

how a semantic web will change web interaction

Tom Heath

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12/02/2007

the web as we know it

a web of linked resources
(mostly documents)

Tom Heath

Research

My PhD research is focused on using the semantic web to support recommendation-seeking in social networks. Specifically it aims to: understand how people use word of mouth within their social networks to locate information or explore particular topics; model these processes so they can be replicated in an online environment; build semantic web-based systems that support people in these locating and exploring tasks by making use of their social context.

This approach differs from traditional recommender systems and reviewing mechanisms on the web in that it aims to harness the knowledge of known individuals; a process I refer to as *Known Person Recommendation (KPR)*.

At a broader level, the research takes a task-based approach to internet usage as its starting point, emphasising the goals of the user in being online. The *locating* and *exploring* tasks being investigated represent just two of eleven online tasks that have been identified as part of the research. In addition, it is recognised that these tasks are not performed in isolation, that aspects of the user's context shape the task and may be able to assist the user in performing it. Of the six *personal context factors* that have been identified the user's social context is currently being investigated to determine how this may assist in performance of tasks online.

Publications

- Heath, Tom, Motta, Enrico (2006) [Reviews and Ratings on the Semantic Web](#). In Poster Track, 5th International Semantic Web Conference (ISWC2006), Athens, Georgia, USA.
- Heath, Tom, Domingue, John, Shabajee, Paul (to appear) [User Interaction and Uptake Challenges to Successfully Deploying Semantic Web Technologies](#). In Proceedings of [The 3rd International Semantic Web User Interaction Workshop \(SWUI2006\)](#), 5th International Semantic Web Conference (ISWC2006), November 2006, Athens, GA, USA.

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- Martin Dzbor
- Marian Petre
- John Domingue

Affiliations

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- Co-organiser, 3rd Workshop on Scripting

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a semantic web

**a web of statements *about*,
and *linking*, resources
(only some of which are documents)**

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phd:supervisor

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conf:organiser

Roles

- Co-organiser, 3rd Workshop on Scripting

Tom Heath

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

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description of me in RDF/XML

```
<?xml version='1.0' encoding='UTF-8'?>
<rdf:RDF
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:owl="http://www.w3.org/2002/07/owl#"
  xmlns:foaf="http://xmlns.com/foaf/0.1/"
  xmlns:trust="http://trust.mindswap.org/ont/trust.owl#"
  xmlns:wn="http://xmlns.com/wordnet/1.6/"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:geo="http://www.w3.org/2003/01/geo/wgs84_pos#"
  xmlns:contact="http://www.w3.org/2000/10/swap/pim/contact#"
  xmlns:airport="http://www.daml.org/2001/10/html/airport-ont#">

  <foaf:PersonalProfileDocument rdf:about="http://kmi.open.ac.uk/people/tom/about/rdf">
    <dc:title>Tom Heath's FOAF File</dc:title>
    <rdfs:label>Tom Heaths FOAF File</rdfs:label>
    <dc:description>Friend-of-a-Friend description for Tom Heath in machine-readable RDF
    <dc:creator rdf:resource="http://kmi.open.ac.uk/people/tom/" />
    <foaf:maker rdf:resource="http://kmi.open.ac.uk/people/tom/" />
    <foaf:primaryTopic rdf:resource="http://kmi.open.ac.uk/people/tom/" />
  </foaf:PersonalProfileDocument>

  <foaf:Person rdf:about="http://kmi.open.ac.uk/people/tom/">

    <foaf:name>Tom Heath</foaf:name>
    <foaf:title>Mr</foaf:title>
    <foaf:firstName>Tom</foaf:firstName>
    <foaf:surname>Heath</foaf:surname>
    <foaf:nick>Tom</foaf:nick>
    <foaf:mbox_sha1sum>02085a0d20a5f574c1ce6cfe42bba6e85cfe07cf</foaf:mbox_sha1sum>
    <foaf:phone rdf:resource="tel:+44-(0)1908-653565"/>
    <foaf:jabberID>t.heath@open.ac.uk@buddyspace.org</foaf:jabberID>
    <foaf:homepage rdf:resource="http://kmi.open.ac.uk/people/tom/about/html"/>
```

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so what? why should I care?

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data integration on a web scale

The screenshot shows the ESWC06 Technologies website. The header includes the ESWC06 logo, the word "Technologies", and the European Semantic Systems Initiative logo. Below the header is a blue banner with the text "3rd European Semantic Web Conference 2006".

