# KNOWLEDGE AND LEARNING IN THE AGE OF GLOBALIZATION: WHAT ROLE DOES THE UNIVERSITY PLAY?

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#### Abstract:

In the historic processes of the "planetary society of knowledge", education has always been a current and highly important concern. In the current context of an advanced industrialised society a different social structure is being created which goes beyond international borders and covers the entire planet thanks to information and communication technology. The European Union has stated that the creation of a Knowledge Society is a primary objective in the strategy of Lifelong Learning: from the Memorandum on Education and permanent learning in Lisbon, the Barcelona declaration on "A Competitive Economy based on Knowledge" and the Berlin directive on excellence and the quality of knowledge teaching. We can have a clear idea of how global citizenship may contribute to the long term goal of sustainable world development. This raises two main questions, namely, what are the key competencies needed for people to be able to adapt to this rapidly changing and highly interconnected world and how we can provide people with adequate opportunities to learn these competencies. Education in general, and university programs specifically, are the most effective means of building global citizenship. The relationship between technology and social development has always been central to the political and economic plans of the European Union. There is no development without innovation and without innovation there is no scientific research which then becomes important to determine a strategy in the field of science and technology with clearly defined lines of action and characterized by choices based on reliable surveys and analysis. It is in facing these challenges that universities are playing for the future: knowledge and global expertise will shape the citizens of the new millennium.

Key words: education, democracy information technology, European Union, globalization

## 1. KNOWLEDGE AND LEARNING IN THE GLOBAL SOCIETY

The social, economic, manufacturing and communicative changes which have taken place in recent years have strengthened the link between social and cultural factors due to the emergence of knowledge as the central figure in the role of social, professional and cultural integration. This has in turn changed the epistemological status of the word knowledge and has made it a concept which is accessible to everyone. In every society education is considered and carried out within its own social structure. In the historic processes of the "planetary society of knowledge", education has always been a current and highly important concern. In the current context of an advanced industrialised society a different social structure is being created which goes beyond international borders and covers the entire planet thanks to information and communication technology. This has lead to the success of the Information Society in which the driving force behind the development of different fields of social organisation is the multimedia element which allows man to increase his knowledge and therefore generates The Knowledge Society. This is a society which has ramifications of increasing knowledge throughout the whole world in a way which has never been seen before. It is not just the sheer volume of facts which are electronically circulated without any apparent limit on the quantity of information, but the unhindered opportunities which Network Technology present (this in itself constitutes a revolution in terms of exchange of product and goods on a global scale) and is above all a huge change in the social organisation of knowledge and the production of goods, material and non material and also the social management of knowledge which in turn exerts an influence on the collective mindset. The model of a global citizen which emerges can no longer be produced solely by informal education, as happens in agricultural communities with their community structures, and so the role of formal education becomes more important as it is centred on the distribution of education to different classes and sectors of industrialised society. As an activator in this era of "accessibility" and as the protagonist in the "Information and Knowledge Society", the growth of individual social and cultural knowledge of all kinds has been enabled on a global scale and this relies on the multiple methods of exchanging information that characterise the lives of everyone on this earth. It is no longer western culture which dominates, but other minor cultures which are coming to the fore and breaking down the old barriers that limited their influence. Ultimately these current processes of globalisation demand the deconstruction of old education systems and intellectualism and instead demands the furthering of a collective general education, as demonstrated in the theory and practice of Lifelong Learning which, in raising the knowledge levels of the population, has combined established methods of learning with the thoughts and feelings of humankind.

#### 1.1. EU strategies in the making of "knowledge society"

The European Union has stated that the creation of a Knowledge Society is a primary objective in the strategy of Lifelong Learning: from the Memorandum on Education and permanent learning in Lisbon (March 2000), the Barcelona declaration on "A Competitive Economy based on Knowledge" (March 2000) and the Berlin directive on excellence and the quality of knowledge teaching (September 2003). The European Union asks its member states to agree to a "European Space for Lifelong Learning" which guarantees its citizens a competitive knowledge on the global scene. One of the main principals of Lifelong Learning is the centralisation of knowledge with all its inherent needs and problems, as previously discussed in the mission statement of the Knowledge Society. These are the education systems which must be put in place according to the educational needs of the subject and vice versa. The centralisation of learning has precise results: Lifelong Learning can be extended to everyone on the planet regardless of where they live, the social group they belong to, their age, sex or human condition. The university has a great responsibility to its citizens to provide them with vocational training. The education system of "widespread intellectualism" demands there be no barriers between people with different cultural backgrounds but that there should be communication and integration between individuals from diverse backgrounds. This is critical for a common European citizenship in which individual identities and particular affinities can come together to create social inclusion, equal rights and professional adaptability. As long as the investment in human resources - and lifelong learning is included in this - is not seen and realized as a vital added value in this current historical stage of the development of the processes of globalization, it is clear that the Knowledge Society runs a serious risk of involution between two opposite views: on one extreme the radicalization of the global fight between culture and irreconcilable knowledge and therefore between powers in violent opposition and on the other extreme the global mass conformism both of which risk causing immeasurable damage to mankind and nature. A third path which seems promising is that of intercultural education as the only opportunity to overcome cultural diversity which could destroy the

