

# Golden Fleece

## The Costs and Benefits of Education

**Emil Constantinescu**

Former President, Romania;

Member, Board of Trustees, World Academy of Art and Science

### 1. Education: Expansion and Hostility

Almost half a century ago, Pink Floyd had an explosive success with their song entitled “*We Don’t Need No Education*”. In 1968, students on riot in American campuses or in the great European universities were shouting, as democratically as possible, “*il est interdit d’interdire*”, militated against the Vietnam War. They were also protesting against famous traditional courses, such as archaeology or classical studies. In March 2006, in Paris, young rebel crowds had set cars and police stations on fire. But they also set on fire schools and destroyed university buildings, starting with the Sorbonne, old symbol of the *Republic of Philology* in Europe and in the entire world. Consequently, democracy generated today policies that led to an unprecedented expansion of education as a system, but also to anarchical protests against the expanding system. But why was that so?

A higher education for a democratic society in the 21<sup>st</sup> century is a topic we can talk about either in prefabricated and politically correct formulas or, on the contrary, we can profoundly reflect upon it in an attempt to comprehend not only what connects the two concepts – democracy and higher education, but also what might disconnect them and even contradict them. What do we, democratic university professors and staff, need to do if we wish these two concepts to enhance each other? I believe that we should start by elaborating a few theses, which we can then debate further. I would like to propose a few axes for this debate: the first refers to *upstream* education related to the academic stage, the way past and social environment put a mark on the university; the second examines the contribution of universities to democracy within the societies which developed them – meaning at *downstream* of university, and the third would refer to universities themselves and their perspectives in a society of knowledge and of a real democracy, as we all undoubtedly desire.

We can understand that it is natural for any educational process to meet a certain resistance from its beneficiaries. We can understand that the European adolescents and youth aspire to have all the advantages of a competitive world, but they refuse uncertainties. We can notice that in a society that made higher education its main social elevator, education is challenged in the very moment when the elevator is no longer functional. We may become sad, or we can try to start the discussion over from its beginnings in the 19<sup>th</sup> century, a century that empowered education, and most particularly academic education, with the position of engine of the

meritocratic system, which it was proposing instead of hereditary elites of the old aristocratic regime.

It may be possible that hostility against school, as it sometimes appears nowadays, to arise also from noticing that the educational system is disconnected from the realities of contemporary society. I do not refer here to the often called-upon adjustments to the labor market requirements. Numerous experiences and experiments have proven that the maximum adaptation to these exigencies is not fit for the young beneficiaries of an early specialized education, either we talk about IT or other modern specializations, but, on the contrary, those who have passed through a formation intelligently centered on the traditional fundamentals of science and culture and who thus gain a flexibility that allows them to further choose the highest fields within the professional hunting field.

## **2. Reinventing School**

In order to avoid these expensive confusions, we must reinvent the school so that it will know how to preserve and use its passionate interest for exploration, for the new and for knowledge. It must be a school that transforms every child's passion for stories into an ability to use adequate words. It must be a school that puts in service of the didactic process all the childhood colorful fantasies, and the explosive inventiveness of adolescence. Briefly, it is about a school of the joy of learning. Such a school integrates and does not compete with the almost infinite information means that today's society is fastly developing.

We will have to reinvent school so that it will not exclude, but include. It would take into account every child's and teenager's talents, it would offer him or her a customized path that will yield his or her personality to the full. Under present circumstances, of an informatics and information revolution, the biggest effort necessary to reinvent the school radically is not the one involving economic effort, but one concerning the intellectual effort. The universities that are, at the same time, beneficiaries of the educational process and its latest achievement, have the duty to reflect upon this vital issue and fight for a real democracy that is based on knowledge and for a new humanism, capable of radically rebuilding our contemporary society.

Will this process be adopted by our democracies? Will the families, the local communities, the mayors, the local administration, the governments, parliaments, will they be willing to take the chance to support and finance such a radical reform, to open the way of an adapted, flexible education, able to mould itself on any child's, adolescent's, adult's or third age active people's needs and potential?

## **3. The Argonauts and the Knowledge Adventure**

One of the most fascinating legends of the world, *Argonautica*, tells the story of 50 heroes of Ancient Greece – amongst them: Hercules, Orpheus, Theseus, Castor and Pollux who were sailing on Argo ship, built by Jason, who was claiming the throne of Thessaly, looking for the Golden Fleece, symbol of wealth, power, and maybe even happiness, on the shores of Pontus Euxinus, at the Black Sea.

Especially known from Apollonius of Rhodes' poem written in 3rd century B.C., the legend was seen as an initiating journey and interpreted either as a heroic action with the purpose of discovering new wealthy territories, or as a metaphor of knowledge, both supported with strong arguments.

The Argonauts' itinerary can be easily followed as the places where events happened keep, even nowadays, names related to the legend's heroes; and Strabo (60 BC – 24 AD) described, three centuries after Apollonius, the land of Colchis, target of the expedition, „where the gold of mountains is carried away by rivers”. I myself have halted in most of the places mentioned; and in 1998, when I made my first visit to Georgia, I have asked my host, President Shevardnadze, to facilitate me a stop in Kobuleti, near Batumi, where is stated to have taken place the first stop made by the Argonauts on the Eastern shore of the Black Sea.

As a geologist, the Golden Fleece of the ram *Crius Chrysomallus* was familiar to me and I understood that the expedition was the description of was the first “gold rush”, from south to north, as rivers with alluvionary gold are placed in the igneous and metamorphic rocks in the Carpathians, Balkans and Caucasus Mountains around the Black Sea on its West and South-Eastern side and are missing in the area of the Aegean Sea, where mountains are mostly made up of sedimentary chalk. The times when the legend action happened preceded the “*auri sacra fames*” fever in the European Middle Ages, the “Western race” in North America and the frenzy expeditions in the search of gold in Canada and Australia of our modern ages.

But not only gold could have been the journey practical target. Roman poet Ovidius Nasso (43 BC – 17 AD) exiled in Tomis (Constanța in today's Dobruja region), city founded by Greeks in the 7<sup>th</sup> century BC, has written again the story, with the specification that Tomis would have been the place where Aeëtes, king of Colchis, buried his son whose remains had been spread by the Argonauts in the sea in order to have enough time to run through Bosphorus back home with the stolen prey.

Over there, where Istros (Danube) river was flowing into the sea, the Greeks were impressed by the golden wheat crops, another “Golden Fleece”, rising from a fertile land they had not at home. This wheat, cultivated by the Scythians, the Greeks merchants would use to feed their cities at the Aegean and Ionian Seas for centuries.

