

UNIKUM Colloq 9Oct2014

Semantic MediaWiki for UNIKUM

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311

Outline

- Structured versus unstructured data
 - Mediawiki
 - Wikipedia: Categories
 - Semantic Mediawiki: Forms, relations
- Semantic
 - why, what
 - Topic Maps versus Semantics
- Goal of collaborative working
 - just the information you want
 - online for "day-to-day" work
- UNIK as an information hub
 - for students
 - for the general public
 - for researchers
- Challenges
- Summary



Sem MediaWiki
Oct 2014, Josef Noll



UNIVERSITETET I AGDER



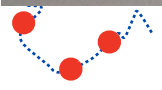
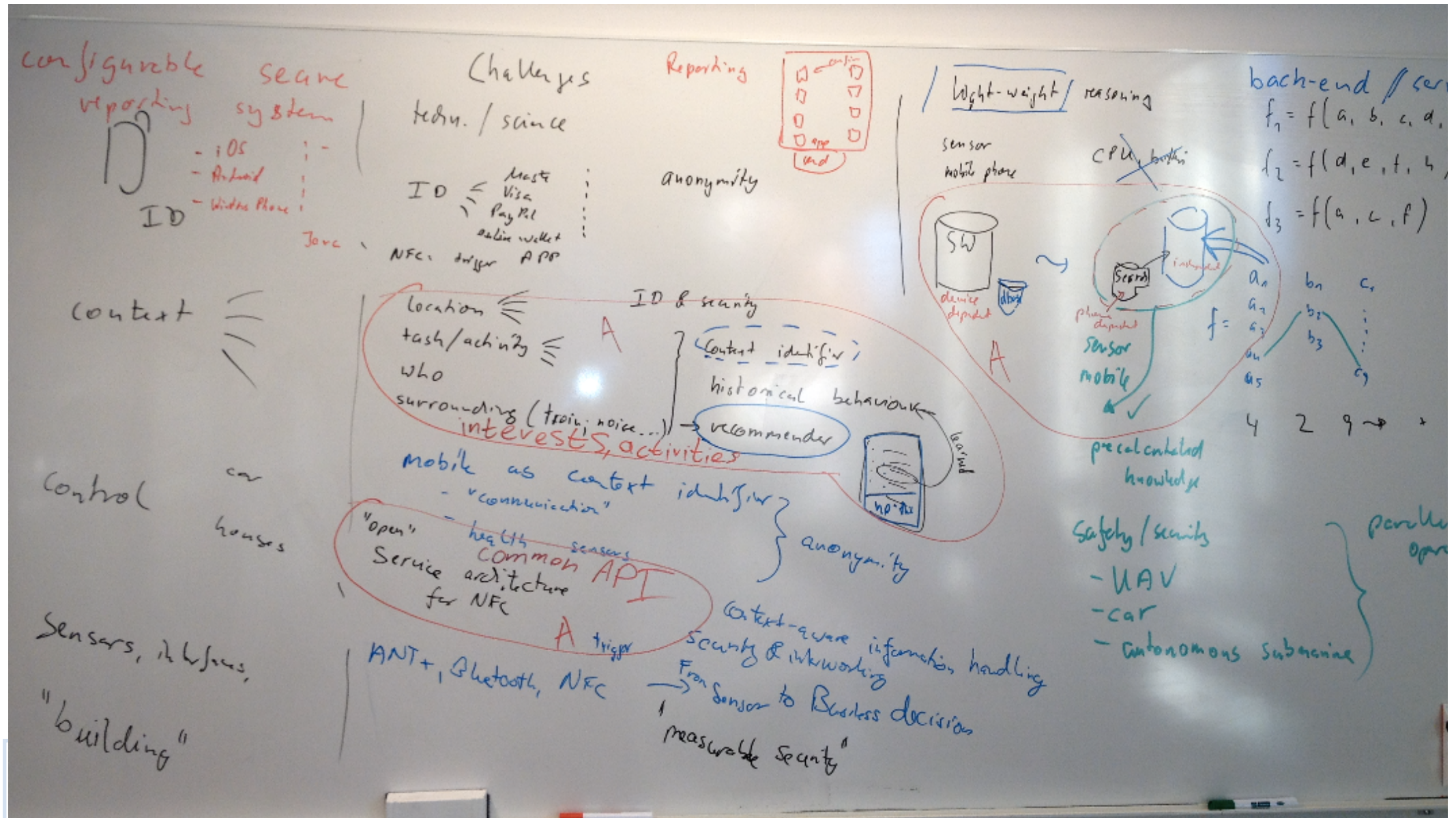
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Structured versus Unstructured Data



