Chapter #21

TODAY'S HIGHER EDUCATION AT A *CROSSROADS*
The *critical point* and *paradigm shift* in the educator's role

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ABSTRACT
Observing the different progress rates of the available data, information and knowledge (on one side) and human capacity to process these available data, information and knowledge (on the other side), the author becomes aware of the higher pace of the first – in the midst of impetus of new communication and information technologies – and argues that, at this point in time, we are eye-witnessing a real education paradigm shift. The education system is at a critical point in time (call it critical point in education – CPE) when the educator's role must change from knowledge repository to skilled, expert knowledge explorer and identifier, switching from teaching the subject to teach students how to pick the right and relevant information related to the subject – from the ocean of available data.
The current corona-crisis – which started by the time when the ideas for this chapter were put together – made this question more acute, asking for re-thinking the education system and educator's role.
This chapter launches the thesis of the education paradigm shift – in that respect of the educator's role in the predictable future, to provoke a discussion, and to open a research path, for higher education strategists, policy makers, scholars and educators.

Keywords: higher education, educator's role, education paradigm shift, critical point in education (CPE), corona-crisis as accelerator, digital acceleration.

1. INTRODUCTION

The education system is part of the society as a whole, evolving and transforming together, in principle addressing the needs of the society. Nevertheless, the higher education immediate environment is currently under the pressure of several forces that induce challenging transformations as well as rapid changes: uneven increase of the world population (population growth in the less developed countries, parallel to declining number of higher education candidates in the developed economies); exponential development of technology (as well as new information and communication technologies); increasingly competitive economic globalization (stimulated itself by the technology progress that makes distances less relevant by faster transportation means and new telecommunication technologies); new educational technologies (e-platforms included); and all these, unfortunately, in addition to climate change (as result of global warming) and political conflicts (as results of changes in power balance and economic interests) – to name just a few. All these forces and influences are interlinked, and all of them influence or are influenced by the [higher] education systems and processes – on all their dimensions: students, educators, teaching infrastructure and methods.

Our position is on the educator's side, aiming to focus on the educator's role, amid mostly desirable changes and undesirable turbulence.

Education, in general, (and the higher education, in particular) has to answer to the corresponding challenges: How to cope with the discrepancy between the best universities and decreasing population in the developed countries (on one side) versus (on the other side) relatively less and not-so-good universities targeted by a booming population in the less developed countries? How to keep the pace with the best sustainable compromise (of economic development) between new technologies development and climate change? How to answer to the latest needs of the global economy, while careers change themselves (Pascadi & Scarlat, 2016)? How to rapidly adapt to the continuously and fast changing requirements of the new jobs associated to the state-of-the-art technologies? Ultimately, how will the education-related jobs of the future change?

Different evolving paths open controversial yet creative discussions on hot subjects like: virtual university *versus* 'bricks-and-mortar' traditional university; entrepreneurial *versus* classical university; long-life learning *versus* formal education; free *versus* paid education; mass (uniform) *versus* elite (differentiated) education; e-books and virtual libraries *versus* paper books and traditional libraries; high-tech online platforms *versus* traditional teaching methods; virtual *versus* on-site educational tours, and the list is open (Burke & Shay, 2016). However, the common sense should prevail and answers gravitate around getting the best compromise (in terms of effectiveness and efficiency) between apparently opposite elements (traditional *versus* modern).

Some answers are commonsensically trivial – as seen above – while other solutions lie in the technology itself. Still some answers generate new questions. The technology progress (namely quasi-instant internet communication) offers some solutions in terms of making the distance irrelevant – in that respect of blitz-access to information. However, in spite of faster and faster transportation means, distance is still an obstacle for people and material resources. If the blended learning seems to be a balanced solution applicable in several instances (education infrastructure, teaching materials and methods), a particular question stands still: If the source of information (source of knowledge, ultimately) can be almost instantly accessed, then how to cope with this tremendous amount of data? An example is illustrative for the immensity of available data: On 20 May 2019, looking for "communication technology" keyword, Google search engine offered 2,380,000,000 results in less than one second (0.59s); at a pace of 1 item/sec, the non-stop reading will take a lifetime (75 years)!