vision and prevent the longed-for "harmonious living" described by Tonito Bello which is at the base of real democracy. The universities situated on the Mediterranean are at the crossroads of commercial, intellectual, cultural, linguistic and religious exchanges and should have this intercultural vocation written in their DNA.

### 2. LEARNING GLOBAL CITIZENSHIP

We can have a clear idea of how global citizenship may contribute to the long term goal of sustainable world development. This raises two main questions, namely, what are the key competencies needed for people to be able to adapt to this rapidly changing and highly interconnected world and how we can provide people with adequate opportunities to learn these competencies. Education in general, and university programs specifically, are the most effective means of building global citizenship. The ability of the future generations to be adequately motivated and capable of shaping the sustainable development of a global society depends to a large extent on the effectiveness of our education programs. Most universities today are not only engaged in preparing their students to become globally aware, but they are also reinforcing the global dimension of their teaching methods and course materials. Top university are measured by the quality of their international exchange programs, multicultural student classes and global programs. All these efforts, however, are not necessarily a guarantee that students will automatically become socially responsible and engaged citizens of the world. Evidently, teaching global citizenship is not a simple endeavor. Educating students to look at the world through a "global citizen" mentality cannot be achieved simply by a transfer of knowledge and information. Teaching global citizenship means first of all increasing public awareness and making students understand the concept of global citizenship, which in itself is often more difficult than it appears. Once the students are aware and willing to participate, adequate programs must teach those competencies which, to the best of our belief, are the right requirements for tomorrow's global citizens. What we need is a complex learning process that enables young people to be willing to and capable of contributing to the development of a sustainable world. Traditionally, educational institutions make use of information to bring about change in the behavior patterns and attitudes of their students. But can we expect that information alone will develop such sophisticated attitudes and complex behavioral structures and traits? Teaching global citizenship certainly requires absorbing notions, but first of all it has to develop critical thinking; asking and answering questions, leading and discussing, hence inculcating the ability to view a question from different positions and aspects The first step towards bringing about a change in the understanding of the concept of global citizenship is to help students to relate information and conceptual categories to the "untidiness" of the real world. They must see the link between conceptually well organized theories and their less structured personal experience. This can only be achieved if conceptual frameworks are adapted to the specific problems faced directly by students. "Global capacity and competence building" is currently an inherent part of most international organizations that work in the area of development - from the United Nations to non-governmental organizations such as Oxfam. The United Nations Development Programme (UNDP) was in the 70's one of the pioneers in developing an understanding of capacity building. The UNDP defines capacity building as a long-term process of development that involves all the stakeholders, including ministries, local authorities, non-governmental organizations, professionals, community members, academics etc. Capacity building uses all the resources and capabilities of a country: human, scientific, technological, organizational, and institutional. The goal of capacity building is to tackle problems related to policies and methods of development, while considering the potential, limits and needs of the people of the country concerned. The UNDP outlines that capacity building takes place on various levels an individual level, an institutional level and a societal level.

#### 2.1. The role of the universities in the global citizen building process

Universities can certainly make their important contribution at each and every level, but needless to say their main effort goes into teaching at the individual level. According to the UNDP, this requires the development of conditions that will allow individuals to engage in the "process of learning and adapting to change". It is not easy to have a clear understanding of what is being done in different universities in this field, this is mainly due to the fact that there is little or no consensus regarding the definition of the term "global citizenship". Hence, there are no clear standards on curricula and what should be done in a global citizenship program. We know that in various Anglo-Saxon universities there are self-standing courses on Global Citizenship while in most of the European universities we find aspects of global citizenship being studied as subsections of different courses such as corporate global governance, renewable energies, climate change, ethics etc. As we can see, the nature of citizenship

