DOI: 10.15170/pte650.lib.2017.17

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# *Trends in Higher Education in the 21st Century*

The original official title of this presentation is *21st Century Trends in Higher Education in Europe*. I took the liberty to transform this title into "*Trends in Higher Education in the 21st Century*" but still, the starting point of the presentation should remain with the trends in Europe.

All trends in higher education in the 21st century in Europe derive from the general strategy in Europe, which is EU2020: a smart, sustainable and inclusive growth. This is the general strategy, that is to say a strategy for the economy, for the society, and for all fields of life, and thus all field strategies derive from this general one. Education becomes a key issue in this sense because there is no imaginable, sustainable, smart economy and there is especially no inclusive economy if there is no high level mass education. Smart, sustainable and inclusive growth is not possible without a large quantity of or proportion of people with tertiary degrees. For this reason higher education, access to higher education, the quality of higher education have become key issues. The importance of higher education is clearly symbolized by the key indicators of the EU 2020 strategy. There are seven key indicators for this overall strategy: for all fields ranging from fishing, to energy, from health care to economy. Two of these seven indicators are targeting education. One of them aims at reducing early school leaving to lower than 10% in Europe by 2020. The other is aiming at providing at least 40% of the 30-35 year old Europeans with a tertiary degree.

Thus in the 21st century higher education has gained ground, importance and focus. This is all the more remarkable as policymaking on education is decided at national level. Since education and a number of strategy-related other issues fall under national level competence, a common framework for coordinating national actions and sharing best practices was needed. Hence, the Open Method of Coordination (OMC) was launched (Eurofound, 2010)[1].

1 Eurofound (2010): Open Method of Coordination (http://www.eurofound.europa.eu/areas/industrialrelations/dictionary/definitions/openmethodofcoordination.htm) [30.10.2017]

The OMC includes peer learning between countries, and based on that strategical, steering documents, so called Council Conclusions were adopted that set priorities and give tasks for the Commission, and for the member states. Countless working documents were and are created in order to support member states' developments. Also, the European Social Funds and national operational programmes being adopted by Brussels are a means of steering national higher educational developments.

Thus the need to strengthen smart, sustainable and inclusive growth in the economy results in the need for a well-educated labour market. So simply we could state that main trends in education are linked to economy and the labour market in Europe and all over the world. What does that mean for Europe and what does a high percentage of people holding a higher education degree requires? What has been done?

Within the most important European higher education trends in the 21st century, one must start with the most known, and probably the most important one: the Bologna Process. The force behind the Bologna Process is the free movement of the labour market, since employers of mobile Europeans need to understand the level of all various European degrees in higher education. Therefore three levels of possible higher education degrees were created. These are called the three cycles: (1) the bachelor's, (three to four years of studies, 180–240 credits built on a high school leaving exam) (2) the master's (with one to two years of studies, 60 to 120 credits) that follows and builds on the bachelor's and (3) the PhD that can build on a master's level degree. The main aim that has been reached by the Bologna Process was to have all qualifications of higher education automatically accepted all over Europe.

As part of the Bologna Process, the European Credit Transfer System (ECTS) has been created in order to have a common understanding within Europe on the meaning of a credit. Also the European Higher Education Area (EHEA) was created where the general guidelines are shared for example on the quality assurance of higher education called ESG.[2]

The emphasis in higher education has moved from inputs to outputs and from process and content of programmes to the learning outcomes of programmmes, and to competence levels gained in programmes. As a result, all higher education programmes have to be described by the gained learning outcomes and competences (knowledge, skills and attitudes). Also, the three cycles of higher education have general learning outcome descriptors, the

2 ESG stands for Standards and Guidelines for Quality Assurance in the European Higher Education Area. See http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf [30.10.2017]

so called Dublin descriptors. Based on the expected competence levels and learning outcomes of cycles and programmes the European Qualifications Framework was created.

The European Qualifications Framework aims to make the task of understanding a national degree all over Europe even simpler for an employer. The European Qualifications Framework has created eight theoretical generic competence levels for eight different qualification levels in education. Also all the member states had to establish their own national qualifications framework, from primary school to PhD, and had to decide how many levels of possible degree outcomes there are in their educational system and what competence levels those represent. Then all national qualification frameworks, meaning all set competence levels within the national qualifications framework, were referenced to one of the European Qualifications Frameworks levels based on the reached level of competences. This system has been set up in order to have a tool for interpretation, a tool for understanding the level of each national qualification and make it correspond to a level of qualification in another European country.

