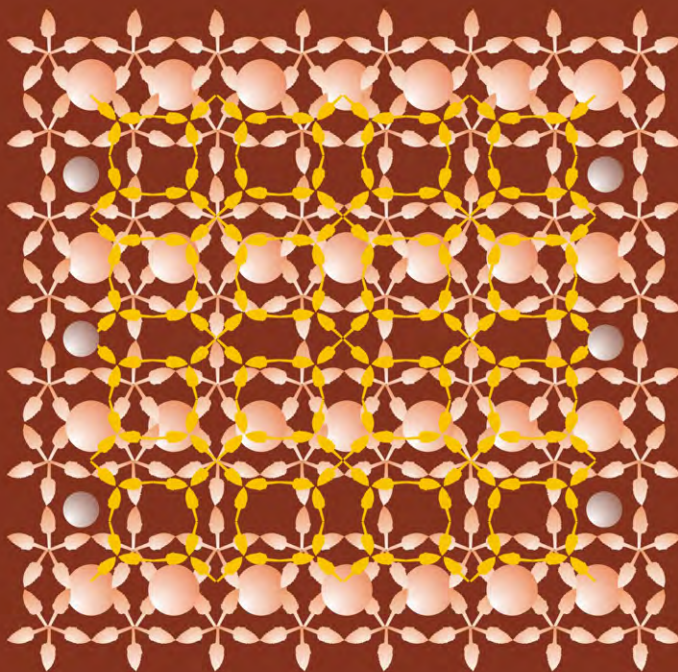


M A New Model of U University

Universities for Development

Modesto Seara Vázquez



Universidad Tecnológica de la Mixteca



Universidad Tecnológica de la Mixteca
Directorio

Dr. Modesto Seara Vázquez
Rector

M.C. Gerardo García Hernández
Vice-Rector Académico

C.P. José Javier Ruiz Santiago
Vice-Rector Administrativo

Lic. María de los Ángeles Peralta Arias
Vice-Rectora de Relaciones y Recursos

M A New **U** University
Model of University
Universities for Development

Modesto Seara Vázquez

First Spanish edition, May 2009.

ISBN: 978-607-95222-1-6

Second Spanish edition, March 2010.

ISBN: 978-607-95222-1-6

This is an updated translation into English of the book “Un Nuevo Modelo de Universidad. Universidades para el Desarrollo”, first published by the Universidad Tecnológica de la Mixteca in 2009, with a Second updated Edition in 2010.

Diseño: Eruvid Cortés Camacho

D.R. 2010

Modesto Seara Vázquez

Universidad Tecnológica de la Mixteca

Carretera a Acatlima, Km. 2.5. Huajuapán

de León, Oax. C.P. 69000

Preface

In the following pages I offer my conceptions of what a university should be. They are ideas generated by a long academic life in various countries and continents. However, I spent the longest period of time in Mexico, in Mexico City and the last twenty years in the state of Oaxaca. My academic background in the field of international relations has forced me to always keep an eye in what is happening on the world stage. This has allowed me to incorporate knowledge and experiences to the university project that I have had the enormous privilege to develop.

As is natural, not everyone will agree with my opinions regarding the idea of university; I would be disappointed if they did. However, I want to invoke three things in my support: one, these are not improvised ideas, but the fruit of a wealth of experience in the field of universities to various degrees; two, I hope to have demonstrated with the facts that these ideas work and the possibility of combining theory and practise is something that not many university theorists have been able to do; three, I have expressed my ideas with the same freedom with which I have been applying them over the decades. It is my hope that in other geographical environments where similar situations exist they will benefit from the Oaxaca experience, as this model is perfectly exportable.

It was and still is an enormous challenge in which I gradually became involved. I had the unique opportunity to conceive and carry out a university project, of public universities, in which my own ideas are applied. Against all the odds and the most difficult circumstances, political, social, economic and also geographical, it can be said that we have achieved considerable results. As in all projects of this kind there are contributions from many people from both inside and outside the universities and it is just to recognize this. In the second part, dedicated especially to the practice, I mention the most significant names, to which I would have to add many of my collaborators who have tolerated my impatience beyond that which should be reasonably expected. However, in what is referred to as the Oaxacan experience, I should say in my defence that it has been twenty years of long working days and constant travelling, almost always by highway because of the difficult geography of Oaxaca which ranges from sea level to high mountainous regions. Apart from the weekends, I hardly ever stay in place for more than one night. Until now I have had the good fortune of being in excellent health which has enabled me to withstand these excesses and I should confess that I feel extremely proud of the work which has been carried out and the results obtained. Above all, I feel proud of the overall consensus which has been achieved in Oaxaca with regards to this project which is seen as belonging to all the Oaxacan people.

Since this project is still a work in progress, I can't speak in the past about everything. In what is referred to as being my ideas about university, I don't believe that at this stage they will change funda-

mentally. However, in practice we are still in plain combat, achieving things which we hadn't been able to until now, creating new challenges and innovative projects such as the NovaUniversitas. We are also creating areas of technological development with the research centres which we have established.

Today Oaxaca has, like it or not, a firm place in the Mexican scientific and technological fields and we have shown by way of everything we have achieved that we can rise above any challenge. With this willingness to provide something important for the government and people of Oaxaca, we hope that the social and economic challenges facing Oaxaca today will be in the near future a thing of the past.

*P*art I
The Theory



1. The social context

The start of the 21st century sees an extremely complex society, characterised by a clash of two apparently contradictory trends:

On the one hand, the reduction of the political units which had been in force for decades or centuries and the discredit of all institutions, that haven't been able to respond to the needs of modern society.

On the other hand, an evident and unstoppable tendency towards the progressive unification of societies in a phenomenon confusingly described as globalisation¹ or interdependence.

The unification process is presented under diverse manifestations and could also be interpreted as a confluence of partially unifying processes in a continuous acceleration. This has extremely important consequences for any analysis that is done about the concept of university in modern times, a concept which has a lot more universal validity today than it had before.

1 "As a center for the generation of knowledge the university has the strategic compromise to transform its immediate and mediate environment, in order to permanently improve the quality of life of the population, which must be understood not only as an answer to the people's demands for goods and services but also to promote cultural development and the conservation and improvement of the environment. Besides, the university must assume responsibility for the insertion of the different local, regional and national sectors of the economy into the international markets"). See Alberto Romero, 'Universidad y Globalización' in *Revista de Ciencias Sociales* (RCS) Vol. VII, Jan-April 2001, pp.141-151. Universidad de Zulia. Maracaibo, Venezuela. Others, Joseph S. Nye Jr., and John D. Donahue (Editors) *Governance in a globalizing world...* Washington, D.C.: Brookings Institution Press, c2000; Banco Mundial, *Globalization, growth and poverty: building an inclusive world economy*. Washington, D.C.: World Bank 2001; Subhash C. Jain, *Towards a global business confederation: a blueprint for globalization*. Westport, Conn.: Praeger, 2003; Mike Moore,. *A world without walls: freedom, development, free trade and global governance*. New York: Cambridge University Press, 2003.

In today's world which is growing increasingly smaller and uniformized, it is indispensable to consider the problems presented by the contradiction between the legitimate aspirations of the people to conserve their traditional values which have been formed over countless generations and the undeniable fact of the movement towards a universal culture with common values and aspirations². In the analysis of this confrontation two extreme positions are clear: those people who regret the weakening and progressive disappearance of the local cultural values and those who praise the rising of a truly universal culture.

In this analysis the judgement of values is always confused with the problem of recognising the existence of a reality. The most sensible thing is to accept that not all local values are positive, nor are the universal values which are substituted for them. Very often, the values which are presented as the reflection of a culture, in all its meaning, of the people, are no more than an imposition of the ruling classes and have frequently served as simple instruments of domination. Equally, the universal cultural forms which are spreading throughout the world and are presented as a manifestation of the general aspirations of all the peoples are in fact the result of the manipulation of information by those who, through technological and economic power, are able to control the mass media and can impose standards of consumption and conduct. They shouldn't pre-

2. About the interpretation of universal values, Rushworth M. Kidder, *Shared Values for a Troubled World: Conversations With Men and Women of Conscience*; San Francisco: Jossey Bass 1994, and Modesto Seara Vázquez, *La Hora Decisiva*, 3a Ed.. México: Porrúa, 1995.

tend to represent their people, as they act for individual reasons, of greed and personal promotion.

There is nothing new in the fact that some cultures substitute others; what is happening now has always happened throughout history. Great civilisations rose up and disappeared, substituted by others that frequently assumed part of the values of the defeated, to form a cultural heritage that belonged to all mankind. The only aspect which is really new is the size and speed of the changes. In view of this, we can entertain ourselves in simple ethical judgement, or we can insist in deceiving ourselves by simply denying that the phenomenon exists. However, that would have the perverse effect of making all our most profound fears come true by allowing ourselves to become completely dominated by other cultures.

In effect, in the world we live in there are only two options: to be an actor and participate in the configuration of new values, or fall into a defensive position, giving up the fight to win a place in the universal concert for our culture and resign ourselves to play a role we are assigned from the outside.

The possibilities for action for all the peoples in the world, the rich and the poor, the technologically advanced and the economically challenged, are well defined. In the 21st century, to think that a group of people can isolate itself and live their own live in accordance with its own rules is more than a ridiculous vision, it is suicidal.

It is not worth getting involved in discussions splitting hairs over the relative hierarchy of our values and those of others. Just as revolutions triumph when they have the power whether or not they

are just, when there is a clash of cultural values, the values which are imposed belong to the people with power, not necessarily military power, but social and economic power.

Following this logical path we can arrive at valid conclusions about which results should be sought out in higher education in the 21st century³. These results transcend national borders, for their pursued objectives, as well as for their inherent content which cannot be defined exclusively by the values we consider our own.

Today higher education is the main line of defence of the world's diverse cultures. As much because education promotes self esteem from within as because it outwardly projects people's own values, converting them in universal paradigms.

We won't insist too much that in order to achieve such results higher education is required that will allow us to achieve balanced technological development and the economic power this brings. This also obligates us to consider the levels of quality that should be sought, as we are firmly convinced that we must escape a double trap. One trap is from the inside, from some people that in the name of a curious interpretation of the democratic principle, they demand that the levels of quality be brought down so that the popular classes (that for economic reasons arrive at university with more deficiencies in their formation) can gain access to higher education (in the best case scenario they would only gain access to diplomas). The other trap is from the outside, when they offer us 'friendly advice'

.....
3. Jaume Porta and Manuel Llandonsa (coordinators), *La Universidad en el cambio de siglo*, Madrid: Alianza Editorial, 1998; Tunnermann, C. *Universidad y Sociedad: Balance histórico y perspectivas desde América Latina*. Managua: Hispamer, 2001

saying we should worry about the levels of secondary education and leave higher education for countries with more technological and economic capacity.

These conclusions are the source of many thoughts and reflections that we will be developing in their own time. However, we must put forward that we can't accept the advice that we resign ourselves to low quality teaching in higher education whatever arguments are used, either in a demagogic manner by those from the inside or in a self serving manner from those from the outside. What's more, it is important to reflect at the most elevated level about the consequences of the competition between the different peoples, in the search for a better life through the increase in the quality of teaching. It is also important to ask ourselves if we are dealing with a zero-sum game where what some people win other people lose (if we think only in terms of the struggle for power), or if in a more balanced development for all the people of the world, we don't all win, in finding a more just society, and therefore more stable and a richer culture for being more comprehensive, because it includes the contributions of all people and not just those who impose their hegemony. This without mentioning the economic fact that it is more convenient to do business with rich people who have a higher buying power than with poor people who can't become the clients of what other people produce.

2. The Purposes of a University

If the world that we live in is understood correctly, it won't be difficult to agree on the results which the university should seek, because they are an unavoidable corollary of social needs.

In effect, if society is through a process of globalization⁴ and the degree of interdependency is incremented at the same rate, then the competitiveness between social groups makes imperative the formation of high quality professionals, as this is the only way to achieve a certain level of respect and to attenuate the impact of external factors.

But the university is no longer able to be the serene backwater that it wanted to be and that it probably was in the past.

Today the universities are immersed in the tormentuous current of ideas and initiatives and constitute an essential instrument in achieving the objectives of the people⁵. All of this in a wide front, that goes from forming professionals to cultural diffusion, without excluding scientific research and the link with the community, in the promotion of development through the cooperation between university and society (“vinculación” in Spanish), which should be redefined or amplified.

But it is unthinkable that universities exist in a social vacuum and that is why one cannot imagine them in an abstract form. They

.....
4. Undoubtedly there are many changes in education that can be attributed to the emerging needs of globalization, changes that are manifested in many ways: There are changes in the nature goods delivered (knowledge), the way goods are organized and presented (curriculum), the place where knowledge is conveyed (classroom), and the way knowledge is conveyed (pedagogy)”, see John S. Levin, *Globalizing the Community College. Strategies for Change in the Twenty-First-Century*, New York: Palgrave, 2001, page 39; also, Gustavo E. Fishman and NellyP. Stromquist, ‘Impacto de la Globalización en las Universidades’, in *Educación 2000*, Núm. 114, 2004, pp. 64-71; Jan Aart Scholte, *Globalization: A Critical Introduction*. New Cork: Palgrave Macmillan, 2005.

5. Raúl Béjar and Jorge Isaac reflected about that mission of the public universities: ‘...la educación superior de carácter público amerita integrarse a través de un sistema nacional donde las universidades estatales recuperen y ejerzan a plenitud su papel para consolidar y expandir el patrimonio material y humano de sus estados y regiones’. Raúl Béjar and Jorge Isaac (coordinators), *Educación superior y universidad pública*, México: ENEP-ACATLAN and PyV, 2005.

exist in a certain historical context and should respond to that; not to become involved in current routines, but to try to change reality in a positive way, and with the effectiveness that the universities have when their construction and functions result in the correct interpretation of reality⁶.

This means that the university should search for the highest level of quality, but this should be done with an understanding of the environment they are in; not to simply accept it, but to be in a position to change it. It is ridiculous to listen to those who demand that universities limit themselves to respond to the necessities of the labour market, as providers of employees.

That is a passive role, totally the opposite of the natural vocation of the university, as a social dynamizer. The university as an institution of thought and as the brain of society⁷ should transcend the reality with imagination and present the rest of the social body valid options to transform it and take it on a progressive path based on work and reflection, without trying to follow the false channels of street demonstrations, arrogantly invoking a representation of all social forces, that it hasn't been given by anybody.

6. Read about this subject matter, Marcos Kaplan, *Universidad contemporánea. Racionalidad política y vinculación social*, Mexico: CESU and M.A. Porrúa, 1994; Pablo Gonzalez Casanova, *La Universidad necesaria en el Siglo XXI*, Mexico: Era, 2001

7. There is room to ask if the majority of universities still wish to develop this role. There are those who think they shouldn't; such as, Bill Readings, '.....the university is becoming a different kind of institution, one that is no longer linked to the destiny of the nation-state by virtue of its role as producer, protector and inculcator of an idea of national culture.....', Bill Readings, *The University in Ruins*, Cambridge, Massachusetts; Harvard University Press, 1996, page 3.

3. Quality education

One of the false dilemmas that is frequently presented⁸ with respect to the university is the confrontation of two options, the university of the masses and the university of the elite.

The first would be a university open to everyone, not just because this would prevent the creation of economic barriers constituted by the high costs of enrolment and tuition, but also because the academic requirements for admission and permanence would be lowered, with the argument that excessive academic rigor would leave outside the reach of the poorer classes the possibility of entering the university and obtaining a degree, given that their previous education is deficient, because of the lack of quality of the institutions that they come from or because of the precarious family economic conditions that haven't allowed them the necessary time to dedicate to their studies in order to obtain a quality education.

Opposite this university for the masses is the university for the elite, whose access would be open only to those who have the sufficient economic means to pay the high costs of registration, books and tuition plus those of accommodation, clothing, meals and stationary that a normal university student requires. Those who fall below would have their access closed, as much for economic reasons as for the deficient academic formation that they would probably have.

8. A simple excursion through the specialised bibliography or through the pages of the internet shows the generalized confusion that exists over this problem. An example of this confusion, in Patrick Wintour, 'Prescott presses point on university elitism', in *The Guardian*, 3 June 2000, where he uses the term of university elitism are managed, when what is really being attacked is the social elitism in the university; two very different things that need to be cleared up.

These two simplistic options should be flatly rejected, because lowering the levels of quality so that lower social sectors obtain diplomas is completely defrauding the people who are promised knowledge but are only given papers (certificates or degrees) and limit the entrance to the university to those who can pay the high costs that are established, besides constituting an open injustice, it is an economic stupidity, because it closes to one sector of the population the possibility of contributing with their talent to the whole of society⁹.

If we clear up the difference between social elitism and academic elitism, we don't see any contradiction in the defence of an (academically) elitist university for the masses, because it opens its doors to all young people, without putting up economic barriers and establishing the necessary mechanisms to elevate the academic level of young people who come from deprived socio-economic sectors. The university is (academically) elitist by definition; if not, it is not a university. A mediocre university is a ghoulish joke on all of society.

