

Social Resource Promotion

A semantic approach for managing resources with object-centered social networks in the Web of the future.

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Agenda

1. Overview & Introduction
2. Motivation
3. Solution
4. Prototype & Demo
5. Conclusion

Overview

- Research and development of the Next-Generation-Web component
Social Resource Promotion (SRP)
- Implementation of a prototype / proof of concept
- Requirements:
 - Respects current development and technologies
 - Features decentrality and open standard compliance
 - Includes community feedback

Introduction

- The Web was invented by Tim Berners-Lee in 1990 at the CERN laboratories.
- Fundamental properties:
 - Decentralization
 - Interoperability
 - Openness and ease of use



Source: <http://www.britannica.com/EBchecked/topic/62493/Sir-Tim-Berners-Lee>

Introduction



World Wide Web
URIs, HTML, HTTP

URI: Uniform Resource Identifier
HTML: Hypertext Markup Language
HTTP: Hypertext Transfer Protocol

Syntax

Source: John G. Breslin, Alexandre Passant, and Stefan Decker: The Social Semantic Web.

Introduction



World Wide Web

URIs, HTML, HTTP



Semantic Web

RDFS, OWL, SPARQL

RDFS: Resource Description Framework Schema

OWL: Web Ontology Language

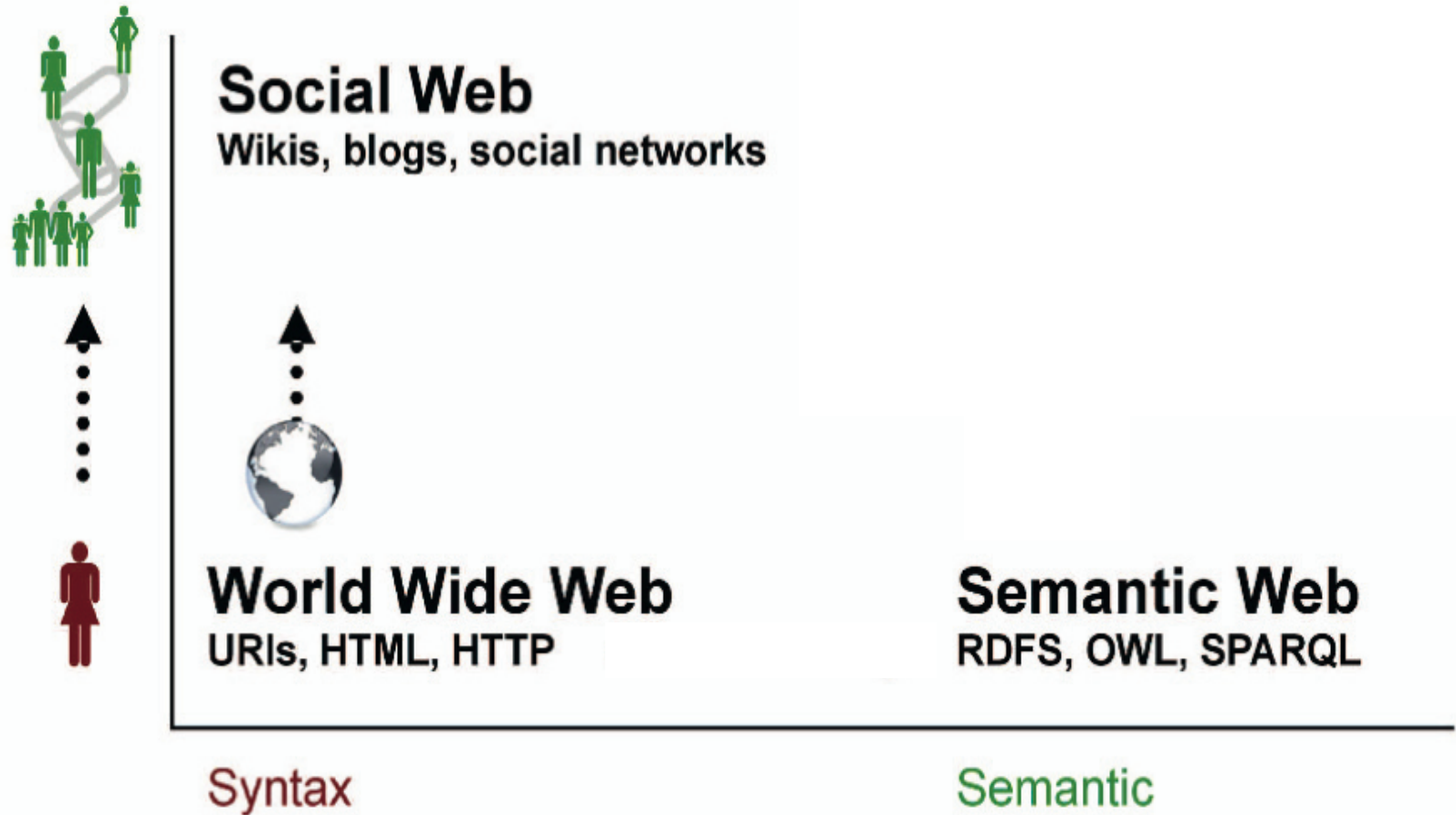
SPARQL: SPARQL Protocol and RDF Query Language

Syntax

Semantic

Source: John G. Breslin, Alexandre Passant, and Stefan Decker: The Social Semantic Web.

Introduction



Source: John G. Breslin, Alexandre Passant, and Stefan Decker: The Social Semantic Web.

Social networks: Its all about folksonomies!

Defintion: Folksonomy

- “**personal free tagging of information** and objects (anything with a URL)” in a “**social environment**”
- Vander Wal

- Formal:

```
Tagging (object , tag ,  
         tagger , source,  
         + or -)
```

- Gruber

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Do you know this button?



Facebook's Like Button

Do you know these buttons?



Facebook's Like Button



Twitter's Tweet Button



Google's +1 Button

What do these buttons do?

Folksonomies!



Allows users to express and exchange their affinity to a certain resource.



Allows users to express and exchange their affinity to a certain resource.



