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Higher Education and Equitable Life-Long Learning for Diversified Students in the Digital Era

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Abstract

The educational sector has particular sensitivities and there is a huge concern that technological innovations may interfere with the real role of education in social development. With particular reference to higher education, this educational level is the foundation for changes in society. Higher education institutions (HEIs) should shape the prerequisites, in a dynamic way, for the establishment of an open society with life-long education for all. Moreover, HEIs today are called upon to welcome technology and to consider technology as a tool for learning rather than a problem. Hence, HEIs should facilitate a transition to collaborative educational communities in society and the cultivation of critical thinking, creativity, and self-efficacy. This commentary which stemmed from a discussion between three scholars, suggests how major technologies might improve the equity and efficacy of HEIs by recognizing and addressing the issue of individual differences and diversity in future HEIs. It considers adaptive education through "learning analytics" and the usage of artificial intelligence in knowledge spaces and provides alternative curriculum choices to meet personal learning needs, while fulfilling UNESCO's initiative of rethinking higher education in an increasingly complex world so as to shape the future of higher education.

Keywords: Higher education, policy, governance, knowledge revolution, digital era

Introduction

Recent higher education trends including widening accessibility, privatization, accountability, and technological implementation, have largely neglected consideration of human individual, social and cultural diversity. Two distinctive scientific perspectives relate to these individual differences. The older perspective of differential psychology, psychometrics and cognitive psychology described the bell-shaped normal distribution of mental abilities. The new perspective, driven by behavioural genetics, neuroscience, learning science and molecular biology has surfaced the immense complexity of the mind's architecture and functions in the population. We suggest that present-day higher education's biggest problem is the persistent overlooking of universal individual differences in the learner population. Technology should be defined as the human capacity to solve existential problems so that technology is first and foremost a cognitive trait, rather than a tool or machine. Which educational problems might call upon technology to provide solutions? It appears that an erroneous mechanical perception of man dominates today's educational policies that aspire to achieve uniform standards as if people were machines. Ignoring human diversity and failing to address this fact is the main cause for educational ineffectiveness and inequality that prevail almost everywhere. The OECD's PISA comparative achievements tests provide us with significant data concerning the distribution of knowledge and cognitive skills. Hence, it is extremely important to have tools that act as auxiliary mechanisms to deal with education and with the problems that emerge from a changing environment but also to achieve the goal of knowledge dissemination and the acquisition of skills by individuals.

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Within this framework, this commentary stemmed from a thorough discussion of the three authors, bringing together their vast experience in different academic posts as well as their multi-disciplinary scholastic contributions on issues of equity, diversity, and learning technologies. Therefore, we aimed to suggest how major technologies might improve the equity and efficacy of HEIs by recognizing and addressing the issue of individual differences and diversity in future HEIs. We first present the current global higher education policy trends and challenges, then we outline the future of higher education, and finally we end with further suggestions for an alternative approach to HEI governance. Furthermore, the paper considers adaptive education through "learning analytics" and the usage of artificial intelligence in knowledge spaces and provides alternative curriculum choices to meet personal learning needs, while fulfilling UNESCO's initiative of rethinking higher education in an increasingly complex world so as to shape the future of higher education (Chen, 2020).

This commentary suggests how two major technologies might provide equity and efficacy through the recognition and resolution of the problem of individual differences and diversity in future higher education institutions. The article concludes with the cybernetic implications of the resulting pedagogy, detailing possible consequences for higher education systems that aim to address student diversity and produce appropriate adaptive learning.

Current Global Higher Education Policy and Governance

In recent years, several diverse efforts for reforms have been made around the world in order to make HEIs more productive and responsive to the needs and challenges of new markets in the field of higher education, mainly due to a) developments at the political and economic level, and b) the fact that higher education is a driving force for constructive changes in society and the economic sectors. According to Shore and Wright (2016, p. 47), these reforms are contributing more to the development of neoliberal ideas as they aim to transform HEIs into knowledge production machines with the ultimate goal of improving skills, increasing business activity, and improving the contribution of higher education to competitiveness which reshaped higher education governance as well. According to several multinational organizations such as the OECD, the efficiency and effectiveness of higher education institutions, in terms of increased productivity, has been the basis for reforms towards the so-called 'global knowledge economy'. For this reason, higher education has provided a competitive advantage for many countries and explains the obsession with competitiveness in terms of knowledge and skilled human resources as well as the creation of what Shore and Wright (2017, p. 47) refer to as "intellectual property".

