INFORMATION LITERACY PRACTICES OF RESEARCHERS IN WORKPLACE INFORMATION ECOLOGIES

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OUTLINE

- Information Behavior and Workplace Information
  - Studies of Information Behavior of Scholars
  - Workplace Information Literacy
  - Information Ecologies
- A Study of Information Behavior of Researche
  - Objectives
  - Methodology – Concept Mapping
  - Barriers in research information infrastructures
  - Values of research work
- Workplace Information Ecologies
- Conclusions

PURPOSE

- Explore information literacy practices of researchers in scholarly workplaces

- Qualitative study of information behavior of researchers in Slovakia
  - ***Which values and barriers determine workplace information practices of researchers?***

- Workplace information ecologies

INFORMATION BEHAVIOUR OF SCHOLARS

- Information behavior studies: scholars
  - A scientist in an interconnected set of system (Taylor)
  - Ellis´model (starting, chaining, browsing, differentiating, monitoring, extracting), theory of scientific collaboration (Olson, Olson)
- New patterns: online communication, electronic publishing
- Information practices – contextual factors – workplaces, digital tools, barriers

INFORMATION BEHAVIOUR OF SCHOLARS

WORKPLACE INFORMATION LITERACY

- Workplaces:
  - places where people engage in work and information use

- Workplace information literacy:
  - making sense, understanding complex information environments
  - Bruce (socio-cultural practices, informed learning)
  - Lloyd (information landscapes), Sommerville (cultivation, behavioral, socio-cultural, relational approaches), Abram (social networks, skills), professional information literacy (Abdi, Bruce)
- Transliteracy: information use, learning, collaboration, communication, interactions, tasks, tools, policies, decision-making

INFORMATION ECOLOGIES

- Dynamic interactions of people, practices, values and technologies
- Making information meaningful, communities of practice
- Adaptation, participation, co-evolution, values
  - Eliminating information overload and risks of information use
- Information ecologies in scholarly workplaces
  - ***dynamic places of multiple factors – digital resources, social networking, digital publishing, remote collaboration, research and methodological creativity***

A QUALITATIVE STUDY OF INFORMATION BEHAVIOR OF RESEARCHERS

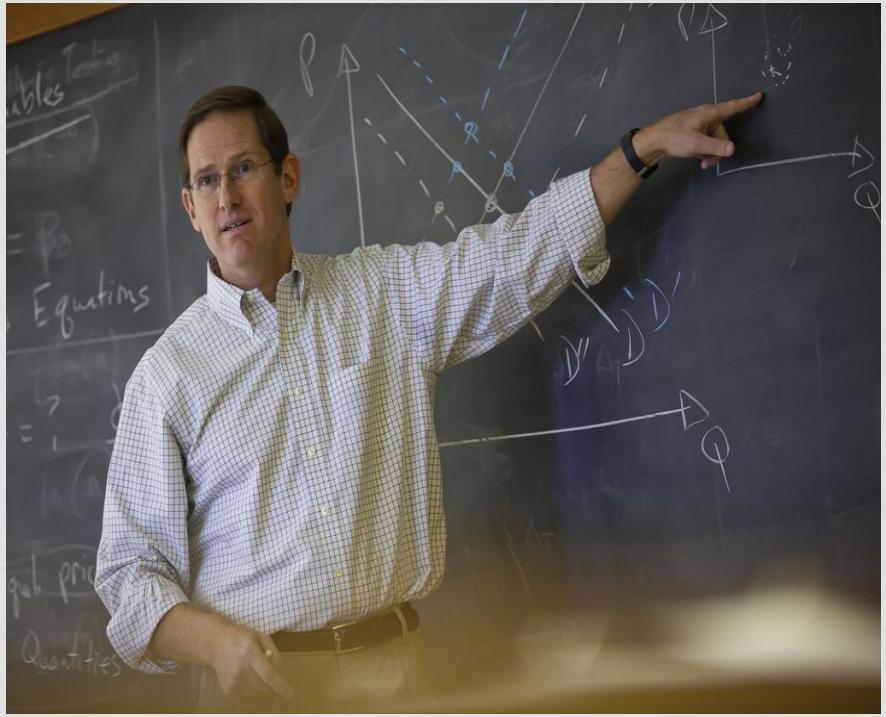
- Research Design and Methodology
  - **What is the influence of workplace information infrastructure on information practices of researchers?**
  - **Which barriers are most significant?**
  - **Which values emerge in developing information ecologies?**

