Higher Education: Europe vs. USA

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ABSTRACT

Higher Education systems face unprecedented challenges both in Europe and USA. The paper examines the higher education systems in Europe and USA and their transformations in response to the socio-economic challenges of their respective societies.

Keywords: Higher education, university model

1. UNIVERSITY: EUROPEAN MODEL

Europe invented the modern university as a higher learning institution and learning community. In European tradition, the universities essentially were set up to educate societies' elites. The oldest European university, Bologna University (University of Bologna, Wikipedia), which dates back to 1088, although the exact time of founding remains uncertain, created the higher learning community that was to be emulated throughout the whole continent. The medieval disciplines, which were taught at these institutions in most cases, comprised of Roman-based law, theology, and philosophy.
Naturally, for the beginning of the learning communities and origin of what nowadays is called a scientific way of inquiry one has to back go to ancient Greece, to Socrates and Plato's Academy in Athens (Plato, Wikipedia). Plato's student, Aristotle (Aristotle, Encyclopedia Britannica), developed the inductive and deductive inference as a method of inquiry, which in the eyes of the German philosopher Kant (Kant, Wikipedia), more than two thousand years later, completely accounted for the foundations of inferential approach. Ancient thinkers and philosophers were interested in, using present day terms, physics, mathematics, reasoning, philosophy (especially metaphysics and ethics), causality, rhetoric, anatomy, biology, astronomy, geography, metaphysics, etc. -- the list seems endless and it encompassed almost all facets of intellectual inquiry. What the author wants to stress here is the fact that ancient European philosophers and thinkers based their intellectual inquiry on what nowadays can be described as analytical reasoning and empirical study.
Later on, in the subsequent centuries of the European university tradition, the unified approach of theoretical and empirical studies inherited from the ancient world underwent a split into pure theoretical and empirically based inquires. For example, a philosophy that to ancient thinkers had empirical and practical aspects evolved into a purely theoretical inquiry. The split, caused in the past solely by the fact that empirical studies did not advance at the same pace as their theoretical counterparts, due to the state of development of scientific inquiry and lack of adequate experimental apparatus, continues by tradition to present day and is reflected in curreent academic curricula.

England invented the concept of the residential university, where scholars living in a small community were to pursue higher learning. Oxford and Cambridge Universities are examples of such communities. Germany created the research university. In the German tradition subject area rather than development of the student, as in the English model, received higher focus (Heyman, 1999).

The European medieval tradition promoted model of a comprehensie university, which encompassed the liberal art, law, and theology. With passing centuries and especially after the renaissance, which brought empirical studies back into the forefront of intellectual inquiry among European scholars, the universities added a variety of new programs that paralleled the development of science. Addition of Medical Schools to uiniversity organizations at modern times can be viewed as example of continuation of such a process. Post-Industrial Revolution era brought too often over-diversification of higher learning institutions and consequently breaking away from the model of a comprehensive university.
In short, Europe developed the modern university system that was to be emulated throughout the world.

1.1 EUROPE: CURRENT STATUS AND PROBLEMS FACING UNIVERSITIES

Post-Industrial Revolution, and especially Post-World War II, the concept of the comprehensive university was somewhat lost in the over-diversification and creation of institutions of various and often narrow programmatic scopes, resulting in "awkward structural and functional muddle. (Heyman, 1999)" As a consequence at present there is a myriad of overspecialized higher learning institutions, very often with areas such as law, medicine, and engineering or poli-technics run as independent organizations of higher learning.

All the successes of European higher learning systems prior to World War II were overshadowed by post-war troubles in education systems. Financial dependence on state, as the only source of income, imposed significant limitations to universities decision making, which affected almost all tenets of university existence varying in scope from hiring and promotion policies to academic programs content and expenditures. As result, the bureaucratic and state control of curricular and organizational matters contributed to competitive decline of European university systems and erosion of public trust in academia (Heyman, 1999; "How Europe…,"The Economist, 2005).

The tradition of providing free university education to students bears partial responsibility for the under-funding of higher learning institutions. In Germany, for example, the open access to all universities for anybody with secondary degree has been constitutionally guaranteed (Heyman, 1999). The tuition free or almost free university education was a norm across continent, not an exception. Overcrowding and consequently underfunding of higher learning institutions with baby boom generation flooding the universities resulted in decreased quality of higher education.

