U.S. Gove innovation		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on January 22, 2010 at 07:10 PM EDT
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Office of S	PCAST Mi's Internati		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on January 27, 2010 at 02:37 PM EDT
Office of S	OSTP Pre: Commissi		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on March 11, 2010 at 11:00 PM EDT
Blog Post	Young Wo in the Intel		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on January 29, 2010 at 04:36 PM EDT
National E	A Strategy rewards. In		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on November 13, 2009 at 04:46 PM EDT
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National E	A Strategy rewards. In		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on October 20, 2009 at 06:05 PM EDT
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Press Art	(President) t, was a me		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on September 18, 2009 at 05:49 PM EDT
Office of S	Grand Chacase of ca		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on February 08, 2010 at 02:39 PM EDT
Press Art	(Remarks) our future i		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on April 19, 2010 at 10:45 PM EDT
Press Art	(Remarks) f from nanot		http://www.whitehouse.gov/the-press-office/2010/01/27/20100127-nanotechnology	Posted on January 21, 2010 at 04:50 PM EDT

Manual extraction of web pages to a spreadsheet – like to automate, but sometimes it is too difficult to find a pattern or time-consuming to write the code.

<http://semanticcommunity.wik.is/@api/deki/files/1750/=Nanoinformatics.xls>

Semantic Community.net

TIBCO Silver Spotfire Create interactive dashboards like this in minutes - try it for free today! [Try Silver Spotfire](#)

Build Data Catalogs in the Cloud in Support of Data.gov and EPA's Strategic Data Action Plan

Wiki Pages: http://epadata.wik.is/EPA_Data_Gov_Inventory and <http://gaininitiative.wik.is/>

Purpose: To create a dashboard repository of EPA and Data.gov data catalogs using semantic enterprise architecture and linked open data.

Created by: Brand Niemann, September 4, 2010. Updated October 6, 2010.

Contents:

- US EPA Strategic Data Action Plan Artifacts, September 1, 2010 (see below)
- [US EPA's Data.gov Inventory, June 25, 2010](#)
- [US EPA Data Finder, August 12, 2009](#)
- [DERI Data.gov Catalog, September 4, 2010](#)
- [Data.gov Catalog Reuse Experiment](#)
- [O'Reilly Data.gov Catalog, August 25, 2010](#)
- [Data.gov Ideascale Comments as of 10/6/2010](#)

Data.gov Countries: [Australia](#), Canada, Estonia, France, Germany, Greece, New Zealand, Norway, and United Kingdom

Data.gov States, City, and Tribes: Arvada (CO), Boston (MA), California, Chicago (IL), District of Columbia, Maine, Massachusetts, Michigan, New Mexico: Bureau of Indian Education, New York

US EPA Strategic Data Action Plan Artifacts, September 1, 2010

Phase	Artifact	Due On/Before
Project Initiation	Interim Data.gov Guidance and Procedures	December 31, 2010
Project Initiation	Open Linked Data (LOD) Pilots Initiated	December 31, 2010
Phase I	SDAP Version 1.0 Released	March 31, 2011
Phase I	EPA Data Inventory Version 1.1 (External / CMB Requirement)	March 31, 2011
Phase I	Dashboard 1.0 (Internal)	March 31, 2011
Phase II	Progress to Recognize Innovative Third Party Use of Data	September 30, 2011
Phase II	Data Policy	September 30, 2011
Phase II	Dashboard 2.0 (External)	September 30, 2011
Phase II	Data Discovery Tool	September 30, 2011
Phase II	EPA Data Inventory Version 2.0	September 30, 2011
Completion / Transition	Transfer guidance, procedures, policies and artifacts to Agency Enterprise Architecture to manage, maintain currency and enforce	March 31, 2012
Completion / Transition	SDAP 2.0	March 31, 2012

13 of 13 rows | 0 marked | 3 columns | US EPA Strategic Data Action Plan Artifacts, September 1, 2010

Spotfire Web Player

Data table: US EPA Strategic Data Action Plan Artifacts, September 1, 2010

Marking: ☒ Marking

- A Semantic Cloud Computing Desktop / Mobile Apps with Linked Open Data that consists of the following:
 - A database of "things" referenced by URL's (e.g. my [Twitter](#)) (see [Designing URI Sets for the UK Public Sector: A report from the Public Sector Information Domain of the CTO Council's cross-Government Enterprise Architecture, Interim paper](#), Version 1.0, October 2009). "The Semantic Web relies on good URIs" and "The next step for the Semantic Web is for mobile devices", [James Hendler](#).
 - A Free Wiki ([Wiki Engine](#)) that was a "fork" from MediaWiki that evolved to a platform ([web services with a wiki interface](#)) that further evolved to a Cloud Computing

<http://semanticcommunity.net/>

Abstract

- Tim Berners-Lee has suggested recently implementing Open Linked Data as part of a continuum of web publishing activities associated with gold stars, like the ones you got in school, as follows: make your stuff available on the web (whatever format); make it available as structured data (e.g. excel instead of image scan of a table); non-proprietary format (e.g. csv instead of excel); use URLs to identify things, so that people can point at your stuff; and link your data to other people's data to provide context.
- This presentation will illustrate and demonstrate each of these 5 stars with the Nanoinformatics 2007 and 2010 Workshop content using Wiki, business intelligence analytics and visualization, and concept-map ontology environment softwares.

Background

- June 13, 2007:
 - Nanoinformatics: Locate, Collaborate, and Integrate, Brand Niemann, EPA, and Mills Davis, Project10x.
 - [Slides](#).
 - Links: [SICoP](#) (Wiki), Nanoinformatics Deki Wiki Pilot (see next page), Nanoinformatics Semantic Wiki Pilot (decommissioned), and [Nanoinformatics 2007 Knowledgebase Pilot](#) (structured, but not well-defined URLs).

Nanoinformatics 2007 in a Wiki

The screenshot shows a web browser window displaying the Semantic Community Wiki page for Nanoinformatics. The browser's address bar shows the URL semanticcommunity.wikis/Nanoinformatics. The page features a green header with the 'Sc' logo and 'Semantic Community' text. A navigation bar includes links for 'My Page', 'Recent changes', 'Tools', and 'Help'. Below this, there are buttons for 'Edit page', 'New page', 'Print page', and 'More', along with a 'Table of contents' link. A status box indicates the page was last modified on 21:58, 31 Jan 2008 by Admin. The main content area is titled 'Nanoinformatics' and includes a sub-header 'Workshop on Nanoinformatics Strategies, June 12-13, 2007'. The content is organized into a list of links and sections: 'Background', 'Presentations', 'Notes: See Links from Participant Names', 'Participants', 'Resources' (with links to 'Agenda', 'Participants', and 'Purpose'), 'NanoFrontiers', and 'International Center for Scholars'. The 'Agenda' section is expanded, showing a detailed schedule for Tuesday, June 12, including lunch, workshop introductions, and presentations by Michael McLennan, Peter Covitz, Linda Molnar, Rebecca Reznik-Zellen, and Skip Rung. The left sidebar contains a 'log in' button and a list of community topics, with 'Nanoinformatics' highlighted. The bottom of the browser window shows three open files: 'Nist_slide (1).pptx', 'Nist_slide.pptx', and 'ATTAZ6DG.pptx'.

Sc
Semantic Community

log in

Semantic Community...

Adaptable Computing...

Best Practices

DoD Community of In...

Federal Chief Archit...

Federal Semantic Int...

Federal SOA Commun...

Federation of Earth ...

Mid-Atlantic Regiona...

MITRE

MITRE Exchange Mee...

Nanoinformatics

Background

Participants

People

From E-Gov to Conn...

Semantic Discussion...

Sensor Standards an...

Shenandoah Valley N...

Spatial Ontology Co...

My Page Recent changes Tools Help

Edit page New page Print page More Table of contents

Page last modified 21:58, 31 Jan 2008 by Admin

Semantic Community Wiki > Nanoinformatics

Nanoinformatics

Workshop on Nanoinformatics Strategies, June 12-13, 2007

- Background
- Presentations
- Notes: See Links from Participant Names
- Participants
- Resources: Agenda, Participants, and Purpose
- NanoFrontiers: Visions for the Future of Nanotechnology, Woodrow Wilson International Center for Scholars
- Agenda:
 - Tuesday June 12, Room location: Hemingway 2&3 (second floor)
 - 12:00 pm Start of working lunch (Room adjacent to Hemingway)
 - 12:30 pm Welcome (during lunch), Richard Buckius, Assistant Director of Engineering, National Science Foundation.
 - Slides
 - Links: Engineering Directorate, National Science Foundation, and Nano@NSF
 - 12:40 pm Workshop Introduction, Purposes And Goals (during lunch), Mark Tuominen, UMass Amherst CHM/NNN.
 - Slides
 - Links: Nanoinformatics Workshop Homepage, CHM, and National Nanomanufacturing Network(NNN)
 - 1:00 pm nanoHUB.org: Cyberinfrastructure for Nanotechnology Research and Education, Michael McLennan, Purdue University.
 - Slides
 - Links: nanoHUB and Network for Computational Nanotechnology
 - 1:30 pm caBIG/caNanoLab - NIH Informatics, Peter Covitz and Linda Molnar, NIH-National Cancer Institute.
 - Slides and Slides
 - Links: caBIG and caBIG-GForge and caNanoLab.
 - 2:10 pm InterNano: An Information Clearinghouse for the Nanomanufacturing Community, Rebecca Reznik-Zellen, UMass Amherst, CHM/NNN.
 - Slides
 - Links: InterNano CHM/NNN
 - 2:40 pm Break
 - 3:00 pm ONAMI Knowledgebase of Nanomaterial-Biological Interactions (NBI), and NWNanoNet(TM) Shared Facility Remote Access Demonstration, Skip Rung, Oregon Nanoscience and Microtechnologies Institute.
 - Slides
 - Links: ONAMI 2007 and MicroNano Conference

<http://semanticcommunity.wikis/Nanoinformatics>

Nanoinformatics 2007 in a Wiki



http://semanticcommunity.wikis/Nanoinformatics/Participants/Mark_Tuominen

The Five Stars of Linked Open Data

YouTube:
10:17 Minutes

The screenshot shows a web browser window with the URL <http://inkdroid.org/journal/2010/06/04/the-5-stars-of-open-linked-data/>. The page header features the 'INKDROID' logo and a navigation menu with links: Home, Talks/Presentations, Software, About, and Network. The main content area is titled 'the 5 stars of open linked data' and contains a paragraph about Tim Berners-Lee's 'Bag of Chips' talk at the gov2.0 expo. Below the text is a list of five stars with corresponding descriptions: 1 star for 'make your stuff available on the web', 2 stars for 'make it available as structured data', 3 stars for 'non-proprietary format', 4 stars for 'use URLs to identify things', and 5 stars for 'link your data to other people's data'. A video player is embedded below the list, showing a video titled 'Gov 2.0 Expo 2010: Tim Berners-Lee, "Open, Li...'. The video player shows a play button and a progress bar. Below the video player, there is a note: 'It was interesting that he didn't mention RDF once (unless I missed it) and talked instead about Linked Data Format. Correction he did mention it, thanks Anders. The inclusiveness and ambiguity appeals to me.' At the bottom of the browser window, there is a taskbar with several open files: 'Nist_slide (1).pptx', 'Nist_slide.pptx', and 'ATTAZ6DG.pptx'.