Allows users to express and exchange their affinity to a certain resource.

Social networks are walled gardens!



Allows users to express and exchange their affinity to a certain resource – **on Facebook.**



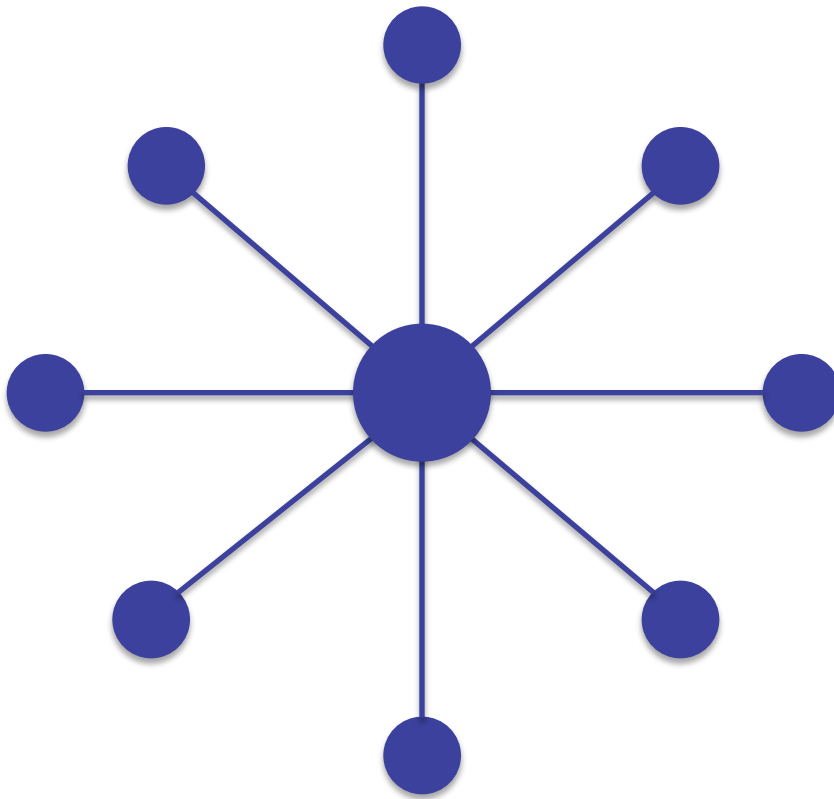
Allows users to express and exchange their affinity to a certain resource – **on Twitter.**



Allows users to express and exchange their affinity to a certain resource – **on Google+.**

Issues of social networks

Social network infrastructure



- Privacy nightmare
 - User-Tracking
 - Where is my data?
- Walled gardens
 - Incompatible technology
 - Data lock-in
- Centralistic Infrastructures
 - Terms of Use
 - Single Point of Failure

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Agenda

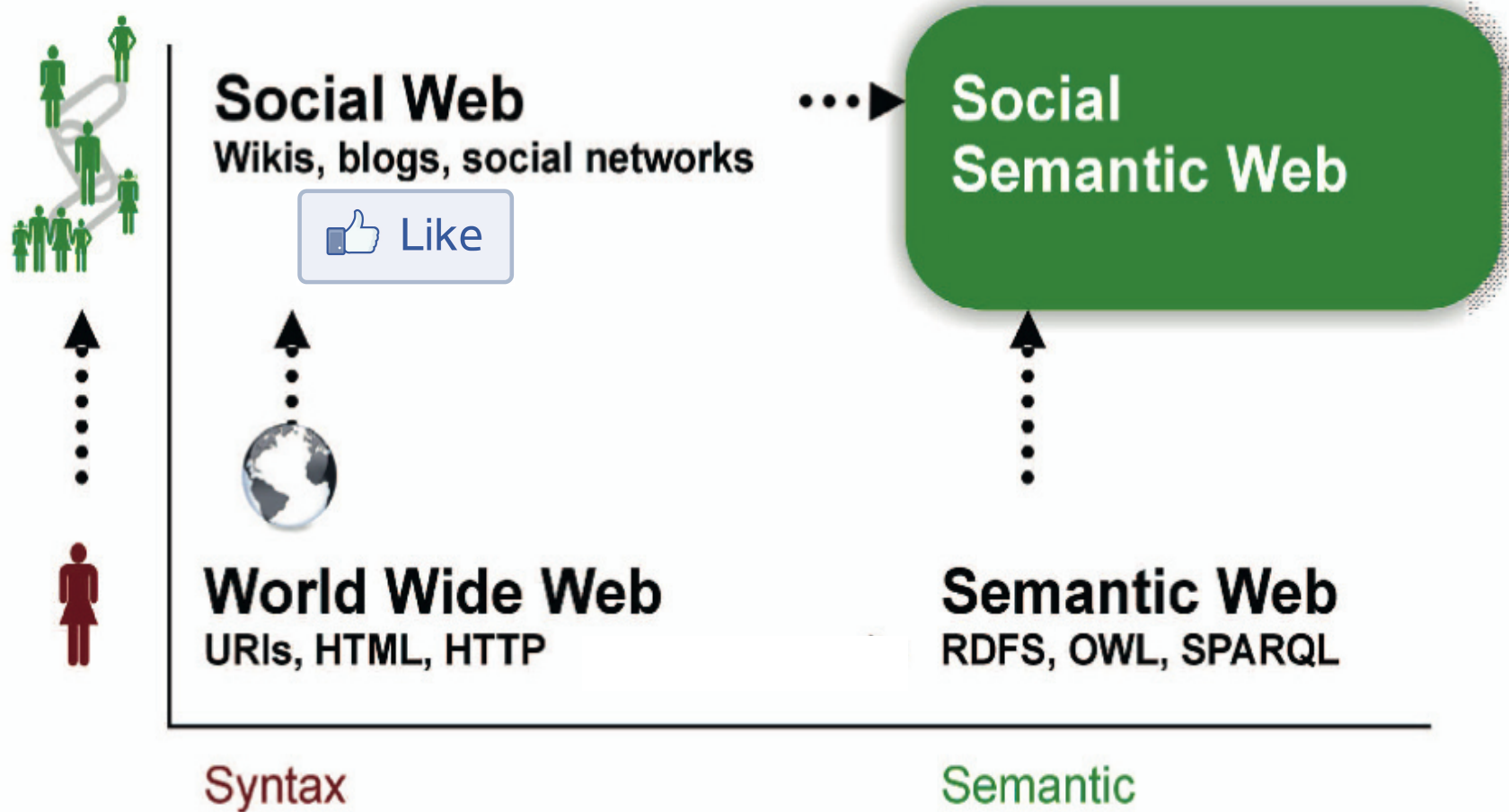
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Vision: Social Semantic Web



Source: John G. Breslin, Alexandre Passant, and Stefan Decker: The Social Semantic Web.