In the second part of my presentation my aim is to seek answers for the question "what is 21st century higher education" without differentiating between Europe and other parts of the world. This question goes beyond systems, beyond the free movement of employment and rather it targets at what is expected of higher education in terms of content and processes, and how is it possible to keep higher education appealing and relevant to applicants and students when there is practically everything available on the internet.

So if we aim to look into general higher education trends in the world, then the "Education at a Glance" published by OECD[3] is an important source of information by providing a large and international data set and its analysis. Based on the OECD data between 2000 and 2016 (see Chart 1) the ratio of tertiary educated persons (ones holding a higher education degree), has gone up to 46 % in OECD countries on average, while the proportion of students or young people holding a degree below the level of secondary school degree has dropped to 16%. In 2000 the ratio of both groups has been nearly the same: 25–26%.

[3] OECD (2017): Education at Glance 2017: OECD indicators, OECD Publishing, Paris. http://dx.doi.org/10.1787/eag-2017-en [30.10.2017]

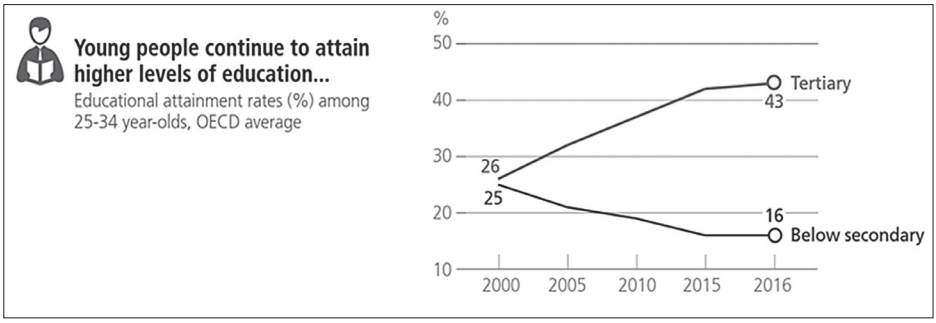


*Chart 1: Educational attainment rates among 25-34 year-olds.*
Source: OECD (2017): Education at a Glance 2017: OECD Indicators, p. 25.

So it seems that in the last fifteen years, young adults continue to attain higher levels of education, which is definitely a positive trend. At the same time, we can see the percentage of drop-outs is still quite important. 25% of upper secondary students did not graduate two years after the end of the programme and 15% 18-24 year olds are neither in employment nor in education or training.

What do we know about the workforce characteristics? There is clearly more need for people with higher education degrees than before, and there are distinct advantages to going to higher education because people would be likely to be paid more and there is a higher average of employability for the tertiary educated. This has also been verified by the results of the Hungarian student carrier tracking system (Diplomás Pályakövetési Rendszer)[4]. According to the latest Education at a Glance volume, all students find work no matter what field they obtained their degree from in higher education and the average wage is higher than for those without a degree from higher education. It is also important and interesting to note that the highest rate of people holding a higher education degree is usually the area around the capital cities, like Budapest in Hungary. It seems that around the world it is the capital city where there is the highest concentration of people with higher education degrees.

According to the OECD data, students find business, administration and law the most appealing as a career: 23% of students chose these fields for study. Since Science, Technology, Engineering and Mathematics (in short STEM) are crucial fields of study for the industry, the percentage of students choosing

4 Forrás: Veroszta, Zsuzsanna (2016): Frissdiplomások 2015 – Kutatási Zárótanulmány, 2016, Oktatási Hivatal, Budapest https://www.felvi.hu/felsooktatasimuhely/dpr/hazai_dpr/frissdiplomasok_2015_zarotanulmany [30.10.2017]

STEM fields is always of importance in a country. On the OECD average, 22% of bachelor's students study in STEM fields, 44% of master's level students, while only 5% of new entrants are in the IT field. There is a new challenge not only in Hungary, but also internationally within the IT field, since the employers within the sector do not require higher education degrees. This is the first area of employment where the competence level of a potential employee is tested and the level of verified competence is "the only important thing," degrees of all kinds are not necessarily required. This is the case in Hungary also, where the retention rate of the IT bachelors' are the lowest, since students get jobs during their studies and do not find it necessary to finish their higher education studies[5]. In the OECD, on average 17% of students choose Engineering, Manufacturing and Construction for a career, and the percentages of students in these fields are similar to those in Hungary. It is also important to note that according to OECD data, the choices of fields of studies for students are quite similar from year to year, so there is no dynamic change in the proportions of the fields within higher education.