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education is contextual by nature and is understood in different ways in different cultures and has been approached in different ways in different periods. However, it is centrally concerned with developing a set of skills, values and attitudes, to help young people question what they think they know, and learn to value other perspectives. The aspect of student learning outcomes is in fact a challenging issue, particularly for professors who are asked to assess student learning in a quantitative way. But most of all educators are concerned about the process of teaching, the didactics. Regarding global citizenship, the major question is what do our students do with the knowledge we imparted to them? Does what we teach them really have an impact? As mentioned before, knowledge giving is easier than developing critical thinking. Skills cannot just be taught, but need an appropriate learning environment. The (intercultural) understanding of social, economic and environmental interdependence can only be developed through personal experience. How could the pedagogical approach best serve to implement this concept? Modern teaching gets guidance from cognitive researchers, the vast majority of whom subscribe to a constructivist view of education that emphasizes the active role of the learner in the learning process.7 Interactive teaching, discussion formats and guided field experiences are extremely important tools, and these are necessary to help students register observations about themselves and the relationship to their habitual environment. Only in this way can the professor help orient the individual student's growth in the right direction, or manage the educational process by orienting the information which seems to be needed. To summarize, real learning is holistic and real understanding emerges from active experiences that make sense to the learners. Because of this, the developmental changes that occur continuously in children and young people play an important role in the learning process. Knowing about development - how different age groups think and behave and how each student's development is embedded in family and culture - is a critical competence for educating and directing students towards global citizenship.

#### 3. THE INFORMATION SOCIETY IN EUROPEAN UNION STRATEGIES USING E-DEMOCRACY

The relationship between technology and social development has always been central to the political and economic plans of the European Union. With the Lisbon Strategy, developed between 2000 and 2010, European institutions have already underlined how important it is to guarantee a process of economic and social growth and the implementation of digital technologies both in the field of manufacturing and public service in member states. This undertaking has been carried out with the recent launch by the European Union of the Europe 2020 strategy. This concerns an initiative which will run in conjunction with the current Lisbon treaty and reiterates its principals. In particular the main objective remains the cultural growth and education of European citizens in terms of the development of their personal intellectual and professional skills in the workplace with regards to their flexibility and willingness to relocate. The implementation of these objectives, according to the European Union, is possible though certain steps (which relate to the reaching of specific targets in various environments such as investment in research, employment levels, the PIL of member states, education) and work in 7 key areas. In particular one of these initiatives regards the development of a European digital agenda the basis of which is the investment in technology which will lead to social and economic development and will guarantee businesses access to the net economy and citizens to global services. The University of Bari is moving in this direction. Under the same heading the Commission intends to provoke the member states into financing research projects regarding Information Technology and projects aimed at promoting digital literacy among European citizens. The countries of the European Union have a specific task, that of promoting the coordinated and coherent digitalisation of administrative, social and economic structures. Moreover these technologies interconnect in different ways which are analysed within this document. In particular, this reference to economic development these new technologies are often considered as instruments to explore new possibilities for growth (as online services are considered precious resources to fuel innovative manufacturing sectors the investment in which can help overcome the current economic crisis).

#### 3.1. University and digital training for the young

The university obviously plays an important role in the digital education of the young. However, in the school environment you cannot discount the presence of real planning in educational strategies aimed at encouraging awareness of the importance of new technologies in terms of economic, social and even personal ways. It must be stressed that even in the most diverse education experiences, both inside and outside school, conditions can be fostered whereby children become aware of the importance of the acquisition of certain contemporary skills. The intellectual enrichment garnered by

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contact with cultural diversity must be cultivated so that the younger generation are integrated into a social-political perspective in which digital media are the driving force behind social progress, as advocated by European institutions. Therefore it is necessary that training bodies, and schools in the first place, confer greater planning on the relationship between digital and intercultural competencies. The relationship between new technologies and interculturalism cannot develop without the presence of a key issue in the digital world: e-democracy. This is an aspect which suggests that there may be more space for young people in participatory processes. In fact, an increasing number of political activists have updated their methods to adapt to the digital world, in which the new generation doubtlessly has ample confidence and familiarity. Apart from these assumptions, however, a series of filters and variables come into play which are involved in the forms and methods used by young people to become digital citizens. Firstly, as pointed out by Palfrey and Gasser (2008), the web is not a political tool or democratic in itself, but it plays a very important function of social glue for young people, with implications that touch on the sphere of democracy and of being a citizen. Only in this way can we arrive at a less jagged and fragmented picture of the results achieved by education in educational practices. The development of the media of education could also help bridge the digital divide between young people who have easy access to the network and those who for social or economic reasons do not have the same opportunities, both amongst the participants who have developed individually good skills in interacting with the web and those who have yet to develop a proper critical sense. We must not forget, however, how important a good grounding in media education allows young people to develop a strong sense of citizenship and understand the importance of active participation in community life.

