

# Implications of writing, reading, and tagging on the web for reflection support in informal learning

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Implications of  
writing, reading, and tagging  
on the web  
for reflection support in informal learning

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# Readers and Contributors

# ***Reading and Writing***

# Tagging

*Reflection*

Motivation

**VISUALISATION OF INTEREST EXPRESSIONS  
CAN SEED *REFLECTION IN AND ON ACTION***

Motivation

# **SUPPORTING REFLECTION AT DIFFERENT STAGES OF UNSTRUCTURED LEARNING PROCESSES**



Can we use weak information about interests to stimulate and support reflection?

**QUESTION OF RESEARCH**

Do explicit interest expressions provide different information about a learner's interests than implicit interest expressions?

**QUESTION OF RESEARCH**

# Explicit Interest

Explicit interest is given if a user refers actively to a concept

- Tagging
- Blogging
- Categorisation
- Search expression

**Strong evidence of interest**

# Implicit Interest

Implicit interest is given if a user accesses information that is related to a concept

- Reading articles written by peers
- Following links provided by peers
- Selecting tags in a tag cloud

**Weak evidence of interest**

*Sometimes strong evidence about a user's interests is not available*

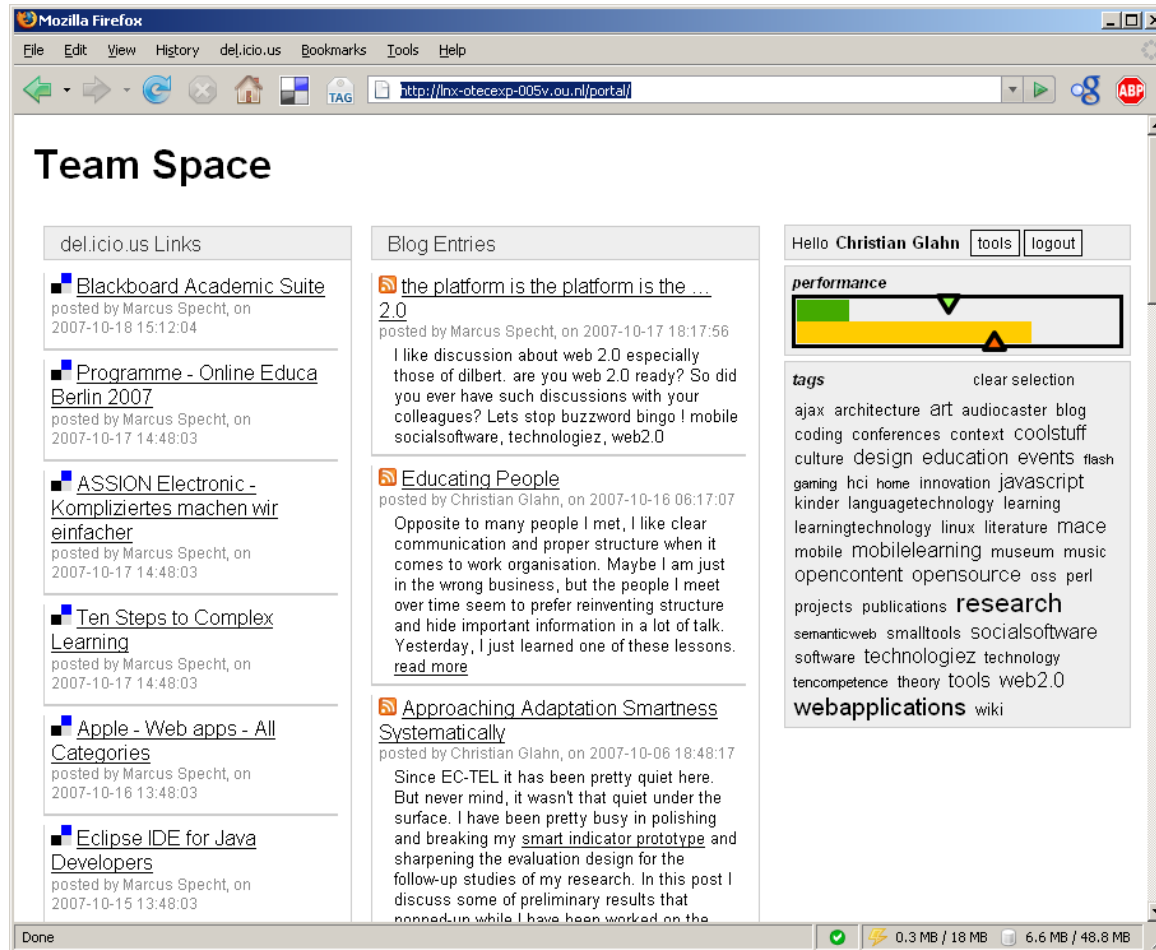
**THE PROBLEM**

*Tagging has been hardly investigated, yet*

*Tagging is mostly considered from the perspective of large groups.*

*Tagging is widely considered as cheap meta-data generation for structuring and information retrieval*