The contribution of higher education to economic development is well known. Certainly, it is not a bad thing to improve the professional skills of individuals in areas such as cooperation and leadership in order for countries to increase their productive capacity. However, it would be a bad thing to set boundaries for universities to operate within a framework of academic market liberalization in order to generate market knowledge. This would make the market the primary purpose for HEIs to provide knowledge. However, while the correlation of higher education with the market is an important element for the development of an economy, the role of higher education is not exclusively economic. Its main significance is its social dimension and its contribution to social ecology. Indeed, the role of higher education and its basic principles and functions must be to promote equitable income distribution, equality, and social justice. It is a dynamic level of education (as are all educational levels) that adapts to environmental changes, but this adjustment needs to be made prudently so as not to alter the social function of university institutions. Policies, governance dynamics, and programs on higher education aim to reflect global motility, migration, and internationalization by widening participation, diversity, equity and inclusion (Arar et al., 2020) while seeking a balance between expansion and quality assurance (Arar et al., 2019; Chen, 2020; Huisman, 2009; Nespor, 2018).

In the context of globalization and regionalization, public universities are being reconfigured from public institutions towards 'entrepreneurial' and 'knowledge organizations'. The major trends we detected include:

1. State withdrawal from investments in universities, while state funding per student is declining and cost-sharing is shrinking. Indeed, the cost of access to higher education (in countries where higher education has tuition fees) has risen sharply in recent years (2021 Educause Horizon Report)
2. Post-COVID concerns about quality processes are bringing changes to the way the educational processes of higher education are assessed. Both at the national and global level, university institutions are being classified in terms of their research activity and educational processes. Ranking tables of university institutions concern their efficient operation but at the same time they also carry elements of controlled intervention which, to a large extent, violates the inherent autonomy and freedom of higher education. The quality framework of HEIs should not be determined solely by observing the educational process, in the narrow sense of control and intervention (Chen, 2020; 2021 Educause Horizon Report)
3. University governance has experienced a shift in orientation towards a more administrative and business-like model while faculties are being managed more as 'human capital' and as resources; essentially, universities are gradually being run as 'business corporations' (Levin & Greenwood, 2016; Nespor, 2018). This effort to change the governance philosophy of university institutions is due to the evolution of the new reality and the new strategic motivations for systemic governance (Middlehurst 2013). This trend is hinted at in Benjamin Ginsberg's book, *The Fall for the Faculty* (2011), where he notes that administrators are becoming determinants of core university functions.
4. Due to the global economic crisis and the subsequent financial reductions in the state budgets of many countries around the world spanning several years, universities have been forced to seek funding from sources other than the state. Alternative sources of funding include business and industrial partnerships, both in terms of research and the commercialization of intellectual property. Moreover, student migration has contributed to an increase in tuition fees. In addition, according to the International Organization for Migration (IOM, 2020), a total of 3.5% of the total world population (272 million people) moved to another country in 2019. This number has increased steadily from 174 million in 1995. Students migrated mainly from low income to high income countries (to pursue education, employment, and economic security), indicating that economic concerns are a major factor in the decision to migrate but not the only one, while the number of international students reached 3.3 million (OECD, 2017). The majority moved from the east (China, India, Hong Kong, Singapore), constituting 58% of all international students, and headed mainly to Anglophonic countries such as the USA, Australia, UK, Canada, and New Zealand, which received 65% of these students (Arar et al., 2020).
5. The increase in university tuition fees has led a large number of students in higher education to apply for a student loan (interest-free bank loan) whereby the bank pays the student the loan amount from the moment they apply and the student starts repaying the bank in instalments once they are in graduate employment. However, this manner of financing university studies raises questions such as whether higher education is ultimately able to maintain its public character and, more importantly, whether it can safeguard the public character of educational good.
6. The COVID 19 pandemic has brought about significant changes in the way the relationships between higher education institutions and students are shaped. Technology now plays a leading role in the learning process and at the same time requires a range of different abilities and skills on the part of both academic teachers and students. The development of technology has always played an important role in the educational process. However, the COVID 19 pandemic has added another dimension to its importance and given it a role that seems to be the only way to manage the learning process in the midst of a pandemic. This one-way path seems to have continuity in the course and evolution of the learning process in higher education (Zackal, 2021). The degree of this one-way path may change, but technology and remote education may continue to play a leading role. Certainly, the application of technological tools in higher education, like all things, has advantages and disadvantages. An important benefit of remote education is that those who have not been able to access university institutions due to high costs can now do so, since the main cost has been the fees. On the other hand, technology has changed the way we communicate and interact, and so gives a new tone to the content of lessons.