### 4. THE ROLE OF UNIVERSITIES IN THE PROCESS OF INTERNATIONALIZATION OF RESEARCH

Since the launch of the Seventh Framework Programme (FP7), the economic environment has changed dramatically. The recession, triggered by the financial crisis of 2008 led to the adoption of stimulus packages to jump-start the economy. The consolidation of public finances and structural reforms are necessary but not sufficient to ensure global competitiveness. Intelligent investments, particularly in research and innovation, are critical to maintaining a high standard of living and address major social challenges such as climate change, an aging population and the transition to a more efficient use of resources. Research and innovation can help create jobs, increase prosperity, improve the quality of life and promote global public goods. General scientific and technological advances are needed to address the pressing challenges of society. In addition, investments in this sector can create business opportunities through the creation of innovative products and services. For these reasons, research and innovation are at the heart of the Europe 2020 strategy for smart, sustainable and inclusive growth. With this in context, the main objective is to raise spending on research and development to 3% of GDP by 2020. The flagship initiative "Innovation Union" provides for a comprehensive set of actions designed to enhance the performance in research and innovation. Over recent years, there has been more talk of the concept of the knowledge-based economy, indicating a new context in which knowledge is an essential resource for the innovation of production systems and for the acquisition of broader levels of competitiveness. There is no development without innovation and without innovation there is no scientific research which then becomes important to determine a strategy in the field of science and technology with clearly defined lines of action and characterized by choices based on reliable surveys and analysis. The guidelines for the science and technology policy which the Italian government recently approved, move in this direction, dealing with the reality of the delicate problem of coordination among various participants and outlining scenarios in which scientific and technological research is subject to a repositioning strategy that takes into account the limited resources available. An essential approach to research that moves towards internationalization is necessarily aimed at strengthening the latter. These strategies should primarily aim to promote international collaboration in a selective manner, ie by focusing on those areas where it can better contribute to the advancement of our knowledge. Secondly, the assets of our areas of excellence in science should be "exported" in order to gain an increased weight internationally. Finally, the work of internationalization of research should be taken into account and the priority areas identified by the National Research Program (NRP). The trends on the free movement of capital, goods and services, as well as a more open labor market, have also had an impact on educational systems, with respect to demand becoming stronger to move in an international dimension. Gradually the various economies become more interconnected, international skills become more important to operate on a global scale (OECD 2009). Companies that compete on world markets seeking workers not only paid for foreign languages, but also have a multi-cultural dimension that allows them to interact with international partners. For their part, many governments have introduced policies to promote mobility and exchanges, essential tools to build social networks beyond national borders. And no less strong are the incentives that push universities to enhance their international activities, in order to build or enhance their reputation in the increasingly global academic competition. Moreover, even for supremacy in research the university system must be able to attract top researchers and scientists from around the world. If this has never existed, an exclusively national talent becomes an increasingly anachronistic.

#### 4.1. When universities become international

But what basically is the "internationalization" of a university? For this question there are several possible answers, not mutually exclusive. In the different university systems the emphasis is placed on one or more of these responses. The first and most common is the one that basically equates attractiveness with the internationalization abroad. To become more international means being able to attract more foreign students or to attract the most talented ones. For some systems and universities it also means being able to attract teaching staff and researchers, with permanent or temporary contracts. A second answer less well known is that one considers internationalization as the possibility of extending the employability of its graduates outside the national borders. In this case, it seeks above all to promote the mobility of their students and exchange programs of various kinds. But they can also try to offer more courses to their students relevant to the international labor market, such as courses taught in English. A third response refers to the inclusion of the university into various international networks. To this end it may intensify scientific cooperation with foreign universities. You can enhance the programs of development cooperation. Or you can set up courses of study in collaboration with foreign universities, such as joint and double degrees, doctorates, international, etc.. One form of inclusion in international networks is a more selective participation in consortia that are in fact forms of credit, such as those that bestow the "Euro-labels" in various disciplines, or acknowledge research-intensive universities, such as the LERU. The international partnerships, that for a majority of scientific teaching purposes, are a form of internationalization are becoming more widespread, but are attributed to different values in different countries and universities. A fourth mode of internationalization, which is typical of universities in the most developed and market -orientated countries is expansion abroad. Some universities open campuses in other countries. Others. especially the British, organize courses in other countries through distance education, or with established foreign universities, who take the name of the courses franchised or validated. Whatever the prevailing mode, what pushes a university to "internationalize"? And what pushes some large countries such as France and Germany and their the relevant governments to provide incentives to their universities to assume a greater international visibility? Pausing for now on the behavior of individual universities, we can say that with this question there are several possible answers, not mutually exclusive. The main reason has to do with the actions of their governments, as has just been mentioned. The universities internationalize because incentives or sanctions are introduced by governments, local authorities and various subjects which reward one or more of the above-mentioned modes of internationalization or punish their absence. It could be argued that the set of available incentives is the tool, rather than the reason for the drive towards internationalization. The motivating factors could be found in the competition for reputation that has evolved between the universities around the world (van Vught 2008) and the consequent battle for resources. However, this competition means that the universities belong to systems that provide incentives and resources targeted at taking more advantage of internationalization and acting with greater alacrity. Second, in some European countries (particularly in Britain and the Netherlands) some of the above methods are a major source of funding. The attraction of foreign (non EU) students greatly increases revenues from tuition fees as these students pay higher taxes. The opening of branches abroad or courses at foreign universities is also a source of significant profit. But there are also less practical reasons behind the push for the many universities to internationalize. In some cases it is simply a result of isomorphic behaviour which is the desire to imitate successful behaviour. In others internationalization is key to the strategic objectives of the university such as the rewarding of merit and other areas in which the university excels. This is the direction in which the University of Bari is moving.