- Semi-structured interviews, 19 elite scholars
  - research process, information process, information inrastructure, factors of influence

- Content analyses
- Concept mapping

- Common patterns
- Differences in perceptions of knowledge infrastructurein disciplines

INFORMATION BEHAVIOUR OF SCHOLARS



CHARACTERISTICS OF SUBJECTS

Group	Discipline [17]	Research subjects	Gender
Humanities (8)	Archaeology; Archival Studies; Comparative Religionistics; Literary Studies; Sinology; Slovak Language – Linguistics; Systematic Philosophy (2) [7]	Aeneolith, Bronze Age; Written Culture History in Slovakia; Maya Culture; Slovak Literature; History of China; Slavic languages, Dialectology; Logics; Pragmaticism	F (0) M (8)
Social Sciences (4)	Ethnology; Economics, Statistics; Politology; Sociology [4]	Folk traditions, social anthropology; Megatrends, prognostics; Comparative politology, European integration; Social policy	F (4) M (0)
Sciences (5)	Astronomy, Astrophysics; Macromolecular Chemistry; Molecular Biology; Neurophysiology; Nuclear Physics [5]	Observational astronomy; Polymers; Genetics; Autism; Space Sciences	F (1) M (4)
Technical Sciences (2)	Computer Science (2) [1]	Information Systems; Software engineering	F (1) M (1)