MediaWiki as in Wikipedia++

- All context is online available
- Links included to jump between topics
 - Reasonably easy to write a page with hyperlinks
- Online collaboration (everybody)
- Structure through Categories

static content in pages

Kategorier: MediaWiki | Programvare fra 2002

what if you introduce a new category for your web?



The screenshot shows the MediaWiki Wikipedia page. On the left is a sidebar with the Wikipedia logo and a list of links: Main page, Contents, Featured content, Current events, Random article, Donate to Wikipedia, and Wikimedia Shop. Below these links is a small diagram with red dots and a blue line, labeled 'CV' and 'Interaction'. The main content area has tabs for 'Article' and 'Talk', and buttons for 'Read', 'Edit', and 'View history'. The article title is 'MediaWiki', with a note that it is redirected from 'Mediawiki'. Below the title is a warning: 'Not to be confused with Wikimedia Foundation, the operator of Wikipedia'. The article text begins with 'MediaWiki is a free and open-source wiki app, used to power wiki websites such as Wikipedia, Wiktionary and Commons, developed by the Wikimedia Foundation and others. It also runs thousands of other websites.^[1] It is written in the PHP programming language and uses a'. At the bottom left is the 'UNIK' logo.

The Semantic MediaWiki

- Build as an extension to MediaWiki
 - same syntax, writing...
 - Links included to jump between topics
 - Online collaboration (everybody)
- Query (search) and dynamic pages
- Hierachy

dynamic pages
through 'search'



Page Discussion View View source History ☆ Search

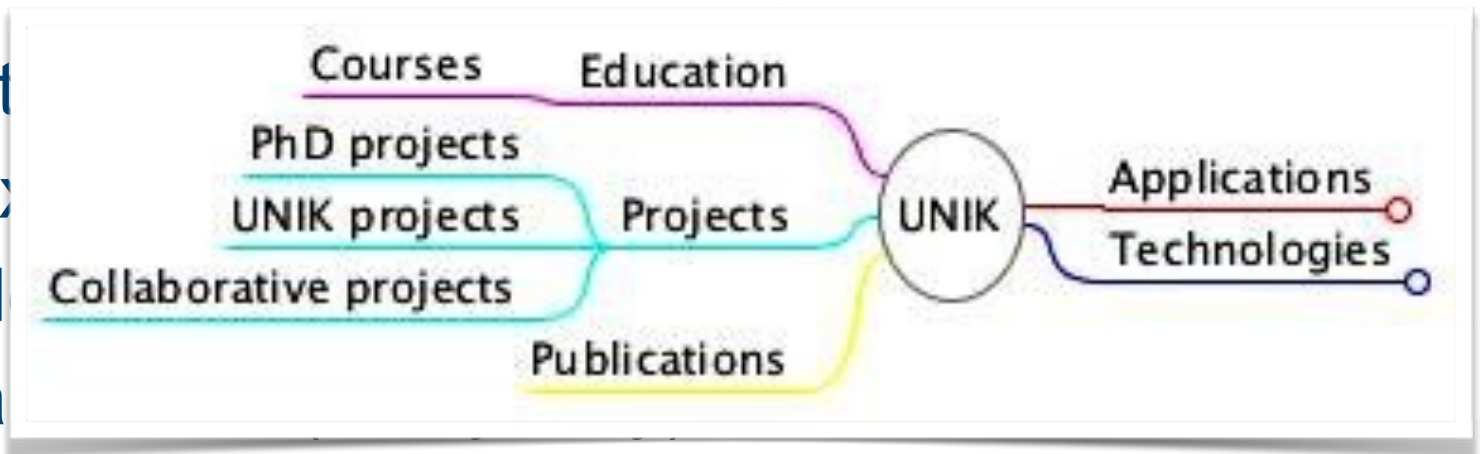
Semantic MediaWiki (SMW) is a free, open-source extension to [MediaWiki](#) – the wiki software that powers Wikipedia – that lets you store and query data within the wiki's pages.