Vision: Social Semantic Web



Source: John G. Breslin, Alexandre Passant, and Stefan Decker: The Social Semantic Web.

Solution:

Social Resource Promotion (SRP)

- A semantic approach for exchanging folksonomies via social networks.
- Technology stack
 - XMPP transport & subscription model
 - mDNS local network awareness
 - RDF/N3 semantic folksonomy model

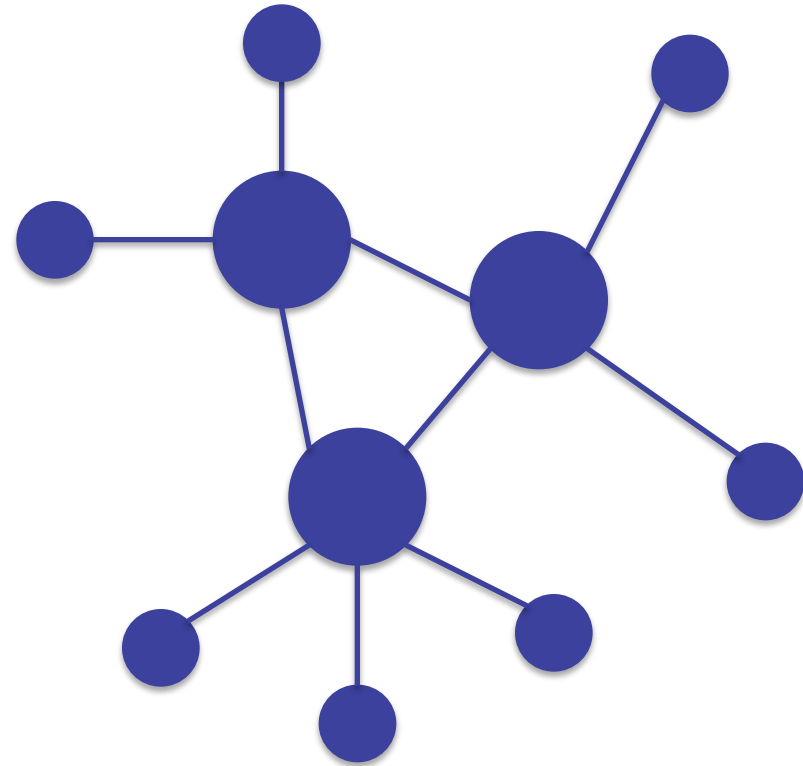
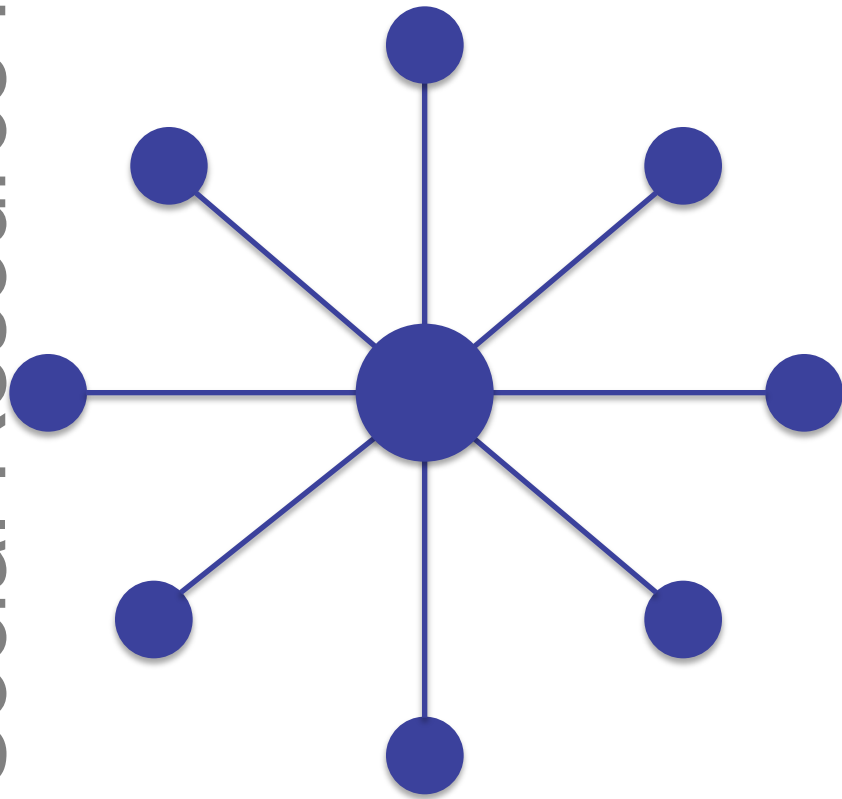


- Call for Participation with the goal, among others:
„Policy-based approaches to the Social Web that allow one to communicate and share data across specified target audiences.“
- SRP was submitted and approved by the program committee
- Personal attendance to the Workshop