As the result of these factors Europe surrendered its lead in higher education to the United Sates that is manifested by the positions of European universities in Shanghai Jiao Tong University' rating list of best universities world-wide (www.arwu.org). The rating takes the series of objective criteria such as the number of Nobel prizes and articles published in prestigious journals. For 2009 year only Oxford and Cambridge Universities made to the top of the list of the twenty best universities worldwide (www.arwu.org).

The positive changes do occur, though. For example, in Germany, Goethe University is loosening its dependence on state funds, which brings more freedom to hire and to raise money from private sources. The city-state of Bremen has set up an independent private university with connection to Rice University of Texas. It raises money from endowment income and donations ("Who pays…," The Economist, 2004).
Adding research to teaching, which is a hallmark of American research institutions such as MIT (Boston, USA), and thus emulating of American model, does occur. The merger of Karlsruhe University and the Forschungszentrum Karlsruhe can be an indication of the new trend ("On shaky foundations…,"The Economist, 2009).

1.2 BOLOGNA PROCESS

With political unification and expansion of European Union, shortcomings of educational systems came into forefront of societies' concerns. The Bologna process, enacted in 1999, was to integrate higher learning systems through Europe by creating of the European higher education area by making "academic degree quality assurance

standards more comparable and compatible throughout Europe. (Bologna Process, Wikipedia; www.ond.vlaanderen.be)" Naturally, the Bologna Process was preceded by and benefited from successes of earlier educational programs such as Erasmus or Socrates Programmes, which provided operational framework for student and faculty exchange and multilateral cooperation between higher education institutions in Europe (Erasmus Programme, Wikipedia). The Bologna process, with 46 countries – signatories, of which 27 from European Union (EU), in its guidelines replaces continental degree programs with the bachelor's and master's degrees of the Anglo-Saxon world. Further, the process would provide for academic credit transferability and diplomas recognition. This should improve the competitive position of European universities and students mobility according to some assertions ("Bolognese sauce…," The Economist, 2009). The process, thus, would address in the eyes of many, pressing issues of European higher education systems such as: lack of credit transferability and mutual diploma recognition, lack of a uniform educational path (bachelor degree, etc.), significant under-funding, low graduation rates, to name a few.

The process enacted in 1999, brought already significant changes to university systems, consequently meeting some of the outlined objectives of the Bologna process. This comes as a surprise to many, since the Bologna process was not mandated to the signatories' countries.
Taking a closer look at individual countries -- in Germany, shorter and work-related degrees appealed to policy makers, keen to stop students hanging on for years at taxpayers' expense. Anegdotically, students could hang out for decades, studying different disciplines, courtesy of the generous state funding. In France, the changes in university financing have been called "Bologna." In Spain, the Bologna process, introduced tuition for Masters degrees ("Bolognese sauce…," The Economist, 2009). In other countries, which joined the European Union in recent years such as Poland, the Bologna Process allowed reforming the higher educational system along the unified standards of shortened 3-three year degree followed by 2-year Master degrees programs. One has to mention here the earlier attempts of a reforming of higher education system in individual countries, prior to Pan-Eoropean Bologna process, such as changes in Poland's education system in the 1970s and 1980s (Gapinski et al., 1993).
Thus, in many instances, the Bologna process was embraced by many countries to introduce reforms they wanted anyway. This is not to say that the changes were easy to implement and that they received wide acceptance from all stakeholders and/or constituencies. The process, as it swept the continent, caused in some cases the vehement students protests, especially in Germany, where students voiced their opposition against poor academic environment with overcrowding, shortening the study years, and an increase in tuition fees (Houlton, 2009; "Bunt studentow…," Gazeta Wyborcza, 2009).
The politicians are responding to students' protests: in Germany the federal and state governments approved new plan to spend billions to create new university places, boost funding for research and promote a small group of elite institutions ("On shaky foundations…,"The Economist, 2009).