Main page
Introduction

UNIK

The Semantic MediaWiki

- Build as an extension
 - same syntax
 - Links included
 - Online collaboration
- Query (search) and dynamic pages
- Hierarchy

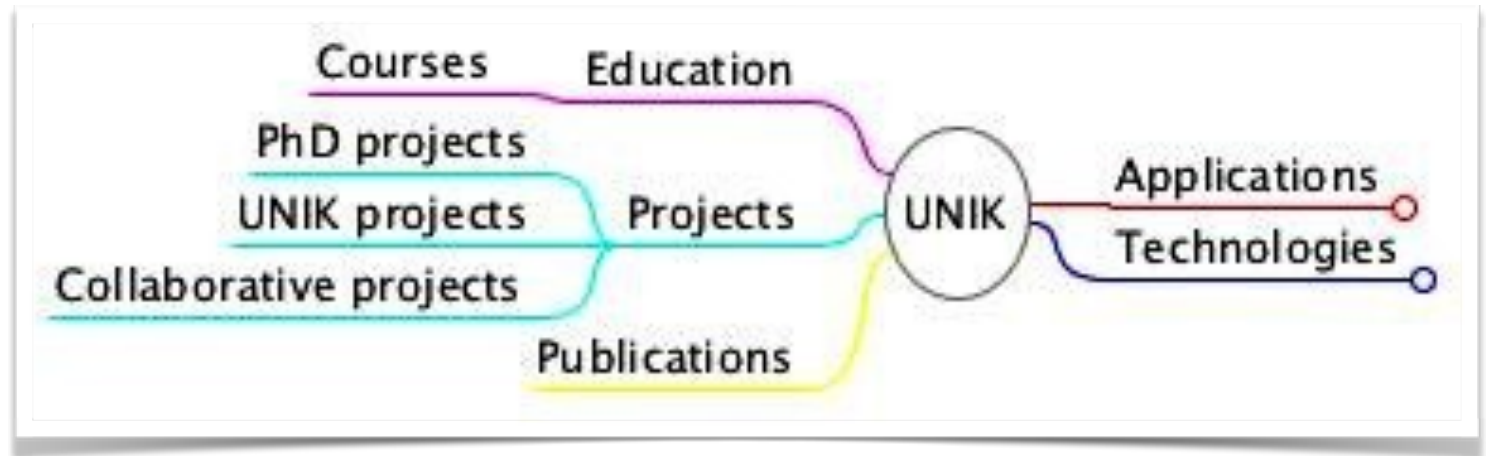


dynamic pages
through 'search'

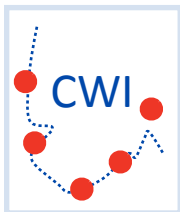
Semantic MediaWiki (SMW) is a free, open-source extension to [MediaWiki](#) – the wiki software that powers Wikipedia – that lets you store and query data within the wiki's pages.