INKDROID

\$PITHY_PERSONAL_MISSION_STATEMENT

Home Talks/Presentations Software About Network

the 5 stars of open linked data

While perusing the [minutes](#) of today's [w3c.gov](#) telecon I noticed mention of Tim Berners-Lee's [Bag of Chips](#) talk at the [gov2.0 expo](#) last week in Washington, DC. I actually enjoyed the talk not so much for the bag-of-chips example (which is good), but for the examination of Linked Data as part of a continuum of web publishing activities associated with gold stars, like the ones you got in school. Here they are:

- ★ make your stuff available on the web (whatever format)
- ★★ make it available as structured data (e.g. excel instead of image scan of a table)
- ★★★ non-proprietary format (e.g. csv instead of excel)
- ★★★★ use URLs to identify things, so that people can point at your stuff
- ★★★★★ link your data to other people's data to provide context

I think it's helpful to think of Linked Data in this context, and not to minimize (or trivialize) the effort and the importance of getting the first 3 stars.

Gov 2.0 Expo 2010: Tim Berners-Lee, "Open, Li...

00:00 / 10:17

It was interesting that he didn't mention RDF once (unless I missed it) and talked instead about Linked Data Format. Correction he did mention it, thanks Anders. The inclusiveness and ambiguity appeals to me.

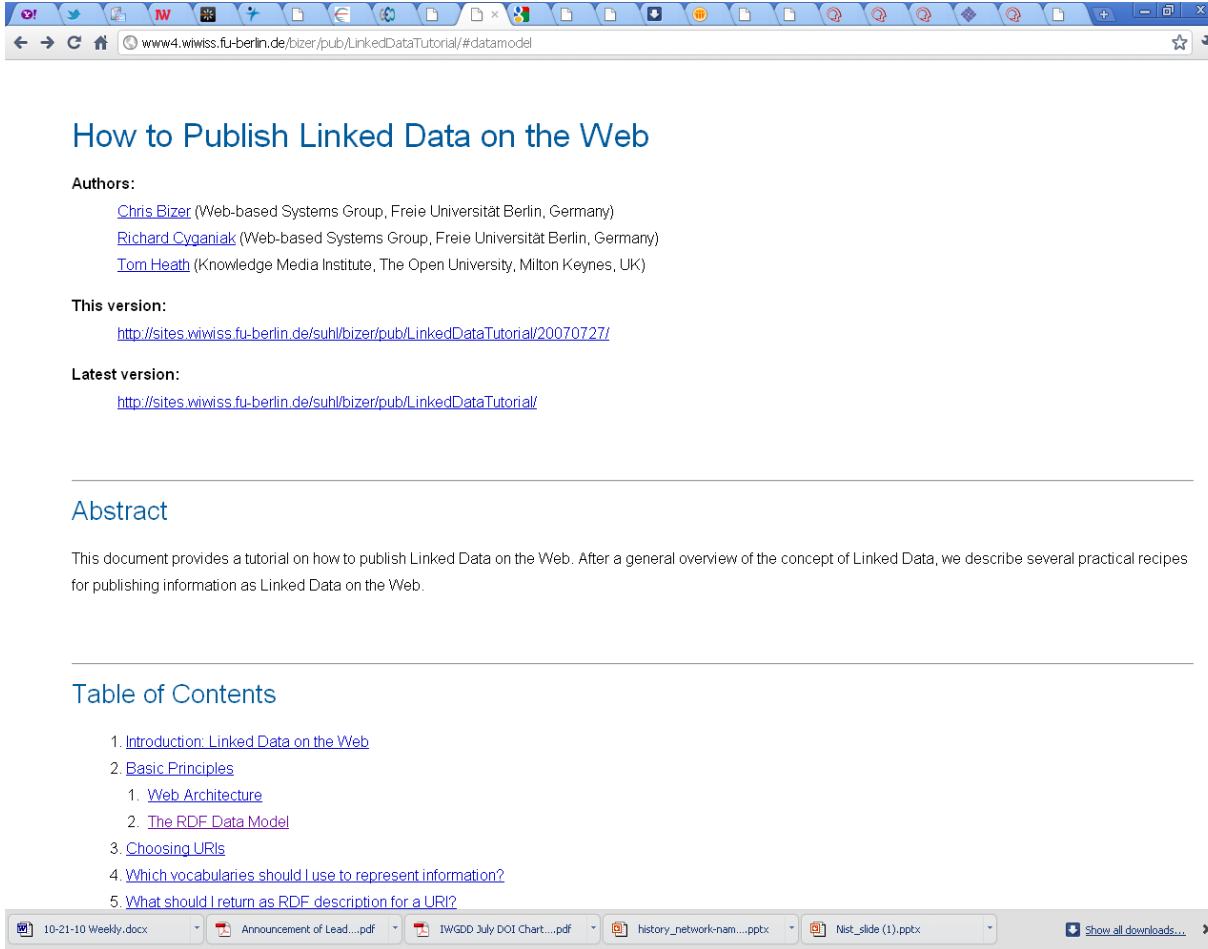
Nist_slide (1).pptx Nist_slide.pptx ATTAZ6DG.pptx Show all downloads...

<http://inkdroid.org/journal/2010/06/04/the-5-stars-of-open-linked-data/>

The Five Stars of Linked Open Data

- 1. Make your stuff available on the web (whatever format);
- 2. Make it available as structured data (e.g. excel instead of image scan of a table);
- 3. Non-proprietary format (e.g. csv instead of excel);
- 4. Use URLs to identify things, so that people can point at your stuff; and
- 5. Link your data to other people's data to provide context.

How to Publish Linked Data on the Web



The screenshot shows a web browser window with the address bar displaying www4.wiwiss.fu-berlin.de/bizer/pub/LinkedDataTutorial/#datamodel. The page content includes the title "How to Publish Linked Data on the Web", a list of authors (Chris Bizer, Richard Cyganiak, and Tom Heath) with their affiliations, the current version URL, and the latest version URL. Below this is an "Abstract" section and a "Table of Contents" section with five items: 1. Introduction: Linked Data on the Web, 2. Basic Principles, 3. Choosing URIs, 4. Which vocabularies should I use to represent information?, and 5. What should I return as RDF description for a URI? The browser's taskbar at the bottom shows several open documents and presentations.

How to Publish Linked Data on the Web

Authors:

- [Chris Bizer](#) (Web-based Systems Group, Freie Universität Berlin, Germany)
- [Richard Cyganiak](#) (Web-based Systems Group, Freie Universität Berlin, Germany)
- [Tom Heath](#) (Knowledge Media Institute, The Open University, Milton Keynes, UK)

This version:

<http://sites.wiwiss.fu-berlin.de/suhl/bizer/pub/LinkedDataTutorial/20070727/>

Latest version:

<http://sites.wiwiss.fu-berlin.de/suhl/bizer/pub/LinkedDataTutorial/>

Abstract

This document provides a tutorial on how to publish Linked Data on the Web. After a general overview of the concept of Linked Data, we describe several practical recipes for publishing information as Linked Data on the Web.

Table of Contents

1. [Introduction: Linked Data on the Web](#)
2. [Basic Principles](#)
 1. [Web Architecture](#)
 2. [The RDF Data Model](#)
3. [Choosing URIs](#)
4. [Which vocabularies should I use to represent information?](#)
5. [What should I return as RDF description for a URI?](#)

<http://www4.wiwiss.fu-berlin.de/bizer/pub/LinkedDataTutorial/>

Semantic Wikis

The screenshot displays the 'Semantic Wikis' page on the 'networkcentricity.wikis' website. The page layout includes a sidebar on the left with a 'mindtouch' logo and a 'Network Centricity' menu. The main content area features the title 'Semantic Wikis' and a 'Purpose' section. The 'Purpose' section contains a list of links and a paragraph about the NCOIC Lexicon Working Group. The right sidebar contains a 'Table of contents' with a list of sections. An arrow points from the text 'Semantic Wikipedia Paper (2006)' to the '2.7. Semantic Wikipedia Paper' entry in the table of contents.

mindtouch

log in

Network Centricity

My Page Recent changes Tools Help Go Pro

Page last modified 14:11, 22 Oct 2010 by Admin

Table of contents

Network Centricity > Semantic Wikis

Semantic Wikis

Purpose

The NCOIC Lexicon Working Group asked [October 15, 2010] [Spotfire](#) for Semantic Wiki: Found Two

- [Semantic Wiki for Net-centric Data Services](#)
 - Presentation by: Mills Davis, Managing Director of Interoperability Community of Practice, [mdav](#) Knowledge, Technical Lead, SICoP SWIM, [cshar](#) material at the NCOIC Reston Plenary in Reston, VA. Semantic Wiki application.
- [Semantic Wiki Presentation](#)
 - This presentation was jointly created by John Yang and the Semantic Interoperability Track with SPAWAR view by multiple NCOIC working groups on the potential technology at a more granular level than document content.
 - A proposal was made by this group to pilot the Vision interest in also using this tool for similar purposes.
- [Expert System](#)
 - More recently it was suggested that the NCOIC have

Background

From Google Search Results

Wikipedia

http://en.wikipedia.org/wiki/Semantic_wiki

A semantic wiki is a wiki that has an underlying model of the structured text and untyped hyperlinks. Semantic wikis, on the other hand, are about the data within pages, and the relationships between pages. Semantic wikis were first proposed in the early 2000s, and the known semantic wiki software may be Semantic MediaWiki.

1. Purpose

2. Background

2.1. Wikipedia

2.2. Semantic Media Wiki

2.3. Semantic Wiki Projects

2.4. Semantic Media Wiki

2.5. Semantic Wikis

2.6. Ontolog Forum; Semantic Wikis

2.7. Semantic Wikipedia Paper

2.7.1. ABSTRACT

2.7.1.1. Categories and Subject Descriptors

2.7.1.2. General Terms

2.7.2. 1. INTRODUCTION

2.7.3. 2. TODAY'S WIKIPEDIA

2.7.4. 3. GENERAL IDEA

2.7.4.1. 3.1 The Big Picture

2.7.4.1.1. Figure 1: Currently there are pages and links (above), we feature concepts and data connected by relations (below).