But could we reduce the legend of Argonauts only to a historic process of colonizing the Black Sea shores, by the Greeks in Mycenae, which they called Pontus Euxinus? Have the heroes of so many myths, sprang out a fantastic imagination, been brought together just for materialistic reasons: to assure food and accumulate wealth? Or is it about an extraordinary adventure of knowledge? And I do not talk about only discovering high mountains covered by perennial snow (Caucasus), a dark and cold sea (Black Sea), and a huge and large river (Danube) – different landscapes from the ones they know until that moment. I do not refer here either to discovering foreign people, with unknown languages, religions or customs. Nor about the shock of meeting the Paleolithic and Neolithic Ages culture and art, unexpectedly refined on these realms.

I am thinking about knowing the dark side of the human nature. In fact, what is it about in this legend? It is about planning a theft and making an association in view of an organized

crime, as we would say using the contemporary juridical terms. The teller shows us deceit, betrayal, fratricide, committing horrifying crimes like when Medea slays her hostage brother and chops him into pieces, then thrown into water in order to delay the tentative of their unhappy father to retrieve his children and stolen goods. All these made under the blessing of Gods as perverted as people whose destinies they were governing. Why should we know these aspects of the human being? In order to understand that any educational process is a process of taming what Plato was calling “the wild part of the human being” and of bringing out, as Socrates was proposing through his “Maieutics”, its good side.

#### 4. The University and the Citadel

Teaching, knowledge and skill are more precious than gold, and all roads are open to those who have learned the knowledge, wise Solomon warned us.

That is what makes me think that in no global vision, able to spark when we address political, social or economic issues, the University can be left apart. It plays an essential role in shaping the future we aspire to, a future which cannot be separated from education and knowledge.

Sooner than any entity of the ancient world, Athens brought the academic community and the spirit of the Citadel in the circuit of perennial values. *Academos* and *Polis* became the fundamental roots of European vocabulary used in schools, literature, social life, in family until today. The Greeks were among the first ones to perceive the academic dialogue virtues to the benefit of propelling cities policy.

Modern university, a creation of medieval Europe, proved to be the institution with the greatest influence on accomplishing intellectual education and human personality. Of the three powers recognized by medieval European society – *regnum*, *sacerdotium* and *studium*, the first, political power has undergone profound changes; the second preserved its structure in the Roman Catholic Church, expanded all over the planet, but lost the monopole of preaching Christian doctrine; only the third, *studium generale*, kept both patterns and its social role and functions throughout its long history. No other European institution had the force of attraction and radiation of a pattern widespread throughout the world, as it had the traditional European university.

At first, the University was a corporation, a *universitas* in the meaning given by the medieval law, i.e. a community of students and magisters whose essential point was the search for Truth. It was not just about absolute truth, of Christian revelation, but about the complex truth, crossed by doubts and dilemmas of the human reason.

In the University, ideas triumphed not one over the other, as it happens in ideologies, precisely because the fundamental vocation of the University is the Truth.

Modern university has the merit of taking the confrontation of opinions and the freedom of speech outside its walls, of entering them into the human consciousness and behavior. University has the merit of proposing the society a certain way of treating human relationships.

Consecrated values, housed first in the University City, were gradually adopted as fundamental values of the democratic age.

The academic milieu constitutes even today the most educated part of the civil society. However, the academic community seems, in a way, less connected to the present realities than is the civil society generally. When the matter you work with concerns mainly past actions, present becomes a time of researching past with an eye to the future. The past and the future together are somehow inseparable. Indeed, the study of the past should remain pure archeology if it would not generate a project, if it would not become a challenge to potential wonders and interrogations and, ultimately, a memory of the future.

University, conceived as a great forum, will last as a part of the democratic world as long as it will continue to promote critical thinking, reason, pluralism, human values. The confrontation of ideas in a critical rational manner requires not only accepting the differences, but also paying the right attention to other's views. Because concepts and experience might waste if there were no interest, interrogations and freshness of youth thinking, to give debate's color and to generate novelty, meaning the *creative technologies* the knowledge society needs.

## 5. Democratization of Knowledge

In many documents and working papers, the term *knowledge* is considered as universally understood, but in fact there are many competing significations on the market.

Too many of these definitions confound information and knowledge, reducing the realm of knowledge to an accumulation of technical skills.

Or, the significance of the concept of *knowledge* as a driving force of the contemporary world must be as deep as possible, in the most comprehensive, philosophical meaning of the term. Knowledge is a unique resource, not exhausted, but, on the contrary, increased both by use and by sharing.

In a work dedicated to the information – knowledge ration, I have supported the idea of looking the modern knowledge as *a territory of synergies* where each domain of research functions as a broth culture, a nourishing medium for the other domains of knowledge: history for the sciences of the Earth as well as geology for history, classics for physics, and ethics for biology – or vice-versa.

Knowledge should never be reduced to technologies, research and development (R&D). Knowledge includes fundamental sciences, humanities social sciences and education – all forming the *culture of knowledge*. Modern knowledge cannot and should not be reduced to a technical compilation and use of information, but has to be coextensive to the depth and breadth of the human wisdom, accumulated through millennia. Bare information opens a royal way to massification, whereas knowledge stimulates the harmonious development of responsible individualities. There is no other antidote against de-humanization but an individual capacity of building information into knowledge.

We should offer to the most gifted all the opportunities they need to blossom in their own field, and to exchange ideas in a variety of related areas: libraries, scholarships, internships, jobs. But we must also stimulate a dramatic widening of recruitment for the most innovative domains of science and creation. Historically speaking, such bursts of new human resources in the realm of knowledge were essential for the swift progress of humanity. Amongst the many theories that strive to explain the different rhythms of progress in world history, I think that the prize should go to those who consider that the democratization of knowledge was the basic component of the progress of civilizations. Think just for a second about the innovative force of the ancient Greek culture in relation not only with a new dynamic of social mobility, but also with the amazing accessibility of the alphabetic writing as compared to the hieroglyphs. Think about the invasion of new social forces in the realm of science in the 19th century, or of the acceleration in knowledge due to the generalized integration of women in all the components of higher education. We must inaugurate new ways for integration of youth from the marginal areas of our own societies and of the world in general.

## 6. Financing Education

When we refer to financing the education, we should remind that the first character the Argonauts meet on their journey was Phineus, empowered by Gods with the ability to predict the future, but later Gods fearing of the power of this gift, blinded him. And thus Phineus, who could see the future, was no able to see the present he was living in. Moreover, despite having always in front of him a table full of food, the harpies stole it so he would remain forever hungry! As Phineus could also find solution for problems in the future, he proposes the Argonauts to chase away the harpies who tortured him in exchange of teaching them how to sail through the rocks of the Bosphorus straight, which were clashing everything passing through there heading to Pontus Euxinus. The story of Phineus appears to me quite instructive for those who have the mission to lead and reform the higher education system, who focusing on anticipating changes, might risk losing contact with the present or, even more, losing the necessary funds for achieving their visionary or strategic projects.

