New Approaches to Didactics: Library and Information Science’s perspective

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Introduction
Why Didactics?

• education in general, and distance education and online education systems in particular, inherited theories and models from Didactics as a special field of Pedagogy

• Didactics deals with
  • theories, ideas, principles, and
  • instructional design and
  • applications

• in order to support a successful conduction of educational process
Didactics in the 21\textsuperscript{st} century

- a rather challenging area weather it aims at
  - discovering new models and methods
    - appropriate for the generations of learners as well as teachers confronted with technical and economic developments, or
  - recognising the need to constantly adapt to diverse cultural and uncertain socio-political and ecological environments
Teaching/Learning environment

• Where are we today? can we define this moment
  • Liquid modernity
    • ➔ Society of constant and rapid change, Interregnum (Bauman, 2000)
  • Technology rapidly substitutes manual labour
    • ➔ How do we prepare our youngest for life in situation of constant uncertainty?
  • A need for creative and innovative workers (and: Thinkers!!!)
    • ➔ Fast ICT developments have created jobs that did not exist only a decade ago and new jobs are still to come in thousands
Design and Pedagogy

- Informative
- Relevant
- Available and accessible
- Engaging/Interesting
- Open access
Challenge for educators

• How are we to accomplish one of the most important missions of human existence
  • to prepare young (and not only young ones) for life and
  • teach for careers that do not yet exist?
Challenges – cont.

- Current education approaches are under heavy pressure to
  - develop skills such as
    - problem solving,
    - critical thinking,
    - communication,
    - collaboration, and
    - self-management,
  - which should enable students to achieve their full potential as adults

- BUT! Do we know how???
Didactic theories and models
Older versus newer approaches

- older didactical concepts were directed towards teaching and the teacher’s role in education
- newer concepts concentrate more on the student and his/her place inside the learning process.
- attention has been paid also to didactics of e-education which draws on
  - application possibilities of ICT and
  - acceptable models of instructional design (ID)
- which actually had roots in
  - programmed learning and
  - computer based instruction
e-learning

• started as early as in 1950s
  • a wide base of didactics already exists
  • it should be approached with critical appraisal of models that have been introduced in order to satisfy ever growing educational needs of new generations

• however!
  • the role of instructional design in e-learning has been often misunderstood due to the
    • perceived complexity of the process and
    • poor understanding of the pedagogical requirements of e-learning (Siemens, 2002).
European approach

• at the policy making and funding level since 1990s
  • several action programmes had a significant impact on collaboration between educational institutions, including
    • the attempts to modernize education by the use of ICT in education and research in education,
      • such as Tempus, Phare and Leonardo da Vinci, Socrates, and Erasmus.
    • these programs were funded under projects known as
      • eEurope 2002,
      • eLearning Programme 2004–2006,
      • Europe 2020 Strategy.
Buzz word – innovation!

• innovation in education and training became a key priority in several flagship initiatives of the Europe 2020 Strategy
  • in Agenda for New Skills and Jobs,
  • Youth on the Move,
  • Digital Agenda...

• where the contribution of ICT to achieving these targets was recognized, and

• financial support given to investigate new models and frameworks for education
new trends...

• after a period of 15 years of major reforms across Europe as part of the Bologna Process, it is evident that
  • the implementation of these reforms is not yet entirely completed
  • improved quality appeared to be increasingly linked to information society, digitalisation, internationalisation, research and innovation capacity and, to varying degrees, to the impact of the economic and financial crisis.