2.7.4.1.2. Figure 2: A semantic view of London.

2.7.4.2. 3.2 Usage of Typed Links

2.7.4.2.1. Figure 3: Source of an article on London using Wikipedia's current markup.

2.7.4.2.2. Figure 4: Source of an article on London with semantic extensions.

2.7.4.3. 3.3 Attributes and Types

2.7.4.4. 3.4 Semantic Templates

2.7.4.5. 3.5 User Experience

2.7.5. 4. DESIGN

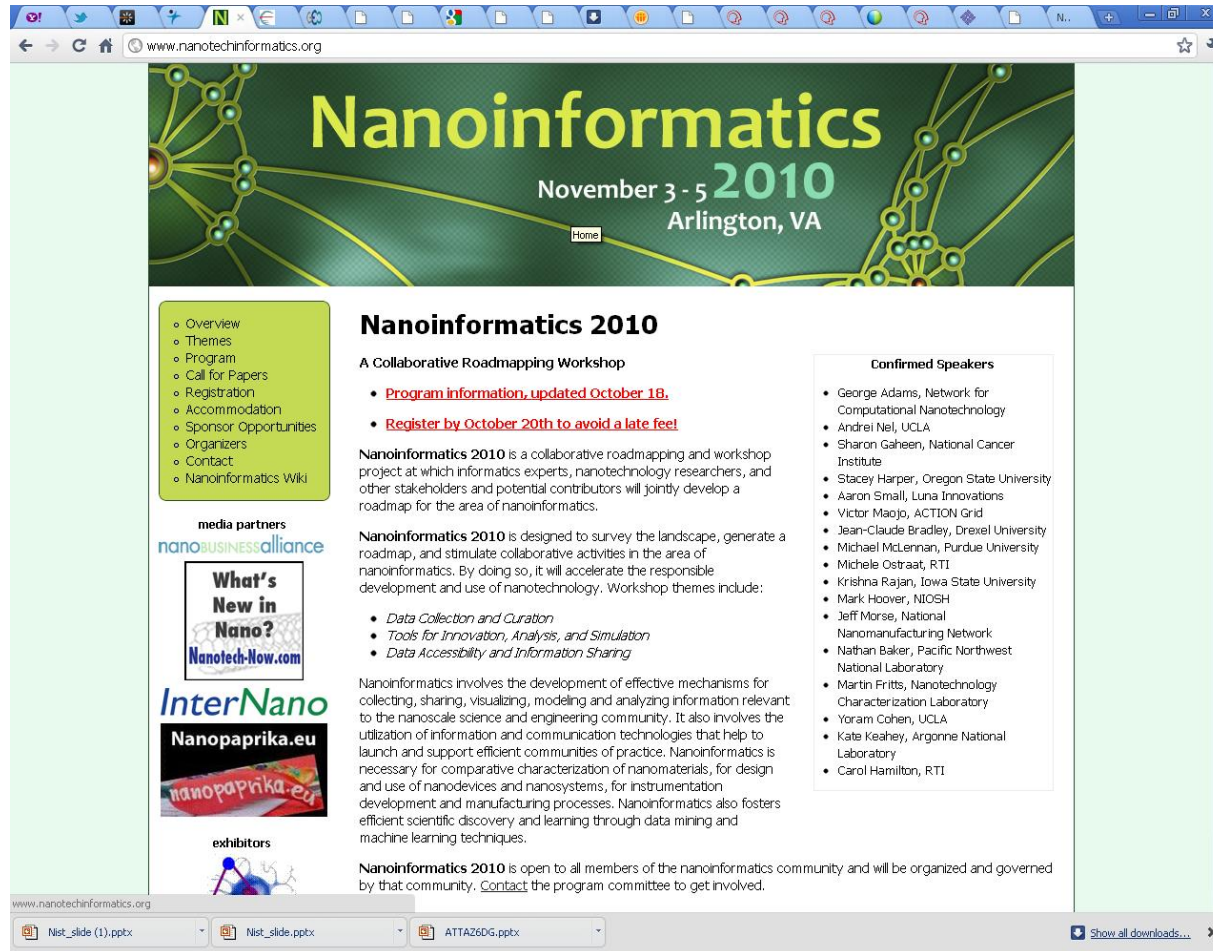
2.7.5.1.1. Figure 5: Basic architecture of the semantic extensions to MediaWiki.

Annotate in a Semantic Wiki on the way to say a DBpedia.

Semantic Wikipedia Paper (2006)

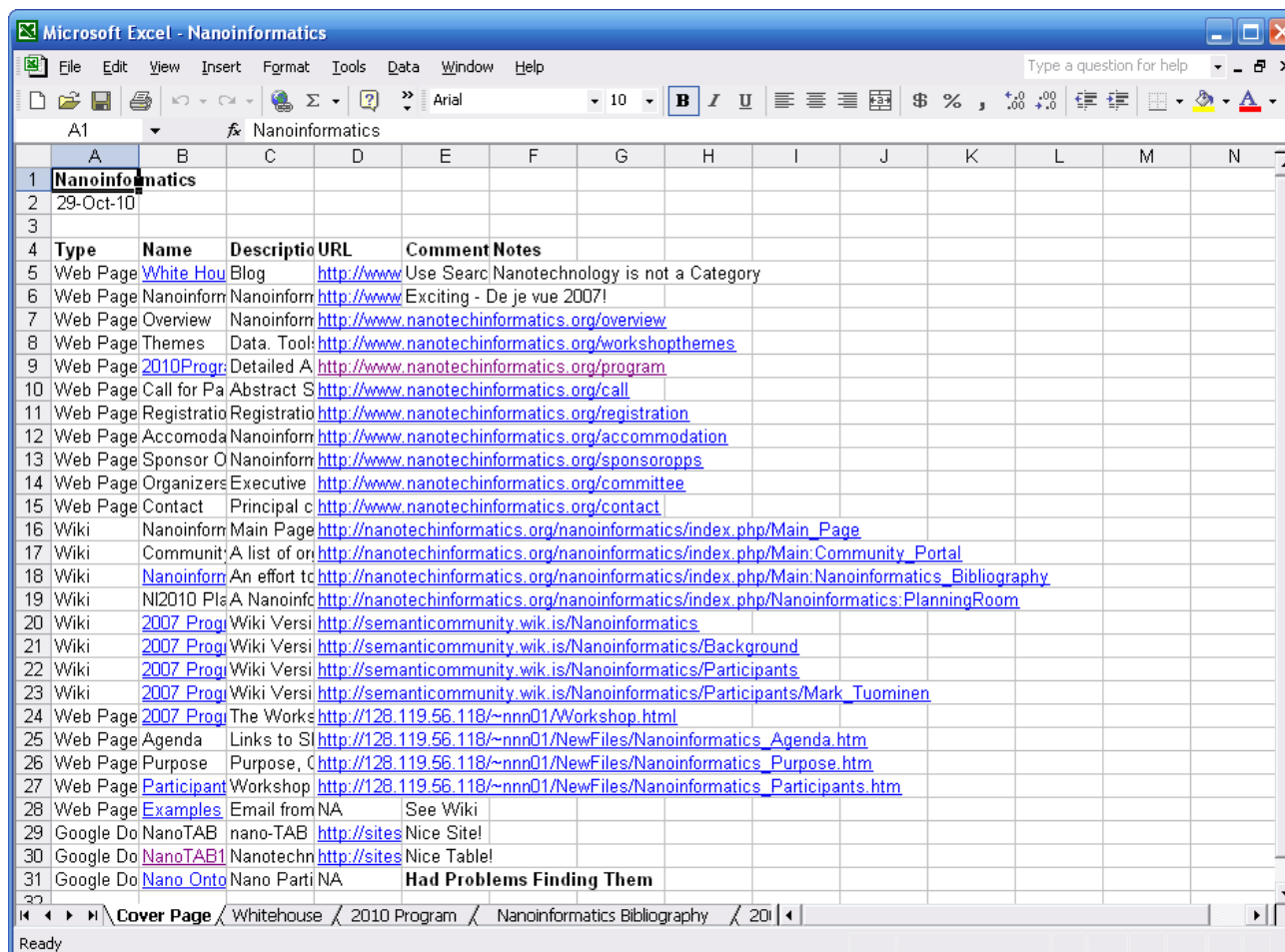
[http://networkcentricity.wikis/Semantic Wikis](http://networkcentricity.wikis/Semantic_Wikis)

1. Make your stuff available on the web



<http://www.nanotechninformatics.org/>

2. Make it available as structured data



The screenshot shows a Microsoft Excel spreadsheet titled "Nanoinformatics". The spreadsheet contains a table with the following data:

	Type	Name	Description	URL	Comment Notes
1		Nanoinformatics			
2		29-Oct-10			
3					
4	Web Page	White House	Blog	http://www.use-scarc.org/	Use Search Nanotechnology is not a Category
5	Web Page	Nanoinformatics	Nanoinformatics	http://www.nanotechinformatics.org/overview	Exciting - De je vue 2007!
6	Web Page	Themes	Data. Tool:	http://www.nanotechinformatics.org/workshopthemes	
7	Web Page	2010 Program	Detailed A	http://www.nanotechinformatics.org/program	
8	Web Page	Call for Papers	Abstract S	http://www.nanotechinformatics.org/call	
9	Web Page	Registration	Registration	http://www.nanotechinformatics.org/registration	
10	Web Page	Accommodation	Nanoinformatics	http://www.nanotechinformatics.org/accommodation	
11	Web Page	Sponsorship	Nanoinformatics	http://www.nanotechinformatics.org/sponsorships	
12	Web Page	Organizers	Executive	http://www.nanotechinformatics.org/committee	
13	Web Page	Contact	Principal c	http://www.nanotechinformatics.org/contact	
14	Wiki	Nanoinformatics	Main Page	http://nanotechinformatics.org/nanoinformatics/index.php/Main_Page	
15	Wiki	Community	A list of or	http://nanotechinformatics.org/nanoinformatics/index.php/Main:Community_Portal	
16	Wiki	Nanoinformatics	An effort to	http://nanotechinformatics.org/nanoinformatics/index.php/Main:Nanoinformatics_Bibliography	
17	Wiki	Nanoinformatics	A Nanoinformatics	http://nanotechinformatics.org/nanoinformatics/index.php/Nanoinformatics:PlanningRoom	
18	Wiki	2007 Program	Wiki Version	http://semanticcommunity.wik.is/Nanoinformatics	
19	Wiki	2007 Program	Wiki Version	http://semanticcommunity.wik.is/Nanoinformatics/Background	
20	Wiki	2007 Program	Wiki Version	http://semanticcommunity.wik.is/Nanoinformatics/Participants	
21	Wiki	2007 Program	Wiki Version	http://semanticcommunity.wik.is/Nanoinformatics/Participants/Mark_Tuominen	
22	Web Page	2007 Program	The Workshop	http://128.119.56.118/~nnn01/Workshop.html	
23	Web Page	Agenda	Links to Slides	http://128.119.56.118/~nnn01/NewFiles/Nanoinformatics_Agenda.htm	
24	Web Page	Purpose	Purpose, Content	http://128.119.56.118/~nnn01/NewFiles/Nanoinformatics_Purpose.htm	
25	Web Page	Participant	Workshop	http://128.119.56.118/~nnn01/NewFiles/Nanoinformatics_Participants.htm	
26	Web Page	Examples	Email from NA	See Wiki	
27	Google Doc	NanoTAB	nano-TAB	http://sites.google.com/site/nanotab/	Nice Site!
28	Google Doc	NanoTAB1	Nanotechnology	http://sites.google.com/site/nanotab1/	Nice Table!
29	Google Doc	Nano Ontology	Nano Partitions	NA	Had Problems Finding Them