4. Dimensions and Physical Layout of the University

4.1 The Dimensions

Critical mass and synergy are two concepts that are often mentioned when discussing universities. A bare minimum is necessary in terms of human resources and materials in order to produce effective teaching and research. Also, the combination of varying re-

.....
9. Antoni Roca Rosell, *Sociedades y Academias Científicas: ¿estrategias sociales o elitismo?*. See at, <http://www.prbb.org/quark/28-29/028085.htm>

sources produces a synergising effect which would be impossible to achieve working on a smaller scale.

Because of these reasons and factors which have nothing to do with logic, like the growth of universities for the sake of growth, the vast majority of universities around the world have come under enormous political pressure to accept an increasing number of students resulting in colossal institutions. This has led to the notion that big universities are great universities, confusing quantity with quality. Absurdly, any effort to reduce the size of a university has been seen as an attempt to destroy it, concluding that reducing size leads to reduced opportunities for young people, overlooking the fact that university size and the amount of opportunities for higher education are two different concepts and rarely related. What prompts criticism of macro universities is the low quality, depersonalization, and above all, the political and social distortions that the concentration of economic resources in these universities inevitably produce.

Let us be clear though that, in general terms, we believe that higher education, including postgraduate studies should continue to grow due to the needs of a hi-tech society and an increasing demand for a highly trained workforce.

However, it is one thing to increase the number of places in higher education and quite another to increase the size of universities. This increase can and should be oriented to the creation of new universities when and where they are necessary.

Over sizing institutions inevitably leads to the obscuring and clouding of the original goal. In effect, an increase in size requires extra funding, turning universities into powerful financial forces

which become politized and end up as a political bounties for the political parties, which try to control them because of the influence they exert on society and the benefits they generate for the different political groupings.

Other consequences of uncontrolled growth is that human and financial resources are concentrated in certain areas, normally large urban centers, to the detriment of the surrounding regions. This leads to an unskilled workforce in the neglected regions as young people from these areas head to larger urban areas.

The solution isn't complicated, but neither is it easy, because many rival social forces coincide to keep mega universities. On the one hand there are the university administrators and local politicians who either want growth to maintain the flow of resources, or they simply can't stem the tide of expansion. On the other hand, ill-informed people equate essential decentralizing with the dismantling of the education system.

It's necessary to bring together the political will of those who have the power to make decisions along with clear thinking on the part of those defending the right to higher education for the majority of young people. The consensus will be reached that a rational, decentralized education system of smaller universities, each with their own identity will be more convenient than the alternative system. Of course certain minimum standards have to be maintained to continue providing the required level of indispensable quality teaching, but neither can these standards be surpassed. We don't believe that it is possible to operate a profitable university of under 500 students, even more so when universities following this model

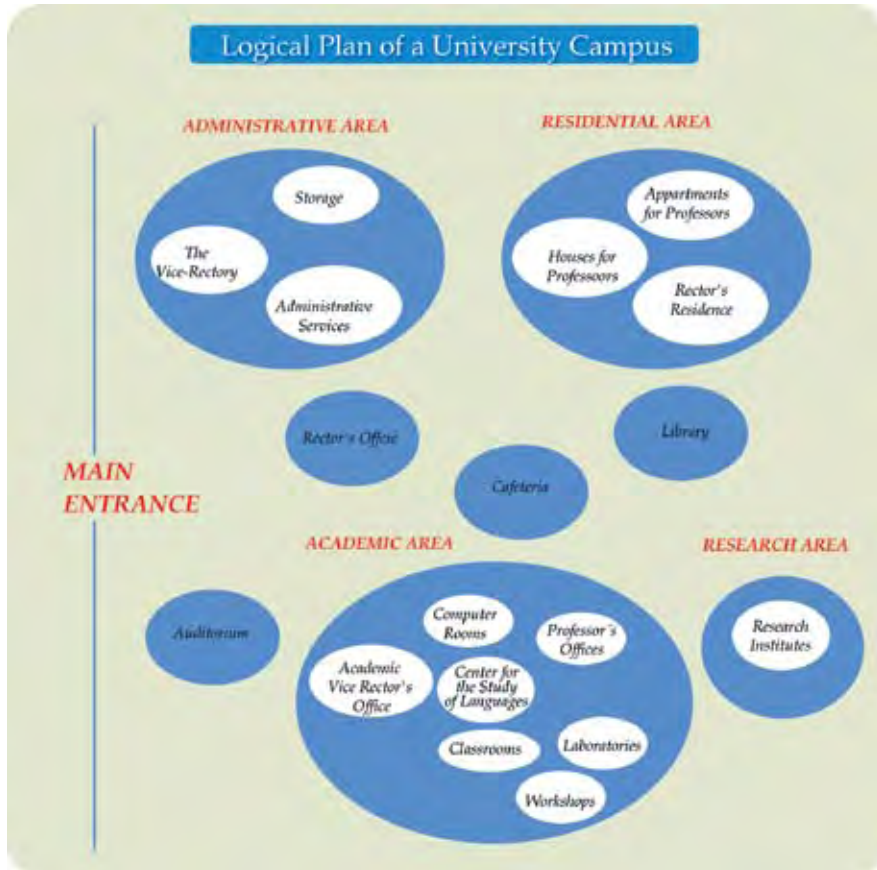
would have to offer courses in specialised fields. Offering specialized courses according to regions' characteristics and local needs allows scarce resources to be used in the most efficient way.

Decentralizing the university system would lead to a more skilled local workforce in the regions. Centers for scientific and technological development would be created in areas that most need them, attracting outside investment and facilitating a more efficient use of the natural resources.

Of course this would only be possible if a strict policy of control of the growth of the university administration is implemented. A well organized university can drastically reduce its workforce.

4.2 The Physical Layout

Past discussions about university planning rarely focus on the size and physical layout of a university campus. Generally, when talking about size of a campus, one thinks of dimensions relating to human activity, such as students, teachers and other staff. Physical dimensions such as total area of the campus and physical layout are quite often wrongfully neglected. I can't bear university planning that locates classrooms, administrative buildings, parking, etc. all together in one cement block, as it causes friction and a sense of suffocation amongst the university population.



We have to assume that humans are essentially animals, with instincts that will always show up producing a certain social behaviour. One of our basic instincts is territorial, the territorial imperative, that creates confrontation between those who have to live together forcibly.

Because of this, it is crucial to create conditions conducive to relaxed relations and constructive attitudes amongst an academic

community that will spend many years working together. To that end we have to think creatively, beyond laws and rules, to encourage specific behaviour and attitudes. Planning the physical layout where all this takes place is critical.

Having a large campus is not enough, as even though different institutes can be apart from each other, inside these buildings there will be a concentration of activities that prevent the necessary isolation of the persons.

It's important to use space carefully, taking time to plan the different needs of the campus. Separating academic units from each other is valuable too, making it necessary to walk from unit to unit, which in itself provides regular exercise and relaxation, as well as allowing for spontaneous and pleasurable meetings between colleagues. However, those meetings should be short enough to prevent the formations of groups which in time could develop aggressive conducts between those individuals as well as against other groups.

Ideally, a campus should be free of vehicles, encouraging staff to walk between institutes, but not so much that it tires those that aren't in such good shape physically. The campus should be impeccably maintained, clean, with no irritating graffiti or placards. There should also be abundant vegetation on campus, to promote a relaxed atmosphere which is so important for the development university activities.

There are two final points I wish to raise concerning the relationships between education and aesthetics and space and the concept of organization. Starting with aesthetics, the university alleyways have to be built in harmony with the gardens placed on campus, completing each other as it were. The plants and trees are aes-

thetically pleasing and contribute positively to individuals' spiritual balance as well as providing a pleasing environment for teachers, students and other staff to carry out their work. These elements also influence young students, with their beauty, tranquility and neat layout having a profound and positive effect for the rest of their lives.

Finally, I want to draw attention to the notion of space and organization. There are many ways to organize space when designing a university campus, and designating a function to a certain area of the campus doesn't have to be permanent. This area's role can change over time, but it is important not to create too many areas that are transient in nature, as this lack of stability can affect the long term organization of an institution. The distribution of space must be in accord with the function attributed to each part of it.

5. Public and Private Universities

There has been much debate as to whether it is best to keep universities public or rather to promote their privatization, given current trends as countries are in transition from the old to the new millennium. This debate, along with many others related to the concept of university, is invalid from many perspectives.

To clarify the discussion, the content of a university's academic activities, along with its financial structure, must be considered.¹⁰

.....
 10 See the opinion of Peter Knight, vice chancellor of the UCE University in Birmingham, "So, are universities public or private? Are universities a public service or private corporations hamstrung by the demands of profit and loss?" in *The Guardian*, June 20, 2006. Laura Romero and Elena del Rey offer another opinion in *Competition between public and private universities: quality, prices and exams*, Carlos III University in Madrid, November 2004, <http://docubib.uc3m.es/WORKINGPAPERS/WE/we046423.pdf>

With respect to content, supporters of private universities argue that within said institutions the idea of liberty is better preserved, cultural and political plurality is guaranteed, and the needs of the labor market are better met. This approach clearly shows a private university's internal ideology of minimizing the role of the State and of letting market forces shape society's orientation.

Supporters of public universities, on the contrary, believe that this kind of universities play a fundamental role in shaping an ideal society, an egalitarian society, in which higher education promotes social development and mobility in a way that private universities are incapable of obtaining, given that the elevated tuition costs are not within the means of the majority of the population. This situation is not remedied, as is argued by private university supporters, by the provision of a limited number of scholarships¹¹.

Furthermore, it is argued that in private universities -- except in the case of economically developed countries (including those that benefit from philanthropic investment) -- the availability of degrees is limited by the demands of the upper class, usually at the expense of technologically-focused degrees, which require large investment. Furthermore, private universities do not usually invest in scientific and technological research, or in cultural promotion.

11 Carmen García-Guadilla, of the Central University of Venezuela, believes that "at the international level, it becomes necessary to create a debate about the notion of the global public good in education as a way to equalize emerging tendencies of market internationalization in education." This, because "for the first time in history, higher education is affected by commercial forces, and these forces are beginning to detract from the character of public good that, up until now, was inherent in education." See: Carmen García-Guadilla (Coordinator), *El difícil equilibrio: la educación superior como bien público y comercio de servicios. Implicaciones de AGCS*. (The difficult balance: higher education as public good and as business. The implications of GATS), Columbus Documents about University Procedures, Castilla-La Mancha University, Cuenca, 2003.

The public university much more effectively contributes to national cohesion, as, by definition, it represents majority interests.

The defense of private universities is based on the idea of freedom of enterprise. Private universities view education as an activity that is shaped – as is any other economic activity – by the forces of supply and demand, and, thus, seek to benefit from these economic forces.¹²

It would be ridiculous and incongruent with the definition of private universities as business to think that, as businesses, they would orient themselves in a way to defend public interests. This orientation is what differentiates private universities from public universities, and is what strengthens the arguments of those that defend the latter.

With respect to finances, criticisms of public universities include, first, their high costs, and, second, that private universities are less expensive, not only because they are more efficiently organized, and managed, but also because higher tuition costs cover actual costs and, thus, avoid financial burden on the public. The validity of first criticism is not clear because a large part of the savings represented by private universities do not represent actual savings, but rather the elimination of functions of social interest that are carried out by public universities¹³. The second criticism may be valid, but the consequence is that access to private universities is limited to stu-

.....
 12 For a general vision of the private universities in the United States, see Hugh Dais Graham and Nancy Diamond, *The Rise of American Research Universities: Elites and Challengers in the Postwar Era*: The Johns Hopkins University Press, 2004.

13 See Breneman, D.W. and C.E. Finn, *Public Policy and private higher education*, Washington, D.C.: The Brookings Institute., 1978; Christopher Newfield, *Unmaking the Public University: The Forty-Year Assault on the Middle Class*, Cambridge, Massachusetts: Harvard University Press, 2008; James J. Duderstadt and Farris W. Womack, *The Future of the Public University in America: Beyond the Crossroads*, Baltimore: The John Hopkins University Press, 2004.

dents with economic capacity. The scholarships that are offered are not numerous enough to counteract the principle of teaching for pay, so access for the majority is only possible in the case of developed countries or within an egalitarian society.

In the case of developing and non-egalitarian countries, the private university does not guarantee access to marginalized sectors of society unless the State decides to intervene with the massive subsidies. Such subsidies are unacceptable, first because they negate the rationality that private universities should have and second because state contributions to private business would not be ethical.

With regards to the difficulty of economically-marginalized sectors in accessing private education, a reflection – which modesty usually does not allow – should be made: many of those who promote the creation of private institutions do so to create a barrier between their children and the youth from lower social classes. This creates a “country club” culture to lessen the “danger” that a privileged child could meet a future spouse who may be inconveniently poor. Of course, those effected by this accusation will try to reject it; however, it is a fact that many families of the petite bourgeoisie and the middle class will go to great lengths in the hope of their offspring having the opportunity to “catch” a good spouse. The social consequences of this phenomenon are terrible for a country because they promote social inbreeding and make difficult the integration which naturally results from the interaction of youth from different social classes.

Other criticisms of private universities include that their preference for “cheap” programs of study which do not require expensive laboratories or workshops; their abandonment of strategic sectors

of education – such as the scientific and the technological -- which are fundamental to the independence and sovereignty of a country; their avoidance of research, except only occasionally in the field of social science or humanities; and their lack of investment in cultural diffusion and in the formation of professors, whom they recruit among those already formed by public universities. This criticism is not completely valid for developed countries where there are partnerships between universities and businesses for the purposes of scientific and technologic research. Such partnerships rarely happen in economically-developing countries where national or transnational businesses are not interested in scientific research and prefer to buy their technology outside the country.

Does this mean that private universities should be banned? Not at all: in a democratic society, every individual should have the ability to act according to his or her own desires without interfering in public interests. If an individual or legal entity wants to open a private university, they should be entitled to do so notwithstanding the obligation of quality control required by the State. These controls are extremely important and are a function that must be fulfilled by the State to guarantee that learning institutions – those of higher learning or other levels – fulfill at least minimum qualifications. It is a tragedy to see how using the guise of the name “university”, simple businesses in search of economic benefit have proliferated while using basic systems, simple equipment, and under qualified faculty, all without basic yet essential academic training.

Furthermore, public universities fulfill a series of functions that private universities simply cannot. What is not permissible

is that private universities, justified in their function as part of free enterprise, contradict themselves by asking for support from the State support that legitimately should be saved for use by public universities.

The public university is so important that the overwhelming majority of countries – large or small, developed or developing – put public universities at the foundation of their higher education systems. Although there are cases in which private universities reach levels of excellence, as has happened in the United States, public universities continue to be the fundamental structure.

6. Free Universities and Paying Universities

Very related to the debate about public versus private universities, is the problem of free universities versus paying universities, which, logically only relates to public universities.

For some, that a university education should be free is an evident truth, which needs no explanation. In a simple and simplistic way, they affirm that a public university should be free without entering into any other consideration and without placing any conditions on anything. Those who oppose this axiomatic stance are labeled reactionary.

The truth is very different and it depends on a series of considerations with respect to the social reality to which it is applied. In an economically developed society, the problem cannot be presented in the same way as in a developing society for the simple reason that in a rich nation, the citizens don't care so much if they pay for education indirectly through taxes, or directly through tuition.

The debate reaches levels of extreme hardness in developing countries¹⁴ where it begins with the affirmation that education should be free at all levels. Arguments about social justice are presented, apparently valid, and others pertaining to economic matters, in the sense that education is not a cost but rather an investment and that it is in the best interests of society to create through the university system the needed intellectual capital to assure development and that is much more important than financial capital.

The economic arguments are impeccable as can be seen in the experience of countries that have undergone processes of rapid growth, which was based on high quality universal education. Of course there are those who don't see it that way, but they are easily defined: they are individuals who are not interested in a harmonious and general development of the country, rather exclusively in their own personal benefit and for that reason they prefer cheap labor controlled by people educated in socially elite institutions or imported from abroad.

The social argument which seems to be the strongest is actually the weakest and it leads to conclusions totally contrary to those put forth by its defenders¹⁵. In fact, university education is never free. Someone assumes the cost of its creation and maintenance and that someone is the State, which represents all citizens.

.....
 14 The matter is also debated in developed countries. In England there are those who defend the removal of tuition obstacles, although they propose sliding fees and scholarships: "Any increase in fees will have to be accompanied by creative mechanisms to ensure the participation of poorer students." See "Set our universities free or watch them decline" in *The Telegraph*, 17 Mar 2009.