• What happens when basic assumptions about education no longer apply, and did these basic assumptions change at all?
„new didactics”

• a number of successful models of teaching and learning that new didactics could emulate and build on (Brown, 2006)

• new approaches are mostly focused on how to exploit ICT and Internet in order to achieve optimal results in teaching/learning processes, for example in
  • open and distance learning (ODL) and design of virtual learning environments (VLEs);
  • on-line study programs and courses;
  • virtual universities, etc. (Ravenscroft, 2001, p. 133)

• online learning opportunities result in
  • new players and
  • new forms of learning (e.g., MOOCs and globalising university services) and
  • new forms of recognition for skills acquisition (e.g., Open badges).
new skills

• perhaps, the most influential approach and recently more and more criticised was the one based upon so called 21st century skills and competencies

• the educational literature features a number of discussions about 21st century skills and learning

• the following skills are the 21st century skills:
  • literacy, numeracy, scientific literacy, ITC literacy, financial literacy, cultural and civil skills, critical thinking, creativity, communication, collaboration, curiosity, initiative, persistence, adaptability, leadership, social and cultural skills.
transformative pedagogy

- has in its focus to
  - encourage teachers to do much more than transmit information
  - seeks to “fundamentally and respectfully change students’ attitudes and analytic skills to facilitate their growth, regardless of whether the course is delivered through a traditional or online format” (Meyers, 2008, p. 220).
- basically, transformative pedagogy aims to critically examine students’ assumptions, to explain how they cope with social issues, and engage in social action
  - → school libraries and school librarians?
Librarians and teachers in the changing environment
Where to start from?

- in 21\textsuperscript{st} century, the design of innovative teaching practices has been fostered by
  - a vision that creative tasks of students should be implemented in every day teaching methodology and
  - based upon approved didactics which still lacks the data resulting from research projects or scientific analysis of the complex educational arena
research has been verifying

- the value of information and communication technology in the education systems worldwide
- by wisely using ICT, libraries can:
  - reduce learning barriers
  - improve academic success
  - increase student chances for learning success
  - create a greater sense of adaptive communication and school community
  - provide greater opportunity for flexible access to learning
What we need to think about

- more active role of the learner,
- integration of technological knowledge,
- addressing diversity,
- from objects to digital assets
issues of diversity

• the LIS community needs to address diversity because
  • libraries are conceptualized as a community space
    • as communities grow more diverse, their needs and communicating styles are also getting more heterogeneous
  • the relation between information consumers and library managers gets more heterogeneous
    • library managers need to cope with the diversity of material and enable access to it for all groups
online courses

- flexibility issue:
  - in creating of different sizes addresses the heterogeneous needs of different audiences.
    - e.g. LIS has reached out to other communities in providing education on information literacy
  - such courses include issues relevant for many courses and disciplines
    - search competence, personal information management competences
  - but also for society
    - e.g. ethical behaviour, avoiding plagiarism
OERs

• much learning content is provided as open educational resource (OER)
  • OERs are a great opportunity for every human worldwide to potentially learn with high quality content (Upadhyay & Upadhyay, 2015)
    • as such, OER may have a long term effect on the digital divide.
  • OERs again are a development which supports self-directed learning for diverse audiences.

• OERs are also a challenge for LIS as a form of content which needs to be addressed
  • LIS professionals need to be able to facilitate user oriented access to learning material
Towards concluding remarks
• instead of placing too much emphasis upon ICT and power of information,
• new approaches should sufficiently value
  • the attainment of wisdom in education and
  • focus on role of teacher and librarian as experienced experts who can frame students’ learning
• as Greenlaw (2015, p.897) wisely notes:
  • “teaching is not simply a matter of turning on a computer or an iPad and setting students loose to solve a problem or to do a project”
• if we focus on current prevailing opinion and understanding that
  • the knowledge that formed the basis of progress in the 19th and 20th centuries is insufficient in the 21st century,
  • it is necessary to elaborate challenges and possible solutions for future developments in the society as a whole, and in education field in particular
reform of teacher and LIS education

• is needed in order to
  • provide them with a more comprehensive understanding of how cognition, motivation, teaching and learning relates to each other

• moreover, teachers and librarians should be able to overcome the bias between
  • technology related goals and
  • humanistic approaches which could enrich the skills and competencies needed and be able to guide learners in a way
    • to soothe technophilic approach and bring in modern education a humanistic dimension
Thank you for your attention

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