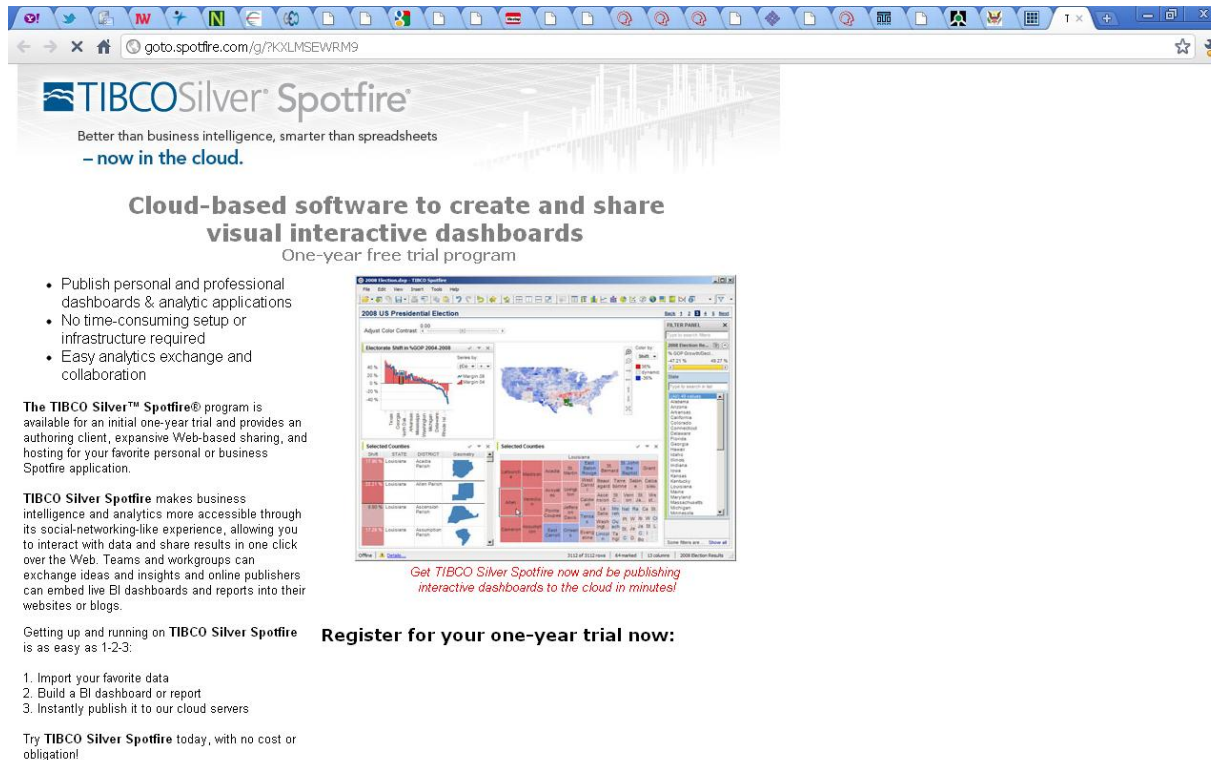
<http://semanticcommunity.wik.is/@api/deki/files/1750/=Nanoinformatics.xls>

3. Non-proprietary format

- A. Spotfire Imports Excel, etc. and Exports to CSV:
 - Silver Free – one year free
 - Professional – 30 day free
- B. Concept-mapping Ontology Environment (COE) Imports Concept Maps, OWL, etc. and Exports RDF/OWL:
 - Free Desktop Software
 - Free Share Folder on the Florida Institute for Human and Machine Cognition Server for World-wide sharing

3A. TIBCO Spotfire Silver

One year
free trial
with only
3 files of less
than 10 MB
each



The screenshot shows the TIBCO Silver Spotfire website in a web browser. The website header includes the TIBCO Silver Spotfire logo and the tagline "Better than business intelligence, smarter than spreadsheets - now in the cloud." Below this, it states "Cloud-based software to create and share visual interactive dashboards" and "One-year free trial program". A list of features includes: "Publish personal and professional dashboards & analytic applications", "No time-consuming setup or infrastructure required", and "Easy analytics exchange and collaboration". A screenshot of the TIBCO Silver Spotfire dashboard is shown, displaying a "2008 US Presidential Election" dashboard with a map of the United States and a table of election results. Below the dashboard screenshot, it says "Get TIBCO Silver Spotfire now and be publishing interactive dashboards to the cloud in minutes!". At the bottom, it says "Register for your one-year trial now:" and lists three steps: "1. Import your favorite data", "2. Build a BI dashboard or report", and "3. Instantly publish it to our cloud servers". It also says "Try TIBCO Silver Spotfire today, with no cost or obligation!"

TIBCO Silver Spotfire
Better than business intelligence, smarter than spreadsheets
- now in the cloud.

Cloud-based software to create and share visual interactive dashboards
One-year free trial program

- Publish personal and professional dashboards & analytic applications
- No time-consuming setup or infrastructure required
- Easy analytics exchange and collaboration

The **TIBCO Silver™ Spotfire®** program is available for an initial one-year trial and provides an authoring client, expansive Web-based sharing, and hosting for your favorite personal or business Spotfire application.

TIBCO Silver Spotfire makes business intelligence and analytics more accessible through its social-networking-like experience, allowing you to interact with data and share results in one click over the Web. Teams and workgroups can exchange ideas and insights and online publishers can embed live BI dashboards and reports into their websites or blogs.

Getting up and running on **TIBCO Silver Spotfire** is as easy as 1-2-3:

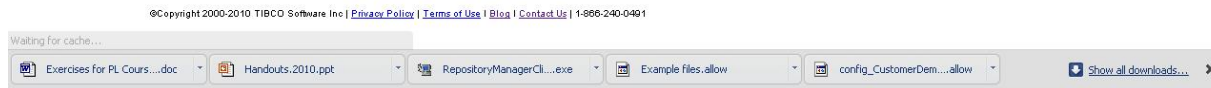
1. Import your favorite data
2. Build a BI dashboard or report
3. Instantly publish it to our cloud servers

Try **TIBCO Silver Spotfire** today, with no cost or obligation!

Register for your one-year trial now:

Get TIBCO Silver Spotfire now and be publishing interactive dashboards to the cloud in minutes!

See: <http://spotfire.tibco.com/silverspotfire/faq.aspx>



<http://goto.spotfire.com/g/?KXLMSEWRM9>

3A. TIBCO Spotfire Professional

30-day free trial
with unlimited
number of files
and file sizes

The screenshot shows the TIBCO Spotfire Professional website in a web browser. The URL is spotfire.tibco.com/products/spotfire-professional/exploratory-data-analysis.aspx. The page features the TIBCO logo, navigation links (Products, Spotfire for You, Community, Demos, Training, About Spotfire), and a search bar. The main content area is titled "TIBCO Spotfire® Professional" and describes the software's capabilities for interactive data analysis. A video player is embedded, showing a demo of the Spotfire Professional interface with a bar chart and a data table. The video player has a play button and a "See Spotfire in Action View the Demo Gallery" button. To the right of the video player, there are three bullet points describing the platform's features: "Richly interactive platform for exploratory data analysis", "One-click web publication - from simple color coded dashboards all the way to applications infused with powerful statistical methods", and "Robust tools for data access, transformation and calculation". Below the video player, there are links for "Datasheets", "Whitepaper", and "Print Page". At the bottom of the page, there are links for "Take the tour..." and "Twitter: @TibcoSpotfire".

TIBCO Spotfire® Professional

Empower those with the business knowledge to ask and answer their own questions - from anywhere. TIBCO Spotfire Professional makes it easy to build and deploy reusable analytic applications over the web. Or perform pure ad-hoc analytics, driven on-the-fly by your own knowledge, intuition, and desire to answer the next question. Spotfire analytics does all this by letting you interactively query, visualize, aggregate, filter, and drill into datasets of virtually any size. Ultimately you will reach faster insights with Spotfire and bring clarity to business issues or opportunities in a way that gets all the decision-makers on the same page quickly.

To create web-based Spotfire analytic applications, users of Spotfire Professional simply save their work on the Spotfire Server. There is no separate publishing step and no need for IT programming. Spotfire Web Player analysts only need a compatible browser—no plug-ins or installers to run because it is a true zero-footprint client.

TIBCO Spotfire Professional Video: Sales & Marketing Analysis (example)

- Richly interactive platform for exploratory data analysis
- One-click web publication - from simple color coded dashboards all the way to applications infused with powerful statistical methods
- Robust tools for data access, transformation and calculation

[See Spotfire in Action View the Demo Gallery](#)

[Contact Us](#)
[FREE Trial](#)
[Buy Now](#)

Datasheets

- ▶ TIBCO Spotfire Analytics Platform
- ▶ TIBCO Spotfire Clinical

Whitepaper

- ▶ Games that Matter: User Experience that Leads to Insights

[Print Page](#)
[Send Page](#)
[Add to Favorites](#)
[Content Center](#)