Further, in the light of planned diversification of university funding and severing ties with state as the only source of income, students saw the danger of commercialization of higher learning institutions (Houlton, 2009). Some expressed a concern that the new system will focus on practical skills too much at the expense of academic freedom of expanding one's knowledge. Students' protests occurred also in France, Italy, and Austria ("Bolognese sauce…,"The Economist, 2009). In Poland, university students are very much concerned with a cost of higher education: out of 460 - total number of universities and colleges, 328 are private with tuition fees, and only 132 are public, that still offer free education for the qualified high school graduates based on academic merit ("Studenci…,"Gazeta Wyborcza, 2009).

The discussion on university reforms involves all stakeholders, sometime even university management - presidents can offer further reaching reform than state legislature is willing to accept. This is a situation in Poland where presidents proposed such a packet of reforms, which reach further than current legislative proposal under discussion, allowing for privatization of even state universities ("Strategia…,"Gazeta Wyborcza, 2009).

2. USA UNIVERSITY SYSTEM

America developed its higher learning system borrowing successfully from European model. Although the developments of higher education systems in America and Europe were intertwined from the time America appeared on a map, the historical traditions were quite different. In Europe, with the creation of universities in medieval times, the education system was set up to essentially educate society's elites. The American system, on the other hand, but much later, introduced democratization of access to education on broader scale, especially with its 19th Century Land Grant College Act (Land Grant College Act of 1862, Encyclopedia Britannica). Currently, more than sixty percent (60%) of American high school graduates enter post secondary education, much higher than in Europe ("Secrets of success," The Economist, 2005;"Who pays…,"The Economist, 2004). Non-traditional students do much better than their counterparts in Europe: the majority of undergraduates are female, one third come from racial minorities, about twenty percent (20 %) come from families with income below the poverty level. These facts dispel arguments used by Europe, that the tuition fees would effectively allow only the society well off families to educate their offspring.

This is not to say that education to most come without a financial hardship. Half of student population does work half-time and eighty percent (80%) of students work to help support themselves ("Secrets of success," The Economist, 2005). The money factor to great extend encourage students to be more responsible for their own academic success: the graduation rate is much higher than thirty seven percent (37%) of age cohort of Organization for Economic Co-operation and Development (OECD) member countries, and with only of twenty one (21%) in Germany ("On shaky…,"The Economist, 2009).

The diversification of universities funding with tuition fees, state appropriation whenever applicable, grants, private benefactors propel American universities to the highest expenditure per student with about $22,000 versus $10,000 for OECD countries for year 2001 ("Secrets of success," The Economist, 2005). Furthermore America spends twice as much of its GDP on higher education than Europe does (Heyman, 1999).

The higher education system is well diversified with community colleges at the bottom of the pyramid, colleges and state universities, and research universities at the top. There is a plethora of public and private institutions for students to choose from. A student can start at community college and to graduate from research-oriented university. In Europe such transferability and mobility would be almost impossible to achieve.

American Universities compete for almost everything: talented professors, administrators, students, and of course grant monies. Thus, a competition in almost all facets of academic life of the university and funding sets American universities apart from the rest of the world.

In the cited Shanghai's Jiao Tong University rating, there are 35 American universities in the list of top 50 universities world-wide.

But there are looming dark clouds over the educational horizon of American higher education. Dramatic rise of costs in the form of university tuition fees, well above inflation rates, caused by decrease in public funding may jeopardize university access for ordinary citizens. Between 1971-72 and 2002-03, annual tuition costs (in 2002 dollars) rose from $840 to $1,735 at public two-year colleges and from $7,966 to $18,273 at private four-year colleges ("Secrets of success," The Economist, 2005). Recent financial turmoil of 2008 and 2009 years has put especially public institutions at financial squeeze due to reduced state funding nationwide.

The financial burden of cost of education combined with growing income disparity among socio-economic strata of society put heavy breaks on social mobility. The social mobility was always a hallmark of American society allowing a large part of society to move upward to participate in "American dream". In the long run that may decrease society faith in fairness of their economy ("Middle of the class," The Economist, 2005).

Political correctness is another factor, which tends to stifle an academic freedom at higher learning institutions ("Secrets of success," The Economist, 2005).

Emphasis on research puts undergraduate education at peril of not adequate attention at the research universities. In America there is 3,200 higher-education institutions, of which only about 100 research universities, thus, maybe the critique that the academics pay too much attention to research over teaching is overplayed in a broader perspective.