15 A different opinion is expressed in Pablo D. Lopez Adocoff, *The Public University, free and open to all: Analysis of crucial factors for the evaluation of this public policy*, CEMA Working Papers: Num. 333. CEMA (Center for Macroeconomic Studies in Argentina) University, Buenos Aires, 2006. See: <http://www.cema.edu.ar/publications/download/documents/333.pdf>

A free university education would be logical in an egalitarian society. No one could oppose the idea that the cost of education should fall on the social body as a whole, which is going to reap the benefits of a system which educates the necessary high level sectors in society. The problem arises when in societies structured by social classes with the rich (sometimes extremely rich) and poor (sometimes extremely poor) free university education is demanded because it means asking all the people to pay for the education of the rich, which is antidemocratic, unjust, and totally reactionary, whatever those who defend such an absurd position say.

A truly fair option would be to ask students to cover part of the cost of their university education, according to their ability. In any case, the fees would never really be the total cost because a true university is not only an institution of learning but also an engine of culture that centralizes an important part of research, the education of higher level academic personnel, cultural diffusion, and an important part of the studies that assist the progress of society and these costs should not fall solely on students. Rather, they should be spread out in the social body.

The social character of the university would not come from being free for the rich, but rather from the creation of opportunities for the poor, all the poor, with the minimum academic conditions, to pursue a university education. This can be accomplished with a sliding scale of fees, which run from a reduction in tuition to an exemption from paying tuition and any scholarships that may be necessary for students in precarious economic conditions to be able to study without suffering undue financial hardships. Not only that, but it

should be recognized with respect to students from the least favored social sectors, that the precarious nature of their social situation carries with it nutritional and education deficiencies which should be compensated for not only because it is fair but also because no country can afford the luxury of throwing away part of its young people. We should and we can save many who might be incapable of attaining the minimum required levels if special remedial programs are not developed.

One thing should remain clear, however. These social problems cannot be taken as a pretext to demand privileges which lower levels of quality. This would be a joke on society and would cheat disadvantaged students who believe that their degrees are worth more than simple proof of the knowledge they have attained. We would only be guaranteeing future frustration. Therefore, as well as insisting on the necessity of opening opportunities to all and creating remedial programs, we must recognize that it would be better to realize the impossibility of including some young people in a university education rather than to maintain them artificially in the university. In any case, that decision will have to be made at a later time or the academic farce is maintained to the end with tragic consequences for those young people and for the general academic level. There are many roads to personal success, which do not necessarily pass through the university.

The demand for a free university education for all, rich and poor alike, reminds me of a phrase of Anatole France: “the law, in its grandiose majesty, prohibits everyone, rich as well as poor, to sleep under bridges”. No one with the slightest social conscience can ask

for the application of the law to be indifferent to the conditions of those to whom it is being applied.

Neither is it enough to give economic support. We should recognize the disadvantage implied when the economic conditions within a family are precarious and the student should collaborate in everyday tasks. And that besides a deficient nutrition, to have to go to schools that lack minimum necessary qualities because of the low level of the teachers or the deficiency of the infrastructure and equipment. For this reason, as we mentioned above, the University should try to accomplish the function of promoter of social mobility, giving special attention to those students who are weakest economically and academically in order to allow them to continue their studies without damaging academic quality. We must repeat as often as necessary that a university which in the name of supposed social justice lowers academic levels to allow students to obtain degrees is not acting in a progressive way, as some suggest, but rather by giving diplomas without knowledge is actually committing a double scam which we denounced above, to the students and the entire society.

It is not the least bit surprising since it is well known that the demand for a free university education does not come from the least favored sectors of society, but from the children of the petit bourgeoisie who do not want to pay tuition costs, no matter how low, but nevertheless take vacations abroad, wear clothes purchased in boutiques and have time and money to spend in discotheques.

Public universities with a system of sliding scales and scholarships as wide as necessary would contribute to the redistribution

of wealth¹⁶. On the contrary, and as long as we move in unequal societies, the free public university only contributes to the growth of injustice and social differences.

7. The democratic, autocratic, or aristocratic university; autonomy, self-administration,¹⁷ and shared governance.

Models of university governance¹⁸ have changed many times over the course of history. The prescriptions that arose chiefly in Latin American and later spread across the world during the 1960s and 1970s, especially after the events of May, 1968 in Paris, are sometimes presented as a great democratic advance. The truth is that even in the Middle Ages, the fact that the students in some universities economically supported the teachers allowed them to keep

.....
 16 This is the model used in the Oaxaca System of State Universities.

17 University and self-administration, at: <http://www.spunk.org/texts/educate/sp001338.txt>

18 There is an extensive bibliography dealing with the subject: Paul Goodman, *The community of scholars*. New York: Random House, 1962; John David Millet, *The academic community; an essay on organization*. New York: McGraw-Hill, 1962; Herbert Hewitt Stroup, *Bureaucracy in higher education*. New York: Free Press, 1966; J. Victor Baldrige, *Power and conflict in the university, research in the sociology of complex organizations*. New York: J. Wiley, 1971; P. Blau, *The organization of academic work*. New York: John Wiley, 1973; Gary L. Riley and J. Victor Baldrige, *Governing academic organizations: new problems, new perspectives*. Berkeley, California: McCutchan Pub. Corp., 1977; D. W. Breneman and C. E. Finn, *Public policy and private higher education*. Washington D.C.: The Brookings Institute, 1978; D. C. Levy, *University and government in Mexico: autonomy in an authoritarian system*. New York: Praeger, 1980; Robert Birnbaum (editor) *ASHE reader in organization and governance in higher education*. Lexington, Mass.: Ginn Custom Pub., 1983; B. R. Clark, *The higher education system: academic organization in cross-national perspective*. Berkeley: University of California Press, 1983; Marwin W. Peterson and Lisa A. Mets, *Key resources on higher education governance, management, and leadership: a guide to the literature*. San Francisco: Jossey-Bass Publishers, 1987; John C. Smart (editor) *Higher education: handbook of theory and research*, New York: Agathon Press, 1990; William G. Tierney, *Culture and ideology in higher education: advancing a critical agenda*. New York: Praeger, 1991; G. Neave and van F. A. Vught, *Government and higher education relationships across three continents: the winds of change*. Oxford, England, Tarrytown, N.Y.: IAU Press, Pergamon, 1991; J. G. March and J. P. Olsen, *Democratic governance*. New York: Free Press, 1995.

them under control, at times subjecting them to real indignities, as certain tales about university life during that period demonstrate.

For many, it is an article of faith to assert that universities should be democratic; and the more democratic, the better.¹⁹ Technical councils, university councils, academic boards, university senats or whatever else a university's most representative body might call itself, try to reflect the university's pluralism in the decision-making process. Such bodies give the students a high degree of representation.²⁰

The deceit of the defenders of the democratization of the university is that, while denying that governments may act with intelligence and impartiality toward the universities, they fail to recognize the plain reality that various interest- and pressure groups fill the vacuum of power, finally imposing their own law on the university's majority. The regimes of autonomy, by their very nature, inevitably lead to electoral processes that divert energy and polarize the university's communities in warring factions engaged in a permanent struggle for positions of power. These groups end up usurping power in a false

19 Carlos Ayala Barrón, Eizayadé Moncada, and Enrique Villarreal (editors), *Rafael Moreno and his Philosophy of Mexican Education*, México: UNAM, 1997. William Thayer Arteaga, *Sociedad democrática y universidad*, Corporación de Promoción Universitaria (Santiago) 1973. The enthusiasm for the democratic university, as some understand it, is at times unintentionally humorous; so, in the University of Missouri-Columbia, the movement 'Students for a Democratic University' arose, which has as objectives, 'the democratic administration of the university by and for students,' and such an institution, according to them, 'serves the public good.' According to whom, one might ask. The following step would bring an end to the ruling class, to professors, and it would burn the books in order to escape studying them. See <http://students.missouri.edu/~sdu/>. For a broader reflection on democracy, see Modesto Seara Vázquez, *La Sociedad Democrática*, México, UNAM, 1978.

20 Albeit a representation that does not escape the curse that weighs down popular representations, which frequently end up working for the representatives instead of the represented. For a concrete example, see Jeff Stevens, *The case for a democratic university*, in *The Daily of the University of Washington*, February 5, 2002, <http://dailyuw.com/2002/2/5/the-case-for-a-democratic-university/>.

political assembly, given that they more often than not, represent a very small minority. This is why they so adamantly oppose the sporadic attempts of the university's authorities to have recourse to general consultations with the whole university community.

In the purest Leninist tradition,²¹ these small groups claim for themselves the right to represent the university while at the same time they accusing university- and governmental authorities of repression when they try to enforce the law. They resort to physical violence against those who do not submit to their decisions. In fact, they are playing with a false idea of democracy, which is, before all else, a strict respect for the laws that are democratically adopted. It is easy to forget that law differs from morality in one fundamental aspect: enforcement.

The law must be enforced, come what may. If violations of the law go unpunished, it creates an atmosphere of juridical instability that inevitably leads to injustice. The person who, having no other alternative, uses force to apply the law, is not guilty of repression but of avoiding the repression of those who despise the popular will, expressed democratically in the ballot box or through representatives in the chambers of representatives or senators.

The concept of democracy and autonomy of the university should always be bound to academic liberty, which is not always the case. First, because the concept of academic liberty is so essential to the

²¹ This is also evident in teachers imposing their ideological positions on students. They grant passing grades to those who share their ideology. They shamelessly go so far as to call reactionary the professor who disagrees with them, defending ideological pluralism in the university, where all students ought to have the possibility of getting to know and choosing their own ideological positions, whether they be political or religious. On this subject, Tierney, William G., *Culture and ideology in higher education: advancing a critical agenda*. New York: Praeger, 1991.

university's role that only in totalitarian states could it be denied, and it is perfectly compatible with the system of organization which seems consubstantial with the idea of the university: the (academically) aristocratic system. Second, because academic liberty often leads to unacceptable extremes that are incompatible even with the democratic concepts they invoke. Academic liberty is only valid in the sphere of the curricula legally approved and the manner in which the syllabus is adequately covered. It would be unacceptable for a professor to plead academic liberty to change the normal content of a subject, or to limit instruction to only a part of the whole. A collegial institute must adopt a plan of studies that juxtaposes differing opinions. From there, a general definition of a subject should be reached. Only from that point forward can one speak of academic liberty. As far as liberty of investigation is concerned, we should distinguish between the following two aspects: the right of academics to investigate what they like, which no one ought to prevent; but we should also add the social obligation to participate in publicly useful collective research whose relevance has been declared by the centers of research to which the professors belong. The liberty of teaching and research is a right that should be recognized, but like all rights, it also entails a series of obligations, since the purpose of the right is not to guarantee the interests of academics, but of the larger society, which is better served if its academics enjoy liberty, a liberty that academics ought to exercise in harmony with the public interest.

The antithesis of the democratic model of the university is the autocratic university, monolithically organized around an arbitrary and unyielding academic bureaucracy. This autocratic formula does not

spring uniquely from university authorities, but it can and does occur with great frequency in the academic milieu, organized according to medieval models of real servitude before the all-powerful professor. One cannot evaluate in any other way the systems of professorships that still exist in certain countries. In such universities, in spite of talking about democracy and submitting to the whimsical dictates of theoretically democratic councils, the decisions over the distribution of chairs and the examinations take place between the chiefs of the various fields (real fiefdoms) in a totally corrupt system, which deals in votes in favor of this or that candidate on the basis of *do ut des* (I do something for you so that you'll do something for me). Whoever wants to embark on an academic career ought to be ready to pass through the gibbet of the all-powerful chair²² without ever overshad-

.....
 22 This reinforces the unacceptable endogamy of the university, which is not the exclusive vice of any given country, but crosses borders. An example, in the commentary of the minister of science, technology, and higher education of Portugal in a report of the OCDE: 'O sistema de governo das instituições do ensino superior deverá ser aberto à sociedade e centrado num conselho com uma maioria de membros externos à instituição, incluindo o seu Presidente. Os reitores das universidades e os presidentes dos institutos politécnicos não deverão ser eleitos, mas nomeados após, um processo de selecção por esse conselho segundo padrões internacionais... A insularidade das instituições, que no caso particular das universidades se reflecte em níveis excessivos de endogamia na contratação dos seus docentes, foi identificada como um problema que afecta a produtividade e a eficiencia de todo o sistema.' (Translation from the portuguese: "The system of governance of the higher learning institutions shall be open to society and it must be centered in a council with a majority of members external to the institution, including its President. The university rectors (chancellors or presidents) and the presidents of the polytechnical institutes, shall not be elected but appointed by that council, following a selection process in accordance with international standards... The isolationism of the institutions, that in the particular case of the universities produces an excessive level of endogamy in the recruitment of professors, was identified as a problem that affects productivity and efficiency of the whole system". See the report on antecedents, prepared by Portugal (*Relatorio sobre as politicas de Educaçao Superior em Portugal*, December 13, 2006, Centro Cultural de Belém, Lisbon, Portugal) and the *Relatório da OCDE de avaliação do ensino superior*, December 14, 2006; in English, *Reviews of National Policies for Education.. Tertiary Education in Portugal. Examiners' Report*, at http://www.portugal.gov.pt/NR/rdonlyres/15EF5E16-EA5C-47A2-81F2-84F25DE00B83/0/OCDE_Rel_Ens_Sup_Preliminar.pdf

owing (those of higher rank), all the while patiently waiting in line and saying 'amen' to every manner of indignity and imposition.

The autocratic model is unacceptable in the university. If, in exceptional circumstance, we ought to tolerate it for a time-- in the initial stage of an institution, for example, when efficiency trumps other considerations, and even in such a case, only if the results generate a broad consensus and also on the understanding that it occurs in an atmosphere of ideological tolerance and respect for the members of the community. Like all exceptional situations, this ought to be for a limited time.

Democratic university systems,²³ including the extreme case of shared governance, lead to corruption and the imposition of minority groups. Likewise, autocratic systems by definition impose themselves upon others without necessarily being more efficient.

The autonomous university,²⁴ another of the contemporary myths of the university, in the best case scenario represents independence from public powers, but when it joins itself to a supposedly democratic internal system, it creates dependency on small academic or student groups, and always results in a deterioration

23 The relationship between democracy and university is highly complex, but we can easily agree that, 'If we don't protect higher education from becoming job training in the narrowest sense of that term, if we don't ensure that citizens have access to full-time quality teaching, if we don't carve out spheres of life safe from the pressures of profit and money, we cheat our democracy of its future.' See Benjamin Jonson, Patrick Kavanagh, and Kevin Mattson (editors), *Steal this University. The Rise of the Corporate University and the Academic Labor Movement*, New York and London: Routledge, 2003. For a very broad approach: March, J.G., & Olsen, J. P. *Democratic governance*. New York: Free Press. 1995.

24 Brian Pusser and Imanol Ordorica, *Bringing political theory to university governance: the University of California and the Universidad Autónoma de México*. The authors are professors at the University of Virginia and the *Universidad Nacional Autónoma de México*, respectively. See <http://www.ses.unam.mx/integrantes/ordorika/publicaciones/Handbook.pdf>.

of academic life. We could even ask ourselves how real this autonomy actually is, since experience shows that it is only real if those governing have a will to respect it, and in that case there is no need of any legal autonomy, which in many cases only serves to hide the University authorities' corruption.

There is a caveat to these statements. In the first place, because although we are opposed to an autonomous university understood as a quasi-independent entity over against the state, which some carry to the extreme of claiming extraterritoriality for university facilities with complete impunity for what is done there; but we do believe that the aristocratic system that we advocate for the university ought to be based on a series of actions outside and beyond the political situation. A university president should be chosen by an (academically speaking) aristocratic body which truly represents certain social groups (the university, the government, and civil society) and which is really independent. This body ought to have sufficient power to exercise its functions effectively.

Academic autonomy ought not to mean, however, that the university's use of economic resources escapes normal financial oversight, both internally and by the state. Internal controls include decision-making processes for expenditures and satisfactory verification of those expenditures. External controls should guarantee transparency in the use of resources without interfering in the details of the budget, given that the possibility of public exposure is an important deterrent to incompetence and corruption.

Finally, in the aristocratic model (academically speaking) of the university government that we favor, and in contrast to the exten-

sive faculties that we believe to be essential that they be awarded to the president, there ought to be a counterbalance: the possibility of removing him. The governance of a university requires stability and a certain continuity, and for that reason, the principle of term limitations does not work well in the academic world, given that they impede the progress of mid- and long-range projects; but neither is it correct to award appointments without limits. In the university, those who occupy academic positions, including the president,²⁵ ought to be conscious that the permanence of their position depends on properly carrying out their duties. Of course, in order to avoid frivolous actions of certain groups and the instability that would result from the possibility of a president's dismissal for refusing to bow to the whims or interests of certain constituents, there must be guarantees in place, such as wide majority of the Academic Council, as a prerequisite for removing the president.

