Personalizing Relevance on the Semantic Web through Trusted Recommendations from a Social Network

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search results, personalised to you
overview

• a traditional approach to personalisation
• re-defining relevance
• our approach (work in progress)
  – personalising relevance in information seeking
  – recommendations from people we trust
  – semantic web as deployment platform
personalisation: a traditional approach
Recommended for Tom Heath (If you're not Tom Heath, click here.)

Recommendations for you are based on items you own and more.

1. Don't Make Me Think!: A Common Sense Approach to Web Usability
   by Steve Krug
   Publication Date: August 1, 2005
   Our Price: £16.49   Used & new from £12.98
   Recommended because you added Prioritizing Web Usability to your Shopping Basket and more (edit)

2. Lava Ground
   by I Wayne
   Release Date: August 22, 2005
   Our Price: £12.99   Used & new from £6.72
   Recommended because you added Universal to your Shopping Basket and more (edit)

3. My First Holly Golightly Album
   by Holly Golightly
   Release Date: May 23, 2005
   Our Price: £8.99   Used & new from £7.41
   Recommended because you added My First Holly Golightly to your Shopping Basket and more (edit)
personalisation: a traditional approach

- operates in a closed world
- the task supported is poorly defined
can we personalise a very specific task?
Beat Back Pain Today
backinaction.co.uk UK's leading web site and stores 1000's of products that work

Outcome of general practitioner referrals to specialist outpatient...
Patiens' mean consultation rate for back pain declined from 4.2 consultations per ...
A study in Milton Keynes and the Oxford region. JR Coll Gen Pract. ...
www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1371787 - Similar pages

Musculoskeletal clinic in general practice: study of one year's...
Manipulation in treatment of low back pain: a multicentre study. ...
A study in Milton Keynes and the Oxford region. JR Coll Gen Pract. ...
www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1238758 - Similar pages

Milton Keynes Fitness - Milton Keynes Sport - MKWeb
Milton Keynes MK2 2AS ContactManager Mr R Blake Tel 01908 644444 Milton Keynes
Sports Injury Clinic Provides treatment of sports injuries and back pain by ...
www.mkweb.co.uk/sport/DisplayArticle.asp?ID=22303 - 32k - Cached - Similar pages

Consultants Special Interests - Region: SE. Keyword: back
back pain treatment, Consultant, Maidenhead (Private) Slough (NHS) ... Back surgery,
Consultant, Milton Keynes (NHS/Private), Orthopaedics, Back surgery, ...
www.specialistinfo.com/thget.php?t=t_rssi&x=SEback - 16k - Cached - Similar pages

Consultants Special Interests - Region: . Keyword: back
• irrelevant to the topic
• irrelevant to me
the nature of relevance

• topical relevance: query ↔ pages

• personal relevance: my info need ↔ items
a system for personalised relevance
“known person recommendation”

• ask people I know and trust
  – source-centric
  – allows for more complex reasoning

• knowledge required
  – who is known?
  – what’s the task/situation?
    → who is most trusted?
who is most trusted, and why?

…it depends on

• **five trust factors**
  – expertise, experience, impartiality, affinity, track record

• **the nature of the task**
  – how critical the task, how subjective the solution

• (Heath, Motta and Petre, 2006)
implementation
a system for personalised relevance

• domain: travel/tourism
  – non-critical, highly subjective

• significant trust factors
  – **affinity** between the info seeker and info source
  – **experience** of each person of particular domains

• data requirements
  – who do you know? (FOAF)
  – how trustworthy are they?
  – a pool of potential results
system components

- reviewing/rating system, for “travel objects”
  - provides pool of potential results
  - outputs RDF/XML according to Review vocab
- trust kb, computes trust relationships:
  - affinity
  - experience
- search system
  - search index
  - relevance reasoner
1. users provide FOAF files and ratings of travel things
2. system infers trust relationships
3. rated travel things are added to search index
4. user does keyword search
5. search system looks for results rated by known people
6. relevance reasoner ranks results based on inferred trustworthiness of the source
future work

• complete the implementation
• evaluate the importance of affinity vs experience in trust inferences
• evaluate the relevance of search these personalised results
thankyou
http://kmi.open.ac.uk/people/tom