Computers and artificial intelligence (AI) algorithms may help (and will be of more and more help) but still ... In addition to this, to make things more difficult, this amount of data develops exponentially in time. About two decades ago, there were published hundreds of thousands new books yearly which corresponds to an amount of information (new data) of more than 1 million bits/sec (Hawking, 2001). According to the same source, the number of scientific papers published has increased exponentially, 10 times each half-century, as follows: 9,000 (in 1900), 90,000 (1950), 900,000 (2000).

Realistically speaking: How can the educator cope nowadays with such tremendous deal of information (impossible to be processed by a single person)? How could the educator ask students to do what s/he cannot do? What should be the educator's role in the foreseeable future? Should we call him/her still educator? Ultimately, will the educator have any roll of any kind? As higher education has to answer to the current needs of economy and society at large, then which is exactly the role of the educator (university professor's in particular) under these circumstances?

It seems that our society is at crossroads, not necessarily as technology management but as information management in education. *We currently are eye-witnessing a real paradigm shift in education, related to the educator's role.*

The author's opinion is that education system is currently at a critical point in time when the educator's role must change from knowledge repository to skilled, expert knowledge explorer and identifier. S/he has to switch from teaching the subject to teach and guide students how to pick the right information related to the subject from the ocean of data, literally; to distinguish the true from false information, and eliminate the fake data.

In the future, as part of the human society as a whole, the education system will continue to play its role and answer to the newer and newer needs of the higher and higher technologized society. The humans – both educators and students – will change themselves. Will humans change incrementally yet remaining humans, or will they change radically, becoming more and more cyborg-likes aiming at immortality? To answer this question is beyond the goal of this chapter. The main objective remains to launch the *thesis of education paradigm shift* – in that respect of the educator's role in the predictable future – in order to provoke a discussion on this subject, and, eventually, to open a research path, for [higher] education strategists, policy makers, scholars and educators.

Consequently, the remaining of this chapter is structured as follows: middle age universities as shapers of the modern higher education; the evolution of the educator's role, and the paradigm shift in its evolution (the higher education at crossroads), followed by an inset about the impact of current corona-crisis on education, and conclusions.

2. UNIVERSITIES: THE OLDEST AND MOST ENDURING ORGANIZATIONS

As compared to other types of organizations, the *educational institutions are among the oldest*. Some precursors of traditional universities are still active (as *The King's School*, Canterbury, England, since 597). The oldest, still functioning universities are considered: *Al-Azhar University* in Cairo, Egypt (970/972); *University of Bologna*, Italy (1088); *University of Oxford*, England (1096/1167); *University of Salamanca*, Spain (1134) – on top of others that have followed. The middle ages universities have not emerged from scratch (Courtenay & Miethke, 2000); it is generally accepted that modern universities have the roots in the mid-age Christian tradition (Rűegg, 1992) and their precursors were religious (cathedral or monastic) schools, dating back in the 6th century (Riché, 1978).

Evolved from the religious schools created by cathedrals for the clergy education in the Middle Ages, the proper universities were established in towns and defined as 'communities of teachers and students' (in Latin: *universitas magistrorum et scholarium*) – similar to professional guilds – awarding degrees in a range of academic disciplines. They were self-regulated and neatly organized, their constitution (academic charts) providing clear admission procedures (like in guilds). The origin of the *academic freedom* the European students enjoy these days is a nine-century-old document issued at University of Bologna in 1155/1158: *Constitutio Habita*. In spite of the university autonomy and academic freedom, the clearly admission and functioning rules as well as the professionalism of its members (high respect for their profession included) – all made universities very well organized and managed, apparently rigid institutions (Tolar, 1980).

The universities always were cultural and educational focal centres, the place where leading scholars continuously educated the elites for the next generations.

As Tolar (1998, p.161) observes, "Universities are homes to vast technological information and talent. Universities are repositories of knowledge. Academic research continues to be a leading contributor to new technologies and methodologies. … When university faculty receive the requisite training, they can become potent technology transfer agents." University faculty and students are excellent candidates for investigating new

ideas: "Academic freedom and exposure provides certain openness not found in other institutions … Academic tradition encourages the tolerance and study of new ideas, even if faculty do not rush to embrace them. The ability to investigate new ideas in the pursuit of greater knowledge is a major strength of the university system." (*Ibid.*, p. 160).

