

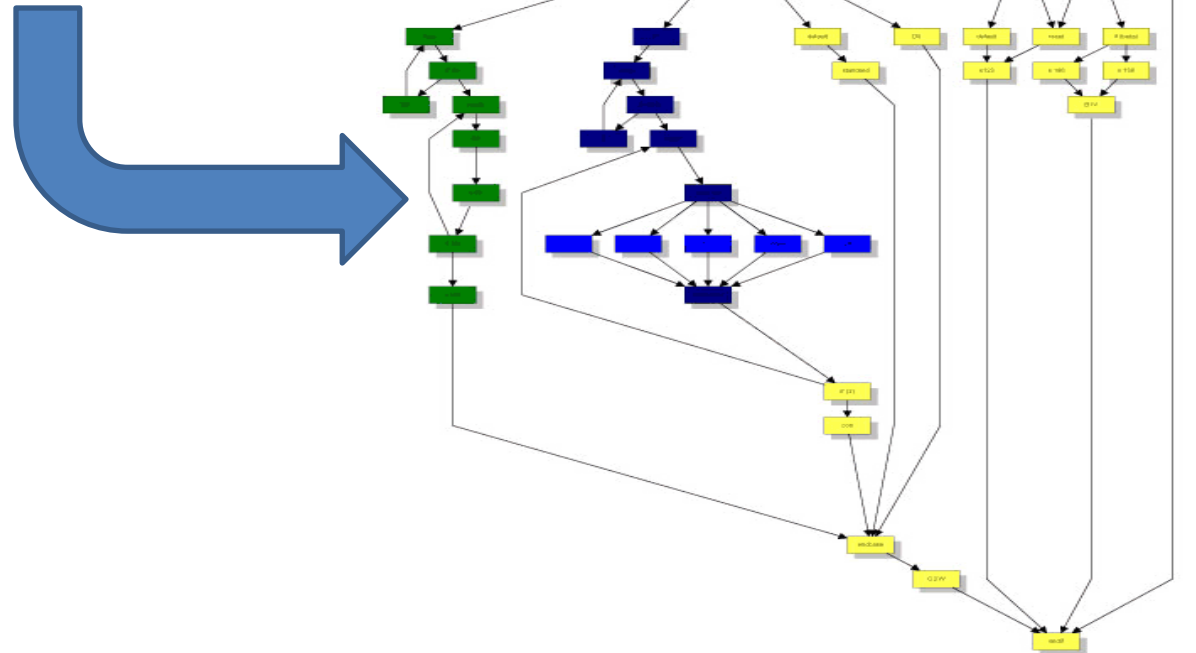
LeCoOnt: Concept Maps on the web

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Outline

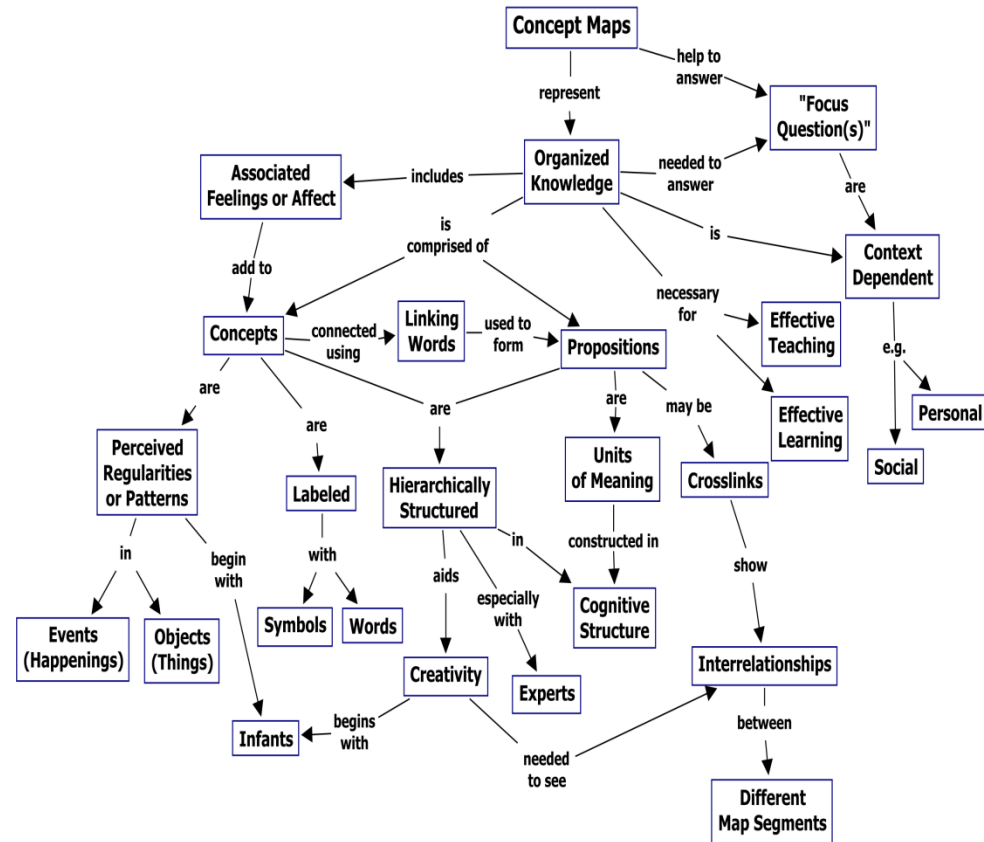
- Motivation behind LeCoOnt
- Introduction to Concept Maps
- LeCoOnt on the Desktop
- Flex for RIA (Rich Internet Applications)
- LeCoOnt on the Web
- Integrating LeCoOntWeb
- FlexLib SWC library for LeCoOnt
- Q&A