Comparison

Social network infrastructures vs

SRP infrastructures

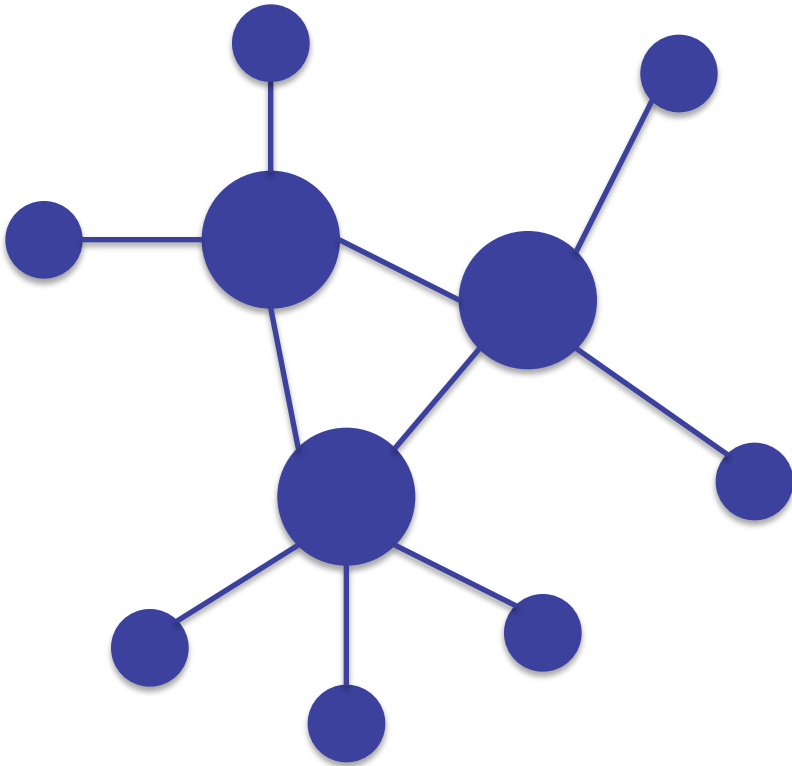
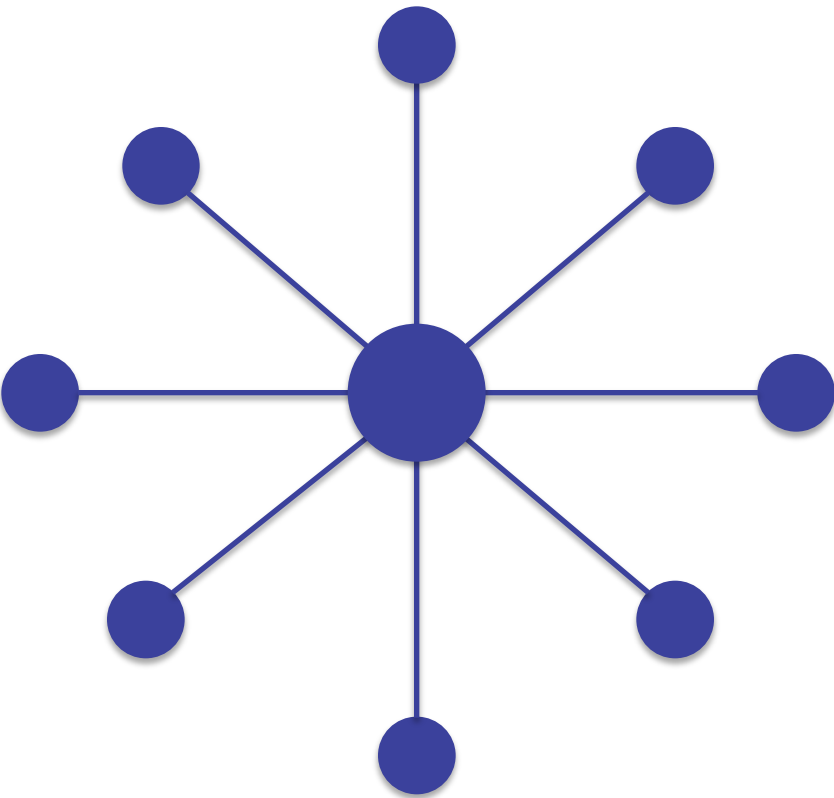