The principle of term limitations is sensible for certain representative positions, but it does not work well for others. The extension of this principle to fields for which it was never conceived, arises from the misconception of public positions as perks or spoils of war, which therefore should be shared by all. Public responsibilities ought to be conceived quite differently: They are positions of service which the most capable ought to fill for the common good, following procedures which offer guarantees of seriousness. Payment should be adequate, but not extravagant, so that no one clings to a position out of false motives. There should always be the possibility of

25 Cohen, Michael D., and James G. March. *Leadership and ambiguity: the American college president*. Boston, Mass.: Harvard Business School Press, 1974.

removing someone from a position, so long as there are guarantees in place that prevent frivolous actions like those indicated above. In the academic milieu, certain people have real scientific vocations and are inclined to devote themselves to their work, in any position they may occupy, for the entirety of their lives. It is such people who invest all their faculties in fulfilling their roles to the best of their abilities. The principle of term limitations, however, provides an opening to those who see academic responsibilities solely as a stepping-stone to other positions. We do not mean to suggest that it is wrong for academics to be called upon to fill public positions, which they could benefit with their knowledge; on the contrary, this is a way in which the university contributes to social progress. We are rather suggesting that those who do not wish to take this step be allowed the possibility to serve society in their academic positions for as long as society considers appropriate, without the time limitations which lead many academics to regard their duties lightly, because they understand that they are only temporary, and that they cannot complete the projects they would begin.

To the preceding, we should add one last consideration regarding the governance of the university. There ought to be an ongoing, intensive communication between the university authorities and academic, administrative, and service personnel, as well as the student body. This helps foster a feeling of belonging to the university community. There ought to be an open-door, quick-answer policy instead of bureaucracy. The academic authorities cannot barricade themselves behind a wall of staff employees. The president should not think of his role as that of an army Chief of Staff, but rather as a general on a

battlefield, frequently walking around the university campus, maintaining personal contact with all the community members. Neither the president nor the other staff should appear to be privileged; rather, they should resemble ordinary members of the university in position, pay, and conduct. Obviously, the function of leadership in an academic milieu is very similar to that of other fields, and ought to respond always to a balance, since the strict application of the norm may lead to injustice, and the rigid and implacable exercise of power creates a well-merited irritation and leads to its loss, while excessive leniency results in corruption and disorder.

We should always keep in mind that the future of a country, especially in the contemporary world, lies in the quality of its leadership at all levels. University leadership is fundamental if we want our people to be leaders rather than servants.

8. A critical university?

The student uprisings of the late '60s brought into fashion the term *critical university*, suggesting that the essential role of the university should be to critique (or rather to criticize) society constantly.²⁶

.....
26 José Mendoza Angulo, *Proyecto para una crisis: crítica a la universidad populista*, Mérida, Venezuela: Dirección General de Cultura y Extensión, Universidad de los Andes, [1983]; Román Reyes-Sánchez, 'La Universidad filosófica o la crítica del discurso político' in *Anuario Jurídico Escorialense*, 1983 (N° XV), Real Colegio Universitario María Cristina, Madrid, 1984; Luis Torres and Patricio Rivas, *Los Suicidios de Platón. Visión crítica de la Universidad contemporánea*, Universidad Arcis (Chile), 1998. A new version of the critical university was established in Vienna in December 2009: "...the Solidarity University (kritische und solidarische Universität = KriSU) was founded in Vienna..... KriSU reacts on the fundamental social, ecological and economic crisis of capitalist society. It sees itself as a part of the global university protests. The principles of KriSu are (1) a lively connection between research, education and practical activities, (2) self-management, feminism, antiracism and engagement against antisemitism and islamophobia, (3) non-commercial character, (4) independence from the state, (5) education for

It was not the first time that the university claimed such a role, but the nearly universal appeal exercised by the idea of the critical university dates to the events of May, 1968,²⁷ initiated by the French students. We need only recall that this movement, in the case of Mexico, had been fomenting since the previous year. The history of these events still needs to be written.

Of course, the university as a thinking institution can and must always be at the vanguard of society, without falling into conformist roles. It should try to imaginatively offer serious alternatives to society at large and to those who make decisions. It should also commit itself to change, to social progress, and to justice. At the same time, it must avoid the other extreme of turning into a university of activists, of replacing its academic role with political militancy. To this end, the Chilean president Salvador Allende, at the University of Guadalajara,²⁸ uttered his magnificent words to the Mexican university community, reminding them, “The revolution does not pass through the university.” Those who inhabit university campuses should remember his words rather than play at cheap heroism. Their unending demonstrations obstruct the university from fulfilling its true purpose: the training of highly qualified leadership that,

solidarity economy and a solidarity economy of education by means of research, mediation and development of selfmanaged, community-oriented and cooperative ways of production.” Ver, <http://krisu.noblogs.org/category/english-espaol>.

27 See the document distributed by the Committee for the Strike of the Movement of '68 in France, concerning the critical university (English version): *Critical University, Political Texts proposed by Various Commissions*, Law-Economics Strike Committee, Paris, 1968, one can also consult http://edocs.lib.sfu.ca/projects/mai68/pdfs/Critical_University.pdf.

28 December, 1972. Curiously, this phrase is not reproduced in many versions of the talk available on YouTube. It seems that some people disliked it. But you see it and hear it here: <http://www.youtube.com/watch?v=ULKFwZRNjYU&feature=related>.

once out of the university, will be in a position to really change what needs to be changed.

We are speaking, obviously, about public universities. Private universities have slightly different objectives, more limited by the marketplace. Nor do they adequately cover even these objectives, since they generally only educate in fields that do not require much investment in either equipment or resources. In other words, they almost always focus on social sciences and humanities, with a few exceptions for computer sciences and informatics. We are not referring, of course to the private universities of countries like the United States, which has a culture of philanthropism on a large scale (and the correct interpretation of companies' interests). The sizable donations that certain universities receive allow them to devote themselves to the full range of knowledge, decisively supporting purely theoretical research that only later yields productive applications and innovative technology. But even in the United States, the large majority of college students attend public universities.

There is little hope in any country that those with economic means to attend expensive private universities will want to change the system. Understandably, their fundamental concern is to preserve a *status quo* that is in their favor.

The public university must be different. It cannot play the role of employment agency for businesses; rather, it should always try to propose a different model of society, one that is more efficient and just. In proposing such social options, the university fulfills its critical function correctly understood. It thereby avoids the absurd caricature of the supporters of the "critical university", politically aligned

and permanently combative. There are many reasons to reject this concept. First, it is arrogant to assume the role of universal critics of society, in that it implies a representation that cannot be established, because no one has bestowed it. Second, it is also arrogant to claim greater knowledge of what is suitable for society. Although one may by definition have a higher level of expertise, it must be remembered that it is one thing to know a situation, and quite another to experience (and to feel) it. Only those who live through and suffer a concrete reality have the right to decide on a solution. It is unbearable pedantry that leads those who have never worked in the fields or the factory to speak in the name of peasants or workers.

Third, whoever benefits from education-- paid for by the enormous sacrifices of the people-- cannot waste the resources dedicated to public education. This is all the more true of university education, because so few have the opportunity of higher education. No student can abandon his studies to focus on political agitation, since the best-case scenario would be the squandering of resources. But we should also ask to what extent they are (consciously or unconsciously) serving those social sectors that don't want high-quality professional leaders coming from the lower classes. Those who can send their children to private- or overseas universities have no need of public universities. It is the youth of the lowest social levels who find in education their only avenue of social advancement. At the same time, society as a whole needs public universities, because public university education represents the best way to promote social mobility and guarantee the harmonious development of the country. This is the paradox that false revolutionaries face: they

achieve the aims of reactionaries, destroying the efficiency and credibility of public universities.

Criticism should arise in an objective way from the university's proposals for resolving the nation's problems. The true role of a university lies in making such technical proposals grounded in a clear social commitment. In this way, the university fulfills its function as a cultural instrument for positive change.

If a critical university were understood only as a university systematically dedicated to denouncing error, it would in reality be not a critical university, but a negative one, which would profit no one.

Finally, we should call attention to the inevitable consequences that follow on the politicization of the university. The chief consequence is the division of the university community, which aligns itself in opposing factions, replacing the salutary academic confrontations with political ones. In the academic milieu, there should be an atmosphere of complete respect and tolerance toward opposing political viewpoints, and this is quite impossible when the university turns into an arena of confrontation and political militancy.²⁹

We need to do away with the myth that only governments are responsible for intolerance and repression. Quite commonly academics are guilty of these when their role becomes distorted. Politicization misunderstood gives rise to rival factions, which taint the atmosphere of cultural institutions and impede their proper functions of teaching and research.

29 Muñoz García, H., Humberto. *Política y Universidad*. Instituto de Investigaciones Sociales, UNAM, 1989.

9. Humanizing the technological university

The term social relevance is another *leitmotiv* commonly used in referring to universities. It means that the university must effectively respond to social needs. Naturally, different social groups perceive these needs in different ways. Their positions range from the belief that the university must transform itself to concentrate almost exclusively on technological education, limited to forming employees for businesses in the fields of the latest technologies, to the desire to preserve the medieval inheritance of the *trivium* and *quadrivium* in the endless cultural movement of the humanities.

As is always the case in such matters, the reality is complex and does not yield simplistic solutions. The third millennium of the Christian era begins in a highly technological environment. It is difficult to think of any activity that does not rely on some type of technology. This cannot be ignored; those who do so pay the price of an underdeveloped economy and political dependence, whether they like it or not.

In light of this reality, universities must be, as centers of knowledge, key institutions (though not the only such institutions) in the advancement of the people, because it is the universities that form leaders. A society without a leading class is folly rather than utopia. No one should simplistically take this as a reactionary idea. What really is reactionary is mediocrity, which leaves the people underdeveloped. The university, however, should not be reduced to propping up power structures. Rather, it should be a cultural instrument to bring about social progress and positive change. If it seeks scientific and technological progress with a view toward social justice,

the university will adequately fulfill its purpose. But if it confuses a necessary academic elitism with social elitism, the university will become a powerful instrument (maybe the most powerful one) of the ruling classes.

In our day, the university should give pride of place to scientific and technological instruction in order to provide the country with an opportunity to take its place at the vanguard of the people. This would open the way for the innovations in technology and manufacturing processes that are so necessary for development.

It is not enough, however, to content oneself with the definition of university teaching that gives science and technology their due. There also must be a pragmatic dimension. Many institutions still teach science and technology only or principally through the magisterial chair, with endless monologues by the teacher. Not much can be learned in this way. From these same classrooms, we need to nurture in our students the need to investigate. We need to guide them in their studies, so that they themselves will continue discovering the secrets of science and technology. The classroom needs to assume a smaller role in order to allow space for workshops and laboratories, spaces which many universities unfortunately assign second place. Also, in many educational institutions of lower levels than the university, the technological equipment is not used, not serving any purpose except a photo-op at the inauguration. There should be some disciplinary measure for the leaders of educational institutions that do not use the expensive equipment with which they are endowed.

Audiovisual media for presentations, databases for collecting and organizing information, and communication systems for net-

working, are possibilities that have scarcely made inroads in the classroom. Their use, however, should become more widespread. We should never forget, however, that the media are not an end in themselves, nor are they the message, regardless of what Marshall McLuhan may have said. Already, there are plenty of brazen or lazy people who try to hide their lack of knowledge with the charlatanism of audiovisual aids. They don't conduct much of the original research befitting of good professors, but instead manipulate information and repackage it with the help of various technologies. But they are incapable of answering questions or of developing new ideas.

Equipment does not provide us with ideas, at least not yet. The only way of producing ideas comes from that piece of equipment made by evolutionary biology that we call the brain. Like a muscle, the brain needs exercise in order to develop and avoid atrophy.

Everyone who has left a university has experienced panic at coming face-to-face with the job market and business world. Inevitably, we feel as though we have forgotten everything that we thought we had learned, and we see that the theoretical knowledge we have retained is not a great help to integrating into a productive system.

Two factors produce this situation: a) confusion between training and information concepts; and b) the isolation during the period of academic formation from the productive system.

Stuffing students with information is not the university's only function; on the contrary, a very important part of university life—perhaps the most important—is to form the whole person, exposing students to positive individual and social values that will later shape their participation in society: a strong work-ethic, discipline,

solidarity, social commitment, ambition, honesty, etc. Values cannot be improvised or reinvented every day, because they arise from the historical experience of a people. The identity of a people is reflected by its values. This does not prohibit necessary evolution or change. The student should leave the academic world with the necessary information to assume a profession, but even more, with a sufficient formation to solve problems and answer doubts. Students are not warehouses of formulas or databases; what is important is that they know how to obtain relevant formulas and data. For this, it is necessary first of all to know that such formulas and data exist. This is part of information. But the student also needs to know how to think in order to interpret and apply formulas and data well.

These considerations bring us to a conclusion: modern university teaching, which ought to strongly emphasize science and technology, cannot leave scientists and engineers with no humanistic dimension.³⁰ There can be no real education without this component. It can take many forms, but it must be said that cultural activities are not enough in themselves. The humanities must be incorporated into the academic curricula of science and technology majors. On the other hand, the social sciences and the humanities should not omit the scientific and technological dimension, since

.....
30 For quite some time, the Organization for Cooperation and Economic Development (OCDE) has called attention in its reports to the danger of forgetting the social and humanistic dimensions of knowledge: '... With the knowledge content of jobs increasing, and with full employment no longer the norm, support for programs in the pure sciences, the humanities, and the social sciences has weakened.' OCDE, *Universities under scrutiny*, OCDE, Paris, 1987, in particular, p. 63. This study points to fields in which it is necessary to increase educational offerings: information technology, computer science, biotechnology, business science, marketing, laser technologies, communications, and physical science. These recommendations remain valid despite the passage of time. See especially page 65.

it is impossible to understand today's world without a knowledge of these fields.

As we have said, there are many ways to meet the challenge of an education in the humanities. By way of example, in some cases, different majors (including engineering) use *History of Philosophical Thought* (to show how humanity has dealt with the problem of knowledge over the centuries) and *General System Theory*, to develop the ability for abstract thought and the organization of reality that is so important for engineers.

Another example is the obligation of students to read a novel a month, which the students themselves choose from a long list. Brevity and clarity of language should characterize all the books on the list from which the students choose. This serves a two-fold purpose: first, it improves their ability to communicate, since communication is a basic element of a well-functioning society; secondly, it builds a habit of reading, which is indispensable in an age of television and other media that encourage passivity and atrophy the imagination. In order to guarantee the effectiveness of this program, there should be a random control of the readings.

We do not wish to give the false impression that the role of the humanities is limited to the formation of students. Universities are not only educational centers. Even though technological developments have opened new avenues for sharing culture, universities remain the most important cultural catalysts for the people. This is because they not only transmit culture, but also are its most important creative centers, in addition to being the repository of cultural heritage. They cannot and should not ever renounce this

important role. The essential value of the ancient and traditional universities is surely rooted there: they are a sanctuary for the soul of the people.

The new universities ought to become institutions of excellence, indispensable for our times, but without many of the defects which afflict the older universities. But the new universities lack the spirit that animates the universities steeped in history.

Another problem is the isolation of students from the productive system during their years of study. Years ago, in a purely theoretical approach,³¹ we had thought it fitting that university students divide their time equally between study and professional practice, working on a project related to their studies. The goal was for students to complete their studies with both a theoretical and practical foundation, while at the same time entering the job market. We have had occasion to test this method at the Universidad del Mar (Campus Puerto Ángel), requiring that the students, during their last two semesters, attend classes in the morning and work in the afternoons in the tourist industry (hotels, restaurants, and travel agencies). The results were not very encouraging. After attending classes in the morning and working in the afternoon, students did not have time to study or to complete the work assigned to them. The university changed the format, with excellent results: at the end of their sixth and eighth semesters, students must serve as interns for two months during the summer. The university organizes

.....
31 Modesto Seara Vázquez, *El Futuro de la Universidad*, a paper presented in the ‘Seminario sobre las Contribuciones de la Educación al Desarrollo de América Latina,’ UNESCO-CREFAL, Pátzcuaro, México, 1970. It was reproduced in the book *La Sociedad Democrática*, by the same author, published by UNAM in 1978, and can be downloaded from <http://www.modestoseara.com>

these internships during the year with businesses or public institutions; these, in turn, pay the students a wage and integrate them temporarily into their workforce. Generally, the students receive excellent employment terms, and they return to the university with a very different (and more realistic) idea of the professional world that they seek to join. In addition, they have seen the practical side of their majors.

The concept of *social relevance*³² has an additional false interpretation, since many reduce this concept to the university's obligation to respond to job offers. This interpretation would limit the university's role to a supplier of a workforce, insisting that the universities limit themselves to the economic realities of their own social environment. In other words (according to this short-sighted perspective), the university would renounce its true purpose, which is to be a cultural instrument of social transformation. So it is that a university, even if located in an economically or socially unfavorable environment, can and must serve as a foundation for the project of complete transformation. If it reaches the required levels of quality, the university will eventually end up constituting a pole of development. In saying this, we are not inventing anything new, nor discovering the Mediterranean or reinventing the wheel. We are only stating what has happened in many other places. The principle obstacle to economic growth

32 ANUIES, *Consolidación y Avance de la Educación Superior en México*, México: ANUIES, 2006. Concerning higher education in México, also see the brief but excellent work of Daniel Reséndiz Nuñez, *Futuros de la Educación Superior en México*, México: Siglo XXI Editores, 2000, and CENEVAL, *La educación superior en el nuevo milenio; una primera aproximación*, México: Centro Nacional para la Evaluación de la Educación Superior, 2006.

and social development is the lack of well-qualified professional leaders. When this crucial piece is in place, growth happens of its own accord. If the concept of *social relevance* were understood as the formation of ordinary employees and catering to the social environment without trying to change it, the university would become completely irrelevant.

