Challenges of Library and Information Science (LIS) Education

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Agenda

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- Challenges for LIS education
- How Institute of Information Studies of Tallinn University Responds to Some of these Challenges
- Conclusions
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Europe 2020

- EC has been concerned about HE since the end of 90s (EU’s Lisbon Strategy and the Bologna Process).
- HE as a key policy area, because of its links with research and innovation it plays a crucial role in society
  - creating new **knowledge**,  
  - fostering **innovation** and  
  - facilitating the development of necessary **competencies**.
- European universities have enormous potential but, overall, potential is not being fully realised:
  - Curricula are not always up to date,  
  - not enough young people go to university,  
  - not enough adults have ever attended university,  
  - universities often lack the management tools and funding to match their ambitions.
EC’s Modernisation Agenda for HE

5 priority reform areas (September 2011):

- to increase the number of HE graduates (40%);
- to improve the quality and relevance of teaching and researcher training, to equip graduates with the knowledge and core transferable competences they need to succeed in high-skill occupations;
- to provide more opportunities for students to gain additional skills through study or training abroad, and to encourage cross-border co-operation
- to strengthen the "knowledge triangle", linking education, research and business and
- to create effective governance and funding mechanisms in support of excellence.
Communication from the Commission

“Investment in education and training for skills development is essential to boost growth and competitiveness: skills determine Europe's capacity to increase productivity. In the long-term, skills can trigger innovation and growth, move production up the value chain, stimulate the concentration of higher level skills in the EU and shape the future labour market…”

Communication from the Commission... *Rethinking Education: Investing in skills for better socio-economic outcomes* (EC, 20.11.2012):
Trends in HE

- Massification of HE
- Changes in curriculum, teaching, learning and assessment
- Preparation of graduates to the labour market/societal needs
- Stimulating open and flexible learning (still asymmetrical access/retention/graduation)
- The use of potential of ICTs and OER, MOOCs for learning
- Increasing collaboration & partnership
- Increasing international student mobility
- QA, accountability & qualification frameworks
- Development of transversal and basic skills (critical thinking, initiative taking, problem solving, collaborative work, digital and entrepreneurial skills).
Trends, Issues & Concerns in LIS Education: old and new

*the core curriculum
*librarianship vs. information science/identity crisis (practice/theory, people/technology)
*organizational change (closure, name change, iSchools)
*rapid development of ICTs
*new pedagogical approaches
*collaboration and partnership
*the relationship between theory and practice
*ALM perspective without falling back into institution specific education

* from multidisciplinarity to interdisciplinarity
*the uniqueness of information science
*match to the labour market and societal needs
*accreditation
*esoteric & irrelevant research
*from vocational education to academic HE
*securing recruitment
The Core Curriculum

• The curriculum is the best barometer to reflect the changes and challenges we face today.

• What should constitute the core in the LIS curriculum has always been the focus in the field (IFLA, ALA, ASIST, CILIP, *LIS Education in Europe: Joint Curriculum Development and Bologna Perspectives*, 2005, etc)

• Goblaskas (2012) compared core competencies in ALA and CILIP specifications and found the professional expectations nearly identical.

• Practices and views on this topic are converging
New Courses

- Digital libraries (27)
- Web site design; Web applications (24)
- Computer/information/Internet networks (22)
- Digitization; digital preservation/design (12)
- Information architecture (11)
- Cyberspace law & policy (11)
- Knowledge management (10)
- Competitive/business/strategic intelligence (10)
- Human–computer interaction (HCI); user–system interaction (10)

- Interface; user interface (9)
- Metadata (9)
- Computer/network security (8)
- Internet reference/applications (8)
- Information seeking behavior (7)
  (Chu, 2010).

Revised Courses
- Cataloging (taxonomies, folksonomies, ontologies, tagging, etc,)
- Reference
Specializations

• In the past:
  – public librarianship,
  – academic librarianship,
  – school media specialists,
  – law librarianship,
  – archives and records management, etc.

• In the digital age
  – digital libraries
  – Web design and technology,
  – digital preservation and digital image management, etc.
Organizational changes in LIS

- Organizational changes in LIS education since 1980s typically take the forms of
  - repositioning (e.g. school name change)
  - relocation (e.g. merger with another academic unit),
  - closures (1/3 of the LIS programs in the US has closed down)

- Name changes can be categorized in two kinds:
  - the removal of the L word or the adding of the I word,
  - the establishment of iSchools, academic departments taking a broad view of information science, as the interaction of information, people and technology; mainly from LIS, computer science, and management; a labelling problem (Bawden and Robinson, 2012; Dillon, 2007).
Technology

• The rapid development of digital technologies brings important opportunities to improve quality, access and equity in education and has shaped and influenced how LIS professionals are educated.