Based on the above, regarding the governance of the higher education, the managerial model and the limitations on state budgets do not alter the fact that HEIs agenda to effectively meet the needs of the public while helping to implement the economic and social policies of governments. However, the term ‘effectiveness’ should not be confused with economies of scale. Economies of scale are an economic term under which an economic unit, by increasing production, operates at the lowest possible cost in order to make a profit. In the case of an educational institution such as an HEI, we cannot enter into the rationality of the functioning of an industrial economic unit, but we can still rationalize about its effectiveness since the effective performance of an organization (public or private) does not depend on cost but on the efficient management of its available resources in order to achieve the desired results. In the case of university institutions, effectiveness is measured by their dissemination of knowledge, their provision of skills and competencies to learners, the accessibility they provide to higher education, as well as their respect for diversity and social values (Arar et al., 2020; Chen, 2020; De Witte & Lopez-Torres, 2017). In a sector such as higher education which is particularly sensitive and extremely important for social development (since it is the basis for human prosperity), no corners can be cut. The good of education can be both an investment (in the sense that investing in education brings significant financial benefits for the future) and a consumable commodity (in the sense that it can satisfy needs and be enjoyed) and so it does indeed have an economic connotation (Chen, 2020). Nevertheless, above all, it remains a public good which, by definition, is something that everyone should have access to and that everyone (without exception) should be able to enjoy.

Technological developments have certainly affected the functioning of higher education institutions and the development of the learning process. However, technology has not come to play the role of a substitute, if we want to speak in economic terms, but of a complementary element. Within this framework, technology provides a helping hand to support the learning process in higher education institutions, consolidate knowledge and collaborative processes and bridge any barriers to the accessibility of learning. In this way, the effectiveness of higher education is achieved but not at the expense of educational goals being achieved.

The Future of Higher Education

Traditionally, HEIs partition knowledge into different disciplinary faculties: science, liberal arts, medicine, engineering etc. Teaching and learning follow a linear structure through three stages: undergraduate, graduate and Ph.D. Socially, HEIs are highly selective institutions allowing access by an average thirty percent of the population (Drucker, 1993; Furlong & Whitty, 2017). Selection begins at the undergraduate level and continues more fiercely to the third level with remarkable difference between the selection rate of Ivy League¹ institutions and community colleges. Hence, higher education institutions should not create an intellectual elite but should contribute dynamically to the cultivation of the conditions for an open society with life-long education for all (Chen, 2020). It is important, therefore, that higher education institutions facilitate a transition to collaborative educational communities in society. Thus, different goals should be set for each of the three HE stages in line with students’ abilities.

- (1) The knowledge society's nature has entirely changed from the Enlightenment focus on local national state, national culture and identity into an extended world perspective implying global problem solving, multiculturalism, English as a lingua franca, social networking, and wide cooperation rather than clash and conflict. The OECD (2018a) offers an international futuristic vision, suggesting an ecosystem approach that would change the static predetermined

¹ The term Ivy League was originally used in the field of sports and referred to an elite group consisting of the best 8 university institutions operating in the northeastern United States. Now, however, this term is essentially considered as a benchmark of excellence among US universities to which all universities and colleges can be compared in terms of quantitative indicators. University institutions included in this reference group, such as Harvard University, the University of Pennsylvania, Princeton University and Yale University, receive significant financial support to fund research. This funding is due to the fact that they belong to this group of institutions, which have a highly competitive nature, while the performance of other US universities relative to this reference group provides a valuable indicator that can attract funding for scientific research.

curriculum to a flexible, dynamic curriculum to cope with the various socio-economic problems in a complex uncertain new world. New skills to be developed would include: literacy, critical thinking, creativity, self-efficacy and regulation as well as self-regulation and autonomy.

- (2) The PISA international comparative study provides perhaps the best big data base to inform policies and practices, reflecting the realities of education, since it collects learning data from 79 countries and millions of learners (OECD, 2018b). A critical evaluation of PISA 2018 by Andreas Schleicher (2019) provides essential guidance for any future design of a learning system as PISA results establish immense differences between and within countries, opposing the idealistic vision reflected in many policy papers.