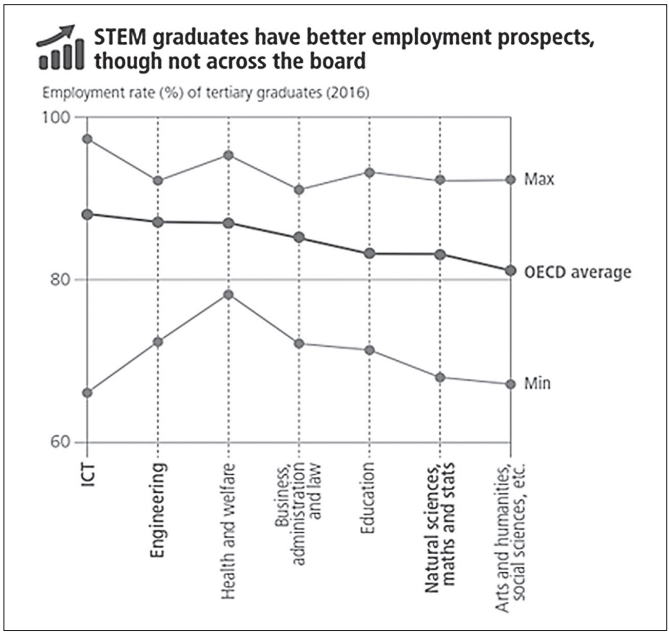


*Chart 2: Employment rate of tertiary graduates (2016).*
Source: Source: OECD (2017): Education at a Glance 2017: OECD Indicators, p. 26.

5 Source of information: FIR – Higher Educaion Administrative Database of the Educatioanl Authority

If we look at the employment prospects of graduates (see Chart 2) it is quite evident that the employment prospects of students from the ICT field are the best, while they are the worst for the arts and humanities students. Yet the difference between the employment rates of these two fields at the OECD average is not that high, does not reach 10%. And it is also important to note that average OECD employment rates in all fields are above 80%, which shows the overall benefits for higher education degrees.

The Times Higher Education World University Rankings is a ranking association which has made a very interesting enquiry among academics in the world, inquiring about what they think universities will look like in 2030[6]. The results are quite interesting, because predictions do vary, they are even contradictory sometimes. These varying scenarios should all be considered and should have an impact on what we think about our own 21st century higher education in Hungary and also on ways to develop.

According to the survey,

- one of the views on the future of higher education was that robotics and artificial intelligence pose a challenge to higher education because most of the jobs for which we prepare students today will be replaced by intelligent robots by 2030, and therefore there will not be a point of higher education as we know it today. Robotics has changed the industry already and I do not think we have thought about the effects on higher education yet.
- Another view expressed that higher education has a difficult future, because the professors and the staff are unable to inspire students. It is very often said that there is a gap, between the world and the schools, and between the world and higher education. The content of what we teach does not seem relevant in life to students and if we are not able to change that then the motivation for learning, the aim of learning and value of learning is going to be lost. And since it is quite clear that lifelong learning is required in the fast changing 21st century, therefore it is important that learning is something that all students like.
- Two of the experts expressed views focused on the need to emphasise electronically enhanced active learning forms, and also that technology should be included into the learning process and used to enhance student learning. This is probably one of the important messages to higher education with the Central-Eastern European tradition of frontal lecturing. Engaging the student in active learning supported by a variety of devices, software and ICT technology is a clear message.

6 https://www.timeshighereducation.com/features/what-will-universities-look-like-in-2030-future-perfect [30.10.2017]

- One of the experts in the survey found values a key issue. Since competence is made up of three elements: knowledge, skills and values, and the traditional education system mostly concentrates on knowledge, and now at the beginning of the 21st century the importance of skills is widely expressed, according to the expert it seems that in the future the real emphasis should be put on values. The reason for this is that the skills set that we need in the labour market change so rapidly that we should really concentrate on developing core values.
- There was also an expert finding the importance of assessing learning outcomes the most important. The reason of this is that if we will be able to assess learning outcomes then we will be able to really change our pedagogical processes and the ways higher education works.