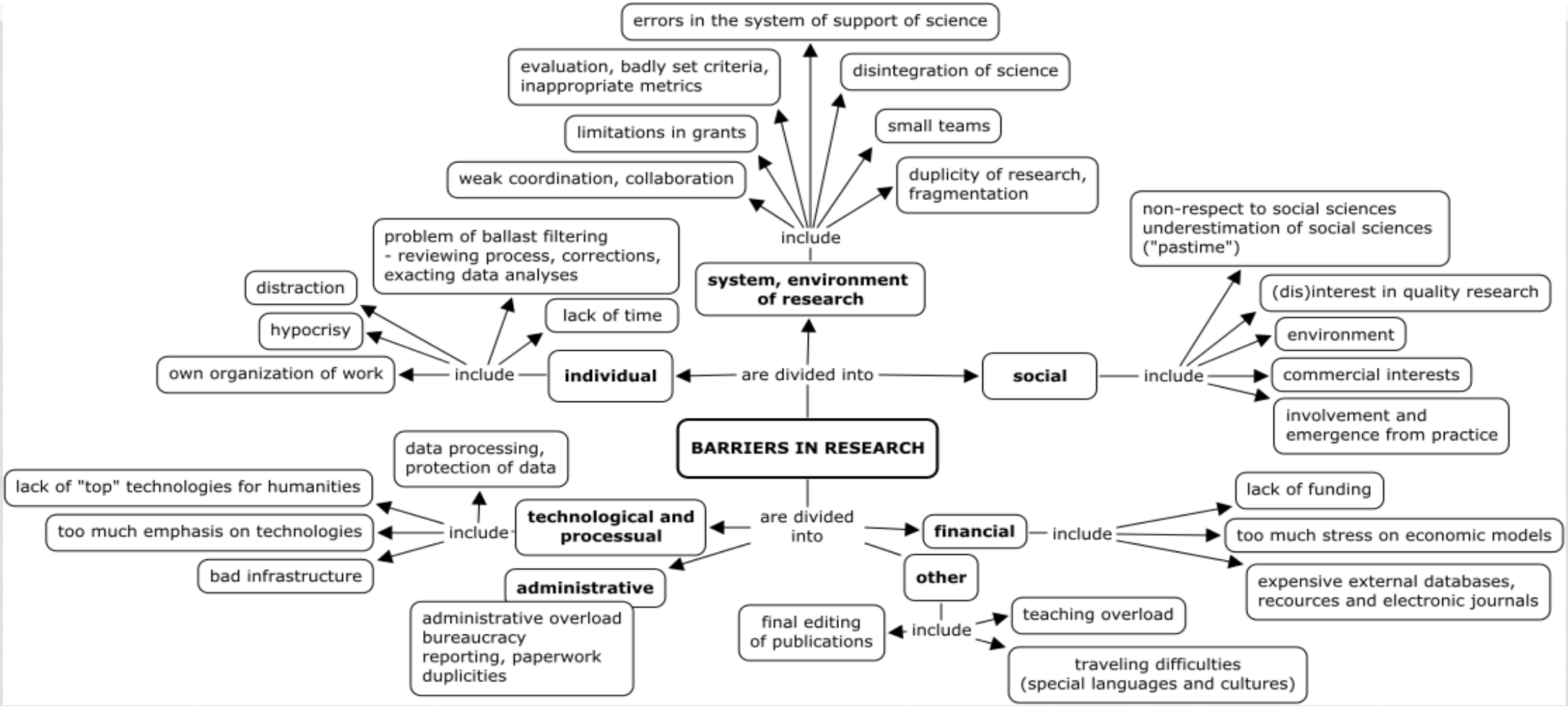
CONCEPT MAPPING

- Representation of content analyses of data acquired by interviews
  - Qualitative analysis of data
  - Reveal contexts (Kinchin et al.)
  - Learning experience, discussions (Whitworth et al.)

- Our approach:

  - concept maps – derived key concepts, semantic relations (C-maps Tools, Novak, Cañas)
  - Interpretations, aggregation, syntheses