De/centralization

Centralistic infrastructures

vs

Built-in decentrality

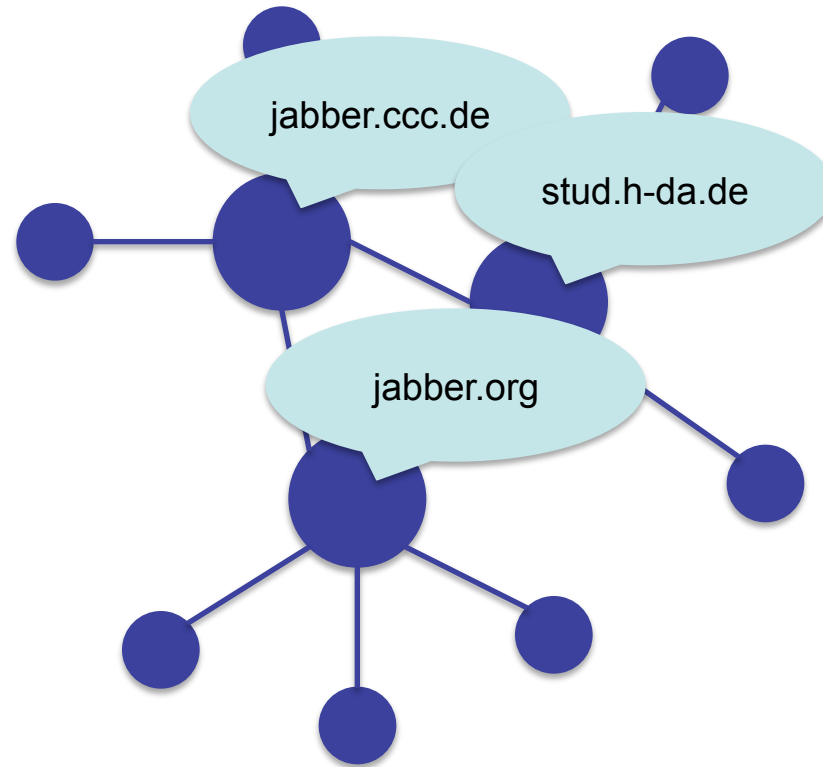
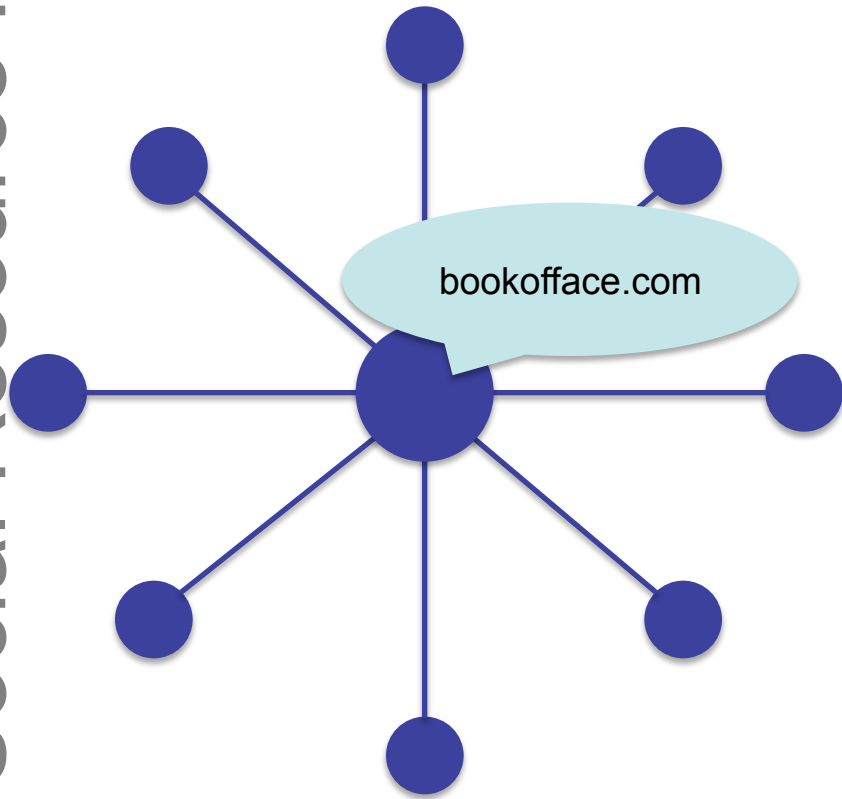


De/centralization

Centralistic infrastructures

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Built-in decentrality

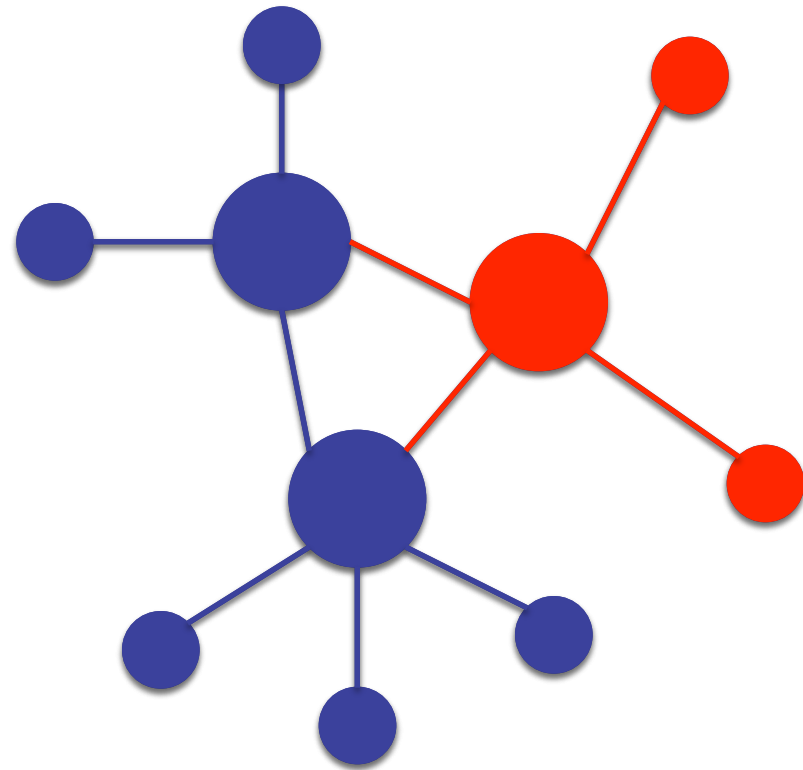
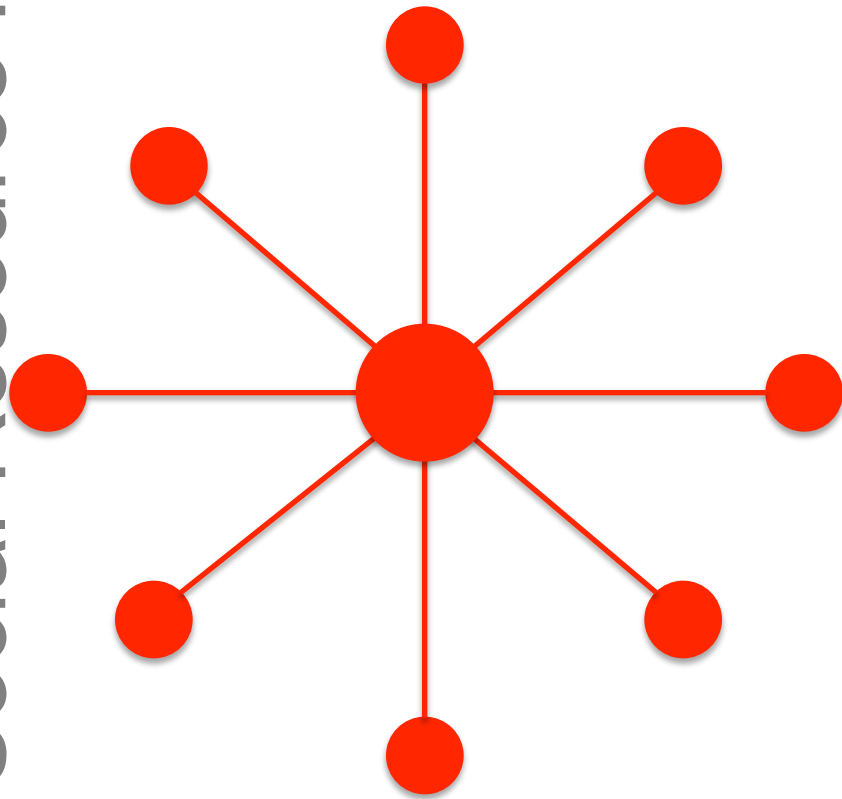


