Bus Inf Syst Eng 57(6):345–348 (2015)
DOI 10.1007/s12599-015-0402-4

EDITORIAL

Teaching

The Little Brother of Research

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Published online: 14 September 2015

1 Higher Education is Transforming

This editorial concludes a series of four editorials jointly authored by the current EiC team (Bichler, Heinzl and Winter) on quality, practice impact, internationalization, and finally teaching in BISE. Like the preceding two editorials, we reflect on developments in central Europe in the context of a progressing integration with our neighboring communities and disciplines.

Why do we care about teaching in a scholarly journal, an outlet whose primary purpose is mostly perceived to be the presentation and discussion of high quality research?

- Rooting in the post-feudal university re-design of the early 19th century, research and teaching are widely accepted to be joint core elements of higher education. Reflecting on research can therefore not be disconnected from reflecting on teaching.
- Education is not only a product closely connected to research, but should also be an important research object. Since sociotechnical systems are of ever-growing importance, IT-reliant learning systems are analyzed, described, explained and designed by BISE research.
- Education offers vast opportunities to quickly disseminate research findings to bachelor, master, doctoral, and executive students.

In particular in the German-speaking countries, the "unity of research and teaching" is often regarded as a cornerstone of higher education. In contrast to this claim, some recent branding and rating initiatives (e.g., Handelsblatt 2014) focus on research outcomes only. One reason might be that it is much easier to count publications that have been weighted using some rating scheme, than to seriously evaluate a diverse basket of research and learning outcomes. It is important to constantly remind internal and external stakeholders that the value of educational efforts and achievements must not be neglected or presumed to be a windfall benefit of excellent research.

If higher education management and resource allocation are overly biased in favor of "publication counting", the impact of that strategic mistake, as undesirable as it is, is limited as long as the university system is disconnected from the market, e.g., by a regulated monopoly on educational degrees, by an exclusive access to knowledge, and by only insignificant (or even zero) budget contribution related to teaching performance. However, current transformations affect all of these 'competition disablers'.

Weakening of the Degree Monopoly One the one hand, new institutions (teaching colleges, commercial players), often with new degree offerings, pave the way for a degree program 'market' as one of the consequences of the Bologna accord. On the other hand, specialized degrees allow to individually compose educational services, which sometimes are considered more useful by learners (and their employers) than traditional degrees.

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Some commercial players have already left the niche segment: examples are lynda.com which offers 5700 online courses (generating a turnover of USD 150 million in 2014) or craftsy which offers 700 online courses (generating USD 43 million in 2014) (Bürge 2015).

Vanishing Exclusivity of Knowledge Access "Using their tablet and notebook computers online during traditional classes, students can access knowledge faster than their lecturer – who cannot 'google' in parallel with lecturing. This impacts the role of professors as knowledge mediators and gatekeepers" (Bieger 2015). While skill-related knowledge and knowledge access are increasingly turning into commodities, research related knowledge and its acquisition/application coaching become the core of higher education.

Growing Financial Relevance of Teaching Performance In institutions where tuitions contribute significantly to the overall budget, teaching performance had always been in focus, and teaching achievements were recognized at eye level with research achievements. New technologies also create opportunities here: In Princeton, Big Data Massive Open Online Courses (MOOCs) alone generate between USD 500,000 and 700,000 revenues per month (Swissquote 2015).

2 Challenges and Opportunities for Individuals and Institutions in Higher Education

What does this mean for teaching academic content? When vast amounts of knowledge are becoming available anywhere and anytime, when knowledge profiles are becoming ever more dynamic and fragmented, and when new players enter the market, what can be the added value of higher education as a public asset? Not surprisingly, different stakeholder groups have different ideas.

Students The past president of St. Gallen's student union demands a shift from 'teaching' towards reflection/discussion of learning content, the active creation of results by students, and most of all comprehensive feedback by lecturers (Szedlak 2015).

Employers In a recent BISE Journal discussion on education (Eymann et al. 2014), employers demand cross-functional, architectural knowledge instead of easier to teach/learn 'silo' knowledge, solution skills (that require active project learning), and most of all flexibility.

Society There is an increasing demand for higher education in our society, as well as an increased awareness of its vital importance for sociocultural and economic development, and for building the future, for which the younger generations will need to be equipped with new skills, knowledge and ideals. For example the UNESCO world declaration on higher education (UNESCO 1998) includes the mission to advance, create and disseminate knowledge through research, which is the central pillar of university education.

In the course of accreditation and quality initiatives, universities pay more and more attention to the assurance of learning (Eymann et al. 2014). In addition to establishing effective program management and a continuous evolution of program content, we "must learn how today's students learn" (Bieger 2015). This creates several challenges:

