Allied Program Areas and Specializations within LIS: UNT Experience

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Historical Perspectives

- Different geographical locations, different systems and different teaching philosophies (US, Britain, Europe and Asia; Different Levels such Graduate vs Undergraduate)
- The inherit gap between theory and practice
- ICT and resources (size, independence of the programs, Level of expertise, IT, digitization etc.)
- Programs are shaped by location & expectations (Social sciences, Humanities, Sciences, engineering, Business, Fine Arts etc.)
- Diversity issues, librarianship is views by many as ”woman’s profession” with more than 80%. Despite that 73% of the library directors are men*. How is the shift to information science changing the diversity conversation?

* Harris, 2015  Journal of Education for Library and Information Science
Trends and Changes....

- Branding and repositioning (Name change, Dual Programs, ...)
- Relocation and merger with other units (Communication, Computer Science, Learning Technologies ...)
- Expansion of LIS programs and specializations (Cybersecurity, Data Science, Data Analytics, .....)
- Pedagogical shift (Online offering, collaboration, Engagement)
- The multidisciplinary and interdisciplinary nature of the discipline (Specialization & Concentrations within LIS programs, Dual Degrees, Graduate Academic Certificate etc.)
- The shift from a traditional library science focus to the broader information science focus required IS schools and IS programs to prepare students for jobs outside the traditional market and possibly for jobs that might not exist today.
Opportunities & Challenges

• Moving from traditional predefined tasks and functions to an environment with increased complexity and uncertainty requires certain level of competencies (knowledge, skills and attitude ...).

• Competencies and marketable skills (nice to learn vs necessary to learn). How do we create a balance?

• The challenge of creating rich and flexible curriculum. Most IS programs are reducing the number of required courses in favor of giving students more flexibility in choosing electives and therefore strengthening their specialization and concentrations.

• Grounding students in theory and research. For students to adapt, innovate and function in a complex environment, they need to master theory and acquire research skills.

• The challenge for IS Schools and IS programs in creating rich curriculum and competency based education is finding the resources and expertise.
The Information Profession

Data Science
- Meta Data, RDA
- Taxonomies, Ontologies
- Data Warehousing, Preservation

Library and Information Science
- Information management

Analytics
- Knowledge discovery
- Data Cleansing, Data mining, Data Warehousing, Preservation
- Knowledge mapping

Knowledge Management

Information seeking behavior
- Information Visualization
- Communication and Knowledge Transfer (sharing)

Meta Data, RDA

Taxonomies, Ontologies

Data Warehousing, Preservation

Information management

The Information Profession

DATA

INFORMATION

KNOWLEDGE

Rethinking DIKW

ALISE Academy Questions?
- What is the LIS profession? Who are our students?
- How can we brand our programs to demonstrate the versatility of our degrees?
- Given demographic trends, how can the many related associations be sustained?
- Should ALISE be the leader in developing alternatives to .......?
The Information Profession

Research Agenda

• Data Science & Knowledge Discovery (data cleansing, data mining, machine learning, digital preservation, knowledge mapping, social Network analysis, ...)
• Information Science and Knowledge Organization (meta data, data analysis, taxonomies, ontologies, RDA, visualization...)
• Communication and Knowledge Transfer (seeking behavior, user experience, visualization, sharing and dissemination...)
• Analytics and Knowledge Use (business analytics, personal analytics, geo-visual analytics, learning analytics, predictive analytics..)
UNT Experience

- Programs offered at UNT include:
  - **Master of Science with Majors in Library Science or information Science** (Programs of Study in Archival Studies and Imaging technology, Health Informatics, Information Organization, Information Systems, Law Librarianship, Youth Librarianship etc.)
  - **Master of Science in Data Science (New)**
  - **Bachelor of Science in Information Science and Applied Technology** (Concentrations in Information Science and Knowledge Organization, Project and knowledge Management, health informatics, digital content and information system, Human Language Technology, Data Science)
  - **PhD in Information Science** (Concentrations in Cybersecurity, Data Science, Health Informatics, Journalism, Linguistics, Consumer Behavior and experience Management)
  - **Graduate Academic Certificates** (Archival Management, Digital Curation Management, Content Management, Rural Librarianship, Youth services, storytelling)
## UNT Experience (Information Science PhD Program)

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Affiliated Departments and Colleges</th>
<th># of students</th>
<th># of Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Program of Study</td>
<td>No specific concentration</td>
<td>53</td>
<td>16</td>
</tr>
<tr>
<td>Cybersecurity</td>
<td>Engineering (CS), Business (ITDS), Information (IS), developed as part of an NSF funding (1.4 Million)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Data Science</td>
<td>Mainly IS Dept. (courses offered in Business (ITDS) and Engineering (CS))</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Health Informatics</td>
<td>Mainly IS Dept. (courses offered by IS and</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Journalism</td>
<td>IS Dept. and Mayborn School of Journalism</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Linguistics</td>
<td>IS Dept. and Department of Linguistics with college of Information</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Consumer Behavior and experience</td>
<td>IS Dept. and College of Merchandizing, Hospitality and Tourism</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Geospatial Information Systems (new)</td>
<td>IS Dept. and the Geography Department</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
UNT Experience Cont.

- Rich and flexible curriculum gives students the space to reconfigured their study/degree plan. Specializations/concentrations within the program are useful as long as student have a general program of study option that does not bind them to a specific specialization/concentration unnecessarily.

- The need to create ownership into the program by faculty from other Departments. Concentrations are designed to encourage collaboration and aimed at creating interdisciplinary/multidisciplinary programs and require buy in from other units.

- Concentrations such as Journalism, Linguistics, Cybersecurity, Consumer Behavior and experience Management allowed faculty from other departments to recruit and supervise students jointly with the IS faculty.

- Concentrations local to the department such as Health Informatics and Data Science give students the existing IS and Data Science Master Programs a path to PhD.

- Maintaining IS focus is essential to these concentrations. To achieve that students must complete 21 hours of course work (core courses) in information science. At least one faculty from IS must be on the student PhD committee. Grounding students in information science is a requirement for graduating with a PhD in Information Science.

- Students graduate with a PhD in Information Science and a concentration in (.....) or stay with the general program of study and graduate with just a PhD in Information Science.
Thank You

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