De/centralization

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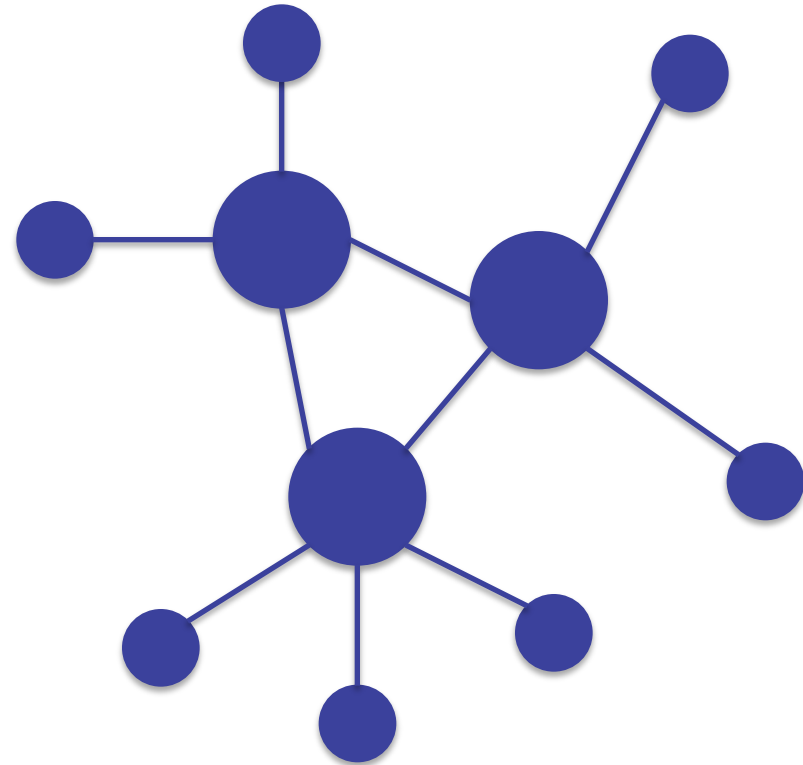
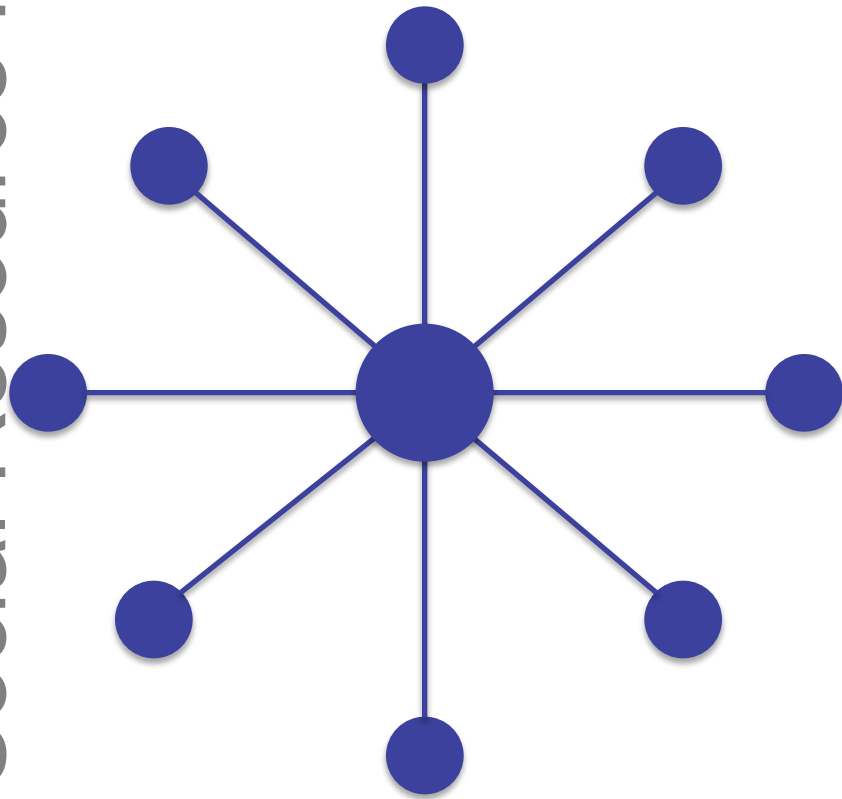