Universities are among the oldest as well as *enduring institutions*. They prevailed over wars, famine, plagues, extreme natural adversities, or dramatic changes of political regimes: "Many of the higher education institutions of the former communist countries … have outlasted communism itself. Although universities (in any part of the world) are not known for rapidly embracing change, once they do expend the effort to incorporate new philosophies, change has a lasting effect." (Tolar, 1998, p. 161)

The enduring paradox (most advanced ideas and top research *versus* rigidity) is explained exactly by the freedom of creative spirit – allowed by the framework of precise (not rigid) internal rules. Universities do not change themselves but *they change the environment*.

Well-understood why the universities were so enduring, yet it is important to understand how was the education before the emergence of universities – specifically *before* inventing *printing* and even *writing*, by the time early humans used to communicate by (oral) articulate speaking only (*language*). Therefore, the *educative role of the wisdom literature and proverbs* (Scarlat, 2015; 2019; 2020a) has to be emphasized. However, this issue is beyond the objectives of this short chapter.

3. THE EDUCATOR'S ROLE: FROM THE *WISE MAN* TO *MAGISTER* TO UNIVERSITY PROFESSOR. WHAT AFTER?

Besides family education (in general basic), the role of school educator has shifted in time from magister teaching disciples (Greek-Roman antiquity) to professor *encyclopaedicus* (middle age's Erasmus of Rotterdam) to contemporary university professors mastering (at their best) a single subject. Today, new sciences and deeper areas of knowledge are established in each sector of science, because of unprecedented volumes of information in each of them – so that it is almost impossible that a contemporary university professor to master more than a single subject, a very few or a narrow knowledge area. It seems that our society is about to reach a *critical point in time* (or, maybe, it already experienced that point); not necessarily as technology management but as *information management in education*. This happens when the *amount of available information* is larger than the amount of necessary knowledge *homo sapiens* needs (actually limited to the amount of information his brains are able to process or the *brains' processing capacity*).

Both figures – the amount of available information (A) and the brains' processing capacity (B) – display positive dynamics, yet the first one (A) features a lot higher, accelerated pace: undoubtedly, the volume of available information is the result of the accelerated progress of science/sciences and technology/technologies (currently, IT&C – that includes internet communication, social technologies, artificial intelligence, cloud and quantum computing – but also genetic engineering, biotechnology).

On the other hand, the amount of information that human brains are able to process (B) – in order to turn it into knowledge – is related to the human DNA. According to Hawking (2001), the complexity of DNA improved over time, as measured in bits of information: from 1 bit/100 years (during first two billion years since emergence of life on Earth) to 1bit/year (during last few million years) – as result of random mutations and natural selection. The relatively low pace of improving the DNA complexity suggests a relatively linear increase in brains capacity to process the information. In this matter,

following to earlier studies (Hick, 1952), Moscoso del Prado Martin (2011) estimates the human reaction time at maximum 60 bit/s, observing that it depends on tasks to be fulfilled, and it possibly be higher (yet not claiming any upper limit). To note that *invention of writing was crucial exactly because it made possible to transmit information along generations* without expecting the slow progress of the DNA complexity.

Obviously:

60 bit/s (Moscoso del Prado Martin, 2011) << 1 million bit/sec (Hawking, 2001)!

In other words, the pace of (B = amount of information the human brains are able to process) is a lot inferior to the pace of (A = amount of information generated globally). In addition, the gap is going to enlarge (an exponential increase is superior to a quasi-linear increase) – as long as human processing capacity is not boosted by processing capacity of supercomputers of the future, in one way or the other. Therefore, it is natural to assume that, at a certain point in recent times, the curve (A) crossed the curve (B). To note that it is hazardous – if not incorrect – to turn this analysis into a sharp-value-calculation of this point of intersection, as long as history of humans covers many thousands of years (since writing was invented), during which only simulations are fairly possible.

Define this intersection point of the two curves above as *critical point in education* (CPE). It means that *homo sapiens* is not able to cope anymore with exponentially increased volumes of available data and information produced by novel technologies. Of course, computers with their processing power and larger and larger memory devices help to a certain extent to enhance and amplify the human capacity. However, realistically, the question stands still: How can the educator cope nowadays with such tremendous deal of information (impossible to be processed by a single person)? How could the educator ask students to do what s/he cannot do? What should be the educator's role in the foreseeable future? Should we call him/her still educator? Ultimately, will the educator have any roll of any kind? *Here's the paradigm shift*! *We currently are eye-witnessing a real paradigm shift in education, related to the educator's role.*

4. HIGHER EDUCATION AT CROSSROADS: A *PARADIGM SHIFT* IN THE EDUCATOR'S ROLE!

The author's opinion is that education system is currently at a critical point in time when the educator's role must change from knowledge repository to skilled, expert knowledge explorer and identifier. *The educator will continue to exist in the near future at least, but with a different role.*

First and foremost, s/he has to be familiar with new teaching technologies (not only e-learning platforms but also diverse devices for AI – artificial intelligence, VR – virtual reality, AR – augmented reality) and teach students how and when to use them. Then, the educator has to switch from teaching the subject to teach and guide students how to pick the right information related to the subject from the ocean of data, literally; to distinguish the better from poor quality, the true from false information, and eliminate the fake data.

