Chapter 7  User Education and Legal Issues of Spatial Database Systems

1. Introduction

   human & non-technical factors sometimes play a more crucial role in making a spatial DB

2. User education in spatial DB implementation

2.1 The nature of user education from a project management perspective

   four categories of users
   a. project sponsors
   b. systems staff
   c. production & professional users
   d. occasional users
<table>
<thead>
<tr>
<th>Types of User Education</th>
<th>Description/Purposes</th>
<th>Target Audience</th>
<th>Methods of Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational</td>
<td>To secure long-term commitment and support of corporate executives and senior managers by keeping them up-to-date on the relevance of emerging technology to the mission and goals of the organisation</td>
<td>Project Sponsors</td>
<td>Regular briefing notes and presentations at management meetings</td>
</tr>
<tr>
<td>Occupational</td>
<td>To provide or enhance short and long-term skill requirements to support the operation</td>
<td>Systems staff, and production and professional end users</td>
<td>Educational and technical training programs and courses at tertiary institutes, product-specific training, conferences, seminars and workshops, on-the-job training and mentoring</td>
</tr>
<tr>
<td>Individual</td>
<td>To provide or enhance immediate skill and knowledge requirements of individual members of systems staff and professional users</td>
<td>Systems staff, and production and professional end users</td>
<td>Educational and technical training programs and courses at tertiary institutes, product-specific training, conferences, seminars and workshops, on-the-job training and mentoring</td>
</tr>
<tr>
<td>Popular</td>
<td>To keep the general public aware of the availability and potential use of existing spatial databases</td>
<td>The general public</td>
<td>Mass communications media including broadcasting, brochures, spatial data clearinghouses, Internet portals</td>
</tr>
</tbody>
</table>
2.2 The concept of training needs assessment

central concept of needs-based user education is: training needs assessment (TNA)

2.3 The method of training needs assessment

a. pre-assessment phase: scoping & background information gathering
b. assessment phase: data collection
c. post-assessment phase

2.4 Implementing a user education strategy

several important factors to consider:

a. prioritisation of user training needs
b. time frame of training programs
c. location
d. method of delivery
e. train-the-trainer
f. education & continuing improvement
Fig 7-1  A three-phase approach to training needs assessment

Sources of Information

- Job Specifications
- Professional Performance Standards
- Research Reports

Assessment

- How important is this task to your job?
- How frequently do you perform the task?
- How confident are you in performing the task?

Analysis

- Required level of competency
- Comparative Analysis

Training Needs

- Existing level of competency
Fig 7-2  A three-phase approach to training needs assessment
### Table 7-2. A three-phase approach to training needs analysis

<table>
<thead>
<tr>
<th>Pre-assessment (Scoping and Planning)</th>
<th>Assessment (Data Collection)</th>
<th>Post-assessment (Data Analysis and Communication)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Scoping general purpose of TNA</td>
<td>- Collect data on needs using one of the methods shown in Figure 7.1</td>
<td>- Refine expected level of competency</td>
</tr>
<tr>
<td>- Identify major areas of needs and issues</td>
<td>- Perform preliminary data analysis</td>
<td>- Determine training needs</td>
</tr>
<tr>
<td>- Researching existing information regarding identified areas of need and issues</td>
<td></td>
<td>- Prioritise training needs</td>
</tr>
<tr>
<td>- Identify data to be collected, sources, sampling methods and potential uses of data</td>
<td></td>
<td>- Explore causes of training needs</td>
</tr>
<tr>
<td>- Summarise findings of the above tasks in a TNA plan</td>
<td></td>
<td>- Develop action plans</td>
</tr>
<tr>
<td><strong>Major Activities/tasks</strong></td>
<td><strong>Outcomes</strong></td>
<td><strong>Outcomes</strong></td>
</tr>
<tr>
<td></td>
<td>- Preliminary plan for Phases 2 and 3</td>
<td>- Competency model</td>
</tr>
<tr>
<td></td>
<td>- Proposal for the required level of competency</td>
<td>- Preliminary action plan to implement user education according to identified priorities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Action plans to implement a needs-based user education and support structure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Write TNA report</td>
</tr>
</tbody>
</table>
3. Legal issues in spatial DB implementation

3.1 The legal regime of using spatial information

various aspects or components of a legal regime
  a. international conventions & treaties
  b. statutes
  c. administrative regulations
  d. common law
  e. civil law
  f. standards for goods & services

3.2 The legal issue domains

intellectual property & copyright
access to information legislation
liabilities of supplying & using spatial data
evidentiary standards of spatial data in courts of law
Spatial Databases

New approaches to spatial data

Four major legal issue domains

Data Sharing

- Intellectual Property and Copyright

- Access to Information Legislation

- Liability of Supplying and Using Spatial Data

- Evidentiary Standards of Spatial Data

Spatial Database

- Government Information Policy

- Policy Making and Decision Support

- Spatial Data as Evidence in Courts of Law

Primary cause of legal issues

Secondary cause of legal issues

Fig 7-3 The legal issue domains of spatial DB implementation
<table>
<thead>
<tr>
<th>Type of Right</th>
<th>Characteristics/Comment</th>
<th>Applicability to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Data</td>
</tr>
<tr>
<td>Copyright</td>
<td>- Protects literary, artistic, musical and dramatic works</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>- Does not protect ideas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Does not require registration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Respected across jurisdictions</td>
<td></td>
</tr>
<tr>
<td>Patent</td>
<td>- Protects novel inventions that must be capable of industrial application</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>- Requires registration in individual countries</td>
<td></td>
</tr>
<tr>
<td>Database Protection</td>
<td>- Protects the content of a database</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>- Does not require registration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Available in a relatively small number of countries only</td>
<td></td>
</tr>
<tr>
<td>Trademarks</td>
<td>- Names given to signs, symbols and logos used to distinguish individual goods and services from one another</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>- Requires registration in individual countries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Do not apply to software itself but to software names, software companies and company logos</td>
<td></td>
</tr>
<tr>
<td>Trade Secrets</td>
<td>- Right relating to confidential information, including spatial information, ideas and other commercial know how that need not necessarily be inventive</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>- May arise when one party (e.g. an employer) imposes a contractual obligation of confidentiality on to another (e.g. an employee)</td>
<td></td>
</tr>
</tbody>
</table>
3.4 Access to information & protection of privacy legislation

3.4.1 Access to information legislation

3.4.2 Protection from privacy legislation

3.4.3 Processing a Freedom of Information (FOI) request

3.5 Legal liability of spatial data services
Fig 7-4 The steps of processing a FOI request

1. Receive Request
2. Define Request
3. Locate Record
4. Review Record
5. Apply Limitations and Exemptions
6. Decision Letter
7. Appeal Mechanism
8. Access to Information Legislation

- Reasonable grounds to deny request
- Unable to locate record
- Data protection concerns
- Must include direction for Data Protection Legislation
Liability

Breach of Contract
  - Implied Terms
  - Expressed Terms

Nuisance

Infringement of Third-party Intellectual Property Rights

Negligence
  - Owing a Duty of Care
  - Breach of Duty
    - Damage Caused by Breach

Non-compliance with Laws and Regulatory Standards

Tests of Reasonableness