• Students can learn anywhere, at any time, following flexible and individualised pathways.

• The student profile has changed

• Social media presents challenge to universities

• Have universities responded to this pace of change and providing the right sort of education for them?

• In LIS education, technology can be either
  – part of the course content or
  – a means for pedagogy (delivering courses and entire LIS programs digitally becomes a widely adopted mode of education)
TECHNOLOGY

EDUCATION
Pedagogy

New ways of learning, characterised by

- personalisation,
- engagement,
- use of digital media,
- collaboration,
- bottom-up practices
- facilitated by the exponential growth in OER where the learner or teacher is a creator of learning content are emerging.
Theory and Practice

• What extent LIS education should focus on theories & principles and on practical techniques.

• LIS practitioners complain that LIS graduates in the workplace lack practical skills.

• Many educators support the view that the nature of LIS education should focus on education, not on training for the workplace:
  – Bawden & Robinson (2012) strongly advocate the view that it is much more valuable for students to gain an understanding of principles and concepts on which they can build throughout their professional lives, rather than on practice.
Inter-disciplinary approach

- LIS is inherently multidisciplinary & interdisciplinary and knowledge and experience from other disciplines are needed to provide quality LIS education.
  - sociology and psychology would help us become more knowledgeable about the kinds of information and services our users desire to have.
  - Computer science would enable us to take full advantage of technologies in educating LIS professionals.
- The best innovation happens when you put people from different disciplines and backgrounds together (Dillon, 2007, Bawden and Robinson, 2012).
Collaboration and Partnerships

• Efficient and effective LIS education can be realized through working collaboratively with all relevant stakeholders
  – Global Cooperation & Partnership
  – Regional Collaboration (EUCLID, ALISE)
  – Joint curriculum development (Italy-UK; DILL)
  – Joint courses (UK- Portugal, Denmark-Greece-UK, Finland-USA, Estonia-Norway)
  – partnerships between public and private institutions to ensure appropriate curricula and skills provision

• Collaboration is a tool to cope with changes and challenges in the digital world
Research field

• What is the research core, questions and its applications.
  – Does LIS research help to answer the big or important information questions of our time?
  – Is there any agreement within the LIS discipline of what constitutes a big question for LIS?
  – Is there of increasing relevance and connectedness with larger societal concerns, or one of increasing marginalization.

• How we measure the value of any proposed answer?
  – That it advances theory?
  – That it leads to better, cheaper, more efficient technologies and tools?
  – That it provides information resources for more people? (Dillon, 2007)
Research field

- LIS research
  - is rarely in the centre of attention.
  - is not being seen as providing the answers to big questions.
  - is diminished in the eyes of funding agencies, major publishing houses, and in the eyes of the media.
  - ‘application-oriented’: most of the LIS research is aimed at systems level issues, services and products, which are developed for use.
  - method-bound and lacking a genuinely interesting question to answer (Dillon, 2007).
What are the big questions?

- What is the essential nature of information that might relate diverse endeavors (communicating, maintaining biological life, learning and finding) where the term is employed meaningfully?
- How do we move from an information provision model (storage, retrieval, management etc.) to one where we identify and shape the manner in which information nourishes a culture, an organization or an individual?
- How might we positively influence the cyber infrastructure as the majority of the world joins us online? (Dillon, 2007).
- What are the features and laws of the recorded-information universe?
- How do people relate to, seek, and use information?
- How can access to recorded information be made most rapid and effective? (Bates, 1999)
The uniqueness of information science

- Many other professions are interested in components of the communication chain:
  - publishers are concerned with dissemination,
  - computer scientists with information retrieval, etc.

- Our main claim to a unique area is the totality of the communication chain; others are interested in specific aspects, but only the information sciences see their concern as being the totality (Robinson, 2009; Robinson and Karamuftuiglou, 2010; Bawden and Robinson, 2012).
How Institute of Information Studies (IIS) address some of the challenges that I have covered?
Structural Changes

The IIS at TLU (*established in 1965*), 8 full-time and 2 part time staff members.

