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

Distinguished Professor Tatjana Aparac-Jelušić

Erasmus + EINFOSE project's coordinator

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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 21ˢᵗ 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).

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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.
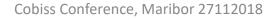
Buzz word – innovation!

- 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 21st 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

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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 and
  - provide greater opportunity for flexible access to learning

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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

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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**

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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

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- 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

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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

taparacjelusic@ffos.hr

http://einfose.ffos.hr