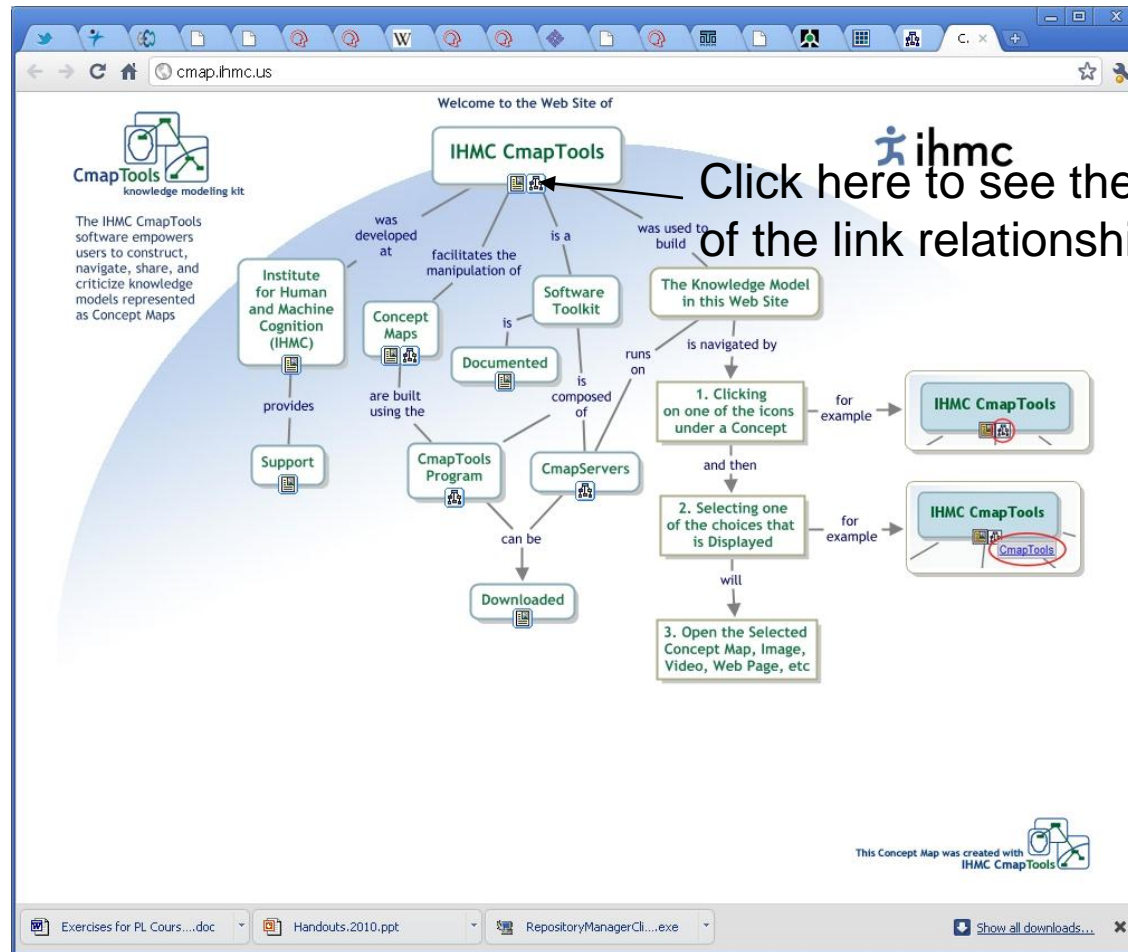
[RSS](#) [Facebook](#) [Twitter](#)

[Take the tour...](#)
Twitter: [@TibcoSpotfire](#)

Exercises for PL Cours...doc Handouts.2010.ppt RepositoryManagerCli...exe Show all downloads...

<http://spotfire.tibco.com/products/spotfire-professional/exploratory-data-analysis.aspx>

3B. IHMC Cmap Tools



<http://cmap.ihmc.us/>

3B. Florida Institute for Human and Machine Cognition COE



<http://www.ihmc.us/groups/coe/>

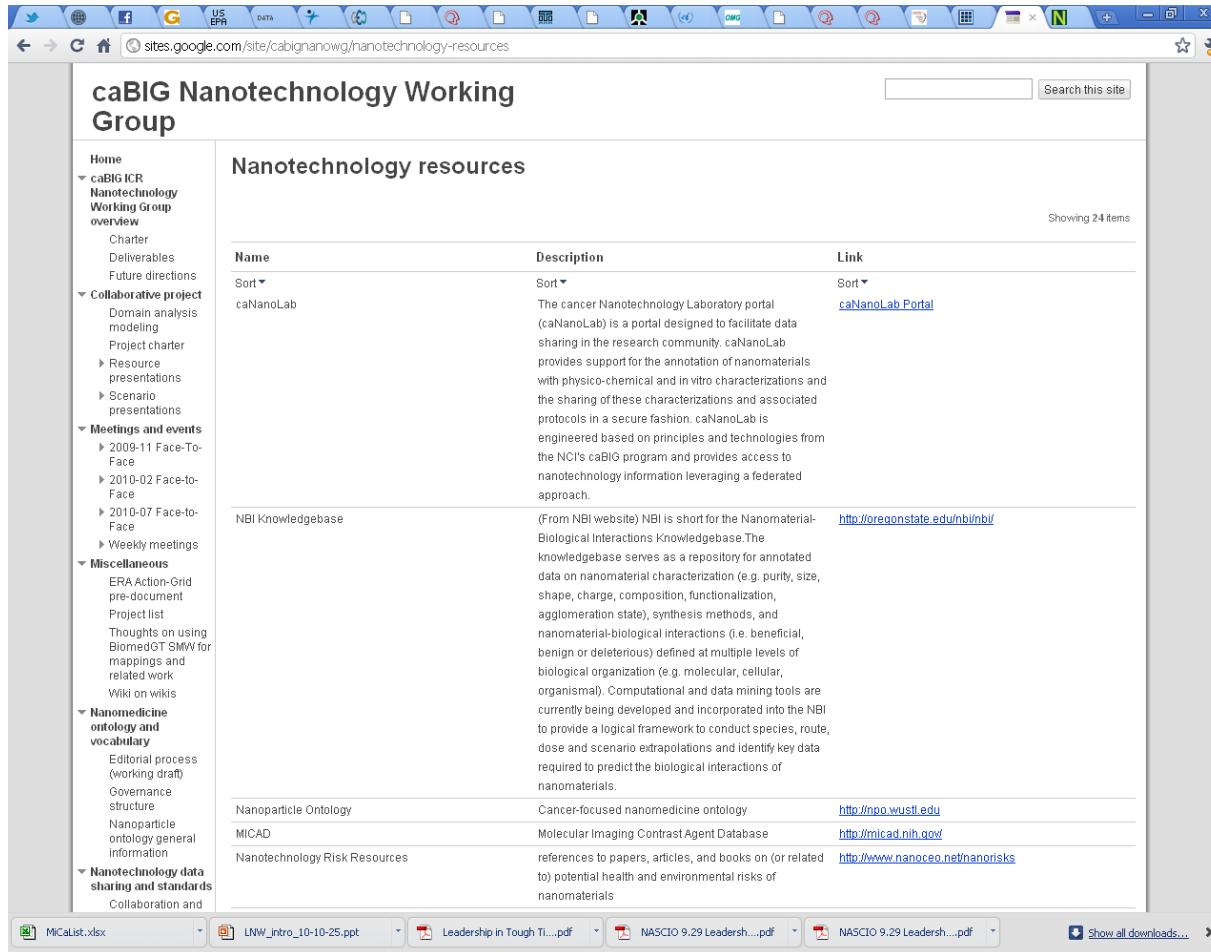
4. Use URLs to identify things, so that people can point at your stuff

- Use MindTouch Wiki to Chunk Information by Page or Sub-Page (slide 12)
- Put in Excel Spreadsheet (slide 14)
- Make Web Links Active in Spotfire (coming later)
- Part of Ontology in COE (coming soon)

5. Link your data to other people's data to provide context

- Two or more Excel tables linked in Spotfire and COE are what you need to get started.
 - Rebecca Reznik-Zellen helped us get started (see next slide).
- Spotfire supports Linked Open Data, but not using RDF at present.
 - This interface is being worked on by Spotfire and Kingsley Idehen, Founder and CEO of Open Link Software.

caBIG Nanotechnology Working Group Nanotechnology resources



The screenshot shows a web browser displaying the caBIG Nanotechnology Working Group website. The page title is "caBIG Nanotechnology Working Group". The main content area is titled "Nanotechnology resources" and shows "Showing 24 items". A table lists several resources with columns for Name, Description, and Link.

Name	Description	Link
Sort ▼	Sort ▼	Sort ▼
caNanoLab	The cancer Nanotechnology Laboratory portal (caNanoLab) is a portal designed to facilitate data sharing in the research community. caNanoLab provides support for the annotation of nanomaterials with physico-chemical and in vitro characterizations and the sharing of these characterizations and associated protocols in a secure fashion. caNanoLab is engineered based on principles and technologies from the NCI's caBIG program and provides access to nanotechnology information leveraging a federated approach.	caNanoLab Portal
NBI Knowledgebase	(From NBI website) NBI is short for the Nanomaterial-Biological Interactions Knowledgebase. The knowledgebase serves as a repository for annotated data on nanomaterial characterization (e.g. purity, size, shape, charge, composition, functionalization, agglomeration state), synthesis methods, and nanomaterial-biological interactions (i.e. beneficial, benign or deleterious) defined at multiple levels of biological organization (e.g. molecular, cellular, organismal). Computational and data mining tools are currently being developed and incorporated into the NBI to provide a logical framework to conduct species, route, dose and scenario extrapolations and identify key data required to predict the biological interactions of nanomaterials.	http://oregonstate.edu/nbi/
Nanoparticle Ontology	Cancer-focused nanomedicine ontology	http://npo.wustl.edu
MICAD	Molecular Imaging Contrast Agent Database	http://micad.nih.gov/
Nanotechnology Risk Resources	references to papers, articles, and books on (or related to) potential health and environmental risks of nanomaterials	http://www.nanocoe.net/nanorisks

<http://sites.google.com/site/cabignanowg/nanotechnology-resources>

Nano Data in Excel

The screenshot shows the MICAD (Molecular Imaging & Contrast Agent Database) website. The header includes the MICAD logo and the text "Molecular Imaging & Contrast Agent Database". Below the header, there are navigation links: "Browse All Entries", "Latest Updates", "FAQ", and "How to cite a MICAD chapter". A sidebar on the left contains links for "Become an Author", "Submit your own contribution with the new MICAD Guest Author Program", and "Guidelines for contributors". The main content area features a search bar with a "Go" button and a "Clear" button. Below the search bar, there are radio buttons for "MICAD", "All books", and "PubMed". A section titled "Filter my MICAD Search by:" contains several dropdown menus for "Method of detection", "Source of signal/contrast", "Agent Category", and "Target Category". Below these, there are radio buttons for "In vitro", "Rodents", "Non-primate non-rodent mammals", "Non-human primates", "Humans", and "Any". At the bottom of the page, there are two sections: "Molecular Imaging Probes and Contrast Agents List" and "New MICAD available through PubMed". The "Molecular Imaging Probes and Contrast Agents List" section contains a paragraph about the MICAD staff's screening process. The "New MICAD available through PubMed" section contains a paragraph about the availability of MICAD chapters through PubMed. A text box on the left side of the screenshot, labeled "Download Excel File MiCaList.xls", has an arrow pointing to the "Molecular Imaging Probes and Contrast Agents List" section. The bottom of the screenshot shows a Windows taskbar with several open files, including "MiCaList.xls", "LNW_intro_10-10-25.ppt", "Leadership in Tough Ti....pdf", "NASCIO 9.29 Leadersh....pdf", and "NASCIO 9.29 Leadersh....pdf".