This section discusses the future of higher education. A readiness for future challenges not only constitutes a strong competitive element but is also a means of ensuring the sustainability of university institutions. However, as accurate as future forecasts may be, an element of uncertainty will always remain. The same applies to constraints in the societal environment (e.g., economic, political) since they are directly related to future uncertainty and limit the degree of freedom that universities have to adjust to a new reality (Chen, 2020). The next section discusses the uncertainty of the future and the transformation of higher education into a learning organization in order to raise awareness of uncertainty, to address it in a timely manner and to consolidate a sustainable HE strategy for the well-being of all.

Higher Education and the Emerging Reality

Given this global debate on how knowledge, education and learning need to be reimagined in a complex and uncertain world, universities can play a crucial role in shaping the future through institutional transformation. This section identifies future challenges for the HEIs and sets the basis for a paradigm shift that also addresses issues of diversity and inclusion, as presented in Figure 1:

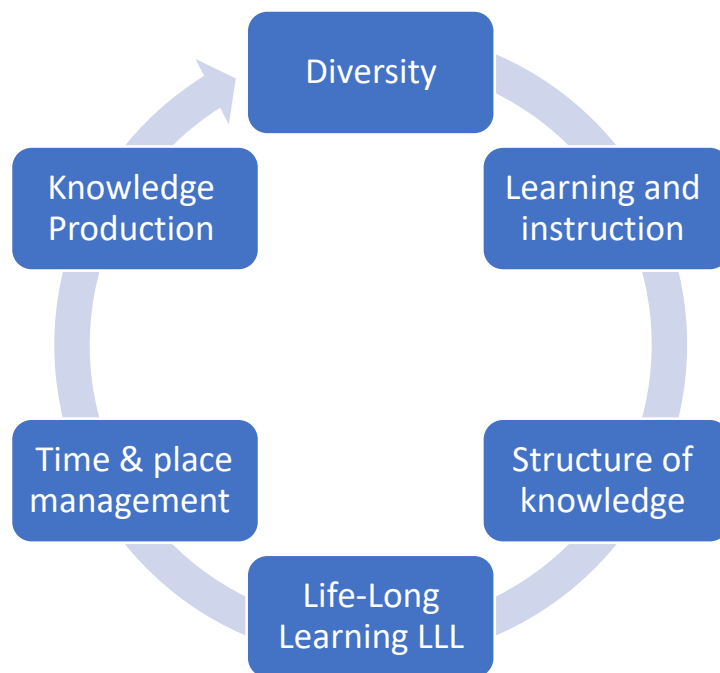


Figure 1. Coping with diversity and individual differences in learner populations

Higher education institutions (HEIs) are educational organizations. However, these educational organizations do not only provide teaching but aim to expand knowledge and particularly to expand the development of research. The knowledge produced by a university is a product of continuous utilization as it reveals new ways for creative thinking. As learning organizations, universities contribute

substantially to the evolution of society. Learning organizations respect the value and personality of the individual while relying on relationships and authentic leadership, which is the basis for organizational coalition. The integrated transformation of HEIs into learning organizations is certainly not an easy process and cannot be done overnight, as it requires the transformation of an organization's culture into one of lifelong learning and team spirit.

Lifelong education and learning as well as the continuous utilization of knowledge certainly expands the age group of those involved in education but at the same time lays a solid foundation for comprehensive and integrated inclusive education and the development of social capital. This would cover both learning for an academic degree, and elective learning, addressing both high school and other age groups and including learning in the community, learning for retirees (e.g., cultural and leisure studies), professional development for industry (at work and in HEIs), second chance learners, special education, social projects (health, ecology, technology) and individual enrichment. Thus, college admission would no longer serve as the dreamy end point but rather as just one more chapter in a long life of learning.

Opening up access to higher education and activating the systematic development of individuals will help overcome obstacles to social development by giving better-equipped individuals the confidence to engage with social forces that seek innovative solutions to fundamental social problems. Indeed, the practicality of acquiring knowledge needs to be strengthened so that HEIs are a commonly recognized source of wisdom and machine learning but also of knowledge for the business world (Gori, 2017). For this to happen, various obstacles (bureaucratic, etc.) need to be overcome while HEIs should be governed in a way that supports the efforts in finding effective solutions to the problems faced by society. That said, the essential agent that can contribute sound universal scientific knowledge remains the HEI.