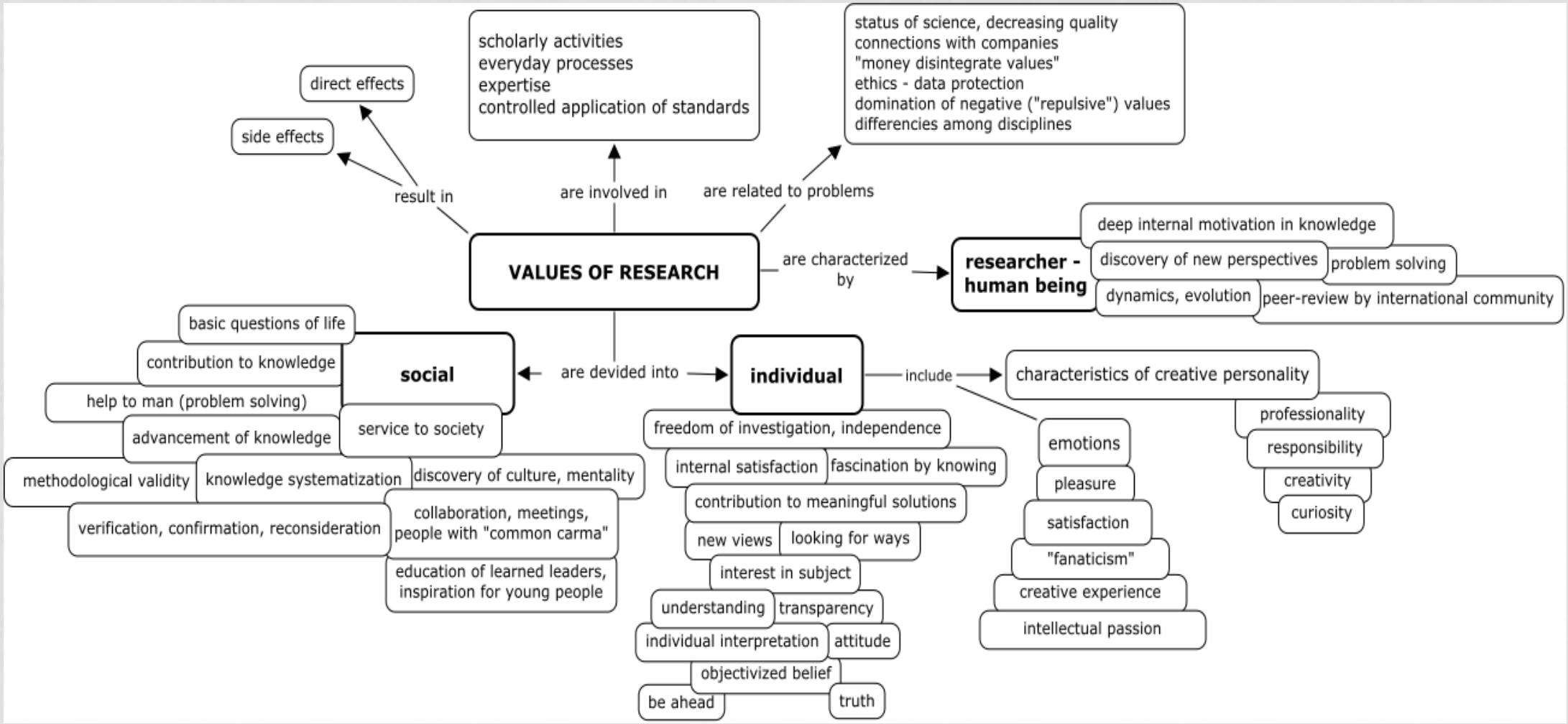
BARRIERS IN INFORMATION INFRASTRUCTURES



BARRIERS

- Administrative overload
- Gaps in information infrastructure
- Individual barriers
- Lack of funding
- Societal interest in the quality research
- Social barriers
- Research evaluation

VALUES OF RESEARCH AND INFORMATION



VALUES OF RESEARCH

- Individual
  - Professional motivation
  - Deep interest
  - Discovery, new perspectives
  - Re-interpretation
  - Reconstruction
  - Intellectual pleasure
  - Learned scholar
    - Fascination by knowing
- Social
  - Bridging gaps in knowledge
  - Service to knowledge
  - Position of science
  - Open science – promotion
  - New discoveries, methods
  - New applications in practice
  - Understanding life, people, society