Download Excel File MiCaList.xls

Molecular Imaging Probes and Contrast Agents List
The MICAD staff has created the [Molecular Imaging Probes and Contrast Agents List](#) (MIP & CA List) by screening the PubMed/MedLine databases and other appropriate sources of such information. Only agents used in animal or human studies yielding in vivo data were selected for inclusion in the list. Although great care has been taken to accurately present all and only those imaging and contrast agents that fulfill the in vivo data criteria, this list is by no means considered complete. No one imaging modality has been given preference over the others and the omission of any agent(s) or the introduction of any errors in the list is purely unintentional. The MIP & CA List is subject to the same copyright and disclaimers as the rest of the

New MICAD available through PubMed
MICAD chapters are now accessible through PubMed. To retrieve a list of all MICAD records, query PubMed for [Molecular Imaging and Contrast Agent Database\[book\]](#).

MICAD Summary
Download a summary of all MICAD entries as a [comma-separated-values \(CSV\) file](#).

Upcoming MICAD Exhibits:
[57th Annual Meeting of Society of Nuclear Medicine](#) (Salt Lake City, Utah, USA, June 5-9, 2010)
[World Molecular Imaging Congress 2010](#) (Kyoto, Japan, September 8-11, 2010)
[PSNA2010](#) (Chicago, Illinois, USA, November 28-December 3, 2010)

<http://www.ncbi.nlm.nih.gov/bookshelf/corehtml/pmc/homepages/bookshelf/micad.html>

NanoParticle Ontology for Cancer Nanotechnology Research

The screenshot shows the homepage of the NanoParticle Ontology for Cancer Nanotechnology Research website. The browser window has a single tab titled 'www.nano-ontology.org'. The website header includes the title 'NPO: NanoParticle Ontology for Cancer Nanotechnology Research' and a search bar. A left sidebar contains a navigation menu with sections: Home, Documentation (with sub-items: Class-level relations, Codes for NPO terms, Editorial process, Frequently-asked questions, Guidelines for evaluation and creation of terms, OWL annotation properties, Types of represented entities, Version release notes), Mappings (with sub-item: caNanoLab-to-NPO mappings), Related projects (with sub-item: caOBR), Under development (with sub-item: Pages to move), and Sitemap. The main content area features an 'Overview' section with a paragraph about the ontology's purpose, an 'Authors and support' section with a paragraph about its development, a 'Citing the NPO' section with a paragraph and a citation, an 'Availability' section with a paragraph, and a 'Documentation' section with a sub-section 'NPO documentation' containing links to 'Class-level relations', 'Codes for NPO terms', 'Editorial process', 'Frequently-asked questions', 'Guidelines for evaluation and creation of terms', 'OWL annotation properties', 'Types of represented entities', and 'Version release notes'. A 'Contents' sidebar on the right lists: 1 Overview, 2 Authors and support, 3 Citing the NPO, 4 Availability, 5 Documentation, 6 Mappings, and 7 Related projects. The browser's taskbar at the bottom shows an open document 'AIC, Emerging Techn....docx' and a 'Show all downloads...' button.

www.nano-ontology.org

NPO: NanoParticle Ontology for Cancer Nanotechnology Research

Home

- Documentation
 - Class-level relations
 - Codes for NPO terms
 - Editorial process
 - Frequently-asked questions
 - Guidelines for evaluation and creation of terms
 - OWL annotation properties
 - Types of represented entities
 - Version release notes
- Mappings
 - caNanoLab-to-NPO mappings
 - External vocabulary mappings
- Related projects
 - caOBR
- Under development
 - Pages to move
- Sitemap

Overview

Data generated from cancer nanotechnology research are so diverse and large in volume that it is difficult to share and efficiently use them without informatics tools. In particular, ontologies that provide a unifying knowledge framework for annotating the data are required to facilitate the semantic integration, knowledge-based searching, unambiguous interpretation, mining and inferencing of the data using informatics methods. Here, we discuss the design and development of NanoParticle Ontology (NPO), which is developed within the framework of the [Basic Formal Ontology \(BFO\)](#), and implemented in the [Ontology Web Language \(OWL\)](#) using well-defined ontology design principles. The NPO is developed to represent the knowledge underlying the description, preparation, and characterization of nanomaterials in cancer nanotechnology research.

Authors and support

This ontology was primarily developed by [Dennis Thomas](#) in collaboration with [Nathan Baker](#) and [Rohit Pappu](#). This development was supported by the NIH through grants U54 CA119342 and U54 HG004028.

Citing the NPO

Please acknowledge your use of the NPO by citing

Thomas DG, Pappu RV, Baker NA. NanoParticle Ontology for Cancer Nanotechnology Research. *J Biomed Inform.* in press. doi:[10.1016/j.jbi.2010.03.001](#).

Availability

Public releases of the NPO are [available through BioPortal website](#), maintained by the [National Center for Biomedical Ontology](#).

Documentation

NPO documentation

- Class-level relations
 - Class-Level Associations (OWL Object Properties)
 - Is_A Inheritance Relation
 - Valid uses of class-level associations
- Codes for NPO terms
- Editorial process
- Frequently-asked questions
- Guidelines for evaluation and creation of terms
- OWL annotation properties
- Types of represented entities
- Version release notes
 - 2008-12-09 beta
 - 2009-04-02
 - 2009-06-04

<http://www.nano-ontology.org/>

Build Nonoinformatics with Semantic Cloud Computing Tools

The screenshot shows a web browser displaying the Semantic Community Wiki page for Nanoinformatics 2010. The page has a green header with the 'Sc' logo and 'Semantic Community' text. A sidebar on the left lists various community topics, with 'Nanoinformatics 2010' highlighted. The main content area features a title 'Nanoinformatics 2010' and a description: 'Getting to the 5 stars of Linked Open Data' for Nanoinformatics. It includes a 'Purpose: Build Nanoinformatics with Semantic Cloud Computing Tools' section, a 'Data Source' link, and a 'Contents' list. On the right, there are two tables: 'Nanoinformatics Spreadsheet Database' and 'Nanoinformatics Spreadsheet Database Examples'. The browser's address bar shows the URL http://semanticcommunity.wik.is/Nanoinformatics_2010.

My Page Control Panel Recent changes Tools Help

Edit page New page Print page More Table of contents

Page last modified 13:57, 30 Oct 2010 by Admin

Semantic Community Wiki > Nanoinformatics 2010

Nanoinformatics 2010

For Internet Explorer Users and Those Wanting Full Screen Display Use: [Web Player](#) [Slides](#)

TIBCO Silver Spotfire Create interactive dashboards like this in minutes - try it for free today! Try Silver Spotfire

Nanoinformatics-Spotfire.dxp - FAMEVL-91915, Modified 10/30/2010 1:54:25 PM

Cover Page White House Blog - Search Results for Informatics 2010 Nanoinformatics Program Agenda Nanoinf...

Getting to the 5 stars of Linked Open Data' for Nanoinformatics

Purpose: Build Nanoinformatics with Semantic Cloud Computing Tools

Wiki
Page: http://semanticcommunity.wik.is/Nanoinformatics_2010

Data Source:
http://semanticcommunity.wik.is/@api/deki/files/1750/=Nanoinformatics_2010.dxp
others as noted separately)

Created by: Brand Niemann, October 29, 2010 (in process)

Contents:

Nanoinformatics Spreadsheet Database (also Examples Research in Progress) (see to the right)

[White House Blog - Search Results for Informatics](#)

[2010 Nanoinformatics Program Agenda](#)

[Nanoinformatics Bibliography](#)

[2007 Nanoinformatics Program Agenda](#)

[Nanomaterial Library](#)

[Registered Processes](#)

[Taxonomy for Publications](#)

Nanoinformatics Spreadsheet Database

Type	Name
Web Page	White House Blog
Web Page	Nanoinformatics ...
Web Page	Overview
Web Page	Themes
Web Page	2010 Program
Web Page	Call for Papers
Web Page	Registration
Web Page	Accommodations
Web Page	Sponsor Opportu...
Web Page	Organizers
Web Page	Contact
Wiki	Nanoinformatics ...
Wiki	Community Portal
Wiki	Nanoinformatics ...
Wiki	NI2010 Planning ...
Wiki	2007 Program
Wiki	2007 Program
Wiki	2007 Program
Wiki	2007 Program
Web Page	2007 Program
Web Page	Agenda
Web Page	Agenda

Nanoinformatics Spreadsheet Database Examples

Type	Name
Web Page	InterNano Proces...
Web Page	Browse Processes
Web Page	Good Nano Guide
Web Page	Taxonomy

http://semanticcommunity.wik.is/Nanoinformatics_2010

Build Nonoinformatics with Semantic Cloud Computing Tools

The screenshot displays the TIBCO Silver Spotfire Web Player interface. The browser address bar shows the URL: ondemand.spotfire.com/public/ViewAnalysis.aspx?file=/Users/FAMIEVL-91915/Public/Nanoinformatics-Spotfire.dxp&waid=f455dbe96. The interface includes a top navigation bar with tabs for 'Cover Page', 'White House Blog - Search Results for Informatics', '2010 Nanoinformatics Program Agenda', 'Nanoinformatics Bibliography', and '2007 Nanoinformatics'. The main content area is divided into two columns. The left column contains a section titled 'Getting to 'the 5 stars of Linked Open Data' for Nanoinformatics' with a purpose statement: 'Purpose: Build Nanoinformatics with Semantic Cloud Computing Tools'. It also lists a Wiki Page, Data Source, and Contents. The right column features two tables: 'Nanoinformatics Spreadsheet Database' and 'Nanoinformatics Spreadsheet Database Examples Research (in progress)'. Both tables have columns for Type, Name, Description, and a link. The bottom status bar shows 'Ready', '11 of 11 rows', '0 marked', '6 columns', and the file name 'Nanoinformatics Spreadsheet Database Examples Research (in progress)'. The bottom of the window shows a taskbar with files like 'MiCaList.xlsx', 'LNW_intro_10-10-25.ppt', and 'Leadership in Tough Ti...pdf'.