Viewing Data



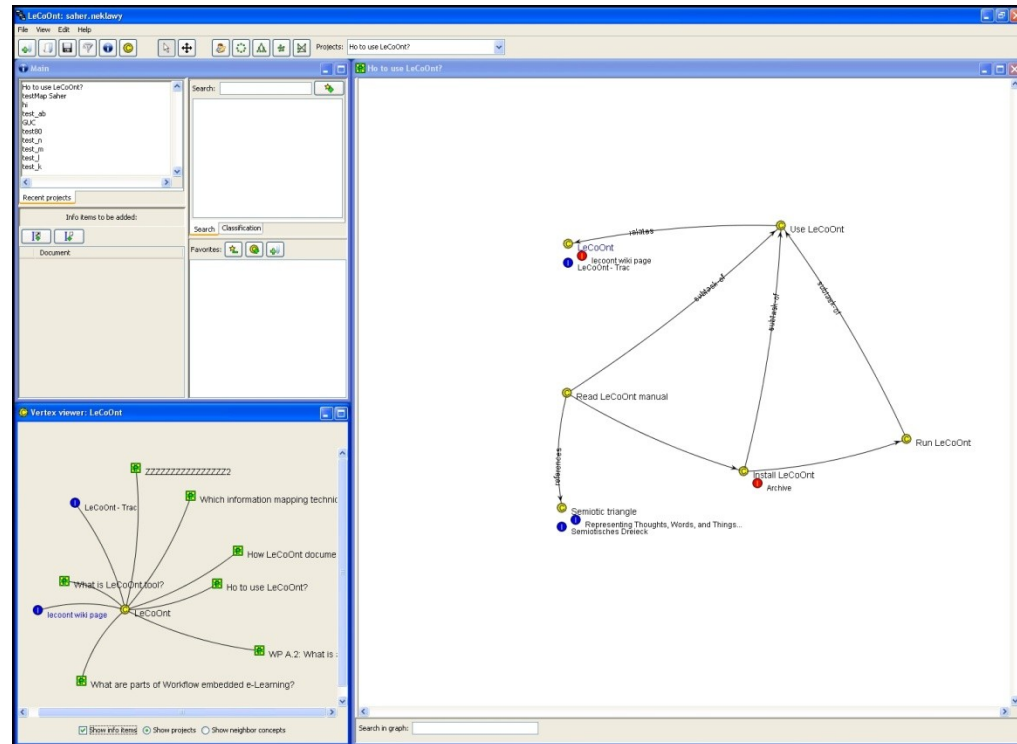
Concept Maps

- Abstract method to represent information
- Use of graphs to connect information
- Nodes (Concepts) represent data items
- Edges represent relations between data



LeCoOnt

- Concept Map viewer and editor
- Ability to create Concept Maps
- Searching concepts
- Concepts could you stereotyped
- Attaching documents to concepts
- Multi-user manager



The need of LeCoOnt on the web

- The trend of application moving to the web
- Accessibility from everywhere
- Integration with other applications