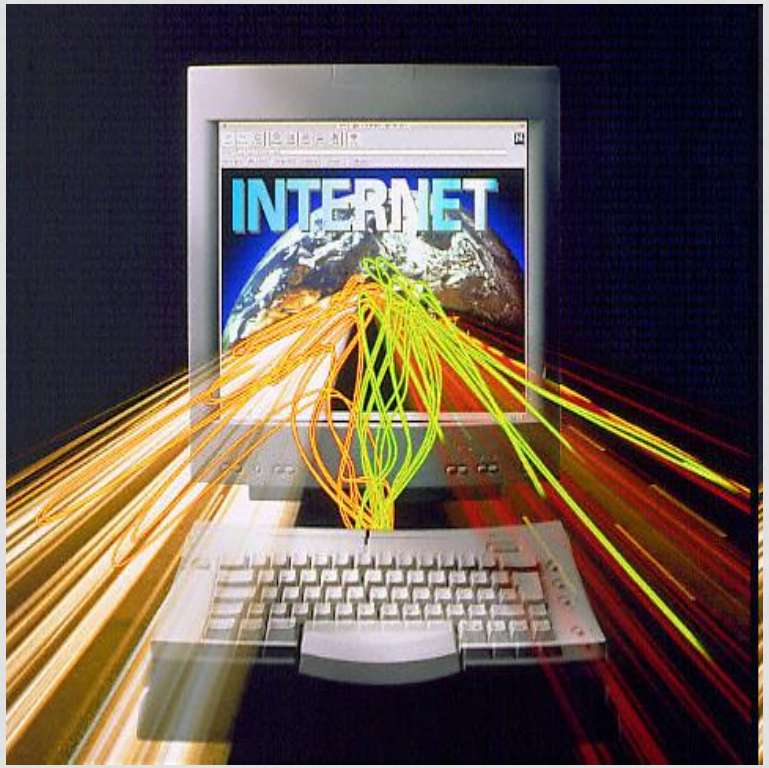
FINDINGS: WORKPLACE INFORMATION ECOLOGIES

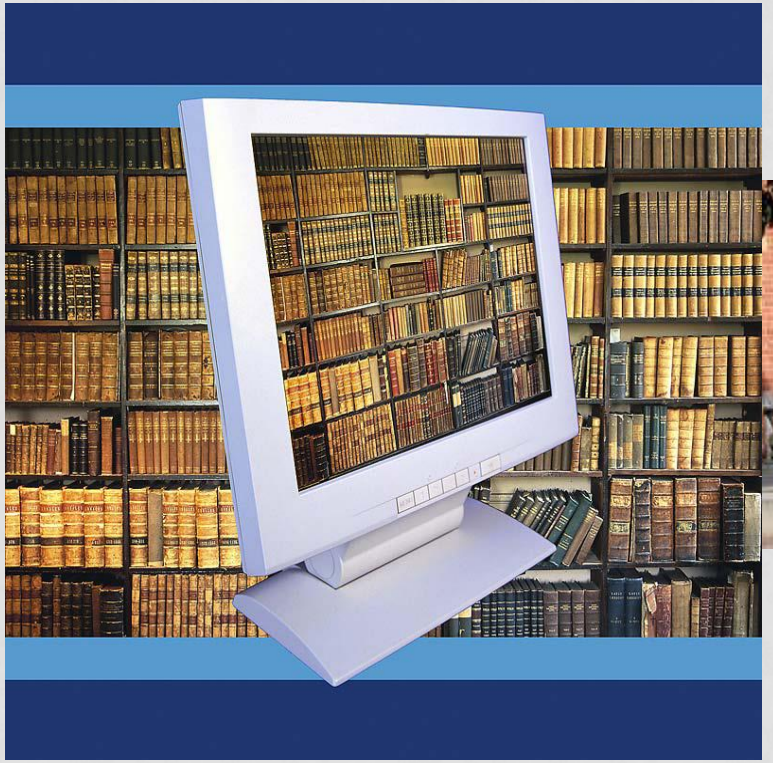
- Interactions of researchers and information environments
  - Diversity – cultures of disciplines
    - (data, methodologies, practices, publishing, collaboration)
  - Adaptations
  - Integration
    - resources and services
    - information infrastructures
    - values
  - Sustainability, trust

- Context-dependent, dialogic, practice-driven workplace information literacy practices

- Digital spaces:
  - Participation in digital communities
  - collaboration
  - electronic publishing
  - digital literacy

DIGITAL SPACES





CONCLUSIONS

- Information practices of researchers in hybrid workplaces:
  - domain expertise, methodological literacy, practical experience
  - analytical and synthetic practices, interpretations, open science factors (data, transparency, digital tools), creativity

- Identified barriers: gaps in information infrastructures, disintegration, social barriers (science in society) and individual barrie
  - Lack of funding, administrative overload, understanding of sci

- Identified values: deep motivation, service to knowlec

CONCLUSIONS: WORKPLACE INFORMATION ECOLOGIES

- Proposals for overcoming barriers
  - Integration of information infrastructures and values
    - Integrated information services, research management
    - Interdisciplinary networking, support of young scientists
  - Value-based design of digital services for communities in domain

- Workplace information ecologies
  - Community-based policies, tools, digital libraries
  - Creative digital spaces for researchers
  - Adaptations of information infrastructures: information sharing, data management, analyses, presentations

CONCLUSIONS: WORKPLACE INFORMATION ECOLOGIES

- Environment of trust
- Shared understanding of values
- Efficient and ethical use of information
- Clarity of expectations
- Flexible digital information services (value-added)
- Information sharing (social networking, digital tools)
- Collaboration, communication, participation

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