#### 4.2. Ranking culture in the strategy of universities

A final reason is becoming increasingly important in the strategies of all universities. It is the spread of the" culture of rankings ," which, although criticized by many , has in the criteria or methods used, introduced a form of competition in the leadership of the universities which has previously been

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unknown. Within this culture, the degree of internationalization of a university plays an important role because, directly or indirectly, it is a crucial factor in its reputation. To summarize, we can say that two main strategies are discernible in action at a European level regarding the internationalization: competitive / cooperative strategies and also those of a purely competitive nature. Obviously the two strategies often coexist alongside one another, however, they both require different tools. The first focuses on the attraction of foreign students, or even on the recruitment of teachers or post-graduates. The second more collaborative approach introduces the phenomena such as the rise of double and joint degrees, or the creation of international research networks to try to get funds (the obvious example being the European framework programs that explicitly require the creation of these networks). Recently, the first seem to have taken the upper hand to some extent, however this is a trend that could also be reversed in favour of the second. Universities tend to cooperate with each other because cooperation with other universities gives them competitive advantages. The example of the European Framework Programmes is indicative: it collaborates with other universities because this increases its chances of winning compared to other networks. As mentioned above, it is easier to make comparisons to determine the overall degree of internationalization of a country or a university based on these parameters. It was from the data relating to the first two criteria, for example, that the Times Higher Education ranking was based until 2009 which assessed the international dimension of universities (from 2010 onwards the criteria of this ranking have changed). It is the first criterion of internationalization that is referenced by the ILO and OECD reports on national systems of higher education. A positive aspect is the trend that the percentage of foreign students in Italian universities has more than doubled compared to 2000, in line with what has happened in other OECD countries. However 2.8% of foreign students come from other EU countries and this is the challenge which Italian universities now face. Their task, in the light of this analysis, will be to implement in the coming years the main program of the European Union for funding research and innovation (Horizon 2020) with a budget of almost 80 billion Euros over a period of seven years (2014-2020). This program will bring together for the first time in a single program all EU funding for research and innovation. There will be a greater emphasis on the ability to translate scientific advances into innovative products and services that provide business opportunities and change the lives of citizens for the better. At the same time red tape will be drastically reduced which in turn will simplify rules and procedures to attract more top researchers and a broader range of innovative businesses. Horizon 2020 will direct resources toward three separate priorities: The Science of Excellence: € 24.6 billion. This fund will develop talent in Europe giving researchers access to research infrastructure and making Europe an attractive place for the best researchers in the world. This will in turn leverage the success of the European Research Council (ERC) and offer excellent opportunities for researchers in their training and career through the Marie Skłodowska - Curie ("Marie Curie Actions"). Industrial Leadership: 17.9 billion euro. This fund will bring major investment in key industrial technologies and encourage the growth potential of European companies by providing them with adequate levels of funding and help innovative SMEs to become the leading companies in the world. Societal challenges: € 31.7 billion. This fund reflects the strategic priorities of the Europe 2020 strategy and addresses major concerns shared by Europeans and other countries. The funding will focus on the following challenges: health, demographic change and well-being, food security, sustainable agriculture, marine and maritime research and the bioeconomy; energy sources, clean and efficient transport, green and integrated transport; climate action, efficiency in terms of resources and raw materials, and as a result inclusive, innovative and secure societies. It is in facing these challenges that universities are playing for the future: knowledge and global expertise will shape the citizens of the new millennium.

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