**Chair of Librarianship and Bibliography, 1966**
- 1966 - The Faculty of Pedagogy and Primary Instruction,
- 1967-1975 The Faculty of Culture and Music
- 1975-1991 – The Faculty of Culture

**The Department of Library and Information Science, 1991**

**The Department of Information Studies, 1992**

1992-2008 The Faculty of Social Sciences

**The Institute of Information Studies 2008**
Changes in Curricula

- BA in Information Science (1965)
- Systematic modernisation of the curricula started in 1988
- MA in Information Science (1992)
- PhD in Information Science (1992)

2001 – Bologna scheme
- MA in Information Management (2003)
- MA in Record Management (2003)
- Digital Library Learning (DILL) – Oslo University College, Parma University & Tallinn University (2012-2015).
Collaboration and Partnership

Systematic collaboration in 1993

- Student/staff exchange since 1999 – 24 Erasmus agreements: Austria, Denmark, Finland, Germany, Greece, Hungary, Italy, Latvia, Norway, Spain, Sweden, Turkey, UK, etc;
- 42 international projects (e.g. Phare, Tempus, Leonardo da Vinci, Comenius, Minerva, Grundvig, eLearning programme, Lifelong Learning Programme, NORFA, Nordplus, ESF project, Interreg, Erasmus Mundus and UNESCO projects)
Current projects

- **2010-2012**: Open Educational Innovation and Incubation (OEII) (European Commission, Lifelong Learning Programme, Modernisation of Higher Education)
- **2010-2012** Cross Boarder Virtual Incubation (CBVI) (EC, Lifelong Learning Programme, Erasmus University-Enterprise Cooperation)
- **2010-2012** Networked Curricula - Fostering Transnational Partnership in Open And Distance Education and Blendid Learning (NetCU) (EC, Lifelong Learning, Erasmus Virtual Campuses)
- **2007-2013**: Erasmus Mundus joint master programme *DILL: Digital Library Learning* (Oslo-Parma-Tallinn) (collaboration, curriculum development, using ICTs, pedagogical innovation, developing intercultural competencies, securing recruitment, etc)
Demographics

2007: 18 st. 16 countries
- **Gender:** 11 female, 7 mail st.
- **Age:** 22<52 (33,9)

2008: 21 st. 15 countries
- **Gender:** 14 female, 7 mail st.
- **Age:** 24<44 (29,6)

2009: 20 st. 14 countries
- **Gender:** 10 female 10 mail st.
- **Age:** 24<49 (28,8)

2010: 17 st. 16 countries
- **Gender:** 9 female, 8 mail st. **Age:** 23<37 (29,2)

2011: 16 st. 15 countries
- **Gender:** 12 female, 4 mail st.
- **Age:** 23<35 (27,3)

**TOTAL** 92 st. 48 countries
- **Gender:** 56 female, 36 mail st.
- **Age:** 22<52

Applications
- 2007 - 101
- 2008 - 204
- 2009 - 247
- 2010 - 280
- 2011 - 320
### 48 Countries Represented

<table>
<thead>
<tr>
<th>Australia</th>
<th>Germany</th>
<th>Laos</th>
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<tr>
<td>Azerbaijan</td>
<td>Ghana</td>
<td>Lithuania</td>
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<td>Bangladesh (5)</td>
<td>Greece</td>
<td>Malaysia</td>
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<td>Bosnia and Herzegovina (2)</td>
<td>Hungary</td>
<td>Maldives</td>
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<td>Botswana (2)</td>
<td>India (3)</td>
<td>Netherlands</td>
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<tr>
<td>Brazil</td>
<td>Indonesia (3)</td>
<td>Nigeria (2)</td>
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<td>Canada (2)</td>
<td>Iran (3)</td>
<td>Norway</td>
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<tr>
<td>Colombia</td>
<td>Italy (5)</td>
<td>Pakistan</td>
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<td>China (2)</td>
<td>Kenya (2)</td>
<td>Philippines (3)</td>
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<td>Cuba</td>
<td>Kosovo</td>
<td>Poland (2)</td>
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<td>Denmark</td>
<td>Kyrgyzstan</td>
<td>Romania</td>
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<td>Ethiopia (8)</td>
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<td>Russia</td>
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<td>Thailand (3)</td>
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<td>Turkey</td>
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<td>Uganda (4)</td>
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<td>USA (3)</td>
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<td>Venezuela</td>
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<td>Vietnam (5)</td>
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Pedagogical innovation

• New pedagogical & didactic concepts and approaches
• Implementation of student-centred learning approaches and basing our teaching on constructivist models of learning (PBL, project-based learning).
• An attempt to improve and innovate traditional education as well as to provide new and alternative learning opportunities - e-learning
• Blended model
Pedagogy - Multiple perspectives & representations of content in IKM
Technological innovation

One area where the Institute has demonstrated leadership in the use of ICT is education.