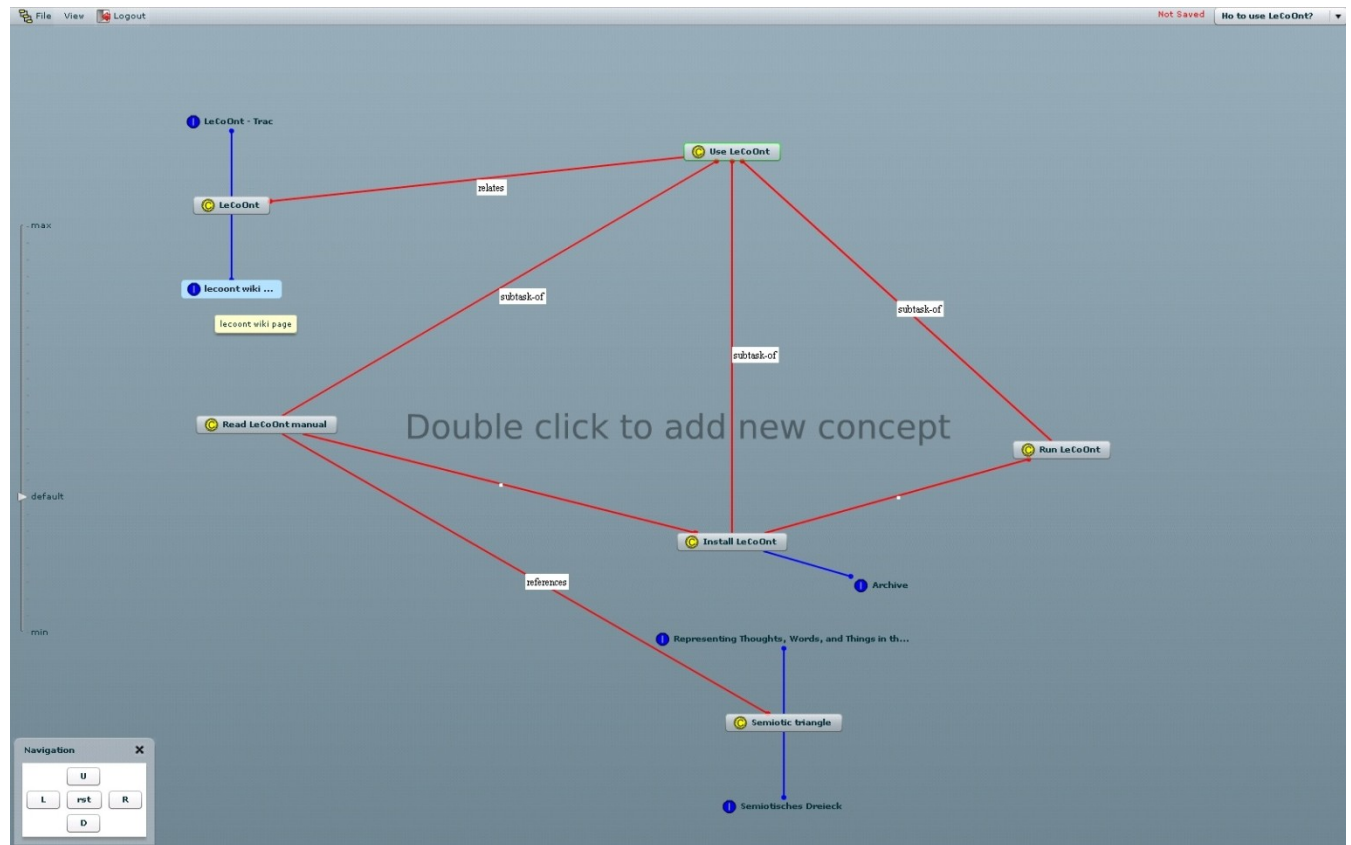
Flex



- Developed by Adobe
- Platform to develop Rich Internet Application
- Not Flash
- Compiles to SWF
- Browser independent
- Write code in AS3 (ActionScript 3) and MXML tags
- Event Driven Language
- Large number of built-in [components](#)
- [CSS stylable](#)
- Follows the ECMAScript Language Specification, Third Edition
- Supports E4X