10. The educational dimensions of the university

We have already addressed the fact that the university encompasses different functions in the fields of teaching, research, cultural sharing, and the promotion of development.

Insofar as teaching is concerned, there is a tendency to identify the university exclusively with professional training, and to forget the other possibilities open to such a powerful institution. This is understandable, given that professional training is the most important type of teaching. At any rate, the other more general objectives can be reached by different means.

In fact, those complementary educational functions aim to take full advantage of academic resources for the common good, both at the top of the educational chain through the spreading of scientific and technological advances and general cultural activities; as well as at the bottom, at the level of children's education or through ongoing education, to improve the overall cultural level of the population.

In the university system, there are clearly four groups: professors, students, administration, and support staff.

10.1 Professors

The professors are the most important,³³ not only because their quality and dedication are unquestionably the key to quality education (and therefore the key to the success or failure of the university), but also because of the longevity of their position. Generally, university professors spend the majority of their lives in their posts, gathering valuable experience about the university. The students, on the other hand, come and go; at the beginning, they are assimilating the rules and responsibilities, and toward the end of their academic careers, their focus is outside of the university. This does not take into account those fossilized or ‘career’ students. They are a plague that should be extinguished, given that they deeply disturb the operation of the university by their actions, which are driven more by personal or partisan motives than by the greater good of the university or society as a whole.

The university administration is also important, and their performance determines whether the institution runs well or badly. Management, however, tends to be transitory, and so does not have the same importance as the professors. This is all the more true if the professional, more permanent part of the administration is well organized and able to fill its role efficiently.

As far as workers are concerned, they have generally see the university as another boss from whom it is necessary to demand as much as possible, without a commitment to the educational mis-

33 For Bill Readings, this is not still the case: ‘The central figure of the university is no longer the professor who is both scholar and teacher but the provost to whom both the apparatchiks and the professors are answerable.’ Bill Readings, *The University in Ruins*, Cambridge, Massachusetts: Harvard University Press, 1996, especially p. 8.

sion of the university. This attitude is easy to understand, given that, despite the flattering statements of university administrations regarding the spirit of the university community, the truth is that there is no real contact between academic authorities and workers. The workers, consequently, don't view academic authorities as fellow workers who fulfill other functions. Rather, they see them as bosses. Nor do the workers identify the university as an instrument of liberation and popular progress. Rather, they see it as a privileged center for the wealthy. The solution to this problem is the real integration of workers into the university milieu, without confusing the distinctive role of each sphere, nor granting them power to make academic decisions that don't affect them. It is necessary to maintain a smaller range of salaries without disowning an incentive program to motivate professors to improve their credentials, and to attract and retain an efficient staff. But there should not be a wide economic or social gulf between the constituent parts of the university. A strict fulfillment of the respective obligations of all parties, mutual respect, a constant attention to the needs of workers to reach solutions, an ongoing dialogue: these are what create a true sense of community and guarantee the necessary peace for fulfilling the functions of the university.

As for professors, their recruitment, role, and advancement differ greatly from country to country. In some cases, professors are recruited by an open announcement according to need and level. A commission or designated people then analyze the responses. At other times, when the university wants the services of highly qualified people, or public figures, recruitment comes by direct invitation.

This is often motivated more by public relations than by academic reasons. These procedures are common in the Americas, especially in the United States. The advantage is flexibility and mobility within the academic milieu. The disadvantage is that this process at times devolves into the recruitment of those who lack the minimal qualifications to assume an academic post.

There are countries (Spain among them) in which university life still preserves feudal characteristics. There, the university teaching hierarchy is structured in the form of a pyramid, from the adjunct professors at the bottom to the department chairs at the apex. The path to department chair is strictly regulated by formalities and customs, and by certain norms that restrict the ascent of the most capable if they don't meet with the benign gaze of the all-powerful chairs. Each chairperson has a court, and each determines the schedule of his or her underlings, from the presentation of the doctoral thesis to the promotion to full professor or the consideration of promotion to a chair. Everything is well ordered on the local and national levels, and above all else, the will of the chair is decisive. After that, the votes from the jury must be obtained, normally on a *do ut des* basis. Thus, chairs continue to be allotted by turn, with greater consideration given to the negotiating power of the chairs than to the academic ability of the candidates. So the chairs continue positioning their pawns in the university chess match of the country.

This system has its advantages: the hierarchical structure encourages the formation of professors, who undergo the rigid discipline of the job and patient waiting in order to slowly climb the aca-

ademic ladder. The problem is that the academic level of candidates is often ignored. What is really rewarded is the apparent fidelity of the candidate to the all-powerful chair, who can at any minute change the rules of the game and alter the established hierarchy. Another rule, unwritten but scrupulously observed, is that no subordinate, regardless of his or her abilities, should cast a shadow over the chairperson. This not only hinders creativity, but also imposes a subservient mindset that remains permanently impressed on the professors. In the end, they only wish to perform in the same manner. As in everything, there are also exceptions here, small ones, but very worthy.

All things considered, I would be inclined toward an open system that allowed for the formation of professors following very different paths. The professors would enter the university on a temporary contract, a probationary period of limited duration. This period could perhaps be extended, but in short time it should be followed by a tenureship process, with all the guarantees of impartiality. This is to give the professor the necessary stability for a permanent post. However, given that we know well of the existence of academic monsters who disguise themselves well to enter the university, the possibility must remain open of removing those who obviously don't do their job. This should be done through a process that does not lend itself to frivolity or personal revenge. At the same time, we must not forget that the university has as its chief end the formation of students and high-quality research, not the granting of work-privileges to professors.

Every university must establish a program of formation for professors³⁴ in order to avoid dependence on external factors. The foundation of initial formation is the professor's entrance in postgraduate programs at the masters and, above all, doctoral level. This can be done internally with the establishment of higher studies, from which one's own professors as well as outside candidates can receive a specialized degree in preparation for teaching and research. One of the advantages of this internal system is the possibility of teaching while pursuing an advanced degree. The main disadvantage is the academic endogamy that such a system produces, given that postgraduate students can return to the same professors they had as undergraduates, often effectively repeating courses already taken. We know of extreme cases of professors who have given the same course to undergraduates and graduates. This drawback is less prevalent in very young universities in which the postgraduate professors are new to the university. Their graduate students probably had different professors for undergraduate courses.

In any case, postgraduate formation in one's own university has as its main drawback that which constitutes an advantage of leaving for other universities of one's own country or going abroad: the possibility of a change of scene for a time, and of getting fresh ideas, a new outlook on life. These experiences will later enrich one's teaching. In this era of globalization, it is well to send professors abroad for specialization as long as certain

³⁴ For some interesting reflections on the function of the professor, see Alejandro Rojo Ustaritz, 'Hacia una nueva profesionalidad docente en la UNAM', in *Educación*, number 86, July 2002, pp. 35-38.

rules are followed: the attempt to get financial support so that one's own university is not heavily burdened, strict control of the academic activities of scholarship holders, allowance of two years minimum and three maximum abroad, since the student needs two years to adapt to the country and after three may have adapted so well that he wants to stay, or the host country might steal him if his career is greatly in demand, as is the case with computer science or electronics.

It is also important to estimate the amount of economic support as exactly as possible, in order not to distort the object of the scholarship, which is to allow for full dedication to studying without economic strain. Excessive support, instead of stimulating academic excellence, leads to an extravagant lifestyle completely remote from study, as we have observed over the course of many years. An extreme case involved a student who received five scholarships: he rented a sumptuous apartment and regularly entertained intellectual leading lights from a certain European country, without any attention for the subject for which he had supposedly received his numerous scholarships. I intervened to cancel three or four of his scholarships. Years later, he cynically-- but not without humour-- reproached me for what I had done, arguing that his relationships with those figures had enriched his worldview. Certainly; but the people's resources should not be spent to finance 'intellectual' vacations.

The formation of professors does not end with the bestowal of academic degrees or the demands for quality which are established for becoming a full professor. These are not sufficient, because, in

the ever-changing world of knowledge, ongoing education is indispensable. The intelligent use of information technology can meet this need. It follows that professors need personal access to the internet. But beyond this, we should consider other methods of specialization and continuous education, offering short courses, conferences, seminars, etc., exposing professors to fresh ideas through their participation in national and international conventions and conferences. This participation in meetings outside of the university also has its negative side as potentially being a frivolous vacation, since there are professors who regard conventions as an excuse for academic tourism.

A professor's research should contribute in no small measure to the improvement of academic quality and professional development. In addition to helping professors develop professionally, such research also allows them to contribute original ideas to their field. The university profession requires a real vocation for, an integration into, and a commitment to the academic milieu. Perhaps it can be considered as a possible road to fame, but never as a road to personal fortune.

Along with this internal commitment, university professors should consider their relationship to the broader society. Thus they can prevent the ivory-tower complex, the excessive self-regard and condescension toward those outside their circle; and also the Masada Complex, the paranoid persecution mania certain people feel respect a society that does not seem, according to them, to recognize the mental excellence of the academic professionals.

In short, professors ought to be open to all currents of thought

without any dogmatism. They ought to be well informed and ready to change their position when it is reasonable to do so. Of course, they have total liberty regarding their ideological positions, whatever sort they may be. On the other hand, they must respect the stances of their students without imposing any ideological view. Their obligation is to offer their students the tools to form judgments in order that each can choose his or her own path. This is very important, because often the opposite happens. Many professors confuse their chair with the pulpit, and consider it their right-- some go so far as to think it their obligation-- to force their students to adopt their political or religious beliefs.

There is also a careful balance between specialization and generalization. Professors who disperse their energies are never going to acquire the necessary depth. But if they confine themselves to an overly narrow field, they lose a broader perspective, and in the end don't understand even what they are studying. The ideal is to limit oneself to a chosen field of specialization, but to maintain a multidisciplinary approach in order to understand the broader context.

A frequently debated issue is what we might call *professional osmosis* between the university and society. This is when professors leave the university to assume posts in public or social sectors, and when personalities from the public or private sphere enter the university. In the first case, society tries to avail itself of the university professor's theoretical knowledge; in the second, the university wants to take advantage of the experiences accumulated by someone in public administration, business, or whatever pro-

professional field. Such experiences are immensely valuable in drawing the university and society closer together. This permeability between society and the university is useful, naturally. But it also presents certain drawbacks. The departure of high-quality professors, while representing the emergence of an important leader for society, takes away from the university someone who, by definition, is a multiplier of leaders. In regard to the entrance of high-profile figures in the university, although they bring valuable personal experiences, there is also the risk of taking on those who lack the basic theories that facilitate critical thought. This experiment can (and often does) devolve into the realm of personal anecdote, valuable in itself, but insufficient. Further, public relations often drives the recruitment of such figures. In short, it is perhaps useless to argue the good and the bad of situations that have two sides, and that are in any case inevitable.

10.2 The students

As far as the students are concerned, the formation that should be their objective in the university has four chief dimensions:³⁵ academic, cultural, physical, and civic.

35 Contrary to what the students themselves think, they do not come to the university only to receive a professional formation; they come for much more: they come to be educated for life, and with that to contribute to the development of their country in all its aspects. They do not purchase that with their student registration; they have to attain it by their own work, of which the function of the university is complementary. David Riesman fears a slackening of university discipline due to mercantile considerations and the struggle to get more students. He reflects on this situation, saying that he tries to analyze 'the consequences for teaching and learning, of the likelihood, as institutions compete frantically with each other for body counts, that faculty members and administrators will hesitate to make demands on students in the form of rigorous academic requirements for fear of losing... full-time equivalent students.' David Riesman, *The Academic Enterprise in an Era of Rising Student Consumerism*, New Brunswick, N.J.; Transaction Publishers, 1998, p. XXIX.

10.2.1 Academic formation

Students attend the university primarily to pursue a series of systematic studies that render them able to fulfill their chosen professions. To that end, classes (both magisterial classes and seminars) are the foundation. But these need to be complemented by a number of activities that require adequate planning and demand certain facilities and equipment.

In many universities, the custom of the magisterial class still exists. The professors limit themselves to giving their class (or delivering their lectures), more or less well, and then they turn their attention to retire to dedicate themselves to more lucrative activities. Thus, the students are abandoned to their luck. If they understand the explanations, all is well; if not, so much the worse for them, since they have no option except to look for the information themselves and try to resolve the difficulties they encounter in their studies. If they are lucky, they can hunt down their professors before they flee class for their other engagements. This is not acceptable.

In an efficiently organized university, students ought to be able to ask their professors for the supplementary explanations that they need. Ideally, professors should be assigned the roles of advisors, to keep track of the students, so that they always have an open line of communication with the professor to whom they are assigned, so that the professor becomes their guide. Many students are leaving home for the first time and need such attention, from both an academic and personal point of view. This does not exclude their role as consultants, which entail academic support when students run into trouble with a specific subject.

This dimension of education fits with professional training, in that the university provides students with facilities and instruments that allow them to learn on their own. Libraries, now equipped with the latest media, are not as important as they once were, but they continue to be crucial. Student computer labs are indispensable for computer science education, completing homework, and accessing databases. For this reason, and until there are as many computers as students (a utopian situation for public universities in developing countries), computer labs ought to be open as much as possible, including nights and holidays. The labs and workshops of the scientific and technological majors also have to be open to the students for long hours, so that outside of guided activities, they can familiarize themselves with the relevant processes. Such facilities should not go unsupervised, however. The administration always has a responsibility to take care of the equipment and to uphold the safety of its students.

10.2.2 Cultural formation

Young people traverse a critical period of their lives when attending the university. During this time, they confirm their own personalities; for this reason it is very important to give them the necessary atmosphere in which, though they choose their own paths, they have the proper tools to make their decisions.

We disagree strongly with theories of a permissive society.³⁶ Such theories suggest that we should eliminate every cultural restraint

³⁶ William Barclay, *Ethics in a Permissive Society*, New York, NY: Harpercollins 1972; Alan Petigny, *The Permissive Society*, Cambridge and New York: Cambridge University Press, 2009.

and, while pretending to respect individual liberty (of children or young people), they are left helpless and defenseless, lacking the education that society has continued gathering through its experience over the course of history. Society has not only the right, but also the obligation to pass on those teachings and experiences that form the collection of values that define it. Those individuals who have a foundation of knowledge are better able to choose among their options. The process of decision-making, however, cannot be interfered with.

Neither is it acceptable that we allow free reign to vulgarity or negative messages, using freedom of expression as an excuse. We hold the firm conviction that no one has the right to interfere with the liberty of individuals to profess whatever type of political or religious belief, to defend scientific or pseudo-scientific theories, or to express their aesthetic values, but the use of media of mass communication cannot be unlimited, given that it interferes with the freedom of others to protect their own social atmosphere.³⁷ Against what is sometimes heard, the regulation of freedom of expression does not go against its recognition. On the contrary, no right exists without regulation. Constitutional regulations are not other than a recognition that the unlimited exercise of a right always ends up conflicting with other equally respectable rights.³⁸ What happens is that the norms cannot be imposed by an individual or small group,

37 Joseph Nye and Elaine Kamarck (editors), *Governance in a Networked World*, Hollis: Hollis Publishing, 1999.

38 Jerome A. Barron, *Freedom of the press for whom?: the right of access to mass media*, Bloomington, Indiana: Indiana University Press, 1973; Jerome A. Barron, Todd F. Simon, Herbert Terry Donald M. Gillmor *Fundamentals of Mass Communication Law*, Belmont, CA: Wadsworth, 1996.

whatever type it may be, but that they ought to reflect the collective will as expressed through established democratic institutions. In a word: the individual right to be foolish is necessary, but society also has the right to avoid the constant bombardment by negative messages that conflict with their deepest convictions.