The issue of financing education could tame the budget *shrews* in an apparently paradoxical manner, meaning not through restricting the access to studies, including higher education, but on the contrary, through a larger and democratic opening of the school gates at all levels. At least these will be the results if we take into consideration the projections published in a study made by McKinsey Consulting Company on education in the United States. The study takes as starting point the situation presented in a report in 1983, entitled *A Nation at Risk*, which was drawing attention even from those times, on the increasing mediocrity within American education. The McKinsey study calculates what would have been the possible earnings, during the past 25 years, if the measures put forth at that time would have been implemented. If the United States would have attained the educational performance of Finland even since 1998, the GDP of the United States in 2008 would have been higher by at least 1.3 and up to 2.3 trillion dollars. If the graduates from disadvantaged ethno-cultural groups such as Afro-Americans and Latinos would have reached their white colleagues level between 1998 and today, the GDP of the country in 2008 would have been bigger by

between 310 and 525 billion dollars, and if the difference between the quality of education for youngsters from families with poor income and the rest of the population would have had decreased over 10 years ago, the GDP in 2008 would have risen by an amount between 400 and 670 billion dollars.

I do not know if such studies have been made for countries such as Hungary, Poland, Bulgaria, and the Czech Republic or even for Great Britain or France. What I do know, without any statistics, is that in my country there are many talented adolescents that never succeed to realize their potential because of an unhappy combination of objective – basically economic related – and subjective situations, especially related to the family and social environment they live in, and that, for many reasons, do not offer them the enthusiasm, the motivation and the support necessary to perform in an educational system based on the 19<sup>th</sup> century principles of excellence. Such a system automatically isolates them because it is built on inflexible principles of performance evaluation. A child having a perfect ear for music, but with no native talent for mathematics has no chance to become prize-winning pupil; if, on top of that, he comes from a disadvantaged environment, the chances of dropping out of school hugely increase.

There is no doubt – the most profitable investment is one made in the educational system, but under an essential condition: that financing should not just increase, but also should be correctly used. Another thing would be not to restrain the democratic basis of academic institutions and communities, or their contribution to the democratic development of society.

Education costs. But has anybody ever measured how much may cost the lack of education? I do not know, but I can say for sure that the number of lives lost due to early dropping school, to juvenile delinquency, or just to boredom and frustration, costed the entire society not only the unfulfillment of personal goals, but also a huge amount of money.

## **7. New and Old Imbalances**

The research programs new EU member states accessed, bring about also traditional lacks of balance – between the “tough” and the “soft” sciences, between theory and practice, between the Anglo-Saxon traditional system and the continental Europe one; last, but not least, between the national element and the one of internationalizing the higher education.

Seen from this perspective, the present financing system of the universities in Central and South Eastern Europe dramatically points out the inequalities inherited from the recent past. Even though the new democracies governments allocate 5 or even 6 percents of their GDP to education, we are talking about a share of modest GDP and about a system that has been poorly financed for decades.

From among such distortions, I will choose only the one that places at risk traditional fields of excellence in the Euro-Atlantic academic community. However we speak mainly about less expensive fields, that need only a few books and a computer or even because of that, a great part of the humanistic sciences, particularly those situated beyond the acute now-to-date characteristics to which are often subjected the projections regarding the educational system

and the research, are less and less supported in the study and financing programs. The history of civilizations, the languages of the old documents, the rare languages, and the history of philosophy may become, in today's society, more and more endangered knowledge species. This happens also because of the power games played within the world of academic decision makers. In Romania, for 50 years, it has been repeated the refrain of "bourgeois prejudices". Today we see that in Western countries the decisions are being taken by the post-68 generation, with all its qualities and also with all post-colonial and post-modern prejudices. It also happens as a consequence of democratizing the decisions and the labor market pressure.

## **8. Memories from Communist Times**

We, the university professors from the East, come from a very different background when compared to the world of open competition for grants. In the communist regimes there was, of course, a struggle for power between political groups, having branches within the academic world. Let me evoke here an only the example of sociology, forbidden for a period of time, rehabilitated then for a few years, and then isolated again from 1978. In its essence, the arbitrary distribution of the resources came from the ideological options of the communist party. Thus, the massive support enjoyed by the technical sciences reflected a very simple idea: "the more engineers exist, the greater the production can be." Back in 1990, 67% of the university graduates in Romania were engineers. All the rest – physicians, professors, jurists, military people, artists, priests – were sharing the rest of 33 percents according to the new requirements. On the other hand, during the communist regime, a researcher could have been sure that, unless breaking the party rules, he could obtain financing for the research he wanted (or a modest, but comfortable, life of miming research with a big economy of effort). We had the opportunity to examine critically how the research and the university studies were organized as they were imposed onto us through a political system that we had not adhered to. And we also have the capacity to see the weak points of the competition-based system developed in the universities of the Western democracies.

## **9. Academic Competition**

The terms used within academic competition in the contemporary world have many positive qualities, not least to mention limiting subjectivism, abuses, or the absurdities generated by the political guiding of intellectual life. However, it does not mean that we would live in a perfect world. Far be it for from me to deny the virtues of academic competition. In essence, this is an effect of democracy: in Athens, not only great architectural projects of the Parthenon or the Propylaeas, but also the well-known literary works written by great poets and playwrights of the age of Pericle were financially supported following a public debate in the People's Assembly. I wondered for a long time: if Pascal would have ever won a research grant, no matter how small, respecting the present criteria. Especially given that he did not write in English...

## **10. Shanghai University Ranking – A New World Championship?**

One of the issues that concerns more and more visible the academic communities in the

world and the societies which developed them is, during the last years, the issue of *World-Class Universities*. The tough competition generated by globalization touched the academic world long ago and now this competition has elaborated its instruments, concepts and weapons, and has become obvious even in the eyes of public opinion, much more sensitive towards the Olympics environment – boxing match or basket-ball – interwoven between world university centers than towards the essence of the issue: what is a worldwide competitive university? Why should we make the effort to enroll our own universities in this race and at what price?

It is not only about money, although we are talking about a great amount of money. The figures provided by a study made by the World Bank and the International Bank for Reconstruction and Development (IBRD), demonstrates an undoubtedly existence of a constant relationship between the level of general financing in the Shanghai ranking universities, professor's remunerations, research grants and the excellency of their results. Obviously, a research team that attracted huge grants in the past has all the chances to do it also in the future and a laboratory led by a Nobel Prize laureate will attract, most of the time for good reasons, funds beyond compare and more significant than those allotted to a quasi-anonymous laboratory located in Eastern Europe.