Given weak standing of American high school education vis-à-vis European counterparts: in the most recent OECD's (Organization for Economic Co-operation and Development) statistic of the 15-year olds skill in math, America ranked 25th out of 30 ("Still at risk," The Economist, 2008), it is surprising to many that American higher education system can still produce top world scientists and engineers.

3. GLOBAL MARKET

American universities and colleges were capable of attracting millions of young people from around the world. The U.S. has the biggest share of twenty percent (22%) of the international student market according to London based Observatory on Borderless Higher Education (OBHE). In 2006 nearly 565,000 foreign students came to US shore seeking American university diploma ("Education…,"The Economist, 2007). In 2008 the number grew to record 671,616 (Fisher, 2009). Thus, despite higher tuition costs in US, foreign students see a better investment of their dollars here and are flocking American universities.

In globalization of world market, it seems that USA universities could have done a better job addressing bilingual education. While in Europe it is almost common for high school graduate to be fluent in one if not two foreign languages, American students are only very rarely prepared to communicate effectively in foreign language. American universities are making attempts to correct this shortcoming by setting semester abroad programs and collaborate with counterparts in Europe via educational consortia.

European Union promotes interregional development that crosses national and linguistic barriers. Universities are setting up bilingual and double diploma educational programs (Hager et al., 1998; www.wneiz.pl/englishstudies). As an example, the author would like to mention a bi-national, bilingual program offered by Informatics and Econometrics of Business School of University of Szczecin (Poland) jointly with Hochschule Wismar (Germany) accredited by **ASIIN** - Akkreditierungsagentur für Studiengänge der Inginieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik (German accrediting agency). Students graduate with double Polish and German diplomas according to Business and Management Dept. of University of Szczecin, Poland (www.wneiz.pl).

Advantage of English speaking programs of US and British systems diminishes as more and more countries offer not only undergraduate but also graduate academic programs in English language ('Education…,"The Economist, 2007). Many European countries offer programs in English, some of them with established high ranking and accreditation. As examples, the author wants to mention: the Jagiellonian University Medical College (www.medschool.cm-uj.krakow.pl) in Krakow (Cracow), Poland, which has American accreditation and IESE Business School University of Navarro (www.iese.edu), the graduate business school located in Barcelona, Spain, which offers graduate international business program of highest international rating.

3.1 BEYOND EUROPE AND USA

The changes in higher education are not limited to Europe or USA. Countries of other continents are transforming their systems to meet today's challenges. India is setting up more of their premier institutes of technologies. Singapore is focusing on university system transformation to become a "knowledge island." China with doubling the size of student population in the last decade is pouring vast resources into their universities ("How Europe fails…," The Economist, 2005).
In the process of reforming of higher learning institutions the countries in Asia and elsewhere looking for the most successful model, are turning more and more to America.

4. CONCLUSION

The purpose of the paper was to compare higher learning systems in Europe and USA. While the higher learning system in USA borrowed concepts from proven European model of the modern university at the beginning, the American system introduced with time some vitally important factors, such as diversity of the system with regard

to academic offerings, financial diversification, and a very limited role of government, which propelled American universities, especially after World War II, to the top of international ratings.

Following political unification, Europe got its act together by implementing Bologna process, which when fully implemented would standardize university diplomas across continent allowing for credit transferability and recognition of diplomas ensuring student mobility. Europe, taking lessons from USA higher education model, started to diversify university funding sources, forming private institutions and introducing or increasing significantly tuition fees. Students' unrests may put some brakes on a pace of inevitable transformations. On other hand, the socio-economic turbulence of 2008 and 2009 years may leave no choice to universities but to pursue the transformation and diversification of their funding sources given current much less generous state support.

As the socio-economic troubles mount, there is a danger that with ever increasing tuition fees American universities would place themselves out of financial reach of the middle class. As a consequence, this would inadvertently scale down social upward mobility, which was a hallmark of American system.

On international front, both European and American educational systems were capable so far to attract large number of international students coming from other continents. But transformations of education systems are sweeping other continents too, which may put a dent in an applicant pool of international students seeking U.S. or European education. This may diminish the role both systems play in the world.

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