If we seriously and carefully consider how some people use their right to freedom of speech, we will soon discover that under the surface lurk less respectable motives. The constant, horrific violence on television, for example, has the devastating effect of inuring us to the very violence that we hypocritically reject. How many young people (and older people as well) have learned to use drugs from watching movies in which their manner of use is depicted? Will someone tell us that the reinvigorated practice of depicting movie actors smoking cigarettes has nothing to do with payments from tobacco companies? And must we tolerate in the name of freedom of expression the encouragement to use a drug that, at the beginning of the century, killed some three million people per year?³⁹

The state, democratically organized, has the obligation to educate, to propagate positive values (which are established in a democratic manner), and to halt the destruction of these values by people possessing technology and wealth, but lacking ethical or cultural standards. We have witnessed on one occasion a theatrical performance, supposedly cultural, during which an individual spent an hour bellowing obscenities, clutching his genitals, and dragging himself

.....
 39 According to the World Health Organization, at present the number of casualties hangs around 4 million and if there is no change in habits, in some twenty years it could reach ten million casualties per year. This information comes from the BBC in London. See: <http://news.bbc.co.uk/2/hi/462680.stm>

across the floor while simulating a sex act. There was not even the pretext of a good performance; rather, his vulgar act only aimed at being a cheap, barroom joke. Some will say that reality can be rude and vulgar; this is true, but what if in the simple treatment of reality we put forward as contributions to art a play or movie in which individuals are depicted in natural acts, like defecation, or even better, the act of cleaning oneself from the consequences of this act? We would, strictly speaking, be respecting freedom of expression, but we would like to see the faces of the audience that, in that moment, was munching on popcorn. This is, of course, an absurd argument, but the mockery to which society is constantly subjected is also absurd. And this mockery comes at the hands of so-called artists who cover rocks with canvas or paint trees and call it art. Surely this is in the definition of a simpleton: one who confuses innovation, creativity, and experimentation—essential to art, science, and general culture—with vulgarity, bad taste, and lack of real imagination.

Frequently, one hears the affirmation that a language ought to respond to the reality of a people, which is true in principle. A language is a living thing, it is in constant flux, and it cannot be limited by the speech of stiff scholars in a chair of a language academy, but neither can we accept that they obligate us to assume as valid the expressions of those who lack a certain cultural level and arrogantly impose their own ignorance in the expression of ideas upon us. There is a very simple reason for this: language is the instrument of communication for a society, and lack of precision in communication (which gets to the roots of the language) inevitably leads to blunting the operation of society. From there comes the enormous

importance of improving the students' ability not just to express themselves, but to communicate. Needless to say that this necessity applies also in a particular way to those academic monsters who try to disguise their ignorance with confused speech. Generally, confusion of speech and confusion of ideas go together.

The university ought to respond to the need for a complementary cultural formation of the students with a series of well-programmed activities, running the entire gamut, ranging from concerts, theatre, conferences, dance, exhibits, etc., which are presented for them, to their own participation in cultural events which they themselves organize and which fill an aesthetic or cultural need. These can include university choirs, musical groups, chess tournaments, dance groups, bands, etc. These have the triple objective of entertaining, educating, and completing their cultural formation.

10.2.3 Physical Formation

The old principle *mens sana in corpore sano* ('a healthy mind in a healthy body') remains fully valid for all educational levels, including the highest. Gymnastics is an ideal activity, not only because it forms the body, but also because it shapes discipline of spirit; however, in a university setting, it is not always easy to put it into practice due to difficulties of various sorts. For that reason, one must resort to indirect methods to keep in good physical shape students (and thereby the professors as well) reluctant to participate in systematic exercise. This can be achieved with the promotion of sports, which ought to distance itself as far as possible from the illegitimate ends which very often lie behind athletic activities, be they economic

or propagandistic, of those who seek in athletic success the public recognition that they can't attain in the academic world.

The layout of the university campus contributes to good physical condition in a very important way. The campus layout strives to cancel out the harmful effects of the urban milieu, creating a healthy environment, which, by means of an organization that we might dub 'controlled traveling', imperceptibly demands a certain physical activity. This is discussed above in the section on the organization of the campus.

It is important to indicate that many options must be offered to university students and staff within the means which the universities provide, since both the calling and the physical possibilities differ from case to case.

10.2.4 Civic Formation

As important as forming cultured, healthy and quality professionals can be these are not the only objectives of a public university. It must also form citizens conscious of the obligations they owe to society, because it is the people who pay for their studies.

Social service is not enough to pay this debt. Rather, the student must absorb the idea that he must exercise a leadership role to transform society and work for economic and social development. There is no question here of imposing any political ideology, but of creating in him a permanent social conscience.

One succeeds by constantly insisting on the virtues of social solidarity, personal honesty, a work ethic and a sense of discipline, as well as respect for the laws. To that end, it is important to make

them conscious of their own history and of the place they ought to occupy in the world in the accelerated process of integration.

Civic formation needs to include a good knowledge of the fundamental parts of the constitution, of the rights that citizens hold and their corresponding obligations. It is important to remember the dates and figures that made national history and that of other countries in order to arrive at a critical knowledge that can give us the necessary tools to analyze as objectively as possible the national and international reality. This should be done in such a way that avoids the inferiority complex of those who only hear a one-sided discourse and are left defenseless when they are exposed to other judgments. This situation is more common than we would like to admit, and it happens when a person falls into bell tower patriotism, a base chauvinism that does not resist the exposure to foreign points of view. For this reason, it is necessary to teach the virtues and vices of both one's own and other cultures, to recognize that there is no perfect people, but that each people has its own strengths and weaknesses, and that one must assume, with pride, although critically, one's own history. It is also necessary to underline that in a world with an ever-increasing process of globalization, isolation is impossible, and we must be conscious that universal cultural values belong to all peoples, because all peoples have contributed in one way or another to their formation.

Through the different media utilized for programs of cultural sharing, the university will have to contribute to that formation of citizens, both inside and outside of the university, always respecting the distinction between civic formation and partisan activism, in

which the university must remain neutral, with absolute respect for individual preferences, both of the members of the university community and of the social environment.

The orientation is also important in questions like the prevention of drug use, of alcohol, and of tobacco, or the necessary precautions in possible sexual activity to avoid sexually transmitted diseases and 'embarrassing' situations, in which they may find themselves tempted to escape by means of abortion, with the enormous physical and emotional dangers that accompany it.

11. Research

There are many ways of integrating research into the university environment. The worst is segregation, which separates research and teaching into strict compartments without mutual communication. This is not the same as saying that it is not possible to develop research outside of teaching, but in that case its place will not be in the university, rather outside of it. One of the justifications for the development of research activities in the university is precisely to combine education and research so that both activities can mutually benefit.

Research keeps the knowledge of the professors alive through the requirements of the research itself that oblige the professors to be constantly updating their knowledge and that lead them to discover new focuses in their field of study.

Reciprocally, university teaching is very motivating because of the relationship with the students who plant in the professors doubts and questions and that push them to do innovative analysis, differ-

ent from those that are done when the research is limited to a strict scientific project.

On the other hand, pure research (if such a thing exists) does not easily find funding in the private sector and in regards to the public sector, there are not enough institutions that are preferred or are exclusively in charge of research to respond to the dynamic of modern times. In this way, universities are a very useful way to complement their work.

Here it is necessary to say that neither is it good to leave research only in the hands of universities. There are many reasons, but it would be enough to remember that social conflictivity, sometimes reflected in the university environment, can signify a serious step back for research projects, being stopped or even destroyed by some university movement of the type that every once in a while occurs, especially in countries where political struggle meets fertile ground among some students and professors.

Globalization submerges societies into a merciless competition, in which the advantage is on the side of economic efficiency and as it is not possible to look for escape in isolation, the only alternative that remains is to maximize its own competitiveness. In order to obtain it, it is indispensable to promote innovation through scientific and technological development in which universities have the principal role. In effect, in addition to being a fundamental part of the universities dedicated to research, the university is the only place where future researchers are formed. The departments of postgraduate education have that central objective and they carry it out more or less in a satisfactory way; but one relatively important part of those

who begin postgraduate studies does not have any intention to keep doing research, rather the only thing that they desire is to acquire the right to add academic achievement to their resume in order to increase their value in the job market.

This situation is a unique matter that we could call “the academic virus” of the masters degrees (that name “masters”, seems more elegant to some), which has become with praiseworthy exceptions a blatant business among the shameless: from the universities, they do a good business given that they charge a lot and offer them in a great number, and above all, to the “students” that are not interested in the quality of the knowledge received rather in the additional line on their resume, to the businesses that allow themselves to be dazzled or look the other way because it is more elegant to have a professional with postgraduate studies among their personnel.

Quality teaching essentially rests with a professor exclusively dedicated to academic works, but it is conceivable that in the case of professionals not being full time they may contribute to teaching the experience of daily practice of their profession; in law, in medicine or in business administration, just to give an example. However, in research it is difficult to imagine someone that does serious research working only in a sporadic manner; it would not be possible to maintain the concentration that this kind of job requires.

A different question is how to organize research in the university. Of course, the principle of academic freedom is complemented by the principle of freedom of research which really means that it is not possible to prohibit an academic to carry out research in the

field or on the themes that they desire; however, that is not incompatible with the planning of research on the part of universities in order to accomplish the desired strategic objectives. In the university environment there is no absence of frivolousness of certain researchers that take on a theme indefinitely without in reality doing any research or even worse to direct themselves to the study of questions that have no real importance in the environment in which they are developed. This would not be very serious, were it not for the fact that in this way all efforts and economic means are directed towards trivial ends.

Though it is not easy, it is indispensable to try to make compatible the freedom of research with social needs in order to give relevance to the academic work and to not fall into pointless arguments.

The ideal way to integrate research into the university system would be to group all of the professors in institutes or centers by interests with certain interdisciplinarity, so as to respond to the professors' own intellectual interests and to contribute knowledge to projects of general interest.

University research should be centered around each universities' disciplines. It would not be rational to try to contain distinct fields, because of not having the appropriate academic personnel it would be necessary to hire researchers dedicated exclusively to the purpose of research and the required space and equipment.

However, there are things that a university should do, though they are not directly related to the teaching field. The university, above all if it is the only one in a given geographic area, should take on the function of being a depository of general culture val-

ues. This would make necessary a certain type of research to assure the culture roots of the community, and also to act as an instrument of diffusion of the cultural values in the whole society and not just in the university environment, a function that will be fulfilled through cultural diffusion as we will later explain. Through it, in order to respond to general social interests and not just to the professional formation, universities should go beyond their own campuses in certain cases in order to deal with cultural themes like history and the arts of the community in the case of universities oriented towards science and technology or the study of natural resources in the case of universities oriented to social sciences and humanities.

Outside of this, it would not be logical, for economic reasons already mentioned, that universities extend their research work beyond the disciplines that have been chosen for teaching. Those that still think that the universality of teaching and research are the essential characteristic of the university should pay a bit more attention to the realities of the world in which we live in and realize that it is physically impossible to trying to take on all fields. Only institutions of enormous proportions, many of which possess a historical charge that they cannot abandon and resulted from a progressive accumulation of duties, can be permitted the luxury of seeking a (relative) universality of knowledge. This is okay and it would be a serious mistake to try to dismantle them but it would also be a grave error to try to emulate them with over ambitious megaprojects or to permit the growth of institutions beyond certain limits.

12. Cultural Diffusion

Among the functions of the university are cultural diffusion and outreach, that comprise a full range of possibilities and are oriented to the university community as well as the general public.

The level of action also is very diverse, but we could summarize it into two fundamental things: the presentation of cultural products of high quality and the creation of activities that respond to the initiatives and interests of the students, very often with essentially recreational ends.

I have already made reference to certain activities of the cultural type that the public university should undertake in order to strengthen the feeling of identity with the people located in its area of influence.

This work of cultural diffusion and outreach could be carried out on campus with activities primarily directed at the university community but also by opening up to the whole society allowing free entrance to their own local university premises or taking the cultural acts outside the university campus.

The range of possibilities is ample and depends also on the size of the university and consequently on its natural area of influence. It is not the same in the case of a very large university that exercises its influence directly or indirectly through the whole country as it is in the case of small university with a state, regional or local character. However, in all cases, the university should try to become the culture soul of the social environment in which it exercises influence in two senses: collecting and maintaining the historical traditions and values of the community, updating said values, acting as

a channel of positive values that come from outside or promoting creativity and the formation of new cultural products.

As said before, cultural diffusion has many different dimensions according to the dimension of the university itself. In some cases it seems natural to own a large printing house for publication of all types of printed and electronic matter, and also to have diverse types of libraries, radio and television broadcasting stations, symphonic orchestras and multiple auditoriums, to have different kinds of national and international meetings, lectures, concerts, art expositions, etc. In other cases, when the resources are fewer, many of these activities are not possible; however, there are others that can be fundamental like the establishment of bookstores in relatively small communities. It turns out to be paradoxical that the need to promote reading is always spoken of but the problem of putting books within reach of the inhabitants of these communities is never resolved.⁴⁰

Equally, there is a field of action that is found in the space, difficult to define, between teaching, cultural diffusion and the promotion of development that is training. Outside of the ordinary time class schedule and even during the weekends, it is necessary to take advantage of the installed capacity, of the buildings and equipment just like with the academic personnel, to organize training courses for kids,⁴¹ for artisans, public officers, professionals or for teachers from lower levels and for businessmen.

.....
40 As we will explain, the System of State Universities of Oaxaca has twelve bookstores distributed throughout the state of Oaxaca.

41 Since its inception, all the universities of SUNEIO offer computer courses for kids in isolated communities. They are offered for every group of 20 to 25 kids for two or three hours, every Saturday, for four weeks.

In whatever university, big or small, it is possible to organize choirs that reinforce the feeling of belonging to the institution, as well as orchestras, different kind of musical, theater or dance groups and chess teams, without excluding other culture and recreational activities, among which sports should also be included. As far as possible, all of these activities should be initiated by students, given the necessary support by authorities, such as professors of music, dance or physical education and creating the physical spaces necessary for such activities. This with the aim of promoting the initiative and sense of organization of the students.

Cultural diffusion is sometimes difficult to distinguish from continuous education and knowledge updating. Today, the electronic media opens enormous possibilities for the universities to elevate the cultural and professional level of the general population and in cultural diffusion the university has a very important instrument for the transformation of society.

13. The Promotion of Development

I define the university not just as a simple institution of teaching, research or cultural diffusion, but also as something much more ample: a cultural instrument to transform society. For this, the promotion of development should be one of its functions that can be exercised in many ways, for example, by means of the systematic study and inventory of resources, in its realm of competence, territorial or academic field.

An important part of this function is also the training of different sectors of the population: functionaries, artisans, professors

of the higher and lower levels, field workers, fishermen, businessmen, etc.

The very conception of the university is to try to become a motor to generate an area of development, with the possibilities created by the university, as soon as it reaches the necessary levels of quality. The university has to act as an accelerator of this development; in the first place with the formation of professionals of the highest quality that make it attractive for business owners or the State to start businesses in the fields of specialty of the same universities. But, also because the university can offer training for workers of lower professional levels. Equally, it should offer assistance, with the support of its professors, laboratories, and workshops of its research facilities for the development of new products or the solution of production problems.

Whenever convenient, it is possible to form brigades to promote development that are on a permanent base and professional level, dedicated to giving technical assistance to communities to solve everyday problems of an urgent nature such as the combat of plagues, soil conservation, reforestation, care of domestic animals, and the introduction of new crops, among others. These teams are not conceived in order to produce a structural change, but they can be vital to ensure the survival of very marginal communities.⁴²

.....
42 In the Universidad Tecnológica de la Mixteca, one has been in operation since 1993, which travels in a truck with a team of three agronomic engineers, two veterinarians, and a technician. They leave early in the morning and travel around the various villages of the Mixtec región. They sometimes spend the night and in some cases take advantage of their stay to show documentaries of a cultural or educational nature.

14. Continuous Education and Professional Updating

These two activities go beyond cultural diffusion and although it is not debatable whether universities can or should carry them out, it is necessary to reject the idea that they are functions exclusive to the university. With the spread of mass media, especially the electronic media, enormous possibilities have opened up so that other institutions or businesses can perform said functions. In reality this is already happening, although with less frequency than desired, primarily through television programs. Now, the Internet can become and in reality is already becoming the primary medium through which to offer continuing education not only to professionals that want to update their skills but also to the general population which desires to raise the cultural level in order to stay on par with the advancement of knowledge. The flexibility of the Internet, with respect to time and content, permits a free use of time and a varied offering of contents, from the printed word to audio and even audiovisual based media.

Virtual libraries that are constantly growing in number and in educational resources are a formidable instrument that should be used plentifully. Now, from wherever, however remote, it is possible to have access to library sources and to images that just a little while ago were out of the reach to those that did not live in large cities. However, the large number of virtual libraries as well as their dispersal, does not favor enquiry and it would be desirable and we are sure that this will happen soon, the creation of some type of search engine that will simplify the search for material, of a type with the name of the book, author, or title of

audiovisual materials and the language which it is desired, and the places it can be found will be automatically shown. The new browsers and search engines are already helping, but there is still room for improvement.

It is possible to argue that the universities would be the most qualified to offer courses for updating skills, because they seem to be the continuation of the professional formation received in the university. To that end they should be given with a more formal focus than that required in continuing education.

In any case, among the trivialization of the means of mass communication, the functions of continuous education and updating should be part of government programs, from the educational and cultural sectors, in order to be integrated in some kind of planning that organizes and promotes the cultural offering. Otherwise, the sporadic and badly articulated way of the cultural programs does not permit that general objectives be followed in a way to elevate the cultural level of the people or to increase the competitive capacity of the professional sector.