In the near, foreseeable future, the role of educator is not going to be diminished; exactly the opposite is the case: the educator's role becomes more complex, to teach how and when to wisely manage the technology tools in general; how and when to use the newer technologies as online and mobile teaching, AI, AR and VR devices; to promote experiential teaching together with students in order to effectively guide them to achieve the educational objectives. Pacansky-Brock (2017) explains how educators need to understand the applicability of the new educational technology-based tools (as social media and web 2.0 technologies) that are currently transforming the learning trends and

preferences of students as well. The public web and open educational resources are going to replace the traditional learning management systems and technologies that no longer exist; and their mastering should be on the educator's list of competencies – in order to enhance "communications with and between students, and cultivating participatory, student-centred learning activities".

Understandably, the new teaching technologies produce subsequent changes in both education process and organizational structure; these changes might be subject of further research.

Acknowledging the changes in the student body from *Millennials* to *Gen Z* or *iGen*, Fleck and Kakouris (2019) propose the use of adequate experiential teaching innovations (such as use of music and art to teach; use of art to trigger critical reflection; use of the superhero to stimulate creativity; use of alternative media such as film and TV to engage students) in that particular case of entrepreneurship education – based on their observation that "entrepreneurship education has often pursued experiential learning pedagogies in order to engage students and inspire them toward business venturing". Other educators' experience demonstrates that experiential learning (Kolb, 1984) is applicable to various areas of teaching (Itin, 1999; McCarthy & McCarthy, 2006; Breunig, 2009; Stremba & Bisson, 2009; Smith Budhai & Brown Skipwith, 2017). Bartels and Wagenaar (2018, p. 191) describe "three pedagogical practices for recognizing and tolerating affective resistances to experiential learning and finding creative solutions to emergent research problems". Yet the methods for qualitative social research are themselves an area of research during the digital age (Waller, Farquharson, & Dempsey, 2016).

The advantages of using VR, while teaching in the classroom, over traditional teaching methods are palpable in cases as: (i) working in groups; (ii) virtual field trips; (iii) virtual labs; (iv) design and art; (v) exploring history (Wess, 2020). Among concrete examples of applying VR in education are the following: The *VRChat app* makes educational group work easy in a virtual classroom; The *Discovery Education app* helps 'transportation' of students to faraway and/or inaccessible parts of the planet; *Labster* lets students choose chemicals from store-room shelf and use them as required. Taxén & Naeve (2002) consider VR an effective way of teaching difficult concepts to learners; they present *CyberMath*, "an extendable avatar-based shared virtual environment for teaching and exploration of non-trivial mathematics that allows further study of these issues."

Slavova and Mu (2018) found that immersion of students in a virtual environment can improve students' attention; they conducted a comparative study on students' performance when course content is delivered using VR (as compared to conventional lecture slides) and found improved social interaction and "productivity tools in VR are essential for its greater impact in higher education."

Through AR, educators are able to improve learning outcomes through increased engagement and interactivity. AR maximizes students' ability to spend their time learning curricular subjects while minimizing the time spent learning how to use the new technology.

As compared to VR, the AR improves understanding of abstract, spatial geometric concepts through manipulation and multi-angle observation of virtual 3D objects, and offers some cost-friendly options (ViewSonic Library, 2019). Based on their qualitative research conducted in schools from rural and suburban areas of North-Western Greece on diffusion of AR technology, Tzima, Styliaras, and Bassounas (2019) concluded that "teachers are the common element in every different educational system and play a key role in the integration and acceptance of technology in education." As far as concrete practical applications, there are two companies that have produced AR applications for several

disciplines: *DAQRI* created *Elements 4D app* (chemistry) and *Anatomy 4D app* (anatomy) and *Arloon* produced *Arloon Plants* (botany), *Arloon Menthal Math* (arithmetic), *Arloon Geometry* (geometry).