- 1993 - first Internet courses in curriculum
- 1995 - first ICT-based DE program for school librarians
- 1996 – Infofoorum, electronic journal
- 1996 – audio- and videoconference technology
- 2003 – online MA in Information management,
- 2003 - Information Literacy e-learning tutorials
- 2007 – extensive blended learning
- 2009 – development of OER
- 2012 – development of MOOCs
ICT and Media Integration in DILL

- Virtual Learning Environment IVA
- Learning Objects [OER]
- Videoconferences with the leading experts (Austria, France, USA, etc.)
- Virtual shared classrooms: Estonia-France; Estonia-Oslo-Tallinn
- Skype - communication with teachers/tutors and with fellow students
- Web 2.0 or social networking tools (Facebook, blogs, wikis, etc.)
- Echo 360 Videolecturing System
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<tr>
<th>Name</th>
<th>Size</th>
<th>Date</th>
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<tr>
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<td>2008-02-10</td>
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<td>Unit 2: Dimensions and Approaches to IKM</td>
<td>1.5 MB</td>
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<td>Unit 3: Knowledge Management Cycle</td>
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<td>Unit 4: Knowledge Management Processes</td>
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<td>Unit 5: Knowledge Management Technologies</td>
<td>9.8 MB</td>
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<td>Unit 6: Implementation of IKM. Case studies.</td>
<td>6.1 MB</td>
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<td>Unit 7: Philosophical framework for KM. KM and CRM</td>
<td>126.5 KB</td>
<td>2008-02-24</td>
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The success stories of military and political leaders are an endless source of inspiration and ideas. Many books have been written on the leadership styles, strategies, and techniques of great leaders in the history of war and politics.

For example, President Dwight D. Eisenhower is known for his hard work and delegation that helped him steer out nation. Thomas Jefferson's reputation was built on hard work, education and humility. Rome's Julius Caesar's total focus on his goal made him emperor. Prime minister Margaret Thatcher's principled determination turned Britain around. President Theodore Roosevelt relied on persistence and enthusiasm to overcome obstacles. Sam Houston's disciplined strategy secured Texas for the nation. American Indian Leader Tecumseh is known for his honesty and character that brought tribes together. Alexander the Great was an innovative strategist who inspired his soldiers to conquer an empire.

It is believed that true leaders fight for what they believe in. For example, President Abraham Lincoln's focus helped him preserve the union. Statesman Nelson Mandela struggled against apartheid and won. First lady Eleanor Roosevelt's dedication to helping others made history. There are many more examples of great political and other leaders in history.
Reflection

After reading the descriptions of the Hofstede’s cultural dimensions and watching these video clips, take a minute and think how these dimensions appear in your country context. After that, compare the results of your thinking exercise with Hofstede’s descriptions of your country and Cultural Dimension Scores. You will find the list of country descriptions on the page http://www.geert-hofstede.com/
Development of Entrepreneurial Skills

- Entrepreneurship Seminar on European Virtual Venturing (EVV)
- Tallinn University, Institute of Information Studies and Ecole supérieure d'Informatique, réseaux et systèmes d'information in Cergy-Pontoise, France (ITIN)

**Goal:**
- to develop knowledge and skills that could help students to understand the value, nature and practice of entrepreneurship
- to improve students’ awareness of and competence in virtual teamwork
- enhance their intercultural understanding and develop intercultural and interdisciplinary competencies
Entrepreneurship Seminar on European Virtual Venturing (EVV)

- a synchronous cross-university video classes
- students’ virtual teamwork
- face-to-face consultancy in France and Estonia for local students and via Skype for partners.
- Collaborative cross-country and cross-disciplinary final project
Interdisciplinary approach is teaching and research

- Influences from other disciplines (educational technology, computer science, social sciences)
- Interdisciplinary research:
  - **2008-2013**: Target-financed research project SF0130159s08 "E-learning systems with distributed architecture, their interoperability and models of application" (Institute of Informatics and Institute of Information Studies)
  - **2012**: Digital Learning Ecosystems (Institute of Informatics, Baltic Film and Media School and Institute of Information Studies)
Conclusions

- LIS education has developed in the past decade through curricular revision, educational reposition, ICT implementation and other actions.
- LIS programs have introduced new courses and specializations while revising existing ones in the curricula.
- The digital age has brought new opportunities to LIS.
- Issues persistent in LIS education: the core curriculum, organizational change, development of ICTs, new pedagogical approaches, collaboration and partnership, match to the labor market and societal needs, the relationship between theory and practice, etc.
- Discussion of the issues, old and new, should continue because debates and exchanges, if carried out properly, would keep the field attentive and clear about what is the best for LIS education (Chu, 2010).
Thank you for your attention!

- Questions?
- Comments?

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