Basics of Semantics

- Hierarchy
 - Classes
 - relations
- Tripple store



- UNIK has Education
 - Education consists of Courses
 - Courses are composed by Lectures
- and how it will end: Ordering of a Pizza in the future:
<http://www.youtube.com/watch?v=RNJI9EEcsoE&feature=related>



Goal of collaborative working

- online knowledge
- from close to open collaboration
- word, .ppt -> owncloud
- Wikipedia
- Fora
- Social Media Discussions

The screenshot shows a social media community interface for 'UNIK4710 Mobile Semantics'. The header includes the course name, 'Master and PhD Course at UiO and UNIK', and a 'Notifications on' toggle. Below the header is a 'Share what's new...' section with icons for Text, Photos, Link, Video, and Event. The main content area features a post by Marcel Eggum dated 25 May 2014, discussing SPARQL for contextual, medical monitoring. To the right, there is an 'About this community' section with buttons for 'Invite people' and 'Share this community', and a link to 'UNIK4710 course material'. At the bottom right, another post by Josef Noll, the owner, dated 23 Sep 2014, is visible, discussing MOOC and traditional courses on the Semantic Web. The left sidebar contains a 'UNIK4710 - Mobile Service Delivery' section with a description of the course and a list of keywords.

UNIK4710 Mobile Semantics
Master and PhD Course at UiO and UNIK

Notifications on

UNIK4710 - Mobile Service Delivery

Abstract: Personalised and context-aware (location, activity, ...) generation Web technologies.

Objective (max 3 words): The course links the mobile and Internet service world context information (e.g. location, people, activity). The situations where Mobile Semantic Service Delivery is Example 1: The way mobile advertisements are being your situation and your interest. - If you are running to be disturbed by anything else than the message that I Example 2: Building communities in mind is independent to watch TV together. Let's enable chat and talk with a channel as me.

Keywords: Semantic Technologies, Semantics, Protege, Context Web3.0, Profiles, Preferences, Personalisation

Public 14 members

Share what's new...

Text Photos Link Video Event

Marcel Eggum
Discussion - 25 May 2014 #SPARQL

Hi. Just wanted to share my evaluation of Continuous SPARQL for contextual, medical monitoring. Hope this proves useful for some of you in the future.

Continuous SPARQL for pervasive, contextual, medical monitoring

About this community

Invite people Share this community

Master & PhD Course at the University of Oslo, UNIK and others through video. Details available at:

UNIK4710 course material

Kjeller

Josef Noll OWNER
Discussion - 23 Sep 2014 #SemanticWeb

MOOC and traditional courses on the Semantic Web, see the LinkedIn discussion

UNIK as information hub

COURSES



UNIK has a focus on courses for applied research and industrial topics in the areas of

- Wireless Networks, covering [Radio](#) and [Network technology](#)
- [Information Security](#), and
- [Remote Sensing & Methods](#)

The courses are given by lecturers from Kjeller Institutes ([FFI](#), [Ife](#), [NILU](#), ...), by people from industry ([ABB](#), [Thales](#), [NSN](#), ...), and UNIK.

[edit]

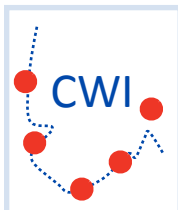
Courses in Wireless Networks

Courses in Information Security

Courses in Remote Sensing & Methods

PhD Courses in WNaS

◆	Focus on Radio technologies	◆	by	◆
UNIK4100	Satellite Communications	Property:Title	Lars Bråten	
UNIK4150	Antennas and radiowave propagation		Terje Tjelta	
UNIK4170	Digital Communications		Pål Olsen Ola Jend	



UNIK

dynamic information

Information for Students, Companies, the general Public

Keywords

Keyword NFC

(edit page)

Contains pages with keyword "NFC".

Courses and Thesis

Lectures

- Near Field Communication, Bluetooth, ZigBee and ANT+ (UNIK4700, UNIK9700, by Ali Zaher, Thomas Aasebø, Josef Noll)
- Semantics in mobile networks (UNIK4250, by Josef Noll)
- Wifi WiMax and Security in NFC (UNIK4700, UNIK9700, by Mo

Thesis

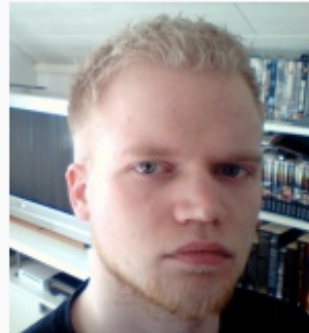
- Reconfigurable secure reporting system (Keywords Light-weight NFC, Information Security)
- TestThesis (Keywords 3G, 4G, NFC)