15. The University and Mass Media

The enormous expansion of mass media communications in the last decades, especially with the introduction and development of information technology, has opened up to universities the possibility to have an influence over society that in the past was limited to internal cultural acts and printed material through the university presses or in a collaboration of university with editorial houses or electronic media such as radio or television. But with them there

were always and there still is the problem of the different modalities of public or private censure typical of those media. Today, information technology has created a great vehicle through which to spread ideas to a global level, above all through the Internet and the possibility of producing electronic books and audiovisual materials at relatively low costs without business or bureaucratic interference. The new information technology opens to the university and all the people in general, the possibility of spreading their ideas, establishing and maintaining personal communication with the rest of the world or gaining access to global markets, as a client or provider, at very low costs.

These are activities that the university should promote, but cannot and should not control, unless they try to involve it in illegal or immoral positions.

These new possibilities that offer technological development are starting to be explored and exploited by universities, but they are still very far from receiving the attention they deserve. For example, in the matters of cultural diffusion, outreach and continuing education or in the offering of degrees by means of the virtual universities⁴³ and also the creation of materials to be distributed through CDs or DVDs or the formation of virtual libraries with free access that place all books within reach that do not create copyright problems. In the near future a large database should be planned with general indexes that allow the interconnection to the world level and

43 The NovaUniversitas in Oaxaca is a university that follows a model that we will explain further on, and that is in the process of expansion after several years of preparation.

that could be made into a formidable instrument for research and for simple information for the populations of the world.

A warning, however, in respect to the utilization for universities of these methods of communication is that much care should be taken that they do not fall into irresponsible hands that might use them improperly such as for social agitation efforts⁴⁴ or personal ends in order to gain individual power which would go against freedom of expression. For example if somebody who in charge of any media let the quality of the programming deteriorate, it would be appropriate to warn him or if necessary to fire him. However, chances are that he would respond accusing the university authorities of trying to impose a censure on him. This is a very real possibility, given the fact that the electronic media absorbs an enorm quantity of information which is difficult to keep with, and those in charge of the programming may run out of ideas.

16. University Administration

University administration constitutes a typical example of the force of Parkinson's Law, with bureaucrats that do not cease to reproduce themselves. Of course, the run amok administration is not

44 By social agitation I mean the promotion of social disturbances, not positive and well meditated proposals to change society, the latter being one of the aims of the university. But one thing is to propose new models of society and quite another to try to impose it; that is a kind of action that falls in the realm of politics. Only in this perspective would I accept the proposal put forward by Albion W. Small: "I would have American scholars, specially in the social sciences, declare their independence of do-nothing tradition. I would have them repeal the law of custom that bars the marriage of thought with action". See. Albion W. Small, "Scholarship and Social Agitation", in *The American Journal of Sociology*, Vol. 1, No. 5 (Mar., 1896), pp. 564-582.

exclusive to universities, but in them, especially in public institutions, it is very evident. The reasons may be of a different type, from giving employment to friends or to friends of friends to the need to cover certain functions that are not resolved with a search for a higher productivity on the part of the existing workers or a reorganization of the administration in order to redistribute duties, rather than by means of creating new administrative bodies.

The result is an inflated bureaucracy that absorbs growing parts of the budget and takes economic resources away from the academic areas.

It is curious to observe the regularity with which the visits from commissions, committees and other academic groups sent in order to analyze the functioning of the universities and recommend improvements, usually end up recommending the creation of new administrative bodies even when their first observations were in praise of the efficiency in the management of resources and the efficacy of the academic organization.

The university administration should be small and efficient. With the means that technology offers today, it is possible to automate certain functions that in the past required the creation of many administrative bodies. Not so long ago, the administrative process for the graduation exams acquired outrageous dimensions and many universities asked that students present information that was in the university itself. For example, to prove that they didn't owe books to the university's libraries, that the necessary academic credits were covered or that the required social service had been completed, when the logical thing was to have the infor-

mation automatically collected through a simple program used as a database for the university.

There are public universities in which the administrative costs are 60% or even up to 80% of the budget, which is absolutely ridiculous.

In relation to the administration and the budget of the universities, as much with public as private, it is worth it to refer back to calculating the cost for the student, that is frequently used to measure the profitability of a university. The method that is generally followed is to divide the entire budget by the number of students with which it is believed that the problem of cost per student is solved. It is not so simple.

The first operation to do is to distinguish the running costs from investment costs that in new universities can be proportionally very high and should include investment in infrastructure and equipment. Also, when talking about large and long established universities, the investment costs represent a much smaller part of the total budget.

After all it is necessary to remember that a university is not a simple school, even though many higher learning schools are called universities. A true university incorporates other functions, such as research, cultural diffusion and the promotion of development. The necessary expense for the accomplishment of these functions cannot build up against the expense of teaching. For universities that do not do research or cultural diffusion the impact of the cost of teaching is higher than for those where these activities are carried out and where they absorb an important part of the budget.

Another important thing to point out is that universities that have integrated high schools, count these students as university students, in spite of the fact that their cost is much lower than that of true university students, particularly the salary of the professors as much as the equipment and the necessary materials for teaching, such as the instruments and consumer goods for laboratories and workshops.

Also, it should be taken into account when establishing the criteria of evaluation of the cost per student the quality of the level of teaching. In effect, the cost could seem very low in monetary terms but could end up being very high if the quality of teaching is low. For example, the quality of the professors will be considered in reference to the time that they dedicate to the university and to improve their own academic level. The universities that are essentially based on professors that work by the hour or part time can substantially lower the costs but also deteriorate the quality of the teaching.

Additionally, there is another very important consideration in calculating the cost per student and this is the type of teaching that is being given. The universities oriented essentially towards social sciences and humanities, whose base are professors and libraries, are not the same as those that are oriented towards science and technology which in addition to professors and libraries, also require labs and workshops that have to be updated continuously and require expensive materials.

Once the cost per student in the university has been taken into account with the above, the quality of the product should also be considered. That is to say the students and if the level that they

leave with is very low, the universities come out being expensive no matter how much is spent per student.

17. How to measure the quality of universities?

With the necessity of having universities of high quality, it has been suggested as much from the interior of universities as if from outside them, in the medium of the public administration and of the businesses, the theme of the measuring of the quality of universities. Closely linked to that question is that of their ranking.

Around this question all of an industry has developed in which the simulation is mixed with corruption and confusion. The universities are sold as products of consumption, based on large investments, that in some cases promote the business-university- in order to go after more “clients”, students or monetary support, be it by private donations from people or institutions or by means of government support. In other cases, the public operation serves only the interests of person in charge of the institution and in this way promotes his personal career in order to go to another job in the government or the private sector. In both cases, the results that are presented as real are false and the supposed universities of excellence, lack quality.⁴⁵

Many never had it; others live in past glory. There is no lack of imagination in the simulation and in this way there are universities that present as professors just guests lectures and some maintain in their payroll personalities of the national or international life that

.....
⁴⁵ Karin Fisher, 'Running for a different kind of office. Politicians find new homes leading colleges, but does fundraising savvy equal success?' in Lobbying & Higher Education, May 13, 2005. <http://www.uff-fsu.org/art/polpres.pdf>.

in the best case scenario offer just a lecture every year. In any case, nobody cares about that because they only intend to prove, the right or the wrong way, for marketing purposes, that they have high quality professors.

The most unfortunate of the situations is when certain universities hire out of office politicians to supposedly offer their experiences to students; a lie that fools no one, the real ends of these situations are very transparent: to utilize political relationships or one's name in the media; this is a common enough practice in the United States. It could be asked what were the academic merits of General Dwight D. Eisenhower, despite of all the other merits that he undoubtedly had, to be elected president of Columbia University, where he only stayed six months, from December 1948 to July 1949. The list of politicians without academic backgrounds that have taken up refuge in the university is very long: it would include from Vice President Al Gore, who gave lectures at Columbia University, to the former Secretary of Health and Human Services, Donna E. Shalala and the former senator of Nebraska, John Kerry, who served time as presidents of the University of Miami and the New School University of New York, respectively.

It is not to say that the presence of non academics in the university is suitable and is even indispensable. It is, if it is reduced to temporary participation in which they can share with the university students their experiences, be it in the field of politics or business or whatever type of professional activity. It is to say that it is appropriate to bring to the university distinguished members of society that have important experience to share, but it is not acceptable

to install strange bodies into the academic medium only for aforementioned reasons. Neither is the temptation to award doctorates *honoris causa* indiscriminately, which very often is a way to pay services rendered or promises that have nothing to do with academics. In this way, the reason for the honorary doctorates has become more frequently simply a means of payment,⁴⁶ even though they are periodically awarded to people with sufficient merit, but this could be a formula to legitimize the indiscriminate handing of honorary doctorates, in order to continue to inspire some respect. Also, university authorities use it as a means of personal promotion, because when they award them to high profile people, they receive media attention and establish a contact with the people in question.

17.1 Certification and Accreditation

University education is an activity of national interest for all countries, in that much more is in play than just the quality of instruction, which of course should not remain outside of control, as if it were a simple economic activity (though important as it may be). It is a function that goes beyond simply teaching, to the conservation and development of cultural values, in addition to the formation of those who are going to carry out a professional activity through which they are going to obtain an income and that should be carried out with a minimum of quality.

The control of the academic quality is carried out through various methods. In some case it is the State that takes on this function,

⁴⁶ Michael Heffernan and Heike Jöns, 'Degrees of Influence: the politics of honorary degrees in the Universities of Oxford and Cambridge, 1900-2000,' in *Journal Minerva*, Vol. 45, Num. 4, December 4, 2007, Springer, Holanda.

the authority of the careers that are offered should be extended, to the validation of the studies and in general the constant supervision of academic activities. In other cases, this job is assumed by private institutions, which may be university consortiums or civil associations created to this effect. There are places, like Mexico, in which the control of academic quality is performed to a great extent by the State, reserving the name of the certification for the direct action of the State (Department of Public Education) and the accreditation when it is through civil associations created to that end or through professional associations that decide to exercise this function as a way to get additional income.

The experience in the functioning of these systems causes us to defend the necessity of the State assuming the monopoly of this essential regulatory function: not only to watch and guarantee university quality but also to authorize or not the creation of universities and to order their closure if they do not meet minimum requirements. Evidently it is possible to argue that should this power remain exclusively in the hands of the government, there would be the possibility of serious interference with an activity that represents an important guarantee of liberty; but also it is certain that leaving without strict regulations the creation and functioning of universities opens the door to the proliferation of businesses that take university instruction as a simple economic operation, without appropriate infrastructure or equipment and with improvised academic personnel. This is a mockery of students and society in general. It should remain clear that the existence of private universities is not in play; that they should represent, and in fact do represent, an important role

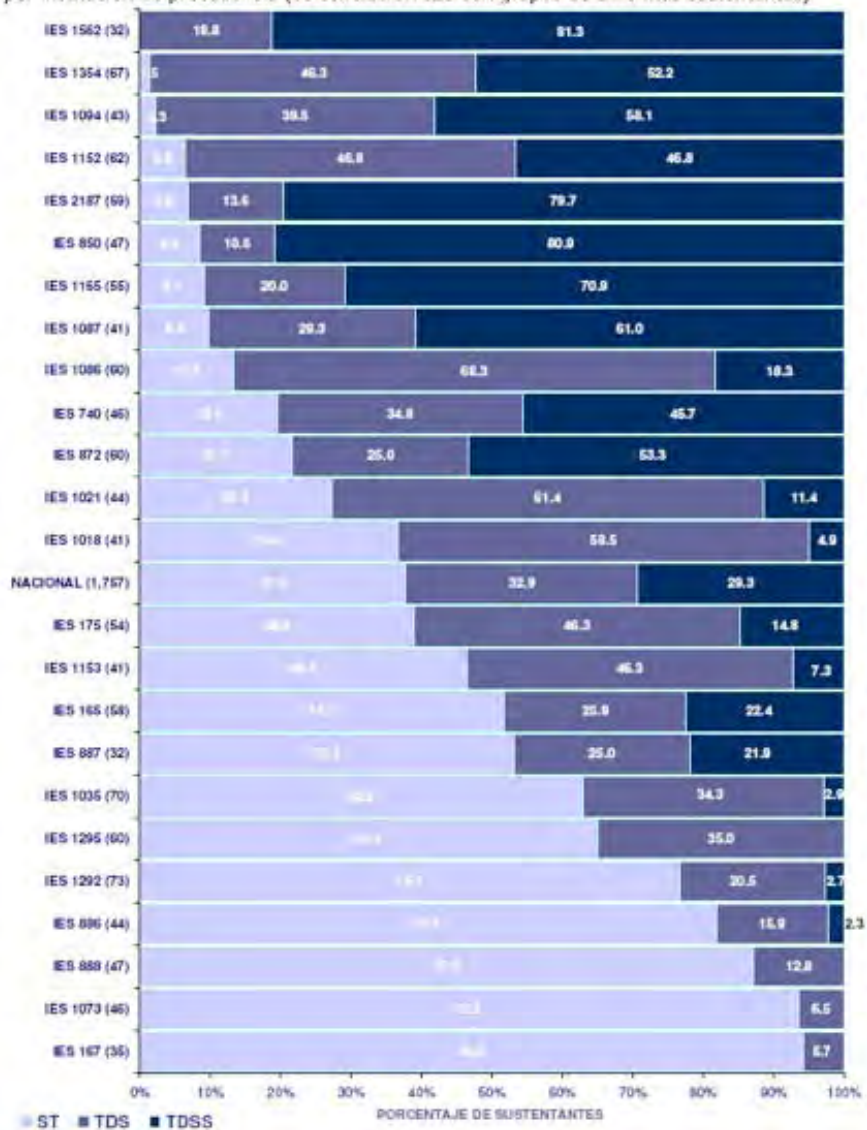
in education and also in research and the diffusion of culture, even though in these last two points the level and quality of participation is of a very different value according to which country. University education should not be reduced to a simple economic activity, which anyone may offer in the name of freedom of enterprise or profession. If the State is democratically organized we need not worry about any undue interference by the Government, because there should be the necessary political and legal instruments to prevent such interference, and if the State is not democratic it would be useless to discuss about the freedom at the University, because it would be inconceivable that in a dictatorship there is such liberty.

In Mexico, there are two systems of academic quality control, that are not really parallel, rather successive: certification, carried out by the Interinstitutional Committee for the Evaluation of Higher Education (CIEES) that performs a diagnostic and makes recommendations, and from this comes accreditation, through an accrediting organization that belongs to the Counsel for Accreditation of Higher Education (COPAES).

This process is redundant, seeing that both functions could be carried out by CIEES,⁴⁷ which would eliminate what has become a private business that puts a burdensome load on the universities, since accreditation, which is of a temporary character, has to be revalidated periodically.

47 CIEES has also been criticized, even if it is in agriculture, but our experience has been positive except in a single case. Hugo Aboites, *El lado oscuro de los CIEES: Una crítica a los Comités Interinstitucionales para la Evaluación de la Educación Superior*, Universidad Autónoma Metropolitana, Unidad Xochimilco, México, <http://cenedic.ucol.mx/ccmc-construccion/recursos/3294.pdf>

Distribución en los diferentes niveles de desempeño del examen de cada grupo de egresados por institución de procedencia (se consideran IES con grupos de 30 o más sustentantes)



ST=Sin testimonio TDS=Desempeño Satisfactorio TDSS=Desempeño Sobresaliente
 CENEVAL: Informe Institucional 2007. Ingeniería en Computación

The principal criticism against the systems of evaluation and accreditation (Mexico in particular) would be that in the best of cases it is oriented towards the procedures and the results are forgotten. In effect, the quality controls are relevant if they manage to get good results and if this doesn't happen it serves for nothing. It is of little importance to have many academic bodies, many professors of the PROMEP profile and other requirements, if at the end the students that leave are not of a high quality. What we want to signal with this is that the measurement of the quality of the universities should be based on the quality of the alumni, in respect to teaching, and published works and registered patents in the case of research. In order to measure the relative quality of the teaching there is a system already established that compares the quality of the students and this indicator should be the basic indicator to judge university quality. This procedure is from General Knowledge Exams (EGEL or Examen General de Conocimientos) from the National Center of Evaluation for Higher Education (CENEVAL, or Centro Nacional de Evaluación para la Educación Superior) that students from many different universities take at the same time with the same questions. At the end of the year and the various exams done that are carried out all over the country, the CENEVAL makes the rankings of the universities in a way that corresponds precisely to students' results in the general knowledge exams, as they can be checked in the graphics that are offered. Universities do not appear with their names rather with an identification number that is only given to them,⁴⁸ which

.....
48 Thus in the facing graphic CENEVAL offers its institutional classification for the year 2007 for the bachelor's degree in computer science. The results were submitted in August, 2008, and as can be observed, the top-ranked university in Mexico is the one with the code 1562, which belongs to the Universidad Tecnológica de la Mixteca.

impedes the public from knowing their positions. It is a shame, because the other way would neutralize somewhat false rankings that some media make.