Usage scenarios

Predefined uses

vs

Arbitrary uses

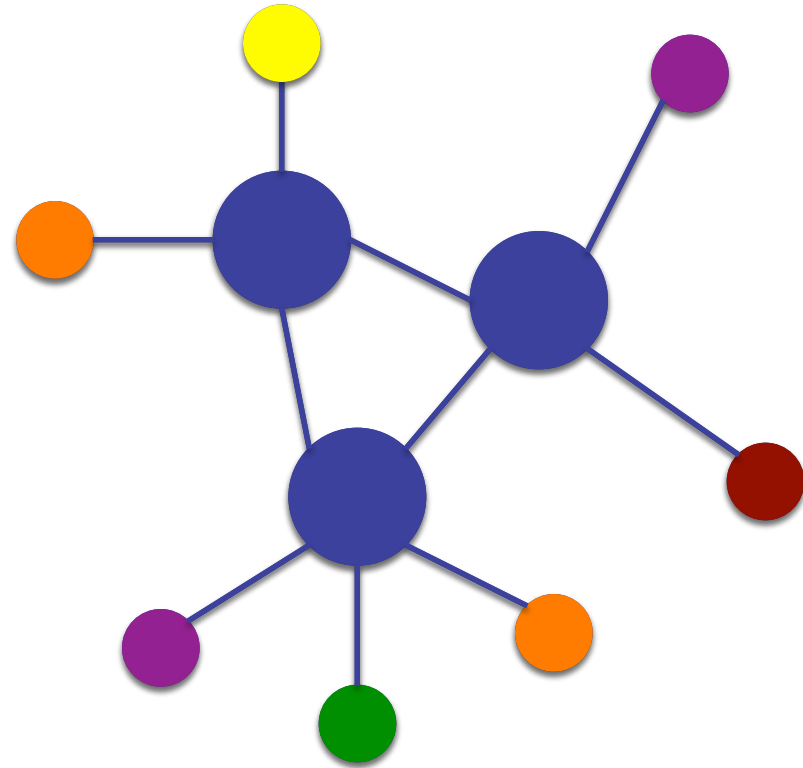
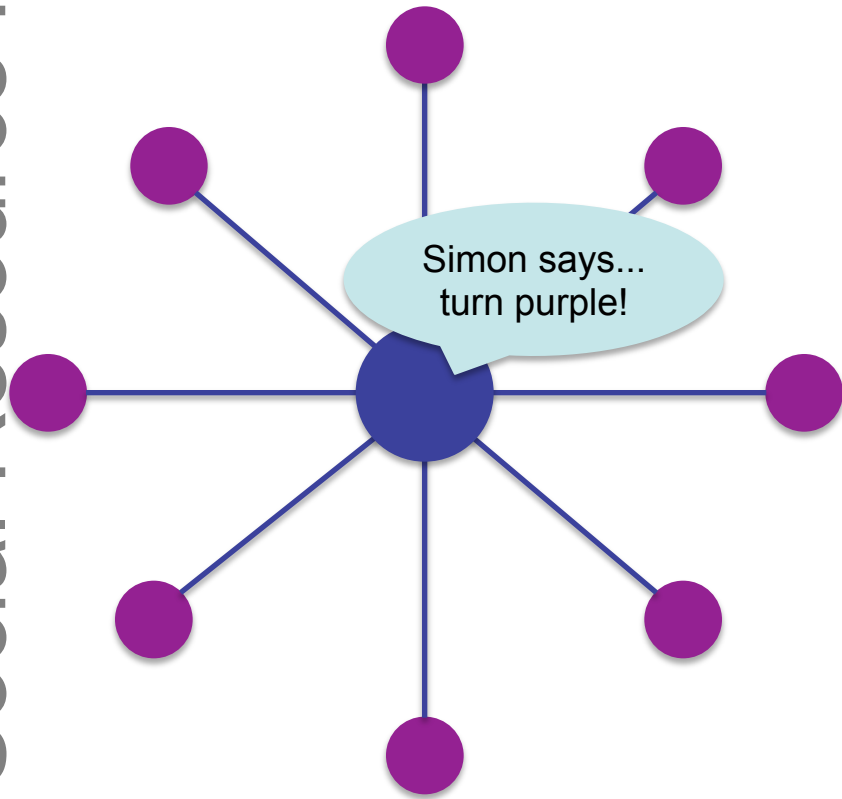


Usage scenarios

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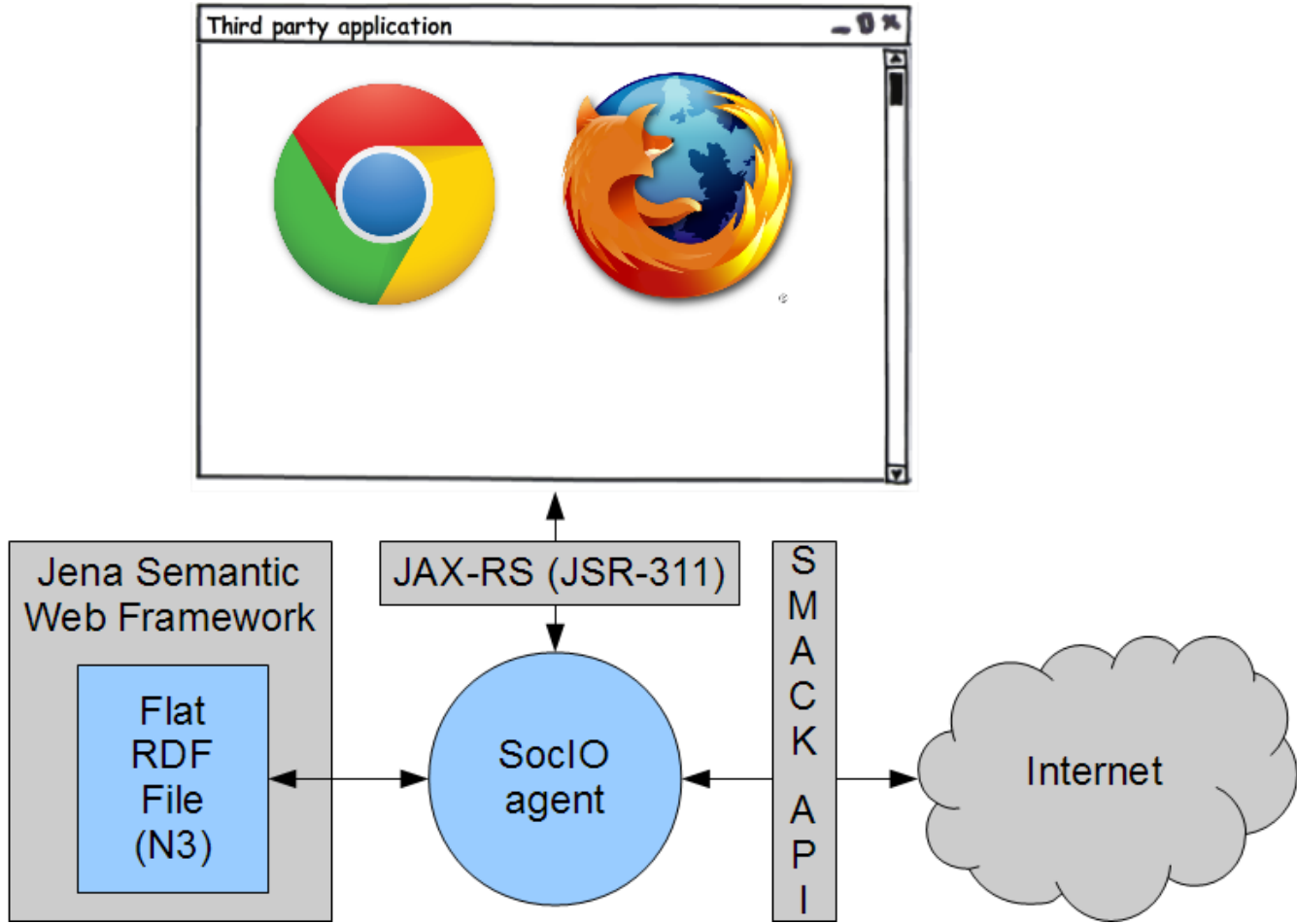