The hierarchy of universities in the Shanghai top, oldest top of best U.S. universities, annually ranked by U.S. News Report editors, has not changed significantly since its first publication. Why is this hierarchy so rigid? A answer is provided by Adrian Bejan, himself a professor at Duke University, which is permanently present in these tops. Author of the constructal law, he believes that ideas, human beings and education flow across the globe as water in river beds<sup>1</sup>. When a researcher appreciates and uses the work of an author, the idea flows from author to user. It flows “better” because of the long rooted history and geography of the flow network, which is due to the evolutionary process that led to a shared use of information at the present level of efficiency. This is why the user from one end of the globe seeks, finds, and trusts ideas and young professors educated in famous universities. There are many intermediate channels along each route: other universities, disciples of known professors, magazines, books, libraries, a hierarchical design that concentrates the main scholars in some schools; it is a design more efficient for the flow of ideas, rather than it is the design that spreads these bright lights evenly over all schools. Members of the University Boards promising to change their rank by the simple theft of a name from a top univeristy, are defeated every time by nature. The same fate awaits those who want to change ranks by artificially building something big, as long as it is not required by the natural geography that created the university flows tapestry, covering our world. If size does not matter, age matters. For older universities have dug the first channels that attract those who generate new ideas and develop disciples in order for those to produce and transmit new ideas further in the world and to the future. This does not mean that the future is closed to the others. Large groups, national priorities (e.g. nanotechnology, fuel cells) and well-equipped research centers overwhelm individual researchers. Managers and thirst for reaching a higher classification encourage this trend. However, the individual researcher will not disappear for the same reason that the invention of automobiles did not mean the end of walking, which it is still a good way to

move in many circumstances. Similarly, insects were not replaced by birds as the global flow needs components of all dimensions.

## **11. Market World Versus Values World**

In a pragmatic time, dominated by principles of efficiency, a world of markets has been brought into discussion and still is as a largely debated topic – either it is about goods, capitals or labor force. Certainly, the market world, which seems to have a solid present, will not have a viable future if it is not backed by world values. That is why I am convinced that it is essential for us to know ourselves better and better, we need to exchange and share more and more of our experiences and products, and the same about an increasingly number of professionals, students and pupils, more and more books, shows and exhibitions. We will thus discover what unites us. And so we will enrich that unique spiritual experience knowledge and diversity sharing offers us.

Beyond its right or left oriented ideological wrapping, totalitarianism sent us a history lesson. Its failure is undoubtedly the failure of excesses made by state authority; it is blowing the cult of state, the omniscient, omnipresent and omnipotent state. Who would be more capable than those who learned this lesson, at the cost of infinite suffering, to rethink today sovereignty in its democratic frame, restored as a principle placing the citizen in its center and not as a defining feature of legal fiction which is the state, on whose behalf the greatest atrocities were committed?

Politics of the present cannot be a way to organize relationships between friends and enemies, but on the contrary, it should be understood as the best way to be together, as a set of practices that are not intended to separate, but to unite all major components of society around a common project. This project must place human value in its core. By stating this, I only name the task University knows to fulfill better than any other modern institution, as it does for centuries.

The lesson of academic dialogues, education, culture, amphitheatres vitality and this balance of university campuses are as many counterforts of the great European City of future.

Universities are threatened and assaulted by market economy. Of course, as a man who has spent almost all his adult age in the university, I cannot express myself against modernizing infrastructure and bringing certain performance criteria in university life. I think, however, that too much importance given to immediate effectiveness, as well as engaging faculty, departments and teachers in a restless race for obtaining financing would mean a risk to diminishing very soon the original vocation of the University.

University is not and should not become just some institution of the market economy. If such a thing would happen, it would not be a place of freedom, reflection and debate, and the stakes of academic education, which is the human person, would significantly diminish.

The need to modernize rapidly universities should not make us overlook the fact that any true university is a pillar of democratic society, so long as reason, pluralism and tolerance are values underlying its intellectual approach. Let us not sacrifice the simple truth

of communitary relationships weaving between people involved together on the path of knowledge, to the benefit of technology and market economy.

Pre-eminence of reason, freedom of conscience, tolerance and pluralism represents the University's high *technology*.

## 12. Brain Market

During the last decade of the 20<sup>th</sup> century it was often said that states' success in the global competition will not be primarily determined by the intensive use of natural resources, but by their level of well-educated human resources. Switzerland, Denmark, Jamaica are just classical examples, but now it is appropriate also for the United States of America, a country with great natural resources. We can see that the United States have outsourced a large part of their industrial power (except military industry) as its military superpower will be less and less useable once the democracy spreads in the world, but the US will continue to be a superpower in research for a long time from now on.

How was created this formidable American scientific power? In the Middle Ages and during the age of Industrial Revolution, in Europe universities were the place where scientific theories and inventions created here have generated human progress. The explosion of research in American universities occurred relatively late, during World War II, closely related to military orders, a first exodus of scientists running away from Nazi persecutions, then, after its end, followed by a powerful "brain drain" from Western European countries impoverished by war losses.

During the Cold War, Soviets launching the Sputnik representing a serious hit in the American ego, causing an impressive increase of financing the basic research as well as a growth in the number of staff employed in this field. The superiority of the American system over the Soviet one in regards with the scientific competition was due to the ability to quickly transfer space military technology into civil technology, for the benefit of U.S. citizens, as well as citizens of the entire world.

At the same time with the collapse of the Soviet empire, the biggest brain drain of educated people occurred from Eastern Europe to the West, especially to the U.S. During the last 25 years, the presence of researchers educated in Eastern universities with old cultural traditions has impelled creativity and diminished the effects of excessive specialization and of the European lycee superiority over the American high school.

I was often challenged to condemn the harmful effects this huge brain drain had over the former communist countries and urged, as President of the National Council of Rectors and then President of Romania, to propose measures to limit it. My reply was that, at least in my country where during the Revolution in 1989 thousands of people gave their lives for freedom, this thing is not possible; and it is the duty of those who remained in their country to produce reforms capable of making it attractive for those who have made brilliant careers in the West to return. It was much later when I realized that besides the moral approach, it was about a commercial aspect as well. If in the United States of America, universities enlisted in

the Top 10 and the Ivy League are mostly private, in countries in Eastern Europe, but also in Western Europe (Germany, France) universities are funded from the state budget. If we take into account the amounts used to pay annual fees in the U.S., of approx. 30-40,000 USD for the bachelor, master's or Ph.D. degrees, we realize the advantage American universities have from receiving researchers who obtained graduation, Master's or Ph.D. diplomas in Eastern Europe countries.