Technology Integration and Higher Education

The rapid development of technology has brought to the surface innovative elements that can be used in all sectors of the economy (including education). The revolution of artificial intelligence (AI), along with other technologically innovative services (such as the voice assistant) created intelligent personal assistants (Gori, 2017; Roll & Wylie, 2016). These are services that can facilitate the learning process and the effectiveness of pedagogical/academic practices. The use of technologically innovative services in the higher educational process accelerates the learning and the practice of important skills and also enables a higher level of communication and interaction (Chen, 2020; Collins & Halverson, 2010; DuFour, 2014; Herrington & Herrington, 2007; Prestridge, 2012; Prestridge & Main, 2018). Developments in technology and the learning process address different learning needs. Personalization and the different learning styles offered by innovative technology services (such as AI) enable learners to choose the learning process and style that is most appropriate for their own personality and thus most able to meet their needs and expectations. In this way, pedagogical practices and the learning environment become more constructive, taking into account diversity in learning and a more learning-centred approach to the educational process (Hope, 1997; Sugar Crawley & Fine, 2004).

With the assistance of technology and AI, any obstacle related to opportunities in the learning process can be overcome to establish new educational environments that are openly accessible. Indeed, in recent years, the focus of AI and its application in education has been related to online and distance education (Dillenbourg, 2013; Goksel & Bozkurt, 2019; Roll & Wylie, 2016; Zhang et al., 2018). While these forms of educational environment increase the efficiency of learning, the use of AI should not alter the educational character and the basic function of higher education (and indeed all levels of education), which is to develop an inquisitiveness and strong social values in individuals. Greater personalization in education and new forms of interaction between learners and their environment offer new practical ways for end-users to absorb knowledge, thereby minimizing failure in exams / at work and facilitating the sharing of knowledge on an equal basis (Roll & Wylie, 2016; Zhang et al., 2017). Here, technology serves as a support tool for the consolidation of knowledge and the development of collaborative processes, which leads to the cultivation of an authentic learning environment (Herrington & Herrington, 2006). The question is not who is involved in the learning process or when it will take place, but the big issue is the continuity of the learning process and the ongoing advancement of human well-being

through learning and critical thinking (Christensen & Knezek, 2018; Roach, Tilley & Mitchell, 2018; Sheehan & Nillas, 2010).

Higher education plays an important role in development and is the basis for increasing productivity and social change. It is the means for enhancing knowledge and skills but is not limited only to this; it is rather an instrument of change. In recent years, several studies (such as Collins & Halverson, 2010; Goksel & Bozkurt, 2019; Prestridge & Main, 2018; Sheehan & Nillas, 2010) have been conducted that explore and analyze the role of technology in education. Moreover, the research discusses the role of AI (such as the role of machine learning) and how these technological developments may affect, but most importantly, assist the educational sector to meet new emerging challenges (Chen, 2020; Prestridge, Tondeur, & Ottenbreit –Leftwich, 2019; Roll & Wylie, 2016). And we say this because the new reality of the educational environment concerns the adoption of technological elements and tools that will help higher education in its transition to a new era. Understanding knowledge alone is not enough to face the new reality.

Certainly, there is a fear that technology may replace higher education. Indeed, pessimistic visions suggest that technology would replace HEIs' faculty, curriculum, and classrooms as individuals learn to interact directly with the stock of knowledge, without mediating agencies. However, this hypothesis does not stand up to the test of reality since it is also true that technology and its tools have a complementary and supporting role in the learning process. Despite the success of Open Universities, MOOCs and CORSERA, 90% of students in Open University and CORSERA reported that they preferred to learn on an organization's premises, indicating there is still a need for curricula, lecturers, and educational institutions. The learning environment still retains its importance and plays an essential role in the development and dissemination of knowledge (Christensen et al., 2013 as cited in Roll & Wylie, 2016, p. 592). HEIs need to maintain their role as learning organizations by embracing technological developments and new opportunities.

While the reservoir of public knowledge grows exponentially, people's ability to absorb that knowledge remains static due to the inherent limitation of individual memory capacity. However, knowledge technologies can now extend human capacity to make choices in both chaotically organized and public stock knowledge. An individual cannot make smart choices, nor can a professional committee construct a reasonable curriculum without the support of a knowledge technology such as AI or Learning Analytics. These technologies are not yet mature enough to be used in education, but they are the only tools that can cope with the complex amount of public knowledge currently available.

