

Supporting User Tasks Online through Social Networks and the Semantic Web

Tom Heath

Knowledge Media Institute

The Open University

<http://kmi.open.ac.uk/people/tom>

30/05/2006



Background

things we still can't do...



Web [Images](#) [Groups](#) [News](#) [Froogle](#) [Scholar](#) [more »](#)

arrange travel to eswc2006|

[Advanced Search](#)

[Preferences](#)

[Language Tools](#)

Google Search

I'm Feeling Lucky

Search: the web pages from the UK

[Advertising Programmes](#) - [Business Solutions](#) - [About Google](#) - [Go to Google.com](#)

©2006 Google

Google™

Google™
UK

Web [Im](#)
[arrange](#)

[Advertising Program](#)

Web [Images](#) [Groups](#) [News](#) [Froogle](#) [Scholar](#) [more »](#)

hotel in montenegro i would like

[Advanced Search](#)
[Preferences](#)
[Language Tools](#)

Search: the web pages from the UK

[Advertising Programmes](#) - [Business Solutions](#) - [About Google](#) - [Go to Google.com](#)

©2006 Google

the semantic web

semantic web and the user experience

coming up in the next 30 mins

- online tasks
- tools to support these tasks

net / web usage as task performance

what are these tasks anyway?

searching and browsing

- Guha, McCool and Miller (2003)
- Broder (2002)
- Rose and Levinson (2004)

what's the real goal of the user?

Sellen, Murphy and Shaw (2002)

finding, information gathering, browsing,
transacting, communicating, housekeeping

and what about the rest of the net?

a taxonomy of user tasks online

Heath, Dzbor and Motta (2005)

Locating

Looking for an object or chunk of information which is known or expected to exist; it may or may not have been seen before by the user

Exploring

Gathering information about a specific concept or entity to gain understanding or background knowledge of that concept or entity

Monitoring

Checking known sources that are expected to change, with the express intention of detecting the occurrence and nature of changes

Grazing

Moving speculatively between sources with no specific goal in mind, but an expectation that items of interest may be encountered

Sharing

Making an object or chunk of information
available to others

Notifying

Informing others of an event in time or a
change of state

Asserting

Making statements of fact or opinion

Discussing

Exchanging knowledge and opinions with others, on a specific topic

Evaluating

Determining whether a particular piece of information is true, or assessing a number of alternative options

Arranging

Coordinating with third parties to ensure that something will take place or will be possible at a certain time

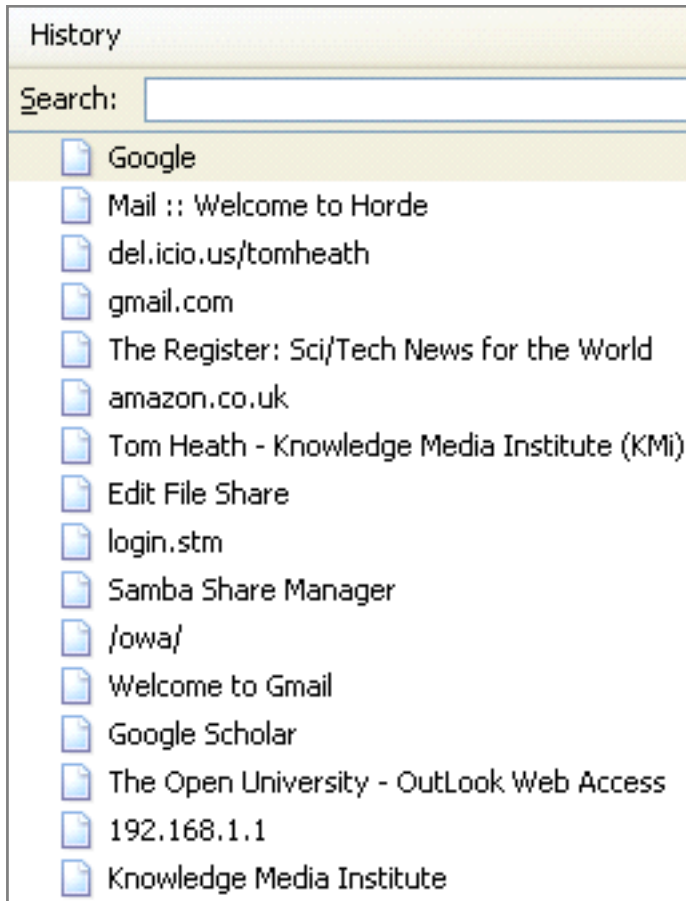
Transacting

Transferring money or credit between two locations; may or may not have some consequence in the offline world

tools that are oriented to the task of the user...

...and to their context

- social context
- preferences held
- previous experiences
- trusted services
- resources available
- current location



which tool to build?

locating and exploring + social context

word of mouth recommendation

what might this look like in a system?

search results + recommendations from friends?

how should results be prioritised?

Question 1

**Who do people seek
recommendations from *in
different scenarios?***

Question 2

How do they decide whether or not to trust this information?

Methodology

- In depth interviews with 12 participants
- 4 recommendation seeking scenarios
 - plumber, hotel, back pain, holiday activities
 - variation by type of task, criticality of task
 - “who would you ask for recommendations, and why”
- Qualitative analysis to identify key themes

5 Trust Factors in Word of Mouth Recommendation

Expertise

“i would probably go and ask my friend who is a plumber or my friend who is a gas fitter, working on the principle that their domain expertise, their knowledge, is in a similar area”

Experience

“people i know in the area, it’s good to have word of mouth, you know they’ve got experience good or bad”

Impartiality

“with travel agents you’d have to question what they were promoting to you - is it because they get commission?”

Affinity

“may not ask people who i don't feel comfortable with, who haven't got the same values as me, or have a completely different lifestyle that i don't relate to”

Track Record

“I looked on the internet yesterday about going to see a masseur, but they were too expensive so I’ll go back to [ask] my sister as I had a good experience with her before”

How the Factors are Used

expertise and experience cited most frequently

The more ***critical*** the task, the greater the emphasis on externally validated **expertise**

Heath, Motta and Petre (2006)

Implementation

locating and exploring of **travel and tourism “things”** using social context

3 main types of data

reviews of travel things

social network definitions (FOAF)

computed trust ratings...

...based on affinity and experience

Future Work

Thankyou