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SocIO implements SRP



Demo - Scenario

Features:

- Express folksonomies in a semantic way.
- Exchange folksonomies with peers.
- Utilize folksonomies and benefit from peers.

Demo - Express folksonomies

The screenshot shows the heise online website interface. At the top, there's a navigation bar with the heise online logo and links for 'ct', 'iX', 'Technology Review', 'Mac', 'Download', 'Telepolis', 'Resale', and 'Fo'. Below this, a 'powered by:' logo is visible, along with the location 'Stuttgart' and the date '11. Oktober 2011'. A red button says 'Jetzt anmelden!'. The main content area is titled 'News' and includes a navigation menu with 'Home', 'Newsticker', '7-Tage-News', 'News-Archiv', and 'Leserforum'. The main article is titled 'Facebook vs. Datenschützer: Streit um Like geht weiter'. The article text discusses the 'Gefällt mir' button on Facebook and mentions a 2-click solution. A list of bullet points follows: 'Code für 2-Klick-Empfehlungsbutton ist erhältlich', 'Facebooks Like-Button: 2 Klicks für mehr Datenschutz', and 'Das Like-Problem: Was Facebooks Gefällt-Mir-Buttons verraten'. On the right side, there's an advertisement for 'PURE FASZINATION. NeoPLA' by VIERA and neo plasma.

Overlaid on the right side of the page is a folksonomy interface. It features three tabs: 'Tag', 'Related', and 'Peer'. Below the tabs is a search input field with a '+' icon. Underneath the input field are two green buttons labeled 'News' and 'Computer'.

Demo – Exchange folksonomies

The screenshot shows a web browser window with the URL `www.heise.de`. The page header includes the heise online logo and navigation links like `c't`, `iX`, `Technology Review`, `Mac`, `Download`, `Telepolis`, `Resale`, and `Fo`. A red button says `Jetzt anmelden!`. The main content area features a news article titled `Facebook vs. Datenschützer: Streit um Like geht weiter`. A modal dialog is open over the article, containing a search bar with a plus icon, instructions to input an XMPP-ID, and example peers: `alice-sociodemo@jabber.ccc.de` and `bob-sociodemo@jabber.ccc.de`. The dialog also has buttons for `Tag`, `Related`, and `Peer`.

Demo - Utilize and benefit

The screenshot shows a web browser window displaying the heise online website. The browser's address bar shows 'www.heise.de'. The website header includes the heise online logo and navigation links like 'ct', 'iX', 'Technology Review', 'Mac', 'Download', 'Telepolis', and 'Resale'. A date banner indicates 'Stuttgart 11. Oktober 2011' with a 'Jetzt anmelden!' button. The main content area features a 'News' section with a headline 'Facebook vs. Datenschützer: Streit um Like geht weiter'. Below the headline is a 'Dis-Like' icon and a paragraph of text. A list of related links is overlaid on the right side of the page, with a 'Tag' tab selected. The list includes URLs such as 'https://www.fbi.h-da.de/' and 'http://www.pro-linux.de/'.

heise online

ct · iX · Technology Review · Mac
Download · Telepolis · Resale · Fo

powered by: Stuttgart
11. Oktober 2011

Jetzt anmelden!

News

Home Newsticker 7-Tage-News News-Archiv Leserforum

heise online

Facebook vs. Datenschützer: Streit um Like geht weiter

Dis-Like

Der "Gefällt mir"-Button von Facebook missfällt Schleswig-Holsteins Datenschützern auch nach Gesprächen mit dem Unternehmen und einer Anhörung im Kieler Landtag. Die unter anderem von heise online eingesetzte 2-Klick-Lösung reicht den Datenschützern nicht. [Mehr...](#)

- [Code für 2-Klick-Empfehlungsbutton ist erhältlich](#)
- [Facebooks Like-Button: 2 Klicks für mehr Datenschutz](#)
- [Das Like-Problem: Was Facebooks Gefällt-Mir-Buttons verraten](#)

1. <https://www.fbi.h-da.de/>

2. <http://www.pro-linux.de/>

3. <http://www.omgubuntu.co.uk/>

4. <http://www.macnews.de/>

5. <http://www.maclife.de/>

6. <http://www.linux-magazin.de/>

7. <http://www.tagesschau.de/>

8. <http://www.macmacken.com/>

9. <http://www.golem.de/>

PURE FASZINATION. NeoPLA

Entdecken Sie die Faszination des neuen Fernsehens.

ENTDECKEN SIE PANASONIC.

VIEFA neo plasma

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Conclusion

- Technology stack
 - Central technological components where confirmed.
 - Based on standardized building blocks.
- Prototype
 - First successful and functional hands-on.
 - Ready to be further developed.

SRP is a powerful transport mechanism with arbitrary usage scenarios in the Social Semantic Web.



<http://users.fbihome.de/~heuss/srp/>

Thank You!

Fork me on



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