The idea of combining the real and the virtual (Tavangar, 2014), by use of VR and AR technologies and their tools in education, is opening unlimited horizons.

AR along VR will be among the key educational technologies over the next decade (Becker et al., 2018). Nevertheless, a report issued by the global market research firm Technavio (2018) predicts that AI market in the USA education will grow by 48% from 2018 to 2022.

Considering the advantages but also challenges that come with the growth of AI, Harasim (2017) regards *connectivism* as a learning theory and renames the theory of online collaborative learning as *collaborativism*.

Collaboration between teacher and AI is actually one of the main areas of AI practical applications in education – beside universal access for all students, automate administrative tasks, tutoring and support outside the classroom (Marr, 2018). Companies *Content Technologies* and *Carnegie Learning* have developed digital platforms that use AI to provide learning, testing and feedback to students. As AI develops, it will be possible to get customized curriculum for every student's needs. And Marr (2018) concludes: "Even though most experts believe the critical presence of teachers is irreplaceable, there will be many changes to a teacher's job and to educational best practices."

Starkey (2012) examines the teaching with digital technologies, exploring the perspective of knowledge transfer and pedagogy within digital context, and underlies the importance of critical thinking during digital age – while considering both online and face-to-face interactions. Based on faculty interviews, Ko and Rossen (2017) focus their research on teaching massive open online courses (MOOCs) using open educational resources, learning analytics, and online tools (multimedia and mobile devices among them).

The issue of sustainability is studied in case of mobile technologies (Ng & Cumming, 2015), which are one of the fastest growing areas of technology used in education: the main challenges are the significant investments in mobile devices and associated technologies that should be made by the university, time and training required to initiate mobile learning programmes, and the fast pace of technology changes (associated with new rounds of investments). On the other side, the easy access of larger number of students, regardless of location, is an important advantage.

About three decades ago, Wiener (1989, p.58) observed that people "spend what may amount to forty per cent of this normal life as a learner, again for reasons that have to do with physical structure. It is as completely natural for human society to be based on learning as for an ant society to be based on inherited pattern." Nevertheless, only a generation later, we acknowledge the principle of LLL (Long Life Learning) – under certain aspects, at least.

Counter-intuitively, *the technology progress is not going to shorten the duration of learning* (as compared to the life span) for at least two reasons: increased complexity of [science and technology] knowledge, and higher pace at which volumes of data outpace the learning capacity of human brains. The solutions are on all sides: automatization of the education process and making it more effective and efficient; use of more advanced, technology-based education methods, as seen above; use of working machines (robots) able to learn at a higher pace than humans do. Hence, a new category of challenges for scientists: developing learning languages for other than inter-human communication:

but for man-to-machine, machine-to-man, and even machine-to-machine communication, dealing with both phonetic and semantic aspects of language (*Ibid*., p.74).

Consequently, *there is a need for more educators, for longer periods of time, able to play a newer, more complex role.*

In addition, suitable online teaching programmes have to be developed, in line with the university mission (King & Alperstein, 2014).

Summarizing, the near-future-educator should:

- Master new education technologies.
- Be able to use new teaching technologies.
- Be able to teach students how to use the new learning technologies.
- Know to discern between: true *versus* false, fake or misleading information; relevant *versus* not relevant for the discussion; important *versus* not important information.
- Be able to teach students how to discern themselves.
- Mentor and guide rather than simply teach the students.

Therefore, the *education system as well as training programmes of the future educators, at all levels, have to change and adapt entirely*, from objectives to methods.

On the other side, the people will live longer (de Grey & Rae, 2007) and, eventually, think about becoming immortal (Fossel, Blackburn & Woynarowski, 2010; Cave, 2012; Popescu & Scarlat, 2017; Watson, 2010; 2018). Other than trivially enjoying the life, living longer means more time to cope with larger and larger volumes of information and to learn more (i.e. *more time for education*), to have more time to apply the acquired knowledge, and, ultimately, build real or virtual legacy to be passed to next generations.

The idea of living longer and even immortality (Geddes, 2010; Popescu & Scarlat, 2017) might be also perceived as an universal concept, applicable not only to humans but also to machines (technical durability), economic systems or the whole society (concept of durable development) – which might be an interesting conversation as well as a further research path to explore.

