Information support of research information interactions of doctoral students in Slovakia

Jela Steinerová, Andrea Hrčková
Comenius University Bratislava
Slovakia
steinerova@fphil.uniba.sk

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Outline

- Information science and digital scholarship
- Study of information behavior of PhD. students
- Results of data analyses
- Study of discussion groups
- Implications for digital scholarship
- Recommendations - information services
- Final model
- Conclusions

Digital scholarship

- Scholarly information work in digital environment
  - Large volumes of data (big data)
  - New methods, new procedures
- Information practices:
  - Open science, knowledge discovery
  - Information sharing
  - Scientific record, digital repositories

Information interactions

- Human information interactions:
  - relationships between people and information (interactions of scholars in sociotechnical systems)
- Current challenges of information science:
  - New models of digital scholarship
  - Background: interactive models in information science (e.g. Belkin, Ingwersen, Saracevic, Fidel, Spink)
  - Studies of PhD. students (Drachen et al., Vakkari)

Study of doctoral students

- Questions:
  - Which information needs and behaviors do doctoral students have?
  - Which information interactions are typical for doctoral students in digital environments?
  - Can we develop a model of information interactions for digital scholarship?

Study of doctoral students

Qualitative study

- Semi-structured interviews – data acquisition
  - Oct. 2012- Sept. 2013
- 18 PhD. students: representation of different disciplines
  - 28 questions, average age: 26,8, time: 1 hour
  - Information horizons

Concept of the study

Research behavior	▪ selection of topic ▪ planning of the research process
Information behavior in information use	▪ information strategies, practices ▪ serendipitous information gathering
Information gathering and seeking	▪ types of sources ▪ information horizon
Organization of information	▪ sorting of sources ▪ sorting tools
Social media	▪ use ▪ benefits
Information behavior in production	▪ publishing ▪ types of sources; selection of journals, publisher, forms

Results: information strategies

Browsing:
Internet, web

Keywords,
citation chaining

Google
Google Scholar

Libraries
Digital libraries

Electronic databases of scientific documents

Results: social media

Passive use		
Reading Sharing Questionnaires	Benefits: Discussion fora Blogs Wiki	Personal, Private communication

Information support

Writing theses
Citations
Information literacy

Use of electronic sources

Collaboration with colleagues
Learning

Sharing of sources, strategies, tools, methods

E-learning
Repositories
Integration of systems

Implications for digital scholarship

Make implicit knowledge explicit

From lower levels of context to the highest levels

Discovery of knowledge

Visualization

Interpretation

Ecology:

Adding value

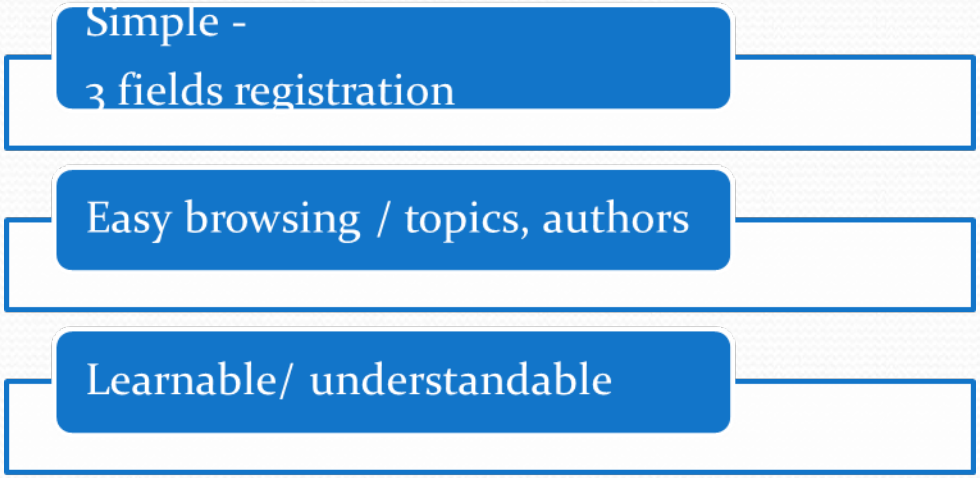
Re-use

Study of discussion groups – grey information

- Discussion forums (Hrčková 2013)
  - Virtual places – interactions: news, questions, projects
  - 161 users, 53 factors
    - technological, social, content
- Grey information:
  - *Writing theses*
  - *Feedback*
  - *Contributions*
  - *Technical problem-solving*
  - *New perspectives*
  - *Best practices*
  - *Advice, consulting*