The future of higher education was not only studied by the high-ranking experts, but also by Blackboard Inc., an ICT company and an important supplier for the educational system in the US. They were very interested in how we think, what we think about the upcoming years in education and in higher education. They made very thorough interviews with top American higher education experts and came up with a white paper on the future of higher education[7]. According to their results:

- The current higher education system is unsustainable and ill-suited for the challenges of the modern world: this is similar to what has been said by the Times survey, there is a need to examine how higher education can provide young people with the right set of knowledge skills and competencies that are relevant on the labour market today and in the constantly changing future.
- Colleges and universities will have to change their current business model in order to succeed in the future.
- The new technologies will allow faculties to shift their focus to application of learning, rather than passing on knowledge. This important outcome is also similar to the result of the other survey, showing that there should be a shift away from knowledge to the application of skills and to the right set of values to problem solving, innovating, adapting
- Data and the ability to transform data into decisions and action will be the key issue. There is an incredible amount of data available on all kinds of things. How to make a decision based on data, how to figure out which data are relevant or not, which data are valid and which is not? How to make decisions based on that how to manage and monitor

7 www.blackboard.com/future-forward [30.10.2017]

actions based on data is the key issue in the future and we should focus more on that.

- Last but not least, we should not forget that the heart and soul of the institutions are the professors. How to keep them motivated and active and how to keep them adapting to the changes in the 21st century is a key issue if we aim at keeping the higher education system relevant and essential to the labour market.

**Abstract**

*Trends in Higher Education in the 21st Century*

This presentation aims at giving an insight into the main trends shaping higher education since the turn of the millennia in Europe and the world. In Europe trends in higher education are decided at the national government levels, yet they are steered by the Open Method of Coordination. One of the major result of this steering is the so called Bologna Process that resulted in (1) the creation of three degree cycles in all the member states: bachelor's, master's and PhD, (2) the automatic recognition of higher education degrees within the EU, (3) the European Qualification Framework to provide a tool for understanding and supporting the recognition of all educational degrees.

In the first two decades of this century, the proportion of the young adult population with a tertiary degree has been constantly rising worldwide. There are several benefits for gaining a higher education degree, one of these is that there is a high employment rate in general for graduates in the OECD countries. The career choices of students seem to change slowly, with business, administration and law being the most popular choice.

As for the future of higher education, it seems that the prognoses differ, yet some of the experts tend to agree that there is a need to transform higher education studies to become more relevant, more applicable in life and with more emphasis on ICT aided student learning.

**Keywords:** 21st century trends in higher education, Bologna Process, employment rates of higher education graduates, career choices of higher education graduates, future of higher education

## *Felsőoktatási trendek a 21. században*

Az előadás az ezredforduló óta, Európában és a világban zajló legfontosabb felsőoktatási trendek bemutatására törekszik. Európában a felsőoktatási trendekről szóló döntéseket a tagországok kormányai hozzák, azonban az EU a Nyílt Koordináció Módszerével ezek irányára próbál hatni. Ezen európai hatások közül az egyik legfontosabb az un. Bologna Folyamat, mely három fontos eredményt hozott: (1) a felsőoktatásban a három egymásra épülő képzési ciklus bevezetését, a bachelor, a mester és a PhD ciklusokat, (2) ezen fokozatok európai automatikus elismerését, (3) az Európai Képesítési Keretrendszert, mint fordító és támogató eszközt az oktatási végzettségek szintjeinek elismerésében.

Az évszázad első két évtizedében a világban a felsőfokú végzettséggel rendelkező fiatal népesség aránya folyamatosan nőtt. A felsőoktatási végzettség megszerzése több előnnyel is jár, ezek közül az egyik az OECD országokban általánosan tapasztalható magas foglalkoztatottsági arány. A felsőoktatási hallgatók képzési terület, és ilyen értelemben karrier út választásában az elmúlt években nagy változás nem következett be, az üzleti, adminisztrációs és jogi területek számítanak a legkedveltebbnek.

Ami pedig a felsőoktatás jövőjét illeti, annak ellenére, hogy egymástól nagyon eltérő prognózisok készülnek, egyes szakértők véleménye egyezik abban, hogy a felsőoktatási tanulmányoknak sokkal élethez közelibbé, relevánsabbá kell váljanak, és a hangsúlyt a jövőben az IKT által támogatott aktív hallgatói tanulásra szükséges helyezni.