**MORE PROBLEMS**



# The Experimental Environment

# Hypotheses

1. Social navigation can be detected also among small user groups
2. Implicit interests in tags do not replicate explicit interests
3. Implicit interests of contributing users are more focused than those of non-contributing users
4. More active users have a convergent tagging behaviour and their implicit interest in tags



# Some Numbers

- 15 participants
  - Work loosely together
  - Same organisation
- 3 month duration
- Tagged resources
  - Delicious.com
  - Personal web-logs
- Content access
- Filtering of the tag cloud

# More stats

- 926 visits
  - 1411 Contributions
    - 108 blog postings
    - 1303 delicious links
  - 847 tags used 3068 times
    - 40% of tags in 79% of usage
  - 331 resources accessed
    - 365 tags
  - 389 filters applied
    - 133 tags  
of 262 tags in tag cloud
- ## Sharing
- 232 tags applied by > 1 user
    - 78% shared by < 4 users
  - 43 tags were shared in reading *and* filtering

# Results: Social Navigation

- 37% of own tags reused in implicit interest expressions
- 55% of shared tags reused in implicit interest expressions

# Results: Replication of Interest

- 40% of the 30 most relevant tags overlapped in explicit and implicit expressions
  - Non-contributors: 34% overlap
  - Contributors: 42.6% overlap
- With 10 most relevant tags in explicit and implicit expressions
  - Non-contributors: 20% overlap
  - Contributors: 48% overlap

# Results: Focus

- Implicit interest expressed in tags
  - Non-contributors: avg. 1.6 tags  $\pm$  1.2 tags
  - Contributors: avg. 2.2 tags  $\pm$  2 tags

# Results: Convergence

Avg. 53% of all tags of a user appeared only in implicit interest expressions

- More active contributors: avg. 57%
- Less active contributors: avg. 49%

# Hypotheses Revisited

1. Social navigation can be detected also among small user groups

2. Implicit interests in tags do not replicate explicit interests

~~3. Implicit interests of contributing users are more focused than those of non-contributing users~~

~~4. More active contributors have a convergent tagging behaviour in their implicit interest in tags~~

Implications

**THERE ARE THRESHOLDS FOR  
IMPLICIT INTEREST EXPRESSIONS**



Implications

**NOT ALL TAGS ARE INTEREST EXPRESSIONS,  
BUT FOR PERSONAL STRUCTURE**

Implications

**YES, WE CAN USE IMPLICIT INTEREST  
EXPRESSIONS TO SHOW SOMETHING NEW!**

# Next Steps

## ReScope Tags

adaptation adult\_learning **ajax** ambientcomputing **art** audio austria beta **blog** browser bugfix  
call casestudies **coding** comic commercial competence computeranimated computergames  
computerhistory computerscience conferences contemporary creative critique **culture** database  
demos **design** desktoputilities dictionaries distributions documentation dutch **education** email  
eu exhibition facebook fantasy flash friends funding futuretechnologies gamebaselearning gaming  
google googleearth graffiti graphicdesign gtalk **gui** **hardware** **hci** history home html  
humanrights **ideas** **identity** illustration indicators informal infrastructure innovation instantmessaging  
international java javaclasses **javascript** journals **learningtechnology** library **linux**  
**literature** ll lsa mace macosx magazine management maps mindmap mmorpg **mobile**  
mobilelearning modelling movies multimedia museum music networking **news** nfl obscure ocr  
**opensource** optimization papertoy pdf performance **perl** personalisation philosophy **photos** policy  
portal **project** project-management projects publication r reflection requirements-engineering **research**  
robotics science security **semanticweb** sensors server shortmovie skype **socialeffects**  
**socialsoftware** society **software** softwarearchitecture **specifications** statistics store study svg  
system **tagging** tax **technology** telephony tencompetence theory **tools** toys train training  
travel tv uml **usability** usercontent video videotools virtualmuseum visualisation voip weather  
web **web2.0** webanimation **webapplications** webdesign windows winterschool work  
workplace wow xml xul youth

## Phish One

Your Profile  
ReScope Tags

## Goals

Reset To Current Tag Cloud

140

hey cool selecting and deselecting works now too

12.09.2008 14:38:47

cool the new #message box works just fine :D

12.09.2008 12:50:26

with #tag attached ;)

11.09.2008 19:51:17

doh

11.09.2008 14:03:09

test one two one two

10.09.2008 20:35:57

*<http://lnx-otecexp-005v.ou.nl/rescope/>*

*Launch 22 Sep 2008*

*Trial is already available*

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<http://lnx-otecexp-005v.ou.nl/rescope/>