Although rapid, the post 1990 brain drain followed a certain sequence: professors (including myself), then lecturers, assistants, doctors, students attending doctoral courses, graduates and students, for today recruiting to be made even among high school graduates with outstanding results. Only a small percent of them returned home. Unfortunately, this massive exodus on all levels struck exactly into what was the most precious thing of Eastern European universities: *National Research School*. Universities rightly called "national", represented the place where novelty, experience and traditions were passed on from one generation to another and irradiated in the entire society. Let us hope that the amazing capacity for regeneration of Eastern intellectuals, proved by its survival after the physical decimation of scientific and cultural elites in the 50s and 60s gulags, will be functional this time too. For now, the effects of exodus are to be felt.

Once with the initiation of the European integration project, a series for inter-university cooperation programmes became functional: TEMPUS, ERASMUS, which supported universities from the former communist countries. Currently, through Marie Curie Actions Central European universities of old prestige can preserve their status of excellency centers. The fact that the European Union allotted the ELI-NP (Extreme Light Infrastructure – Nuclear Physics), the most advanced (and expensive) research project in the field of physics worldwide, to Universities in Central Europe, among which the University of Bucharest, through its Center in Măgurele, represents an excellent sign of a European integrative vision within the scientific research field.

Meanwhile, after the end of the post-Communist transition, a new phenomenon emerged on the *brain market*: if during the first two decades we could talk about grants for outstanding students, now, that a rich class of oligarchs or even a middle class appeared in the Eastern countries, a new market developed, a market for those willing to pay no matter how big fees for their more or less talented children to study in American universities. The recruitment system is rigorously organized: job fairs, advertising, credits, part time job fairs. To get graduates with diplomas, companies turn to *head hunting* in Eastern countries; it also exists a so-called visa lottery for entering in the USA whose only winners are, obviously, only holders of diplomas useful for the fields of activity of US (or British) employers.

Of course, all the actions are transparently made and in compliance with market rules. Ancient indigenous rules – relationships, acquaintances, bribery – are not applicable. The slogan "You are not what you know, but who you know", still working in these countries, is not applicable to intelligent industrious young people, who can build their individual careers in Western countries and decide their own destiny, which is admirable. However, the transformation of universities into some "brain processing plants" seems to me a frightening outlook.

Stalin called professors and writers “engineers of the human soul”, and saw them as creators of machines guided by the Communist Party, in a strictly planned economy and society.

What will be the status of professors and researchers in the new globalized market economy, where better known and better paid are not those who come up with original ideas, inventions, innovations, healing methods or new products, but those who advertise and sell them. Will professors and researchers be able to obtain a more correct status in the “professional league of knowledge”, as footballers, boxers, basketball players, tennis players and their coaches did from their club sponsors or televisions? Only solidarity of academics may give an answer. For now, their joy of exploring the unknown and building the future in the isolation of university laboratories is used by those who valorise the products of their minds for great benefits.

### **13. Professors’ Responsibility**

The crisis today’s world faces put a question mark over a large number of options that last half a century took for granted, and forces us to reflect on how far our own choices have somehow contributed to the aggravation, if not even triggered the global crisis. If we agree that behind the rotten loans, of imaginary money balloon, of artificially inflated shares on the stock market and of all forms of speculation that caused the current collapse of the banks and the economy, a common factor could be perceived – a serious crisis of values I think, then I believe that our responsibility as academics, as administrators of academic institutions and as intellectuals is undeniable. We all participated in the last decades, even if through resignation, in a vast process of massification of education, more and more dominated by the economic obsession for immediate profit, and less and less concerned with the educational value of disinterested knowledge. We have accepted that a knowledge based society can be created, but almost completely lacking of philosophical contemplation, fundamental theoretical knowledge, interest in the history of concepts and values of our own society. We have accepted, on behalf of an illusory practical efficiency, the dehumanization of research activity, a damaging subordination of the asymptotic search for Truth to the benefit of mass series production of convenient truths. Like bankers and investment funds managers, we have sold illusions, too.

### **14. Students’ Responsibility**

Responsibility also falls to those who wish to prepare their future through university studies. During the last two decades, Freedom and Democracy have created a new problem: the difficulty of choice. It is often said, not without justification, which chosen is even more important than the choice made. Courage to choose and strength to want to find out what you can be are crucial in a world whose future we cannot know in detail, but we can anticipate its main direction, including potential dangers and risks. Statistics show that an increasingly number of candidates to university diplomas chose the easiest way. In the UK, young English people avoids Faculty of Medicine because studies are made on a longer period of time, are difficult and medical profession has risks and restrictions. In Germany, cradle of technical

sciences, the number of local candidates in technical universities goes on a decreasing trend, and Germany has to import engineers and IT specialists from Central and Eastern Europe. However, there is an inflation of degrees in the fields of Communication, International Relations, even if it is obvious that their holders will find jobs in these areas with an increasingly difficulty.

## 15. Tree of Knowledge

I believe that globalization should not be considered only an egalitarian force in the negative sense as is very often the case nowadays. Technological and knowledge imperialism, promotion of the consumption culture or supremacy of the English language to the detriment of cultural diversity and national identities, are realities that generate, for good reasons, opposite reactions. However, there is here a positive meaning, too: equal opportunities now available for the young generation. Globalization has opened a borders-free market of the educational system. At the same time, globalization has offered a communication infrastructure where space or times are no longer important. In order to place a value on this opening it is necessary to move on from reforming the institutions to redefining them. The educational process can be compared to a tree. If mobility were to be the tree top, and its roots – a network of domestic and international institutions, then the tree trunk must be made up of a new strategic organization of information that would valorize the critical mass of fundamental knowledge.

## 16. University Outside the Walls

In a Report for the Club of Rome, published in 2003 by well-known Triestine economist and thinker Orio Giarini together with Mircea Malița, member of the Romanian Academy, Founder of the Black Sea University, launched the concept of “Double propeller of education and work”; they were stressing in this report the unity between education and work.

The double propeller of education and work can be functional only if it follows two principles: a multi-disciplinary profile and lifelong education. Once the Bologna process and the license/master/doctoral degree (LMD) system has been generally adopted in Europe, including in the new EU member states in the Central and South Eastern Europe, *lifelong education* has been officially implemented. The Bologna system created for the students in eastern Europe that possibility of mobility during the university studies and facilitated them a faster access on the European labour market. As negative effects, I must mention a decrease of the education quality, which affected especially the elite universities. At the same time, we notice that the multi-disciplinary profile has not yet escaped the tyranny of disciplines and of the research institutes caste mentality. A solution for surpassing this situation would consist in an offer to be addressed to the young generation, by which we do not choose the name of the disciplines, but instead those of the professions, and present a horizon of the professions, where disciplines are replaced by modules that allow a personal study itinerary able to make up personalized curricula. The professors should become more than prestigious entities of the research world, that teach courses and give grades. They should rather become tutors and models, reviving the old European tradition of school founding fathers. It is necessary

for us to create, both in the educational system as well as in research, new playgrounds and new games amidst which university presidents have the ability to manage inter-actions. The organizational background should also change within the context where the fight for talent recruitment becomes global, and jobs are accessible through the Internet. Managing talents becomes more an art rather than a profession.

