

Towards Social Information Seeking and Information Interaction on the Web 2.0

Position Paper

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Outline

1. Context: Studies of Tagging as Information Behavior
2. Modeling Social Interactions on the Social Web
 1. Two dimensions of Social Interaction
 2. Social Web IR Interactions – examples
3. Social Interaction mapped to Social Search
4. The Future of Social Search

Context: Studies on Tagging

- Category Model of User Tags (Connotea, [Heckner, Mühlbacher & Wolff 2008])
- Comparison of Tagging Practices (Flickr, YouTube, Delicious, Connotea, [Heckner, Neubauer & Wolff 2008])
- Analysis of Motivations for Tagging ((Flickr, YouTube, Delicious, Connotea, [Heckner, Heilemann & Wolff 2009])
- Tagging in Music Platforms ([Lösch 2009])
- ...

Tagging: A fourth layer of indexing?

1. Author keywords

2. Intellectual indexing by information professionals

3. Automatic indexing

4. Tagging – “fourth layer of indexing”?

“cognitively and functionally different representations of information objects may be used in information retrieval to enhance quality of results”
(polyrepresentation continuum, Larsen et al 2006)

- tagging as a possible solution to the *vocabulary problem*?
- can tags “identify qualities or characteristics” of resources (Kipp 2007)?
- do tags carry aspects beyond topicality (e.g. time, task, emotion)?

Modelling Social Interactions on the Social Web: Direct and indirect communication

- Means for communication on the Web 2.0 **add a social dimension to information retrieval**

Is web search a social task?



Indirect social interactions

Searching and Retrieving
Content that has been
created or annotated
by other users
(e.g. Blog Search
-Hearst 2008)

Direct social interactions

Communicating through
Social Web Features, e.g.
•(micro-)blog posts
•Comments
•ratings

Towards a Model of Information Behavior in Social Search

- Ben Shneiderman's approach towards social software
 - „Leonardo's Laptop“ idea (!?)
 - classification of activities
 - relationship spheres
 - Domain-related description model: Activities and relationship table (ART)
 - domain
 - activity type
 - relationship sphere
 - i.e. a theory of social software's potentials avant la lettre ?
- Cool & Belkin's classification of information interaction

Activity types

Information Behaviors Facet (Cool & Belkin)

- Create
- Disseminate
- Organize
- Preserve
- Access (Method, Mode)
- Evaluate
- Comprehend
- Modify
- Use

Activity Dimensions (Shneiderman)

- Collect
- Relate
- Create
- Donate

- **Social Spheres:**
 - Self
 - Family and Friends
 - Colleagues
 - Citizens and Markets

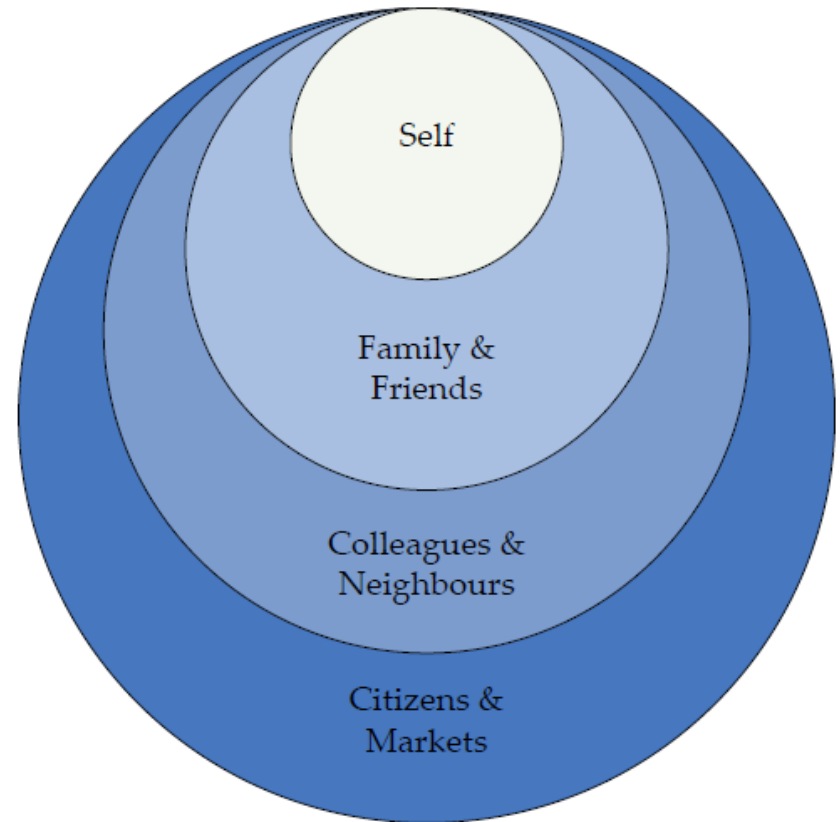
Two dimensions of social interaction (Shneiderman, 2002)