The main content area features a map of Europe with a pop-up window for "Arash Amiri". The pop-up contains a photo of Arash Amiri and a home icon. The map shows several red location pins in Europe. To the right of the map is a list of members, each with a small globe icon. The list is titled "Members:" and includes the following names:

- Holger Adelman
- Florence Amardeilh
- Arash Amiri
- Krasimir Angelov
- Darko Anicic
- Anupriya Ankolekar
- Grigorios Antoniou
- Lora Aroyo
- Sinuhe Arroyo
- Fadi Badra
- Rokia Bendaoud
- Stefanie Betz
- Ian Blacoe
- Piero Bonatti
- Paolo Bouquet
- Makram Bouzid
- Luka Bradesko
- Dan Brickley
- Scott Brinkman

The map is powered by Google and includes navigation controls (directional arrows, zoom in/out, and a search icon) and map style buttons (Map, Satellite, Hybrid). The text "POWERED BY Google" and "Terms of Use" are visible at the bottom of the map area.

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**so what does this change,
interaction-wise?**

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everything!

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the web page is dead

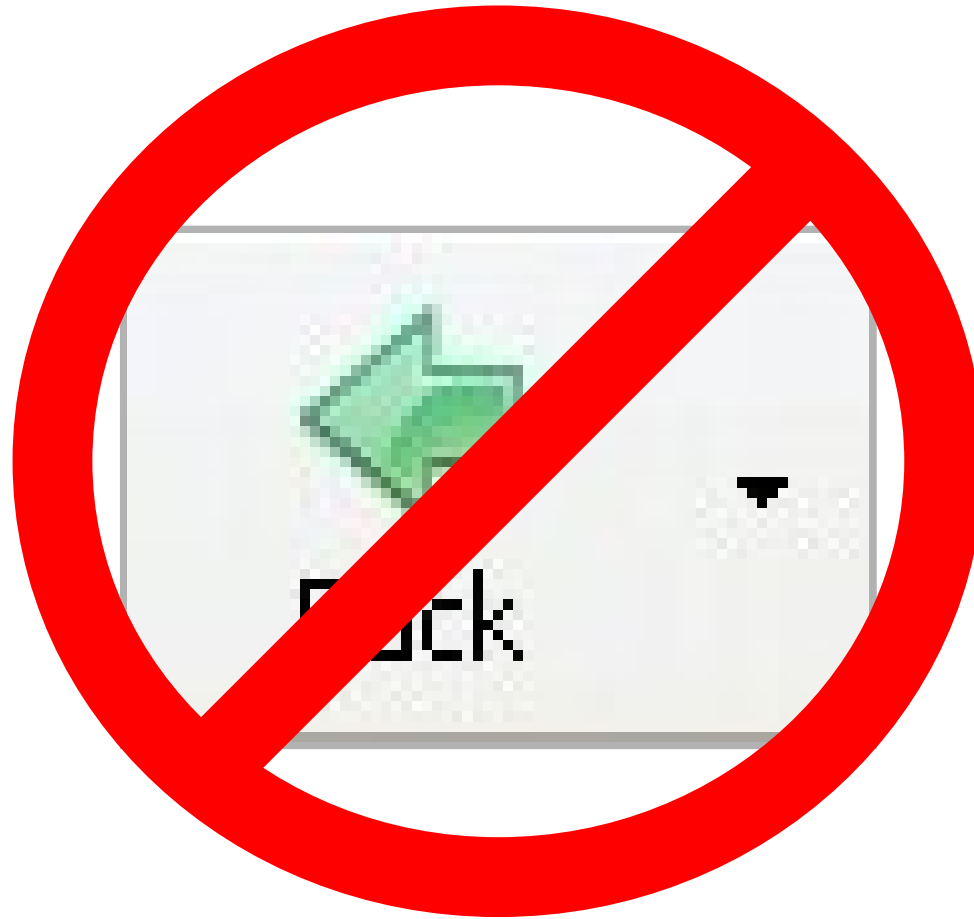
**statements, not documents, are the
new fundamental unit of the web**

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there's no back button on the semantic web



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throw away your homepage

get yourself a URI

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

```
<owl:sameAs rdf:resource="http://identifiers.kmi.open.ac.uk/people/tom-heath/" />  
<owl:sameAs rdf:resource="http://revyu.com/people/tom/" />  
<owl:sameAs rdf:resource="http://my.opera.com/tomheath/xml/foaf/#me" />
```

no more surfing, dude



it's all about tasks now

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so what does this mean for us?

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years more HCI research



Tom Heath

HCI Interest Group, Department of Computing, 12/02/2007

thankyou!

Tom Heath

HCI Interest Group, Department of Computing, 12/02/2007