Nowadays jobs require the application of knowledge, collaborative thinking, and the individualization of learning skills. Therefore, knowledge needs to be accompanied by personalized support for its application; people need to have tools at their disposal so that they can apply the available knowledge to their job (Goksel & Bozkurt, 2019; Prestridge et al., 2019; Roll & Wylie, 2016). Therefore, teaching practices in higher education can be characterized by complexity in terms of learning objectives, curricula, and interaction. Individual support for the process of applying knowledge and learning is related to the personal particularities and personality traits of those involved in higher education.

The Personality Profile shows that students' emotions are intertwined with learning, and universities should apply the concept of "adaptive education while aiming to meet learners' diversity" (Chen, 2020). As science progressively reveals how different people learn and how to produce conditions that optimize learning, HEI pedagogies should be reconsidered so that they can better adapt to students' diverse needs. New technologies can collect precise data on what is and is not helping students, enabling instruction and scientific theories to be continuously revised and improved. Studies can be adapted to individual differences by increasing choice, personalizing curricula, offering flexibility in the time and place of learning, and providing differential graduations. Adaptive education should replace the present rigid mechanical organization of learning. Open access universities (which account for up to 30 % of the student population) should adopt a more flexible modular organization of knowledge beyond the present B.A, M.A, PhD pathway. They should create smaller modules that can be accumulated towards an

academic degree and offer professional learning that individuals can access throughout their working life to enable continuous learning.

Attitudes towards technology are influenced by learners' ability to use it for study and learning but also through their experience of acquiring knowledge in an environment that fosters discipline and commitment. The criteria for evaluating the learning process have now been oriented towards a more constructive approach. In other words, they are not limited only to an evaluation of performance but extend to an evaluation of the support tools used for acquiring and applying knowledge (Herrington & Herrington, 1998; Herrington, 2006).

Within a workplace, working relationships develop between the organization and employees. In addition, through the market environment, customer relationships develop between organizations and customers. If we try to draw parallels between the working and the customer relationships in the higher education environment, "customers" in the strict sense of the word perhaps do exist, but there are also relationships that are developed between universities and students. These relationships, such as the working and customer relationships, are based on the balance between the preferences and satisfied expectations of both stakeholders. This means that both parties (universities and students) have expectations and needs that they want to have met. This silent agreement is a kind of psychological contract as it is in all relationships related to a workplace (Mullins, 2010; Zackal, 2021). Certainly, the introduction of technology, due to the COVID 19 pandemic, opened new avenues in higher education and launched new ways of learning and developing. What has not been changed, however, is that students remain a source of added value for the university institutions. This means that university institutions cannot be limited to attracting and selecting students and having them simply complete a learning process. The psychological contract between students and universities needs to be fully active whereby it is made clear what both stakeholders expect and receive (Mullins, 2010). And for this to happen it is necessary to constantly monitor and evaluate the learning process in a responsible spirit and away from stereotypes and prejudices. Moreover, technological developments can provide valuable information which, with proper management, can help improve experiences and personal development. In this way, a harmonious coexistence will be cultivated between new practices in the learning processes and the expectations of both the students and the university institution itself.

All of the above outline the changes taking place in the learning process in higher education. While it is well known that not all changes are successful, the secret to a successful change lies in the readiness of those involved and in their commitment to the goal (Reeves, 2009; Zackal, 2021).

Learning and instruction needs to consider a growing understanding of the learning process and teaching strategies (neuroscience, cognitive psychology, and education). It is important to recognize the distinction between declarative (symbolic) knowledge - the dominant knowledge delivered in universities transmitted in lectures and texts - and non-declarative knowledge that is non-verbal (emotional knowledge, motoric knowledge, visual knowledge), which has been largely overlooked until recently. It stems largely from learning through experience in tacit knowledge, learned through experimentation (e.g., chemistry, engineering, physics). This knowledge is rarely given adequate coverage in educational institutions and should be recognized and employed in entrance exams, in the selection of candidates and in academic programs. HEIs, due to their special importance in social development, are accountable to society and for this reason the learning process and pedagogical/academic practices should aim to maximize the contribution of HEIs to the development of creative thinking, the spirit of solidarity and student collaboration. Evaluation methods should change accordingly: from assessing mastery of the taught knowledge to assessments that evaluate whether students are prepared for future learning (Chen, 2020). Furthermore, students need to be familiar with the new way that HEIs are being assessed in terms of their study programs, tools and environment, so that those students can make better choices in higher education and thus maximize their development through their studies.