Activity dimension

- Collect
- Relate
- Create
- Donate



Social Spheres



An activities and relationships table (ART) for Social Web IR Interactions (1)

	Collect Information	Relate Communications	Create Innovation	Donate Dissemination
Self	Retrieve an item from the personal collection in <i>Flickr, Connotea, Delicious, etc.</i>		Manage personal <i>Delicious</i> bookmarks; Manage scientific bibliographies on <i>Connotea</i> ;	
Family and Friends	Browse a friend's collection of <i>Flickr</i> photos;	Communicate with friends on <i>StudiVZ</i> ; create a social networking profile that reflects your personal beliefs and tastes;	Tag photos for retrieval on <i>Flickr</i> ; use <i>a blog</i> to write about experiences during a year abroad;	Publish birthday photos on <i>Flickr</i> ;

An activities and relationships table (ART) for Social Web IR Interactions (2)

	Collect Information	Relate Communications	Create Innovation	Donate Dissemination
Colleagues	Sift through the bibliography of fellow researchers on <i>Connotea</i> or <i>Citeulike</i> ;	Write a message to a fellow colleague on <i>LinkedIn</i> or <i>Xing</i> ;		Use a corporate bookmarking management software to publish job-related articles; Write about business processes in the <i>CorporateWiki</i> ;
Citizens and Markets	Watch <i>Youtube</i> videos;	Rate videos on <i>Youtube</i> ; Express an Opinion about products on <i>Amazon</i> ;	Compose a <i>Wikipedia</i> article; Comment on articles from Newspaper portals; Write a blog about public issues;	Publish a <i>Wikipedia</i> article; Share a <i>Youtube</i> video;

Social Interaction mapped to Social Search (cf. Evans & Chi, 2008)