Implications for discussion group interfaces – simple design

- Recommendations



- Features

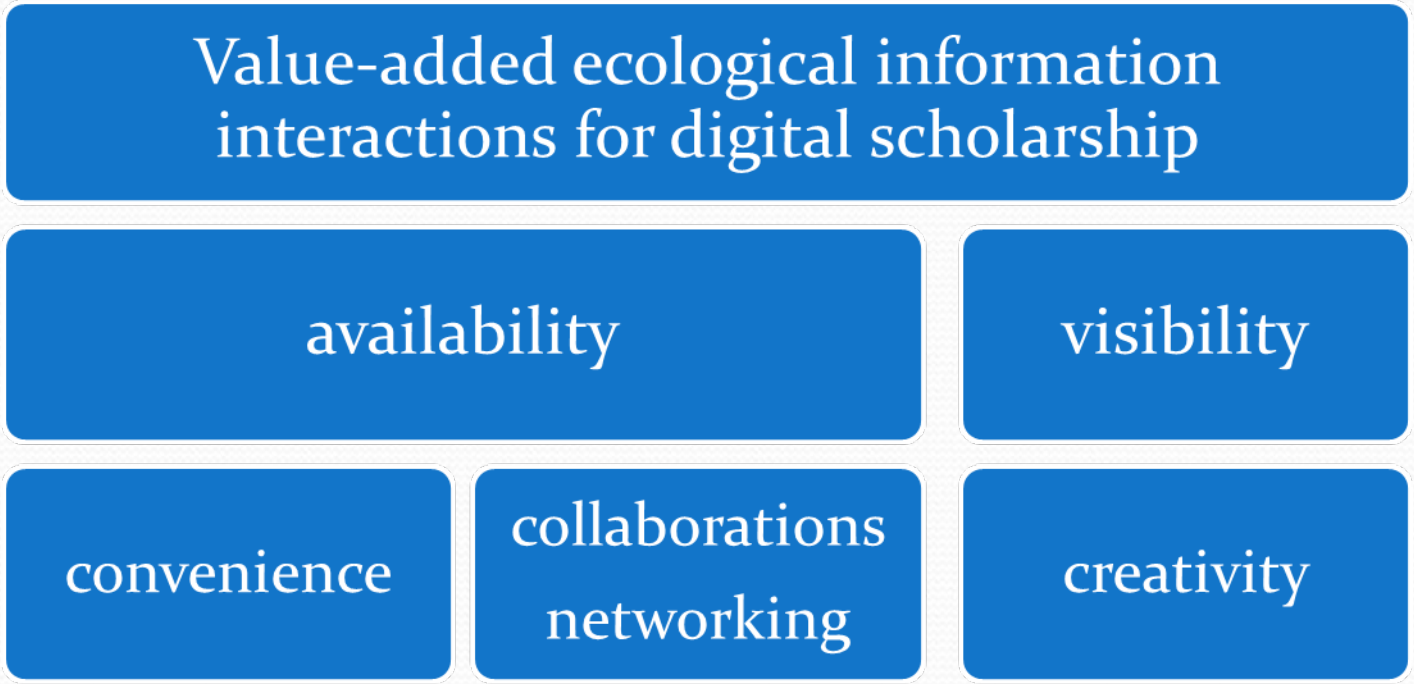
Findable signing in/ out link

Quick editing, deleting content

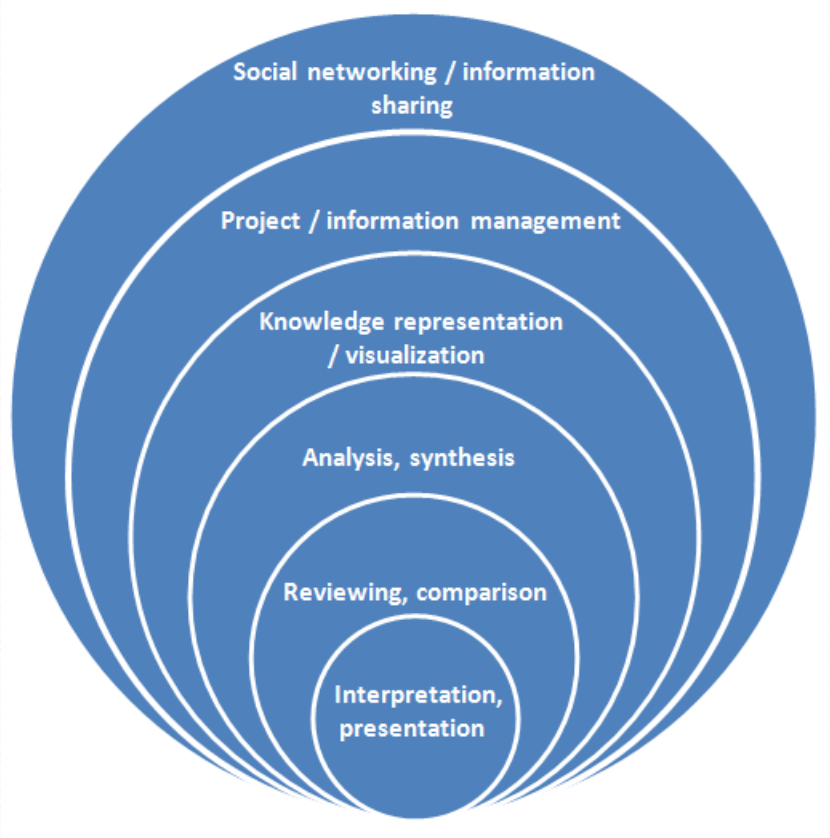
Simple contribution form

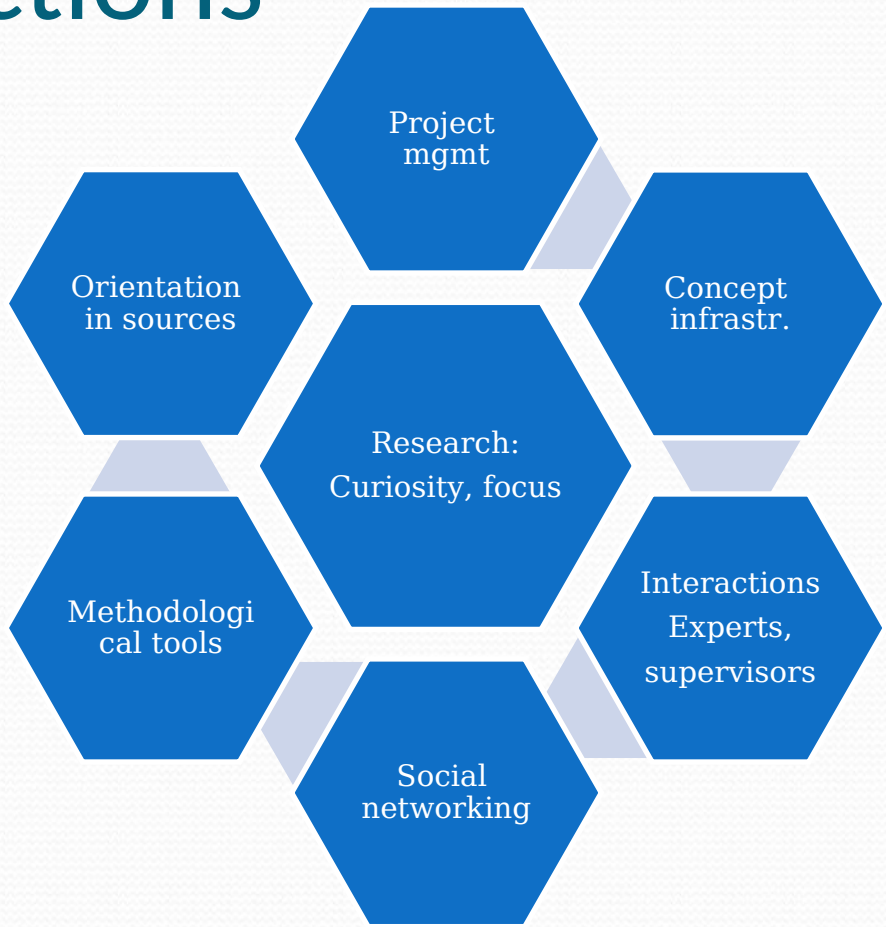
Recommendations

- Information services



Final model: information support of research interactions





Conclusions

Multiple scholarly interactions

- Community models
- Social networking, dialogue, reviewing

Integration of information behavior with design

Conceptual infrastructures

From data cleaning to interpretations

Guidance in research work

Conclusions

- Implications for digital scholarship:
  - value-added information products, „grey“ communities
    - Interactive spaces, collaboratories,
    - Statistical data, medical images, digital cultural objects, annotated human genome, etc.
    - Blogs, social media products, discussions, reviews, commentaries, annotations, profiles
    - Big research data, analyses, linked data – e.g. research stories, censuses, simulations, genealogy, prototypes
    - Knowledge bases, conceptual maps, knowledge maps

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