User-centred approaches to Networked Knowledge organization Systems/Services (NKOS)

Introduction

NKOS Workshop at ECDL 2004, September 16, Bath UK

Workshop programme

09.00 – 09.15	Welcome
09.15 – 10.30	Session 1: User-centred approaches to KOS
10.30 – 10.45	*(Coffee break)*
10.45 – 12.30	Session 1 (cont.)
12.30 – 13.30	*(Lunch) – Room 2.13*
13.30 – 15.15	Session 2: Standardization initiatives
15.15 – 15.45	*(Coffee break)*
15.45 – 16.45	Session 3: KOS applications and methods
16.45 – 17.00	Wrapping up
18.00 - ?	Workshop dinner

Agenda

Introduction to user-centred approaches

- Design process
- User-centred initiatives
- Definition of users
- Approaches to analysis and design

KOS

Term lists

- Authority files
- Glossaries
- Dictionaries
- Gazetteers

Classifications and categories

- Subject headings
- Classification schemes, taxonomies, and Categorization schemes

Relationship lists

- Thesauri
- Semantic networks
- Ontologies (Hodge, 2000)

Basic functions

Soergel, 1999,1119:

”…to provide a semantic road map to individual fields and the relationships among fields, relate concepts to terms and provide definitions…”.

- Information searching
- Communication, learning and understanding
- Automatic indexing, personalization, automatic language processing

Basic design processes

Determination of role and function	• Functions • Means • Modes
Collection of concepts and terms	• Coverage • Perspective • Specificity
Control of concept and terms	• Form • Definition
Structuring of concepts and terms	• Relations • Synonyms
Display of concepts, terms and relations, including use and functionality of conceptual content	• Textual and/or graphical display • Meta information

User-centred initiatives (1/2)

Pejtersen (1980)

- Based the development of an indexing system, including a classification system, on empirical field studies of users' information requests and dialogues with intermediaries
- The experiences were later developed to a framework for work-centred design and evaluation, the 'onion model'

Soergel (1985)

- Wrote the book "Organizing information: principles of data base and retrieval systems" recommending system design based on field studies of context, content and users, including work tasks, functions, decisions and derived information needs
- Important to move from individual level to general abstract level of the information environment

User-centred initiatives (2/2)

Bates (1986)

- Discuss KOS as retrieval tools and work from viewpoint that due to diversity in human behaviour KOS should support *access (entry and orientation), hunting, and selection*
- System design should be based in principles of *uncertainty, variety, and complexity*

Hjørland & Albrectsen (1995)

- Introduce the domain-analytical approach and argue for system design based on analysis and understanding of discourse communities and knowledge domains
- Users' knowledge structures and behaviour are shaped through participation in socially grounded domains. Argue that it is more fruitful to study information structures of the knowledge domain instead of users

Generic system design process

- Requirement analyse
- Design and development (prototyping)
- Testing and evaluation
- Evolution

Definition of users

- Individuals – cognitive approach
- Members of social group – social approach
- Members of knowledge domain – domain-oriented approach

Analysis and design (1/2)

Context

- Goals, politics, culture, resources, information systems, tasks, problems, information needs, information usage, disciplines, perspectives and discourses, special languages

Content

- Types, number, form, structure, languages

Users

- Tasks, problems, information needs, information usage, searching behaviour, disciplines, perspectives, discourses, language use

Analysis and design (2/2)

Data collection

- Questionnaires
- Interviews
- Workshops
- Observation
- Analysis of documentation
- Log file analysis
- Diaries

Data analysis

- Sceneries, use cases, task analysis
- Content analysis
- Discourse analysis
- Statistics

Summing-up

- System analysis approach to KOS development
- Triangulation of methods
- Diverse understanding of the concept of users
- Empirical versus interpretive approach

Literature

Allen, B (1997). Information needs: a person-in-situation approach. *Proceedings of an International Conference on Research in Information Needs, Seeking and Use in Different Contexts*, 14-16 August, 1996, Tampere, Finland. London : Taylor Graham, 111 – 122.

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