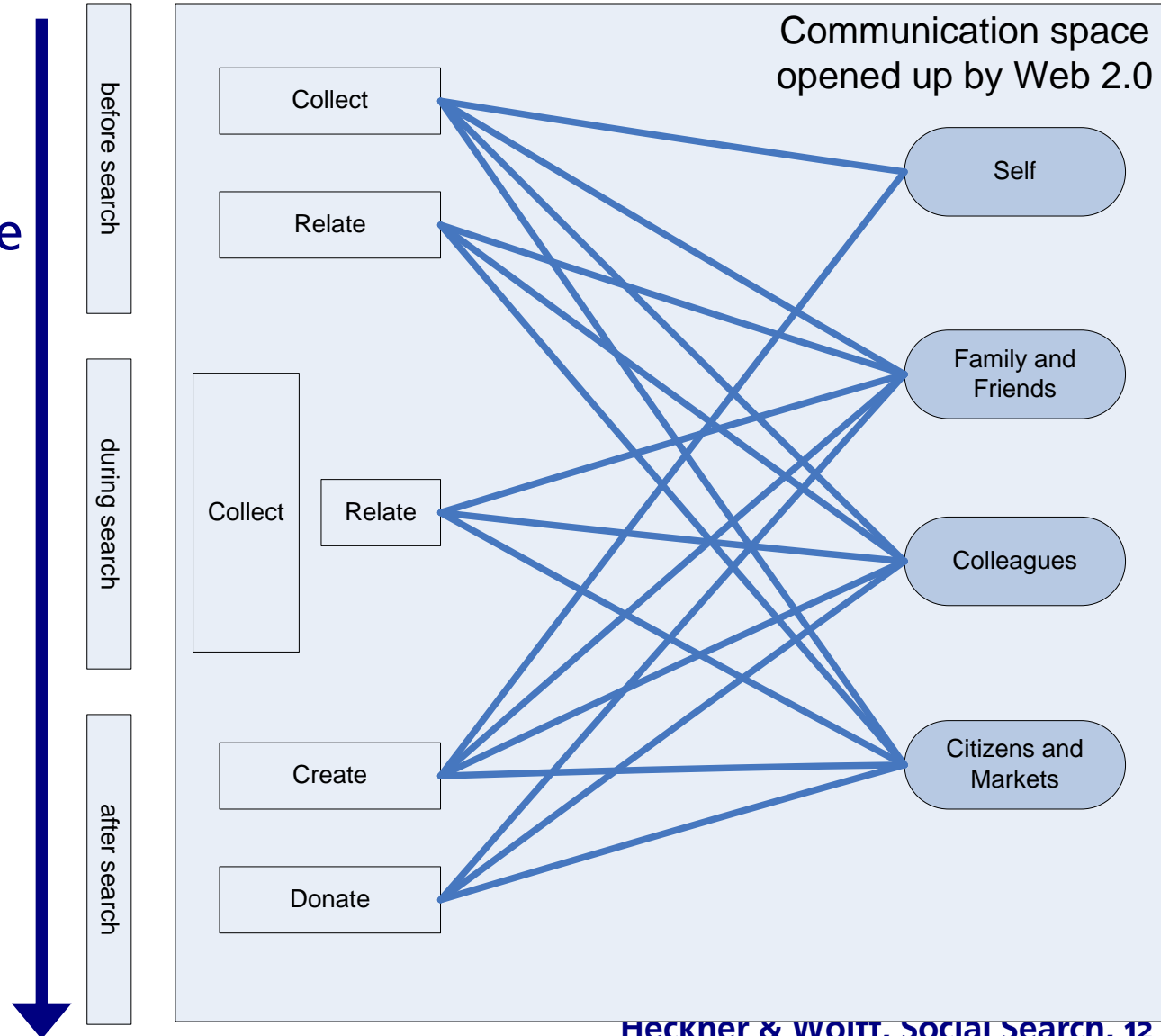
- Various communication activities occur during IR
- Web 2.0 as enabling technology for future design of end user-centered IR systems (Glöckner-Rist 1993, Wolff 2006)
- new social configurations in IR beyond
 - end user (domain expert) + information professional or
 - end user with double role

Social Interaction mapped to Social Search (cf. Evans & Chi, 2008)

three aspects:

- search phase
- activity type
- relationship sphere

generalisation:
embedding in
iterative process
models of
information seeking
and information
behavior



“The Future of Social Search” (1)

- Current systems (e.g. tagging platforms or publication server) focus on the „after search“ phase (e.g. *donating* and *disseminating* with *Connotea* or *EndNote Web*)
- search is an “everyday activity for everybody” (Wolff 2006, Mattern 2007)
- Emerging information-related communication services
 - *Before and during search*: Yahoo Answers
 - *Before*: Expert recommendation systems

“The Future of Social Search” (2)

- “(social) outsourcing” of IR problems as a possible trend?
 - Web 2.0 platforms for collaborative IR
 - *Crowdsourcing* - of information retrieval work
 - Mechanical Turk
 - Humagrid
 - Innocentive
 - Institutional integration of these services in
 - library information systems
 - virtual research environments (VREs)

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