- Today's students expect to learn at their own speed, when they want, and where they want (Weissenberger 2015). We cannot maintain teaching and learning to be bound to certain premises, certain times, and certain schedules. While "being confronted with learning content" becomes more and more ubiquitous and self-organized, university-organized learning concentrates on curriculum development, content evaluation/selection/creation, stimulation of active content reflection, and on giving comprehensive feedback. The transition of traditional teaching skills into this setting is challenging.
- Excellent researchers are not necessarily excellent teachers (and vice versa). E.g., Bürge (2015) states for MOOCs that course development should not be left to professors alone, and that by far not every professor should be involved in online teaching – insights that are similar to those learned in the context of executive education. It will be challenging to accept (and implement) that not every professor is excellent both in teaching and in research (the traditional unity paradigm), but that certain specializations need to be developed.
- In addition to excellent researchers and excellent teachers (in the sense sketched above), the roles of curriculum development, content sourcing and sharing, learning infrastructure management, student relationship management, just to name a few, require new types of university professionals. These roles need to find a position in the traditional, parallel professorate/administration organization of universities that corresponds to their growing importance in times of vanishing monopolies and exclusivity, and effective collaboration models need to be developed [for an example at WU Wien see Littich et al. (2015)].
- Inverted classroom, self-organized learning and other novel approaches do not only need expensive IT infrastructures and new organizational roles/collaboration models, but also different physical infrastructures. The focus moves from lecture halls and library buildings to student workplaces, project rooms and "noisy spaces" (Littich et al. 2015). To support self-organized learning and provide extensive,

individualized feedback, more lecturer capacity is needed than for mass lectures and offline grading.

As every transformation, the evolution of tertiary learning creates not only challenges, but also opportunities for universities. For example, the Federal Technical University of Lausanne (EPFL), Switzerland, was able to sign up more than 800,000 students in MOOCs, of which 10 % completed their course successfully (Swissquote 2015). With about 50 MOOCs by the end of 2015, EPFL strives to significantly raise its reputation and brand recognition with comparably limited effort.

Another potential is that at least the content presentation components of modern teaching infrastructures can be much more easily shared and aggregated. With Winfoline and VGU, to mention just two initiatives, the BISE community developed early platforms not only for distance education and course sharing, but also for the development of teaching products (Winfoline, http://www.uni-goettingen.de/de/414331.html) and for the internationalization of BISE teaching (VGU, http://www.vg-u.de/de/). BISE as a discipline seems to be well suited to combine industrialization competencies (of content delivery and platform operations) with experience individualization competencies (of active reflection and comprehensive feedback).

It should also be mentioned that investments into teaching effectiveness and efficiency promise high impact. For example, the Association of Information Systems (AIS) estimates that 4000 Information Systems professors can reach around one million students within a few years. While the personal merits of research excellence appear to be well-defined and respective community-wide recognition mechanisms are in place, teaching excellence is traditionally, if at all, only covered by textbook awards and institutional incentives. As a consequence, AIS has developed community-wide awards[1] and plans to develop platforms that hopefully contribute to the emancipation of teaching excellence beyond already taken actions or plans of individual institutions.

3 Specific Consequences for the BISE Discipline

In spite of many challenges, we argue that both the numbers of employees who need scientific education and the depth of content of this educational need will continue to rise. For example, the availability of large data sets in firms requires skills in data analysis which are at the core or empirical sciences. The ability to analyze and understand data and draw the right conclusions is more important in many jobs now than it used to be 20 years ago. Developing new solutions to solve problems is not only a skill set which is central for design science research, it is also important for innovation and product development in practice. Finally, strategic thinking, modeling, and abstraction, as they are fundamental for theory building, are more important than ever for managers and consultants who have to deal with the complexities of nowadays enterprise networks. So, university education needs to obtain the attention it deserves, and this also has a number of consequences for our discipline:

Valuation of Didactic Excellence In all stages of every academic career, didactic education should not be taken less seriously than education in research methodology. For promotion and tenure decisions, didactic excellence should not be regarded less important than research excellence. This request is not unique to BISE, but seems to be nevertheless important in the light of the recent developments of career paths in our field.

Cross-Silo Elements in BISE Education As project-based, cross-functional, integrative learning formats have disappeared from many degree programs as a consequence of the Bologna-related reforms, these formats can often still be found in BISE programs – and they should not only be kept, but even strengthened. As a discipline that is cross-disciplinary by definition, BISE should develop such formats into a competitive advantage over functional, fragmented programs.

BISE Educational Research In the same way as our colleagues from social sciences and from engineering have made important contributions to BISE's research methodology, our colleagues from business education[2] could offer important contributions to BISE's teaching methodology. An exemplary cross-disciplinary initiative could be the design and development of labs that support individualized, IT-supported learning. Like BISE specific research, BISE specific teaching methodology should be presented and discussed in the BISE journal.

Learning System Innovation As an inherently cross-disciplinary community, the BISE community is also well prepared for important contributions to learning system innovation. Being a special domain of service innovation, the integration of industrialization components (content delivery, platform management) and experience individualization components (active content reflection, feedback) seems to be an excellent (analytical & design) research

[1] AIS Award for Outstanding Contribution to IS Education, AIS Award for Innovation in Teaching, and AIS Award for Best Conference Paper in IS Education, see http://aisnet.org/?ExcellenceInEduAward.

[2] Business Education is the usual international term for "Berufs- und Wirtschaftspädagogik", a discipline of educational sciences that is focusing on vocational and business/management education and that is not equally present in all central European higher education systems. Business Education is usually associated or part of business/management faculties.

object for BISE. BISE researchers could provide an important service to business as well as engineering faculties by contributions in this domain.

Above all, the valuation of education-related services and teaching/learning-related research on the individual, institutional, and community level needs to be strengthened so that teaching is perceived at eye level with research. We all can and should take teaching excellence seriously in promotion/selection committees, as coaches of young academics, and of course in our core business of teaching and assurance of learning.

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