Strictly, in terms of education, other questions arise, linked to the idea of living longer: Will people retire later? Will higher education studies be distributed in time? How will education look-like in the longer run and how its components will evolve? What would be the next communication revolution and/or education revolution? Would they be telepathic education and educators with telepathic features?

To answer all these questions is beyond the goal of this chapter. The purpose is just to draw attention and to raise the general awareness on this *critical point in the education's history*, and to *advance the thesis of the paradigm shift in education* (in that respect of educator's role in the predictable future), to provoke a discussion on this subject, and, ultimately, to *open a research path*, to the benefit of higher education strategists, policy makers, scholars and educators alike.

5. COVID-19 PANDEMIC: A THREAT, AN ACCELERATOR, AND A FUTURE RESEARCH AVENUE FOR EDUCATION

The COVID-19 pandemic generated "the largest disruption of education systems in history, affecting nearly 1.6 billion learners in more than 190 countries and all continents" – according to a United Nations report (UNO, 2020, p.2); to-date (February 2021) the corona-crisis is affecting 219 countries and territories (WHO, 2021).

In response to numerous school closures (universities in many counties included), UNESCO (2020) recommended use of distance learning programmes, educational e-platforms and open educational applications – in order to limit the effects of social

distance administrative measures (*i.e.* disruption of the education process). Diverse negative influences on the education system are also reported by Schleicher (2020) in his OECD report.

However, the unexpected threat of the coronavirus pandemic and its subsequent corona-crisis made the question the author stated in the title of this chapter more acute. And, willing or not, the [higher] education dilemmas remained, although with a positive note: the process of distance learning, using newer communication technologies is gaining momentum and speed. Rightfully, the corona-crisis could be qualified as an *accelerator of the process of higher education reform*, re-thinking its elements at a crisis pace.

The current corona-crisis contributes to the acceleration of the contemporary digital transformation of education system and society entirely, announcing an era of *digital acceleration.* If this is a good or bad outcome, only the future, longer term impact studies will offer undisputable sentences. This really is a future research avenue in [higher] education area!

The *Critical Point in Education – CPE* might be for long-time gone …

6. FUTURE RESEARCH AVENUES

This chapter is an essay with reflections on the role of the educator in higher education, facing the changes caused by accelerated digital transformation of society and, implicitly, of the education system – in particular. As a current discussion, it helps to understand these changes.

However, as any provocative discussion, it also has limitations, yet each of them bearing the potential of further research ways – already mentioned along this chapter: (i) empirical research on the performance of teachers, while dealing with new technologies, specifically under pandemic; (ii) development of a suitable set of performance indicators in this respect; (iii) further studies regarding the impact of educational technologies on both teaching-learning process and organizational structure.

The prospect of living longer – as an opportunity for LLL – might also be a further research path to explore and exploit.

7. CONCLUSIONS

In the near, predictable future, the education system (as part of the human society as a whole) will continue its mission and address the needs of the increasingly technologized society, while the educator's role is undergoing a *paradigm shift: from educator to master of new technologies as well as students' mentor and guide to discern the right information from the available ocean of mixed information.*

A major conclusion of identifying and emphasizing the paradigm shift related to educator's role is to bring in discussion the need of re-thinking the education system as well as training programmes for the future educators, at all levels, in order to better answer to the current challenges and crises.

On longer run, a multitude of questions arise, depending on future technologies and their impact on the human society, but mostly depending on future decisions made by humans. Therefore, the education system and educator's role will significantly depend on how the future humans (both educators and students) will evolve – either still *homo sapiens* or different species adapted to the radical technology changes – becoming more and more cyborg-likes.

The human race suffocation or extinction as result of wrong technology decisions is an extreme possibility (Wiener, 1989; Martenson, 2011; Harari, 2016). In other words, is the humankind going to cope with sustainable technology development as *homo sapiens*? Is it going to be a different community of *homo networkingus* or *homo cyberneticus*?

Today, the higher education is at a crossroads – as its future is intimately inter-linked with the future of human society as humankind. The humans are actually in front of largely spread options: within the angle between *wise-man* and *cyborg*, the common sense must prevail.

Nevertheless, in line of the common sense, *the proverbs are a solid element of continuity* in mass education and/or in formal education systems as teaching aids, as long as the humankind will last (Scarlat, 2015; 2019; 2020b).

It is up to contemporary educators, it is their educative mission and mentoring role to steer younger generations to make the right decisions for the future.

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