The transformation of higher education into an integrated learning organization, with a more constructive and realistic orientation of pedagogical/academic practices, requires a change in philosophy

and culture for the use of technological developments in education. What needs to be understood is that technology is simply a tool that helps higher education evolve and advances the learning process (Chen, 2020; DuFour, 2014; Prestridge, 2012; Prestridge & Main, 2018; Tseng & Kuo, 2014). It is not the learning process itself but a specific mechanism that facilitates timely support of that process. The development of a mechanism that can manage the modern learning process is complex, as it needs to: a) protect learners from any deviation from the use of technological innovations in order not to violate the educational goals and educational values, and b) ensure that it supports personalized learning so as to meet the needs of learners in terms of knowledge and the way they interact with their environment.

Concluding Remarks

The correlation of innovative technology and pedagogical/academic practices contributes to the creation of an expert system that allows the transfer of knowledge through an intelligent learning system that manages barriers to learning in an effective way (Collins, 2018). In this context, such a learning environment would be socially active and encourage collectivity in the participation and commitment of stakeholders for the continuous flow of knowledge and information. Such a system would help institutions of higher education achieve their specific educational goals by facilitating the acquisition of knowledge and the learning process. There needs to be no devaluation of technology but only convergent cooperation. Like all systems, HEIs need to adapt to the new shaping of reality and the ever-changing environment. This requires educational programs to ensure that they promote productive members of society so as to optimize their contribution to long-term social and economic development. The effort for growth and progress is a struggle waged through education, knowledge, and the further improvement of living standards. Technology must be developed in line with cognitive objectives so that knowledge can be managed using technology as a tool to facilitate user-friendly access and data gathering for an ongoing evaluation of the process.

Based on the above, if the foundation of learning is uneven, there will be no balance in the system and therefore no prosperity. Inclusion in the learning process is the precondition for achieving a balance in human well-being. Therefore, higher educational institutions today are called upon to welcome technology and to consider technology as a source and tool of learning rather than a problem. Higher education should be responsive to the challenge of this reality by pursuing the implementation of practices that support and applaud diversity among learners.

As was mentioned above, the idea of technological development as a tool for the promotion of co-participation in education and the provision of equal opportunities for all learners, requires a change in the philosophy and culture of HEIs and hence demands a new starting point in leadership. Indeed, university governance is at the heart of the learning process since the majority of the applied leadership processes and practices lead mainly to temporary changes focused on specific areas. University governance develops or adopts and maintains good learning practices, which are then integrated into the curriculum and school culture for lasting benefits. According to Fullan (2005), modern society is so complex that no leader alone can control everything. It is easy to conclude, then, that university governance needs to be shared but the sharing of responsibility requires the involvement of all members: those in the lower as well as the upper organizational levels (Harris, 2010; Humphrey, 2002; Rice, 2006; Sinderal, Shearer, Yendol-Hoppey & Liebert, 2006).

Education (and hence higher education) is a human right. The concept of human rights is something philosophical and it is not specific whereas education is a public and basic good. Despite the Knowledge Revolution, the long-awaited change is not a simple case of choosing one of two alternatives. Despite the current experience of online academic studies in the wake of the pandemic and the Open University's attempts to lead international learning through radio, television and the Internet, there is still an urgent need for on-campus learning. The research conducted by HEIs, especially in science, agriculture and engineering, and academic mentoring, cannot be carried out remotely. Furthermore, most people are unable to learn autonomously and need mediation, with most preferring to learn in groups. Universities should move to eco-system planning, granting communities access to knowledge, delivering services, and sharing platforms for the public good. This paradigm shift can be catalysed and led by IAU,

especially in encouraging universities to carefully plan their eco-systems, making knowledge available to the community and sharing global platforms for the public good.

If we are seeking continuous and systemic improvements, the universal right to participate in education should not be upheld only on paper but should also be upheld in practice. Within this framework, this can only happen through collective action, with inclusive and sustainable leadership at its core. Without this, the civilized world cannot progress.

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