TIBCO Silver Spotfire Create interactive dashboards like this in minutes - try it for free today! [Try Silver Spotfire](#)

Nanoinformatics-Spotfire.dxp - FAMIEVL-91915, Modified 10/30/2010 1:54:25 PM

Cover Page White House Blog - Search Results for Informatics 2010 Nanoinformatics Program Agenda Nanoinformatics Bibliography 2007 Nanoinformatics

Getting to 'the 5 stars of Linked Open Data' for Nanoinformatics

Purpose: Build Nanoinformatics with Semantic Cloud Computing Tools

Wiki Page: http://semanticcommunity.wik.is/Nanoinformatics_2010

Data Source: <http://semanticcommunity.wik.is/@api/deki/files/1750/=Nanoinformatics.xls> (others as noted separately)

Created by: Brand Niemann, October 29, 2010 (in process)

Contents:

Nanoinformatics Spreadsheet Database (also Examples Research in Progress) (see to the right)

[White House Blog - Search Results for Informatics](#)

[2010 Nanoinformatics Program Agenda](#)

[Nanoinformatics Bibliography](#)

[2007 Nanoinformatics Program Agenda](#)

[Nanomaterial Library](#)

[Registered Processes](#)

[Taxonomy for Publications](#)

[Nano TAB Nanotechnology Resources](#)

[Nano Ontology](#)

[MiCaList Spreadsheet](#)

Nanoinformatics Spreadsheet Database

Type	Name	Description	
Web Page	White House Blog	Blog	http://w...
Web Page	Nanoinformatics ...	Nanoinformatics ...	http://w...
Web Page	Overview	Nanoinformatics i...	http://w...
Web Page	Themes	Data, Tools, Shar...	http://w...
Web Page	2010Program	Detailed Agenda	http://w...
Web Page	Call for Papers	Abstract Submis...	http://w...
Web Page	Registration	Registration will ...	http://w...
Web Page	Accommodations	Nanoinformatics ...	http://w...
Web Page	Sponsor Opportu...	Nanoinformatics ...	http://w...
Web Page	Organizers	Executive Commi...	http://w...
Web Page	Contact	Principal contact: ...	http://w...
Wiki	Nanoinformatics ...	Main Page, Com...	http://w...
Wiki	Community Portal	A list of organiza...	http://w...
Wiki	Nanoinformatics ...	An effort to pull t...	http://w...
Wiki	NI2010 Planning ...	A Nanoinformatic...	http://w...
Wiki	2007 Program	Wiki Version	http://w...
Wiki	2007 Program	Wiki Version	http://w...
Wiki	2007 Program	Wiki Version	http://w...
Wiki	2007 Program	Wiki Version	http://w...

Nanoinformatics Spreadsheet Database Examples Research (in progress)

Type	Name	Description	
Web Page	InterNano Proces...	Techniques for p...	http://w...
Web Page	Browse Processes	Registered Proce...	http://w...
Web Page	Good Nano Guide		http://w...
Web Page	Taxonomy	Content tagged ...	http://w...
Web Page	Browse by Taxo...	Taxonomy	http://w...
Web Page	Printed, Sub-3V ...		http://w...
Web Page	Nanoparticle Info...		http://w...
Web Page	ICON GoodNano...		http://w...
Web Page	Nanomaterial-Biol...	Repository for a...	http://w...
Web Page	Nanomaterial Libr...	Dialogue Boxes	http://w...

Ready. 11 of 11 rows 0 marked 6 columns Nanoinformatics Spreadsheet Database Examples Research (in progress)

MiCaList.xlsx LNW_intro_10-10-25.ppt Leadership in Tough Ti...pdf Show all downloads...

Spotfire [Web Player](#)

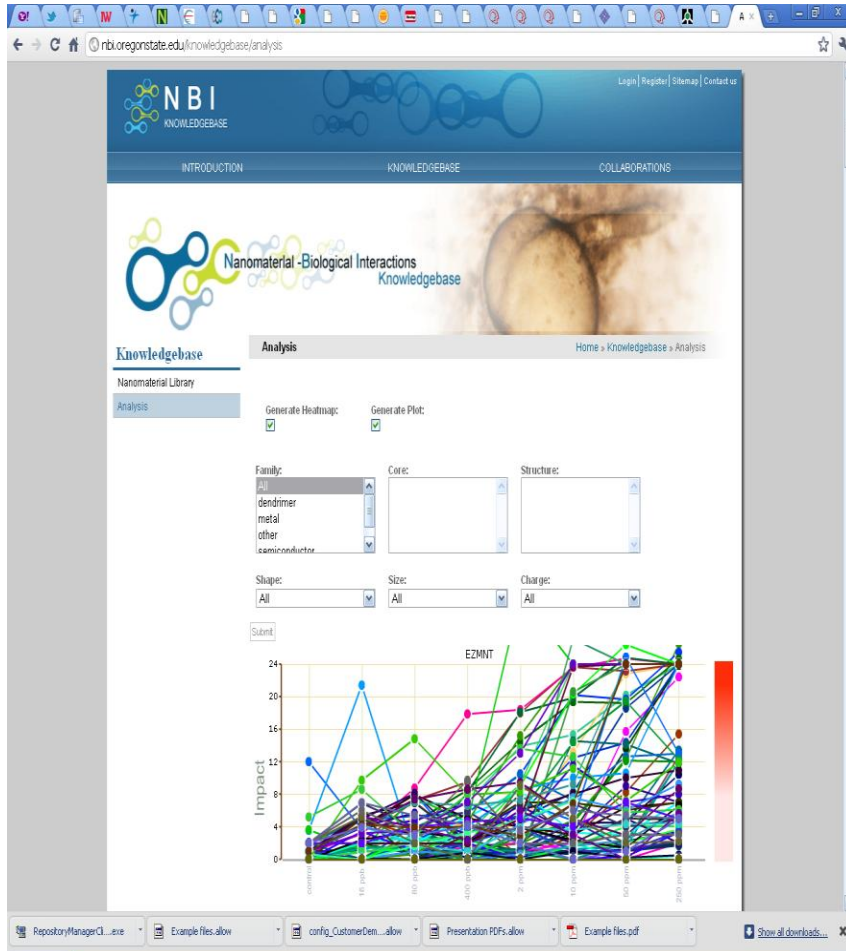
Some Next Steps

- Continue with some more manual extraction of key Nanoinformatics web pages to a spreadsheet.
- Use (or write) simple codes to automatically extract key Nanoinformatics databases to CSV.
- Inventory key Nanoinformatics databases in CSV (Excel) and import them into Spotfire for Linked Data Analytics.
- Continue to inventory Nanoinformatics ontologies and import them into COE and develop new Nanoinformatics ontologies to support improve search and reasoning across diverse Nanoinformatics content.
- And of course implement your suggestions and report back at the next Informatics Meeting!

Extra Slides of Our Work

- Nanomaterial-Biological Interactions Knowledgebase
- InterNano Taxonomy: Top Level
- InterNano Taxonomy: Bottom Level
- IntreNano Taxonomy: Spreadsheet

Nanomaterial-Biological Interactions Knowledgebase

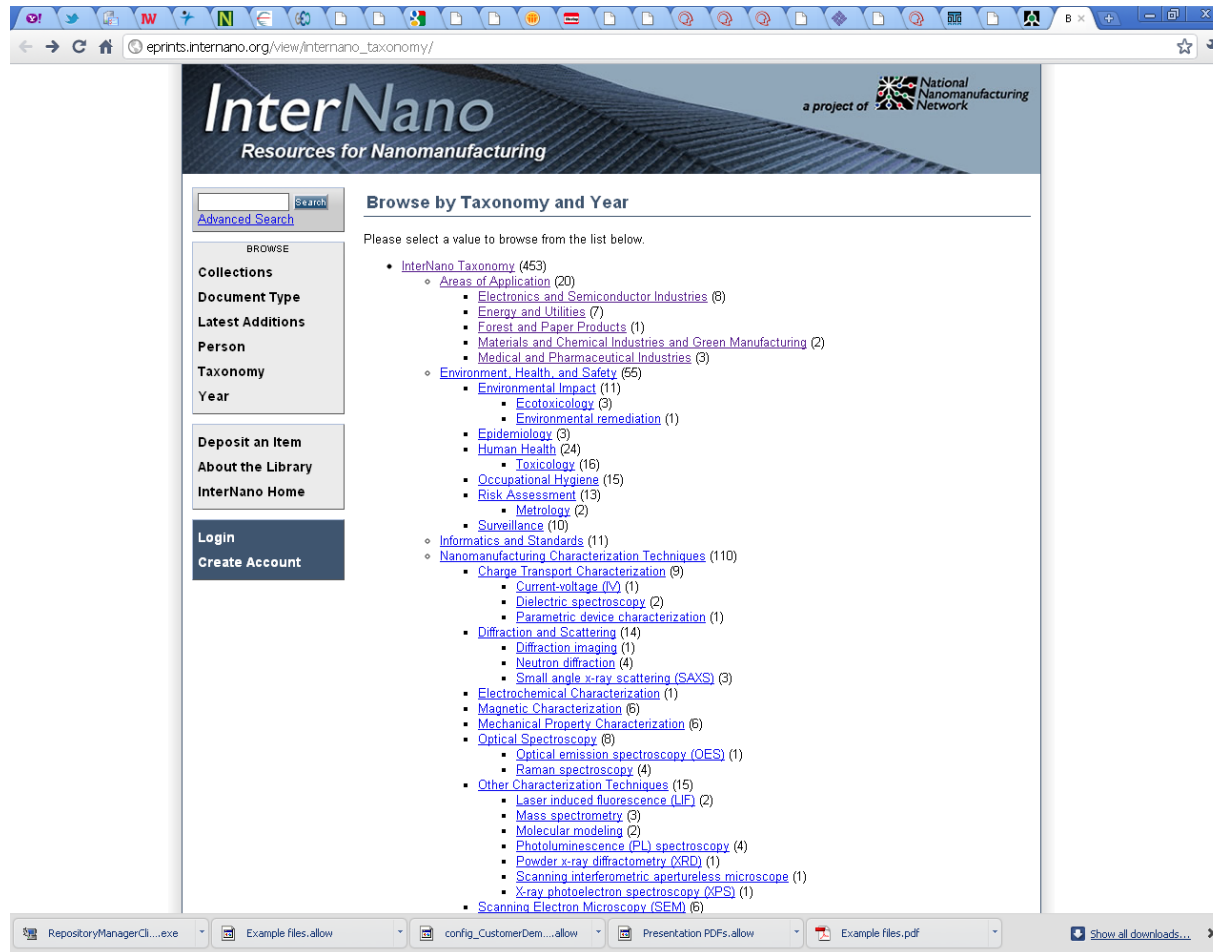


Nanomaterial										EZMNT				
ID	Family	Core	Structure	Shape	Size	Charge	Purity	Concentration						
nb_0001	metal	Au	TMAT	sphere	0.0	+	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0.05	7.9	9.95	13.3	15.3	18.4
nb_0002	metal	Au	MES	sphere	0.0	-	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0	0	0.3	1.25	4.45	10.4
nb_0003	metal	Au	MEE	sphere	0.0	0	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0	1	0.4	1	2.2	3.5
nb_0004	metal	Au	MEEE	sphere	0.0	0	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0	0.6	0.1	0.3	0.8	1.2
nb_0005	metal	Au	TMAT	sphere	1.5	+	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								1.4	0	5.45	4	4.15	11.15	23.1
nb_0006	metal	Au	MES	sphere	1.5	-	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0.475	0	3.1	1.4	1.9	4.0	12.1
nb_0007	metal	Au	MEE	sphere	1.5	0	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0	0	0	0	1.7	3.15
nb_0008	metal	Au	MEEE	sphere	1.5	0	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0	0	0.6	0	1.1	2.05
nb_0009	metal	Au	MEFA	sphere	1.5	-	ultra pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	5	2.8	5.5	0.3	2.0	9.25
nb_0010	metal	Au	TMAT	sphere	1.5	+	pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	2.1	7.25	9.5	18	21.8	23.1
nb_0011	metal	Au	MES	sphere	1.5	-	pure	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0	0	0	2	0	0	11.75
nb_0012	metal	Au	TMAT	sphere	1.5	+	dirty	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm
Average Values								0.0	3.1	0.75	17.0	16.4	21.6	24.7
nb_0013	metal	Au	MES	sphere	1.5	-	dirty	control	10 ppm	80 ppm	400 ppm	2 ppm	10 ppm	250 ppm

RepositoryManagerCl...Example files.alovconfig_CustomerDem...Presentation PDFs.alovExample files.pdfShow all downloads...