Live demo

- LeCoOnt Web Main Application

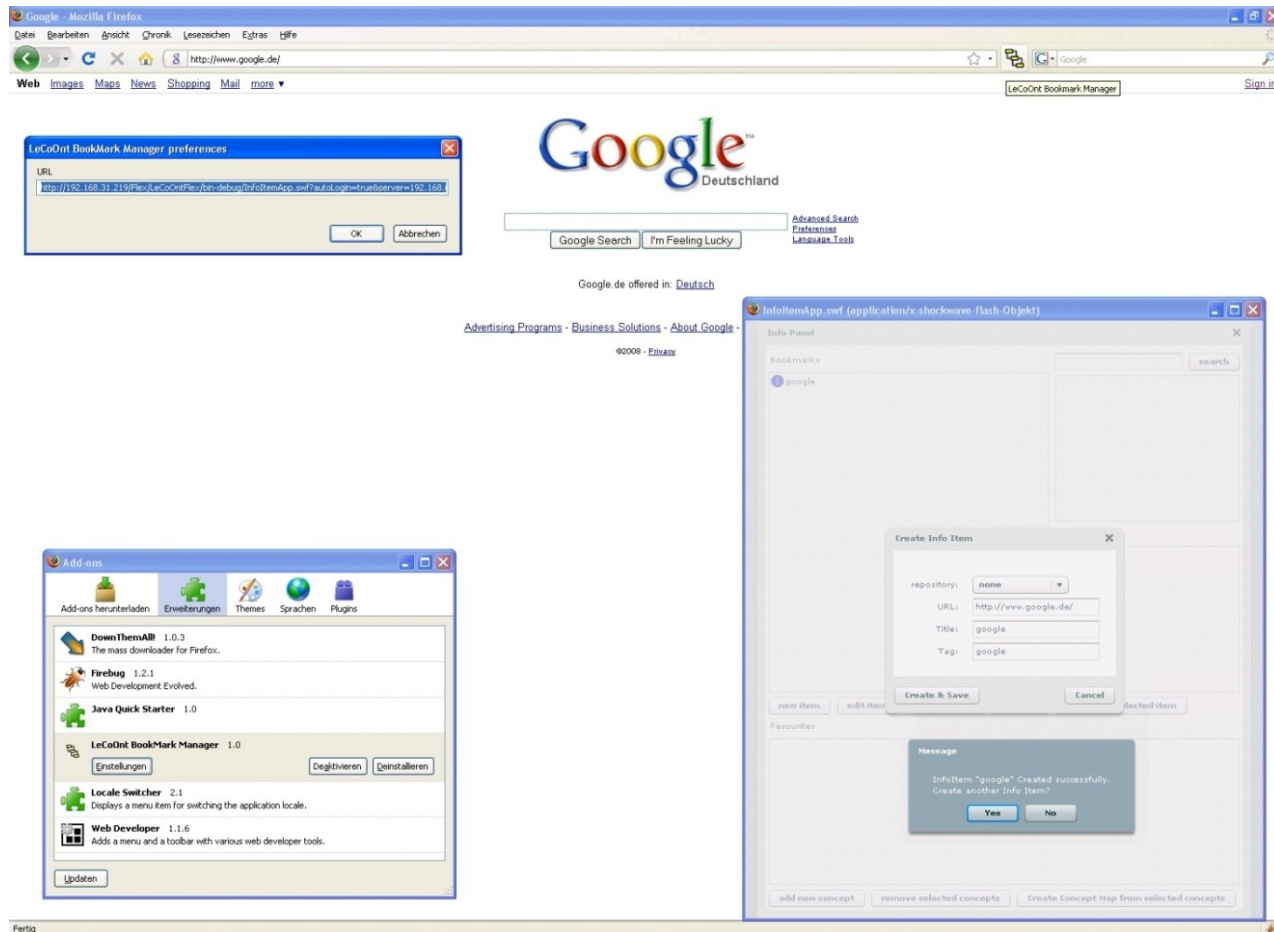


Looking under the hood (Client Side)

- [SharedObjects](#) used to store user data
- Small caching system to store:
 - User bookmarks
 - User favorites
 - Repository information
- Opening several concept maps
- Changing server to access webservices

Looking under the hood (Client Side)

- Firefox extension to create bookmarks



Looking under the hood (Server Side)

- Webservices provide an interface to communicate with the server and the database
- Use of session to identify user for all webservices
- Shared model stores opened concept maps
- Multi-user synchronization handled using locks
- On server startup, Concepts and Relations are indexed for faster access of data
- Cross domain configuration file

Integration with other applications

- SWF files could be integrated into any HTML page using the **<object>** and **<embed>** tags
- Parameters could be sent to the application using **flashvars**
- Use of **External Interface** to enable 2 way java script communication with flex

Integration with other applications

- Certain functionalities of LeCoOnt are possibly accessed from separate swf files:
 - Vertex Viewer
 - New Concept Creator
 - Bookmark and favorites manager

FlexLib for LeCoOnt

- Provides an interface to be able to communicate with the webservices provided for LeCoOnt from any flex application
- Contains components which could be used to extend other flex application

Thank you, Questions ?

References

- <http://www.cs.uiowa.edu/~assignori/web-size/size-indexable-web.pdf>
- <http://cmap.ihmc.us/Publications/ResearchPapers/TheoryCmaps/TheoryUnderlyingConceptMaps.htm>
- http://www.adobe.com/devnet/actionscript/articles/actionscript3_overview.html
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