When information professionals meet Web information systems

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Context

- **Increase in the adoption rate** of Web information systems (WIS) by organizations
  - Web sites
  - Intranets
  - Extranets
  - E-commerce systems

- **No model** exists for describing the WIS in term of:
  - Organizational structure
  - Players
  - Tasks
Presentation objectives

- Examine the **tasks involved** in designing, operating and managing a **WIS**

- Examine the role of the **information professional** in a WIS
Literature review
WIS model

- Technology
- Information
- Interface
- Users

Development phases
- Planning
- Design & operation
- Resources management

Tasks
Literature review

WIS

• **Diversity** and **complexity** of the WIS world

• **Numerous competencies** implied in WIS design, operation and management

• Information functions' work changed by WIS
  – Computer scientists
  – Communication experts
  – **Information professionals**
  – Etc.
## Literature review

### Information professionals' tasks in WIS

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Components</th>
<th>Tasks</th>
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</thead>
<tbody>
<tr>
<td><strong>Web site</strong></td>
<td>Information</td>
<td>Management</td>
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<tr>
<td></td>
<td>Content</td>
<td>Creation</td>
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<td>Updating</td>
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<td>Selection</td>
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<td>Creation of intellectual access mechanisms</td>
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<td>Users</td>
<td>Training</td>
<td>Users training</td>
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<tr>
<td><strong>Intranet</strong></td>
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<td>Selection and evaluation</td>
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<td>Organisation</td>
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<td>Processing</td>
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<td>Information needs definition and evaluation</td>
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<td>Technology</td>
<td>Search engine</td>
<td>Selection and evaluation</td>
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<td>Search engine configuration</td>
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<td>Performance evaluation</td>
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<tr>
<td>Users</td>
<td>Training</td>
<td>Users training</td>
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<tr>
<td>Other</td>
<td></td>
<td>Search help</td>
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<tr>
<td><strong>Extranet</strong></td>
<td>Information</td>
<td>Management of the organisation intranet</td>
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<td></td>
<td>Content</td>
<td>Management of the library intranet</td>
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<td>Member of the intranet committee</td>
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<td>Information management</td>
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<td>Information needs definition</td>
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<td>Information products creation</td>
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</tbody>
</table>
Literature review
Information professionals - Conclusion

- Information professionals' intervention in WIS
  - Informational dimension
    - Planning, design & operation and management phases
    - Content creation, selection, organisation and management
  - Technological dimension
    - Design & operation phase
    - Search engines selection and configuration
  - Users dimension
    - Design & operation phase
    - Training and users' needs definition
Job postings analysis
Methodology - Data

• **Job postings** related to WIS

• **Sources**: Three online job postings services
  - *CIO Web Professional Wanted*
  - *SLA Career Services*
  - *Workopolis*

• 192 job postings

<table>
<thead>
<tr>
<th>Service</th>
<th>First selection</th>
<th>Total number</th>
<th>Filtered number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIO Web Professional Wanted</td>
<td>All job postings present on March 12, 2001</td>
<td>93</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>SLA Career Services</td>
<td>All job postings present on March 12, 2001</td>
<td>38</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Workopolis</td>
<td>All job postings in the Internet/WWW category on March 14, 2001</td>
<td>463</td>
<td>403</td>
<td>Random selection of 100 job postings</td>
</tr>
</tbody>
</table>
Job postings analysis
Results
Metadata on the job postings (N=17)

- Job postings sources
  - SLA Career Services (n=15)
  - CIO Web Professional Wanted (n=1)
  - Workopolis (n=1)

- Examples of job titles
  - Web developer, Senior Web Application Developer
  - Business Information Specialist/Reference Librarian
  - Information Analyst
  - Industry Knowledge Analyst

- Localisation: US

- Organizations
  - Universities, private companies
    - often within the information service unit
Job postings analysis

Results

Education level and discipline (N=49)
Job postings analysis

Results

Main tasks

- Training programs
- Relationships

Other

Technology

- WIS technology
- Applications

Library and Information science

- Library
- Information Services
- Information Needs
- Information Products
- Information sources (printed and electronic)
- Internet
- Internet as a reference subject
- Creating new knowledge management services to enhance and expand the corporate intranet

Collection Development

Knowledge Management

Content

Reference Services

Plans

- Time
- Goals

Project management

- Development of electronic information services
- Cataloging Internet resources
- Subject-oriented bibliographies development of Internet resources
- Revision of electronic files for publication on the Web

• Creating new knowledge management services to enhance and expand the corporate intranet

• Internet

• Training on how to use the electronic resources
Job postings analysis
Results
Main professional competencies

Personal skills
- Team Player
- Service Oriented
- Capacity to work in a Changing environment

Communicational Skills

Project Management
- Web design
- Methodologies
- Applications
- WIS technology
- Programming Languages

Technology
- Internet
- Web based information sources
- Cataloguing
- Indexing
- Information sources (printed and electronic)
- Library

Know-how
- Web design
- Methodologies
- Applications
- WIS technology
- Programming Languages

Know-how
- Projects
- Management
- Technology
- Programming Languages

Knowledge
- Content
- Collection
- Development
- Reference
- Services
- Library
- Content
- Collection
- Development
- Reference
- Services
- Library

Capacity to work in a Changing environment
- Technology
- Programming Languages
- Web design
- Methodologies
- Applications
- WIS technology
- Programming Languages

Library and Information science
- Content
- Collection
- Development
- Reference
- Services
- Library
- Content
- Collection
- Development
- Reference
- Services
- Library

Organizing and presenting information through intranet or Web site
- Web publication

Library and Information science
- Content
- Collection
- Development
- Reference
- Services
- Library
- Content
- Collection
- Development
- Reference
- Services
- Library
Discussion

- WIS dimensions
  - Informational dimension
    - Predominant dimension both in the literature review and the job postings analysis
  - Technological dimension
    - Less present in the job postings analysis than in the literature review
  - Users dimension
    - Present both in the literature review and the job postings analysis
  - Interface dimension
    - Absent both in the literature review and the job postings analysis

- Tasks related to WIS
  - Extension of traditional tasks
  - Not the main tasks

- Job postings analysis limitations
  - Only 17 job postings
  - Description of a time-specific reality
Conclusion

• **WIS model** composed of three development phases and four dimensions

• **Information professionals’** intervention
  – Essentially in the informational dimension
  – WIS related tasks not the main tasks

• **Additional studies needed**