In 2013, Ivo Slaus was rightly reminding on the social dimension of humanity, and says that, in addition to learning and working, *which can be individual activities, it is necessary to extend this double helix adding realization of human rights and duties – governance of human societies, condensing into: “Triple Helix of Education, Employment and Governance”*.

There is a danger that the government sector to be linked to the European context, where universities are financed from the state budget, mostly from central administration. In the U.S., the relationship between private elite universities with local communities has a tradition largely missing in Europe. This was the reason why I have emphasized, in my project *University beyond the Walls – Inside of Outside*, which I have proposed together with Professor Dan Grigorescu for the WAAS Center within the University of Bucharest, on the collaboration with local communities.

The most appropriate instrument I have chosen for implementing this project is the geopark. The experience of geoparks in the European Geopark network under the auspices of UNESCO, which valorize together natural and cultural monuments, offer encouraging examples of good practice. The collaboration University – communities opens interesting perspectives for innovative developing strategies initiated in the triple helix concept. I mean adding to the old functions of university “diffusers of knowledge”, “creators of educated human resources” or more recently “producers of technologies” to function of “non-formal education” with the purpose of developing entrepreneurial skills of individuals and organizations through ideas and business incubators on local level. In addition to concrete results which were targeted in the past, getting new features, services and jobs for graduates and students in *part-time* system, this can raise the visibility of the academic milieu in the Society and an increase of the social cohesion. In order to achieve the success of this goal of social inclusion, where universities can take over the role of initiator and coordinator, a holistic approach is needed through changing the type of intervention from the “transactional” way limited to a certain action, to the “transformational” way focusing on programs with larger and longer duration.

This is why the *Levant Initiative for Global Peace*, whose goal is the “culture of peace through understanding the other” envisages the creation of a network between geoparks in the Levant – Mediterranean area, the cradle of culture, science and beliefs, as well as a space of fertile contacts between them for millennia. I think it is a good opportunity for universities in the region, and not only for them, to approach a new reading perspective on the history of the Levant, which was seen by now especially considering wars and conflicts, rather than its common myths and traditions. The fact that WAAS has adopted this initiative is an encouraging first step.

## **17. Technological Progress Globalization**

Challenges of technology development put an enormous pressure on human resources. I do not think I'm wrong when I say that the issue of training and developing human resource is a key issue of humanity, because there is no technology to produce men and women who use it. It is necessary for political policy makers to be persuaded by an obvious fact, however often neglected: the social costs of education gaps are infinitely greater than the costs involved by quality education.

The globalization of technological progress involves two observations. Firstly: the transfer of scientific or technological progress can not take place without a transfer of skills necessary for using it, and even more, without the existence of a system of values that leads to a good use of it. Secondly: gaps between rich and poor or between advanced and obsolete technologies are not coextensive with those between human potential. The situation of countries in Central and Eastern Europe clearly demonstrates that despite local delays occurred in the last half century, they have preserved, however, the education networks that allowed the survival of a cultural and intellectual potential, without any connection with materials resources, severely affected by an aberrant policy, potential providing a breeding ground for a rapid development.

## **18. Prospective Mission**

University has not yet exhausted its prospective mission. It has to find within itself the necessary resources in order to give a new momentum our world – a world that seems to prove the triumph of democracy, freedom and cooperation, an open world, a world of constant communication and interaction, a world whose perpetual motion cannot be stopped and where isolation would mean a form of collective suicide. Yet, this world is not yet ready for globalization.

Globalization cannot be assimilated to simple trade or homologation of goods on the free market dynamics, of the most competitive products. Beyond this, globalization is the consecration of some universal values, of symbolic goods, it means knowledge and, therefore, closeness and understanding. The extraordinary movement in which we are all involved should not make us forget that behind every action is man. In this respect, University may be considered a partner in the political effort to reconsider priorities.

Academic institutions identity and role within the assessment of 21<sup>st</sup> century challenges no longer need to be demonstrated. Specialists we educate today will be active until 2050-2060, so their projective capacity represents an indispensable component in this process. In this sense, the development strategy continuation and adaptation require a few prior clarifications regarding anticipating: the general framework of the society evolution, the forecasting of supply-demand ratio of the academic capitalization valorization, the assessment of human potential and material resources.

Over 2,000 years ago, Protagoras said: “Man is the measure of all things”. Professors, researchers and university graduates are, today, the measure of future.

## 19. Globalization Ethos

A borderless world in education involves, as I have already said, redefining institutions. We need to prepare graduates with global competencies, but able to act in accordance with the local, religious, technological and cultural environment. We must not forget that problems are the origins of globalization. Global issues, often diseases, require global responses. The slogan: **local versus global** is not a geographical definition, but a reasoning and a mean of action adjusted to local issues, but with global impact. Globalization associated with democratization can not be regarded as an exclusive Western product anymore. Modern technology is indeed a product and a consequence of the concentration of scientific production in the West. Globalization seen as a response to global problems, forces Western technology to take into account local specificities and seek global solutions. But in order to build a new concept of global solidarity in the field of higher education, we must be able to see globalization not only in its technological aspect, but also in its anthropological one. Only then we can reach the globalization *ethos*.

## 20. Democratization Versus Massification

One of the most noxious illusions of the present times is misinterpretation of mass education as the democratization of the educational system. In Romania, as probably in the majority of the countries of the former socialist space, we have already passed through the experience of cultural massification, through a distorted and at the same time under-financed educational system, with pupils and students trapped in an equalizing assessment mechanism, which systematically neglected theoretical and human sciences for the exclusive benefit of narrow practical occupations. You cannot imagine the despair many of us feel when seeing how the same errors, generating harsh errors as consequences, are now being repeated in the name of the “knowledge-based economy” and of a laxity taken as democratization.

A crucial question for a new World University to answer is how to support the **democratization** of the education without enhancing at the same time its **massification**.

We have inherited and we currently use a mould, so to say, of the general education, which was imagined and put to use, in its essence at least, in the 19<sup>th</sup> century. Then, the industry needed workers with a generalized primary education: no more, but also no less. Secondary education comprised elite of five to ten percent from each generation, mostly of males, and higher education was addressed to a five percent of the ten percent who benefited of a college education. This tiny proportion of high educated people insured the explosion of theoretic and applied sciences which founded the modern world.