<http://nbi.oregonstate.edu/knowledgebase/analysis>

InterNano Taxonomy: Top Level



The screenshot shows a web browser window displaying the InterNano Taxonomy page. The browser's address bar shows the URL http://eprints.internano.org/view/internano_taxonomy/. The page header features the InterNano logo and the text "Resources for Nanomanufacturing", along with the National Nanomanufacturing Network logo. On the left side, there is a sidebar with navigation links: "Collections", "Document Type", "Latest Additions", "Person", "Taxonomy", "Year", "Deposit an Item", "About the Library", "InterNano Home", "Login", and "Create Account". The main content area is titled "Browse by Taxonomy and Year" and includes a search bar and a "Browse" button. Below this, a list of taxonomy categories is displayed, each with a count of items. The categories are: InterNano Taxonomy (453), Areas of Application (20), Environment, Health, and Safety (55), Informatics and Standards (11), and Nanomanufacturing Characterization Techniques (110). Each category is further broken down into sub-categories with their respective counts.

InterNano
Resources for Nanomanufacturing

a project of National Nanomanufacturing Network

[Advanced Search](#)

BROWSE

Collections
Document Type
Latest Additions
Person
Taxonomy
Year

Deposit an Item
About the Library
InterNano Home

Login
Create Account

Browse by Taxonomy and Year

Please select a value to browse from the list below.

- [InterNano Taxonomy](#) (453)
 - [Areas of Application](#) (20)
 - [Electronics and Semiconductor Industries](#) (8)
 - [Energy and Utilities](#) (7)
 - [Forest and Paper Products](#) (1)
 - [Materials and Chemical Industries and Green Manufacturing](#) (2)
 - [Medical and Pharmaceutical Industries](#) (3)
 - [Environment, Health, and Safety](#) (55)
 - [Environmental Impact](#) (11)
 - [Ecotoxicology](#) (3)
 - [Environmental remediation](#) (1)
 - [Epidemiology](#) (3)
 - [Human Health](#) (24)
 - [Toxicology](#) (16)
 - [Occupational Hygiene](#) (15)
 - [Risk Assessment](#) (13)
 - [Metrology](#) (2)
 - [Surveillance](#) (10)
 - [Informatics and Standards](#) (11)
 - [Nanomanufacturing Characterization Techniques](#) (110)
 - [Charge Transport Characterization](#) (9)
 - [Current-voltage \(I/V\)](#) (1)
 - [Dielectric spectroscopy](#) (2)
 - [Parametric device characterization](#) (1)
 - [Diffraction and Scattering](#) (14)
 - [Diffraction imaging](#) (1)
 - [Neutron diffraction](#) (4)
 - [Small angle x-ray scattering \(SAXS\)](#) (3)
 - [Electrochemical Characterization](#) (1)
 - [Magnetic Characterization](#) (6)
 - [Mechanical Property Characterization](#) (6)
 - [Optical Spectroscopy](#) (8)
 - [Optical emission spectroscopy \(OES\)](#) (1)
 - [Raman spectroscopy](#) (4)
 - [Other Characterization Techniques](#) (15)
 - [Laser induced fluorescence \(LIF\)](#) (2)
 - [Mass spectrometry](#) (3)
 - [Molecular modeling](#) (2)
 - [Photoluminescence \(PL\) spectroscopy](#) (4)
 - [Powder x-ray diffraction \(XRD\)](#) (1)
 - [Scanning interferometric apertureless microscope](#) (1)
 - [X-ray photoelectron spectroscopy \(XPS\)](#) (1)
 - [Scanning Electron Microscopy \(SEM\)](#) (6)

http://eprints.internano.org/view/internano_taxonomy/

InterNano Taxonomy: Bottom Level

The screenshot shows a web browser displaying the InterNano Taxonomy page. The URL in the address bar is http://eprints.internano.org/view/internano_taxonomy/internanotaxonomy5827/. The page header features the InterNano logo and the text "Resources for Nanomanufacturing". A sidebar on the left contains navigation links: "Browse" (with sub-links for Collections, Document Type, Latest Additions, Person, Taxonomy, and Year), "Deposit an Item", "About the Library", "InterNano Home", "Login", and "Create Account". The main content area is titled "Browse by Year where Taxonomy is 'Areas of Application > Electronics and Semiconductor Industries'". It includes a breadcrumb trail: "Up a level" > "InterNano Taxonomy (453)" > "Areas of Application (20)" > "Electronics and Semiconductor Industries (8)". Below this, a list of years is provided for browsing: 2010 (5), 2009 (2), and 2008 (1). The 2010 section is expanded, showing a list of publications with their titles, authors, and publication details. The 2009 and 2008 sections are also visible, each with a list of publications.

InterNano
Resources for Nanomanufacturing

Browse by Year where Taxonomy is "Areas of Application > Electronics and Semiconductor Industries"

[Up a level](#)

- [InterNano Taxonomy](#) (453)
 - [Areas of Application](#) (20)
 - **Electronics and Semiconductor Industries** (8)

Please select a value to browse from the list below.

- [2010](#) (5)
- [2009](#) (2)
- [2008](#) (1)

2010

- Ha, Mingming and Xia, Yu and Green, A A and Zhang, Weili and Renn, Mike J and Kim, Chris H and Hersam, Mark H and Frisbie, C Daniel. (2010) [Printed, Sub-3V Digital Circuits on Plastic from Aqueous Carbon Nanotube Inks](#). ACS Nano, 4 (6). pp. 4368-4395. ISSN 1936-086X
- Somu, Sivasubramanian. (2010) [Design, Fabrication, Assembly and Characterization of a SWNT Switch for Non-volatile Memory Applications](#). In: New England Nanomanufacturing Summit 2010, June 22 - 24, 2010, Lowell, MA. (Unpublished)
- Xiang, Ying and Keilbach, Andreas and Moreno Codinachs, Lia and Nielsch, Kornelius and Abstreiter, Gerhard and Fontcuberta i Morral, Anna and Bein, Thomas. (2010) [Multiple Nanowire Species Synthesized on a Single Chip by Selectively Addressable Horizontal Nanochannels](#). Nano Letters, 10 (4). pp. 1341-1346. ISSN 1530-6984
- Kim, Myungwoong and Safron, Nathaniel S. and Han, Eungnak and Arnold, Michael S. and Gopalan, Padma. (2010) [Fabrication and Characterization of Large-Area, Semiconducting Nanoperforated Graphene Materials](#). Nano Letters, 10 (4). pp. 1125-1131. ISSN 1530-6984
- Ding, Baoquan and Deng, Zhengtao and Yan, Hao and Cabrini, Stefano and Zuckermann, Ronald N. and Bokor, Jeffrey. (2010) [Gold Nanoparticle Self-Similar Chain Structure Organized by DNA Origami](#). Journal of the American Chemical Society, 132 (10). pp. 3248-3249. ISSN 0002-7863

2009

- Oh, Sun Wha and Kim, Chang Woo and Cha, Hwa Jin and Pal, Umapada and Kang, Young Soo. (2009) [Encapsulated-Dye All-Organic Charged Colored Ink Nanoparticles for Electrophoretic Image Display](#). Advanced Materials, 21 (48). pp. 4967-4991. ISSN 0959-9648
- Zhang, Shuang and Park, Yong-Shik and Li, Jensen and Lu, Xinchao and Zhang, Weili and Zhang, Xiang. (2009) [Negative Refractive Index in Chiral Metamaterials](#). Physical Review Letters, 102 (2). 023901. ISSN 0031-9007

2008

http://eprints.internano.org/view/internano_taxonomy/internanotaxonomy5827/

IntreNano Taxonomy: Spreadsheet

Microsoft Excel - Nanoinformatics

File Edit View Insert Format Tools Data Window Help

Type a question for help

Formula bar: I really liked this paper!

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Level 1	Number in	Level 2	Number in	Level 3	Number in	Level 4	Number in	Year	Reference	URL	Comments	
1	InterNano	453											
2			Areas of A	20									
3					Electronics	8				2010	Ha, Mingji	http://eprints.internano.org/523/	I really liked this paper
4										2010	Somu, Siv	http://eprints.internano.org/543/	
5										2010	Xiang, Ying	http://eprints.internano.org/542/	
6										2010	Kim, Myun	http://eprints.internano.org/537/	
7										2010	Ding, Bao	http://eprints.internano.org/478/	
8										2009	Oh, Sun W	http://eprints.internano.org/426/	
9										2009	Zhang, Shi	http://eprints.internano.org/434/	
10										2008	Yao, J. an	http://eprints.internano.org/517/	
11					Energy and	7				2010	Van Vecht	http://eprints.internano.org/518/	
12										2010	Zeira, Eita	http://eprints.internano.org/541/	
13										2010	Magasinsk	http://eprints.internano.org/536/	
14										2010	He, Ximin	http://eprints.internano.org/535/	
15										2010	Chang, Ch	http://eprints.internano.org/531/	
16										2009	Zhang, Y	http://eprints.internano.org/530/	
17										2009	Zhu, Jia	http://eprints.internano.org/538/	
18										2010	Vigneshwa	http://eprints.internano.org/538/	
19										2010	Vigneshwa	http://eprints.internano.org/510/	
20					Forest and	1				2010	Vigneshwa	http://eprints.internano.org/538/	
21					Materials	2				2010	Vigneshwa	http://eprints.internano.org/510/	
22										2010	Shatkin, J	http://eprints.internano.org/474/	
23					Medical ar	3				2009	Bajaj, A. a	http://eprints.internano.org/428/	
24										2009	Huang, Ho	http://eprints.internano.org/191/	
25										2008	Della Port		
26													
27													
28			Environme	55									

Ready

Examples Nanomaterial Library Registered Processes Taxonomy Sheet

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