Companies dealing with NFC:

- Zwipec (Keywords Access control, B

People

User Thomas Aas



	Thomas Aasebø
Last Name	Aasebø
Q:	
m:	91134934 ⚠
e:	thaa@hib.no 📧
Company	HiB, UNIK
Keywords	

Major Keywords from activities

802.15.4 Bluetooth Congestion control Link layer protocol Low Power Bluetooth NFC QoS RFID Routing protocols Sensor Sensors

TinyOS **Wireless Sensor Networks WSN** ZigBee
Wireless Sensor Networks
NIK9700

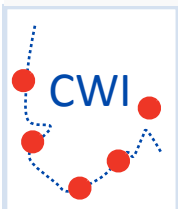
Thomas Aasebø has given the following lectures:

- Examen UNIK4700h12 (UNIK4700, UNIK9700)
- Near Field Communication, Bluetooth, ZigBee and ANT+ (UNIK4700, UNIK

Thomas Aasebø works/worked on the following ongoing thesis:

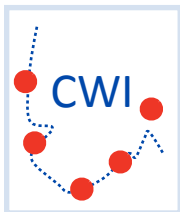
Courses

Thesis



Life Demo

- Course UNIK4710 - <http://cwi.unik.no/wiki/UNIK4710>
 - Lectures: http://cwi.unik.no/wiki/Context-aware_Scenarios
 - Presentation Modus -> Slideshow
 - Create a Lecture: http://cwi.unik.no/wiki/Semantic_MediaWiki_for_UNIKUM
- People: http://cwi.unik.no/wiki/Mirjam_Lukasse
- Projects: <http://cwi.unik.no/wiki/Category:Project>
- Widgets,...



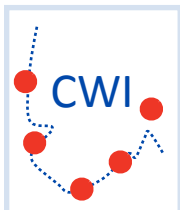
«There is no such thing as a free lunch»

Advantages

- dynamic pages, created by «ask»
- always updated
- working tool
- relations between topics
- presentation and notes combined

Disadvantages

- Think structured
- Wiki language
- first version takes longer times
- redraw pictures
- Math rendering

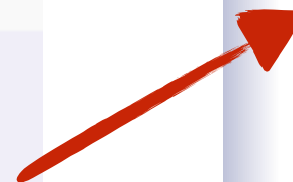


⌘ Challenges - Advances

- * structured thinking
 - basic computer understanding (wiki writing)
 - first version is more time consuming
 - Math: $x^2 + y^2 = 1$

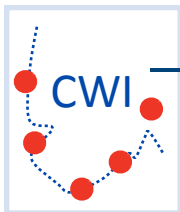
Challenges - Advances

- * structured thinking
 - basic computer understanding (wiki writing)
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 - Math: $x^2 + y^2 = 1$



Conclusions

- The world is moving towards «user generated content»
- Structure through
 - search (internal semantics)
 - Semantics (hierarchies, Tripples)
- UNIK and UNIKUM
 - hubs for networking
- online working modus
 - sharing, cooperation
- needs an initial effort
 - structured thinking
 - wiki «language»



- 1 [Google.com](#)
Enables users to search the world's information
- 2 [Facebook.com](#)
A social utility that connects people, to keep up
- 3 [Youtube.com](#)
YouTube is a way to get your videos to the people
- 4 [Yahoo.com](#)
A major internet portal and service provider of
- 5 [Baidu.com](#)
The leading Chinese language search engine,
- 6 [Wikipedia.org](#)
A free encyclopedia built collaboratively using

Baidu 百度

josef noll

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[J.Noll - Jnoll - Welcome to Josef Noll @ UniK](#)
Josef Noll is professor at the University of Oslo in the area of Wireless Networks and Security . The group concentrates on the working areas mobile...
wiki.unik.no/index.php... 2014-03-02 ▾ - 百度快照 - 评价 - 翻译此页

[Josef Noll - Norway | LinkedIn](#)
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[Josef Noll - Publications](#)
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