Nowadays, the new economy needs workers with high school and university studies. Does that mean also that they should resume to being a poor copy of their elders, with a shallow and superficial access to the fundamental superior knowledge? Does that mean that, if they are computer-literate, they may well be ignorant in a traditional sense – not reading literature, not understanding either mathematics or philosophy, unable to write without a computer corrector, indifferent to beauty? Does that mean that they may wave away their civic rights and duties, mostly out of ignorance than of indifference?

I strongly believe that, if we leave the current trend of massification to invade the whole world of our schools and universities, we shall lose forever all the benefits that the democratization of the educational process has offered humanity in the last two centuries.

A democratic society does not deny and does not dissolve its elites, but uses them for the common good, making them accessible to any citizen willing to use their talents and abilities in order to reach as far as possible on the road chosen.

## 21. The World University

On the occasion of several workshops organized in 2013 in different universities in the United States, Canada and Europe, the World Academy of Art and Science Board of Trustees discussed the project of a Virtual World University, to be organized by a World University Consortium (WUC). This idea is not new, it belongs to the founding fathers of Academy Einstein, Oppenheimer, Fleming; but 60 years ago, this generous idea seemed like a dream. The fast success of the MOOCs platform launched by a few of the prestigious US universities Berkeley, Stanford, Harvard and MIT, as well as the recent MOOC created in Europe and Asia gives us the reason to believe that it may become a reality.

The main objective of a new World University, which now has the force of ideas it's the right time for to become reality, is to create and implement a new paradigm in the higher education and, through it, in the global culture and civilization. It has to start from new concepts, new methods, and new perspectives. Redefining current academic courses in order to reflect the inter-disciplinary and trans-disciplinary perspectives goes hand in hand with the creation of a new global paradigm, human-centered and which opens a way to reach new fields of knowledge. As Garry Jacobs was defining this desideratum: *"A new paradigm based on ideas, principles and values appropriate to the 21<sup>st</sup> century can rapidly transform this world of pressing challenges into one of ever-expanding opportunities."*

A world university can be the best instrument for such innovating perspectives if and only if we will start by changing our rules.

A radical change of concepts through intellectual cooperation within a consortium representing diverse directions and practices is imperative because the concept of higher education of a single country cannot be imposed as a world standard for long. Promoting diversity of ideas and perspectives is one of the biggest missions of contemporary education. As it is so rightly said in the WAAS manifesto "it is essential that world education be adapted in order to reflect the different insights of different cultures". If sciences of nature and technical ones will impose English as *lingua franca*, and this will be accepted for efficiency reasons, humanities will have to show care towards different cultures, and the World University to avoid not to become a new channel of homogenization, which would be even more dangerous, because it does not address to a population subjected to homogenization through TV or the Internet, but to the future elites responsible for national identities preservation and development.

Essential for the World University project are its aims and objectives. This project should be directed to diminishing the gaps in education, especially concerning its quality, financial capacities, research and innovation.

Taking into account that that we cannot realistically hope to remediate soon enough the quantitative gap estimated at around 350 million seats in conventional higher education institutions, a radical change of means is imperative. Gurgulino Heitor de Souza,<sup>2</sup> the new President of the World Academy of Art and Science (WAAS), was drawing attention on the fact that in Brazil 7.1 million of young people graduated from secondary school. State universities can provide places for half a million students, and private universities have around 2 million places, students having the obligation to pay taxes. What will happen to the others who would like continue their studies in universities? It is estimated that Brazil, a country with rapid economic growth, urgently needs 150,000 engineers and 175,000 professors to teach in the fields of physics, mathematics, chemistry, biology. Changes are amazing world-wide. According to the data provided by Angel Calderon<sup>3</sup>, the number of students enrolled in higher education is due to grow from 99.4 million in 2000 to 414.2 millions in 2030, which would represent an increase of 416 %. The decreasing cost of the *online* education might offer the World University the possibility to create a set of original basic courses, accessible to a greater and greater number of beneficiaries.

I believe that a World University, open and accessible, promoting new concepts and a new paradigm in higher education, may become an essential step of a new humanism, based on essential values of freedom and equality, opening new perspectives to, potentially, millions of young persons all over the world, and finding a way to a fundamental shift in education: from a utilitarian enrolment in a system which pours information in innumerable vessels in the same time, to an authentic process of modeling personalities. A new form of the ancient notion of PAIDEIA, the formative process that builds true citizens and noble human beings for a new millennium.

## **22. University and Politics**

At first glance, it would seem that there are almost no points of encounter between these areas. In my opinion, university and politics are not two completely separate worlds, lacking in connections and interactions. And I say that thinking of my personal experience; and I think I can prove the existence of this intimate and extremely powerful links between academia milieu and political field.

If a universitarian has a duty to educate new generations, a politician bears responsibility for decisions involving the community destiny. The two therefore meet through the responsibilities assumed for the future, which will always have the altitude of those who imagine it.

I think, therefore, that politics should inspire from science, it can learn things from. Any science is organized around common values such as dialogue, exchange of ideas, and respect for the truth. Any science maintains a certain strong connection with time. Through this particularly relationship between people and time, science may offer politicians an example

to follow. Citizen should not only submit to consequences of time passing, not only be the subject of time. Citizen should be one that gives value and measure to his time.

Today, when science and high technology make people feel closer and closer, politics cannot aim to continue to separate them. Science gives us the opportunity to share a common language. The scientific community transcends natural borders and boundaries and, therefore, the academic milieu, through its cohesion and effervescence, might be regarded as a forerunner and a model for cooperation, with no excluded and no marginalized. Through its universal character, ease of communication and mutual understanding, through its continuously need for relating to and involving in the overall effort, the scientific community may become an example, par excellence, of the projects which sets as its aim to create unity in diversity. Intellectual solidarity may be the groundwork for building a new European and world political architecture.

A place of exchange and debate of ideas, University reunites men and women from different places and times in the same intellectual Republic, in the same spiritual resonance box. Encouraging freedom of expression and intellectual debate, the University had the power to disseminate these values beyond the walls of university campus, to engrave them in people consciousness and behavior. University has the merit of proposing society a certain way of conceiving the human being and human relations. Thus, values that first flourished within the University have gradually become core values of the modern era and the era of democracy. Democratic society is not an abstract society, it gives a better visibility to real man and polarizes its efforts towards his own benefit. In such a society, University has the privilege to propose models and solutions, to build and promote a new prioritization of values, appropriate for the challenges of a time which becomes a time of rapid changes.

University may offer debates and political confrontations a model of authentic and balanced dialogue. And that is because ideas do not circulate in a hostile competition with the University walls; they are not mutually exclusive, nor live the ephemeral fireworks of campaign of opinions or routine celebrations. Here, ideas meet the dialogue warm fervor and peace, still refusing to exclude the cold war of ideologies. Within the University walls, ideas are backed by arguments; they take shape and substance; they are examined, accepted or rejected. Inside the University, educating does not merely mean dominating the one who listens, but patiently build the core of human personality, a patience political action has not.

### **23. University and Moral**

It is sometimes said that universities have shaped the destiny of nations, starting with the European Middle Ages, even more than sovereigns of kingdoms and presidents of republics did. In the paragraph dedicated to the relationship University – Politics I have recalled, with pride starting from the academic milieu, how values of democracy first flourished in the academic environment, and then have been disseminated in peoples' consciences and behavior. But has it always been like this?

In a fair assessment of the 20<sup>th</sup> century history, how could we leave out the fact that during its first half anti-semitism firstly “blossomed” in the great University of Vienna, was then

followed by the murder of a Jewish professor on the University steps; or that in 1938 students of the Humboldt University in Berlin burned dangerous books in the square in front of the Faculty of Law, which led to the terrible fulfillment of Heinrich Heine's prophecy: "Where they burn books, they will burn people, too" through the Holocaust drama? Could we forget that Lenin's diabolical mind was "educated" in universities in Germany and Switzerland, that Hitler, fond of classical music and painting and Stalin, a graduate of the Theological Seminary, were the most bloodthirsty criminals of history, and have been in fact just some uneducated primitives?

Closer to our times, could we forget that bloody dictators: Albanian Enver Hoxha or Cambodian Pol Pot were "educated" in universities in France? Are Universities to be blamed? Of course not. Because during the sinister communist dictatorships in Eastern Europe, universities remained the only oasis of intellectual and civic resistance. How many of us remember today that the first major manifesto against communist terror on intellectuals, *Charter 77*, was originally a protest against dissolving the Jazz Department within the Prague Conservatory by the Czech Communist Party. And how many of us begin to forget, 25 years after the collapse of these dictatorships, the diligence young students of the University of Bucharest showed on December 21<sup>st</sup>, 1989 after the massacre in Tiananmen Square happened earlier that year, in August, to face Ceausescu's regime with bare hands and chanting: Freedom, Democracy, Freedom of Press!; and that dozens of them were shot or tread by tanks of the dictatorship repression troops?

What can we understand from these examples: that the relationship University – Politics cannot be separated from the relationship University – Moral. The last one is becoming more and more complex as science develops. I have presented science also as a possible model for the 21<sup>st</sup> century world politics. However, accepting science as a potential model for politics should be accompanied by a warning. If utopia is for science the „mother of progress”, when we talk about politics, utopia is the „mother of criminal dictatorships”. The 20<sup>th</sup> century bloody history abundantly proved this truth and it is because of that any global politics paradigm for the 21<sup>st</sup> century should take into consideration the complexity of human nature. We should never forget the advice of medieval humanist scholar Erasmus of Rotterdam: "Science without conscience is ruin of soul." Moreover, I believe that scientists, before giving advice to politicians, should tackle with courage the difficult moral controversies progress creates "in their very gardens."

## **24. Preservation of Ethical Values**

Now, at the beginning of the millennium, when we are aware more acutely of the risk of depersonalization in a globalized world of computerized information, often anonymous, University apprehends to assume the mission of replacing human being on an honorary place. Tried by the swirl of so many anti-human projects and realities, man comes again to the foreground of options, regaining its statute of favorite subject and object of reflection.

When I refer to preservation of universal values, I am thinking that traditionally, politics, art of the possible, is seen in an unequivocal relationship with conjunctural present. On the

other hand, the academic community is less related to the present, the matter it works with being mostly past and future. Past and future taken together and somewhat inseparable. And yet, I think I can assert that a possible and necessary conjunction exists between politics, understood as immediate purpose, and this relationship of science with a never present time. Being forced to face the present, politics is obliged to understand and analyze the past in order to be able to imagine the future. Studying the past is pure archeology if it does not reveal a human project, if not constitutes, ultimately, a memory on the future.

Exclusion, conflict and intolerance cannot be part of a project for the future. Forerunner of the medieval university, Saint Bernard of Clairvaux said that past, present and future do not exist as such. Only memory, action and project truly exist. Memory, enlightened by truth and wisdom, may inspire positive energies to action, for a project of the future we aspire to.

## **25. Managers and Leaders**

In order for the higher education to answer the great challenges the 21<sup>st</sup> century democratic societies are facing, we need good managers of the present educational system, and leaders able to change the present educational system. But even more is needed.

Confronted with the present financial and economic crisis, experts and politicians are looking for solutions for the survival of the present political and economical system. The world financial crisis might represent a historical opportunity for a new political project to organize the global contemporary society. It is the right moment when representatives of the academic milieu, free of the pressures of gaining profit or popular votes like businessmen or politicians, can build a new cultural project to address the 21<sup>st</sup> century uncertainties. The main difference among political systems lies today in how they can manage uncertainty. They can assume it by trying to find solutions through a dialogue, or can try to eliminate it through the dictate of ideologies, religions or money. Managing uncertainty can be done only in an open society. From the confrontation with high stakes could emerge a behavior meeting the challenges of reality through respecting principles. When we cannot act motivated by the certainty of success, we can act from the consciousness of duty. This concept corresponds best to what politics should be in a knowledge-based society and in the globalized world: a complex vision on the future, based on a new dialogue about human values.

## **26. To Have – To Be**

Over two millennia ago, the Argonauts journey to Pontus Euxinus in the search of the “Golden Fleece”, looking for material wealth, inspired them to act and offered the perspective of another world, different from the one of the Aegean Sea. The legend does not say what they won from this journey. But later, the same Greeks wrote on the Apollon’s Temple in Delphi “*Gnothi seauton*”, *know yourself*. Socrates will found Academia in order to preach this principle to young people eager to learn.

I have started the University when I wasn’t 17 yet and did not leave it until 75, not even during the four years when I had responsibilities in the public space. I went through all stages, from student to professor and rector and I owe it all I am now. University is for me

a fundamental landmark and a hope, in a world torn between, on one hand, an exceptional progress of science and technology and, on the other hand, a visible spiritual and moral degradation.

I believe that persistence of the world financial crisis imposes us brutally to choose between **to have** or **to be**.

A higher education based on moral values may create for the democratic 21<sup>st</sup> century world, a new balance between power and knowledge, which would reshape a framework inside which each individual can not only **be**, but also **become**.

*Author contact information*

*Email: cabinet\_ec@constantinescu.ro*

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