Focusing on the supposed quality of the procedures has a serious consequence, because it leads to the uniformization (as against diversification) of the university system, imposing an artificial process of convergence of the university models and impeding experimentation with new models that could have (or already offer) better results.

Going back to what was stated above, there has to be strict control over the awarding of permission to open a university (public or private) that lets the State control the infrastructure, equipment, academic and administrative personnel as well as the academic model, that responds to the required standards of quality in the era in which we live and this vigilance has to continue later. That need not and should not mean any kind of interference with the ideological orientation of the university. Also, the quality of the functioning of a university should come from the results more than any other thing.

17.2 The ranking of universities

In the struggle for the market, represented essentially by students or by donations by foundations, university administrators worry over the rankings that are published annually placing them in order based on quality that corresponds to the criteria of the classifying organizations, be it a periodical or an institution of whatever type, including the universities themselves.⁴⁹

⁴⁹ In 1994, the Wall Street Journal reported on universities that brazenly manipulated information to obtain a better ranking. See Colin Diver, 'Is There Life After Rankings?' in *The Atlantic Monthly*, November, 2005.

The problem is that the criteria of quality are not clarified and even less are they adequately justified when they are mentioned.

In the United States, ranking universities has already become a tradition, mainly with the *US News & World Report*. Also the annual classification that Shanghai Jiao Tong University offers has acquired great importance. Other classifications that have a great impact at the world level are offered by *The Financial Times*, *The Times Higher Education Supplement* of London and *The Economist*.⁵⁰ From 2008, the University of Leiden (Center for Science and Technology Studies) created its own system of classification based on his own indicators.⁵¹

The classifications have been subject to hard criticism⁵² from many quarters, for the used criteria not being clear nor indisput-

50 The Times Higher Education QS Quacquarelli Symonds. Created in 1990 in the United Kingdom, it now has offices in London, Beijing, Paris, Singapore, Sidney, Tokyo, and Washington, D.C. <http://www.qsnetwork.com/> Other classifiers: US News & World Report March 18, 2008, only for the universities of the United States; Shanghai Jiao Tong University; Webometrics Cybermetrics Lab (CSIC); Readers Digest; Reforma; Professional Ranking of World Universities Ecole nationale supérieure des Mines de Paris; Performance Ranking of Scientific Papers for World Universities' is a system of ordering, based on bibliometrics, produced by the Higher Education Evaluation and Accreditation Council of Taiwan, <http://www.heeact.edu.tw/ranking/index.htm>; Newsweek, Top 100 Global Universities; Global university ranking by Wuhan University <http://rccse.whu.edu.cn/college/sjdxkyjzl.htm>

51 <http://www.cwts.nl/ranking/LeidenRankingWebSite.html>

52 See *Criticizing the classification of the Financial Times*, Andrew Howald, was saying that 'research and teaching—the main functions of a university—are in combination given only about 25% of the weight in the normal league table. At best, this is strange. At worst it is absurd,' in his article, 'An Economist's view of University League Tables,' May 2001, <http://www2.warwick.ac.uk/fac/soc/economics/staff/faculty/oswald/leaguetablespmm.pdf>. Also, Martin Enserink, 'Who Ranks the University Rankers?' in *Science*, Vol. 317, 2007, p. 1026. For Kevin Carey, 'The Times Higher, meanwhile, seems to have adopted somewhat of a 'rank first, ask questions later' approach, revising its methods on the fly,' see 'Rankings go Global,' in *Inside Higher Ed*, May 6, 2008, <http://www.insidehighered.com/views/2008/05/06/carey>.

able. Besides the fact that the practices of some universities have been exposed because they manipulate data in order to improve their position in these lists of supposed excellence. The magazine “The Economist” wondered⁵³ a few a years back who was to evaluate the evaluators, that have erected themselves as judges of university quality.

Lately a new criterion has appeared in order to classify universities, and it refers to the visibility of their web pages which supposedly does not have the intention of establishing a ranking but can be very useful for this purpose. Cantinflas would feel proud of this phrase.⁵⁴

In Mexico a list is made every year by the daily *Reforma*, and the *Selections of Reader’s Digest* are also released. In none of these two cases are the criteria clarified and it is enough a cursory look at the list to appreciate the lack of seriousness of the ranking, that includes gives ranking to institutions that shouldn’t even be on the list, while arbitrarily ignoring or silencing others that should deserve more respect.

The criteria that Reform uses I am not familiar with, but in the case of the selections of Reader’s Digest, I believe that it may be of interest to remember that a few years ago they asked me as one of 10 academics to be invited to express their opinion about the best

.....
53 ‘The World’s top universities,’ The Economist, September 2, 2004

54 In its own words: ‘The original aim of the Ranking was to promote Web publication, not to Rank institutions. Supporting Open Access initiatives, electronic access to scientific publications and to other academic material are our primary targets. However web indicators are very useful for ranking purposes too as they are not based on number of visits or page design, but global performance and visibility of the universities.’ http://www.webometrics.info/about_rank.html.

universities of the country. Because of my quality as a Rector , it seemed to me somewhat unethical to do it and I suggested some names of academics from outside of our system that seemed serious to me. However, some time later they insisted on my opinion and I continued to refuse, even though I sent them a list of criteria that I believed they could use to measure the quality of a university. I don't think that they even consider using it. I offer them in appendix III.

Also and to start with, there is confusion in the election of the elements in the judgment of quality, that is based essentially on the quality of professors: how many Nobel Prizes are member of their faculty and how many Field Prizes in the case of mathematics. It is evident that the quality of education, at the higher level or not, is in a large part based on the quality of the professorship, but not necessarily, in that there are professors that close themselves up in an ivory tower and their academic quality does not produce the expected results in relation to students, while some universities that lack these aforementioned grand figures, but promote the constant collaboration among professors and students get more important fruits. It must not be forgotten that one of the essential objectives of the university is to give students a formation of quality. To evaluate the quality of research the criteria of the professors (awards, publications, etc.) are indeed valid, but for a judgment over the university in its entirety, the quality of alumni is essential. An example of this is the Universidad Tecnológica de la Mixteca, which the pundits of the rankings do not take into account, but whose alumni, systematically figure into the top nation-

al and international places in various fields of knowledge, such as Business sciences and Information technology. They win positions in national and international competitions in which a comparison of student quality is produced that really counts, And that, like it or not by those who make the classifications, is the best indicator of academic quality. Here is the paradox, that the best students are not a result of the presence of renowned professors⁵⁵ but from professors that carry out intense work with students, work that ends up giving the results we have mentioned.

Finally, it is also necessary to reflect about the fact that one thing is the academic quality of the students and another is the success that said students have in their life, that can be dependent on various factors, such as family relationships that take juniors to relevant positions in the businesses or in political life and relegate those from more

55 One cannot always agree with The Economist's positions, but there is not doubt that they almost always know what they are saying. The following paragraphs, taken from one of their articles, is worth reading: '...the Organization for Economic Cooperation and Development (OECD), a Paris based think-tank for rich countries, is planning to make the task a bit easier by producing the first international comparison of how successfully universities teach.... At the moment, just two institutions make annual attempts to compare universities round the world. Shanghai's Jiao Tong University has been doing it since 2003, and the Times Higher Education Supplement, a British weekly, started a similar exercise in 2004. But both these indices, which are closely watched by participants in a fickle and fast expanding global education market ..., reflects 'inputs' such as the number and quality of staff, as well as how many prizes they win and how many articles they publish. The new idea is to look at the end result- how much knowledge is really being imparted.... (OECD) will sample university students to see what they have learned. Once enough universities are taking part, it may publish league tables showing where each country stands, just as it does now for compulsory education. That may produce a fairer assessment than the two established rankings.... Of course a Nobel laureate's view on where to study may be worth hearing, but dons may be so busy writing and researching that they spend little or no time teaching- a big weakness at America's famous universities.' See, 'Measuring mortarboards. A new sort of higher education guide for very discerning customers,' in The Economist, November 15, 2007.

humble upbringings that have to struggle hard in order to carve out a position. Also it is a fact that there are brilliant and intelligent students in academic matters that later cannot adapt to general society.

On the other hand, it is worth remembering that the quality is not permanent and can go up and down periodically, depending on the variable quality of the academic personnel, and also in the bigger picture, on the political and social circumstances inside as well as outside the university, that can seriously affect the academic work.

18. Universities Throughout History

18.1 The University as a Historical Concept

In a totally euro-centric point of view, common in many focuses of the social reality, until recently it was taken as a given that the university was an essentially european institution, that it was born from the evolution of other, more basic, institutions such as *studia generalia*⁵⁶. Places where, among other things, students studied the liberal arts including the famous *trivium* and *quadrivium*, sets of three or four subjects where those liberal arts were classified in the medieval times:

The *trivium* which included grammar, rhetoric and dialectic or logic, and the *quadrivium*, with arithmetic, geometry, music, and

⁵⁶ In the particular case of Spain, a multitude of *studia generalia* were established: Palencia, 1208; Salamanca, about 1218; Valladolid, between 1252 and 1284; Sevilla, 1254; Lérida, 1300; Lisboa-Coimbra, 1290-1308; Huesca, 1354; Gerona, 1446; Barcelona, 1450; Zaragoza, 1474; Mallorca, 1486; Valencia 1499, etc. See, James Bowen, *History of Western Education: The Ancient World- Orient and Mediterranean*, Vol. , Oxford y Nueva York: Routledge, 1972; Capitán Díaz, Alfonso. *Historia de la educación en España*, Madrid: Dykinson, 1991 (Volum I), 1994 (Volumen II); Ma. Cristina Gállego Rubio, "La Biblioteca de la Universidad Complutense de Madrid en la prensa escrita", en *Documentos de trabajo de la Biblioteca de la Universidad Complutense*, 98/3.III (1998) p.119. También, Buenaventura Delgado Criollo (coordinador) : *Historia de la Educación*, en *España y América*, Morata: Fundación Santa María, 1994

astronomy. Later on some other subjects were added, like theology, law and medicine.

Ultimately, the decision about the beginning of the universities depends upon the definition of what a university is or should be⁵⁷.

A large and open definition of the university would lead us back into the ancient times, while a more restricted definition incorporating many of the prerequisites we now identify with the university would prevent us from considering universities many learning institutions of the past. This problem is not unique for the definition of the university, because all social institutions, being as they are historical products, experiment continuous mutations, throughout history. Because of that we are inclined to accept the larger definition which defines as a university any institution established with the aim of promoting higher learning⁵⁸ and creating communities of teachers and students, or *universitas magistrorum et scholarium*. Otherwise we would be unable to keep considering universities the current ones, when in the course of their natural and unavoidable evolution they were through substantial changes. That may happen with the introduction of new teaching technologies which will probably modify the current professor student relationship.

For us, independent of what name they might have gone by at the time, all the institutions that were formed in the past for the purpose of

57 A particular point of view, in Bahram Bekhradnia, Implications of the Government's proposals for university title: or What is a University?. A Report HEPI (Higher Education Policy Institute), of November 2, 2003. See, <http://www.hepi.ac.uk/pubdetail.asp?ID=126&DOC=1>.

58 We would probably had to exclude the so called estamental education, which had very narrow aims: the education of priests, monks, gentlemen, etc. But we should include as valid (though not totally typical) precursors, teaching institutions like monastic, parochial and cathedral schools, as well as university colleges.

transmitting and creating knowledge at a higher level, should be considered as universities if they are or were somewhat formal. Therefore, we cannot consider institutions to be universities for the simple transmission of knowledge, without some sort of system, control over attendances, mechanisms for grading, etc. Such is the case with the Université Populaire de Caen, started by the French Philosopher Michel Onfray⁵⁹.

18.2 Ancient Universities

The term ancient universities is used to designate universities from before the middle ages⁶⁰. As we explain in the footnote, in England, Scotland and Ireland they have a different idea that cannot be taken seriously at the world level: for them “ancient universities” are some (seven) medieval and renaissance universities, from the XII to the XVI Centuries.

18.2.1. China

Given the historical studies of ancient China, many of which are a matter of discussion, it’s considered that with the definition of university we are working with, we find the first example of higher education in the year 2257 B.C. It’s name is Shang Hsiang (or Shang Xiang). Established during the You You period by the emperor Shun, who reigned from 2257 to 2208 A.C. It started out as an institution supporting the elderly, and later changed into an institution to

59 See, Brad Spurgeon, “A French university cultivates learning for learning’s sake” in International Herald Tribune, Oct. 15, 2007

60 The term Ancient Universities, in English is used to refer to universities created before the 19th century, but only in the British Isles (Oxford, 1249; Cambridge, 1284; St. Andrews, 1411; Glasgow, 1451; Aberdeen, 1494; Edinburgh, 1583; Dublin, 1592; and others now extinct). These should be classified as medieval universities, if we correctly apply the historical terms.

transmit knowledge to the youth of the nobility. Another institution from the same period is the Hsia Hsiang (Xia Xiang) supposedly of a lower level⁶¹. During the era (in the Zhou dynasty from 1122 to 265 A.C.) there were four other educational institutions in addition to the Shang Xiang: Pi Yong, Dong Hsu, Gu Zong y Cheng Jun⁶². These schools were for the ruling class and they taught subjects that “are adequate” or rules of conduct (Li), music (Yue), archery (She), cart driving (Yu), literature (Shu), and mathematics (Shu)

We should also mention the Guo Xue institute, which filled the roll of Imperial School (the highest level) and presumably had its name changed in subsequent eras to Taixue⁶³ and Guozijian.⁶⁴

18.2.2. Greece

Education in Ancient Greece offered certain classicist characteristics: for the children and youth of the lower classes, the available courses of study were reduced to what in modern terms we would call arts and crafts. In other words, they could learn to do what their parents did, while the upper classes received education geared to preparing them to lead a comfortable life and conserve the standing of their class.

In regards to higher education, the classical example is the Academy of Plato, so called because it was erected in a place in

61 Li, Jun. Chinese civilization in the making, 1766-221 B.C.. Basingstoke: Macmillan, 1996.

62 See <http://www-chaos.umd.edu/history/ancient1.html#zhou>.

63 In the Han dynasty.

64 From the Sui dynasty to the Qing dynasty.

the northeast of Athens that was dedicated to the hero Academos. This land was acquired around the year 385 or 387 B.C. and the Academy was in function according to some sources until 529 A.D., when it was closed by Justin I because he considered it to go against religious teachings. But information about the Academy is confusing and contradictory. Cicero sites it's conception before Plato and nor is it probable that it was in function between 85 A.D. and the II Century A.D.. The basis of its teaching was philosophy in the Platonic concept and it tried to prepare the youth for roles in government.

Another institution worth mentioning in Classic Greece was the Epicurean school, about which there is also contradictory and fragmented information. Around the years 310 and 311 A.D. Epicurus taught in Mytilene and Lampsacos and also in Athens. He founded the Garden, so called because it was established in his garden. The laying out of the scientific method is attributed to Epicurus and his school,⁶⁵ which tries to prove the affirmations about the sciences, with a base in observation and logical reasoning. Of a very informal nature, the schools in this model managed to survive for about 600 years, and were finally closed when they came to be considered contradictory to the principles of the Christian ethic.

18.2.3. Egypt

.....
65 Others attribute it to the Alexandria Museion. See William I.B. Beveridge, *The Art of Scientific Investigation*, Vintage/Alfred A. Knopf, 1957; Brauch A Brody and Nicholas Capaldi, *Science: Men, Methods, Goals. A Reader: Methods of Physical Science*, W.A. Benjamin, New York, 1986; Henry H. Bauer, *Scientific Literacy and the Myth of the Scientific Method*, University of Illinois Press, Champaign, IL 1992.

An extraordinary institution of higher learning, that could very well be classified as a University was the famous Alexandria Museion⁶⁶, it was founded around the year 290 A.D. by Ptolemy I or II, and had a dormitory, study rooms, a dinning room, a great meeting room, and a magnificent library whose volumes (in papyrus and parchment) were calculated to be between 300,000 and 700,000⁶⁷. That was a meeting point for thinkers, philosophers, mathematicians There the great thinkers met: Demetris of Faleron, Eratostenes, Euclid, Arquimedes, Aristarchus of Samotracia, Hipparchus, Calimarcus, Herofilo, Senodoto, the great mathematician Hipatia (also a philosopher and astronomer), etc.

The Library was the meeting center for humanists and philosophers while those who studied Anatomy, Astronomy, Mathematics, etc. met at the Museion.

.....
 66 P.M. Fraser, *Ptolemaic Alexandria* (1972: vol. I:213-19 etc), and Mostafa el-Addabi, *The Life and Fate of the Ancient Library of Alexandria* (Paris 1990:84-90). Canfora Luciano, *The Vanished Library: A Wonder of the Ancient World*, University of California Press, Berkeley, 1990. Young Lee, Paula, "The Musaeum of Alexandria and the formation of the 'Museum' in eighteenth-century France," in *The Art Bulletin*, September 1997; Lionel Casson, *Libraries in the Anciente World*, Yale University Press, New Haven, CT, 2002. Also, <http://www.dailywriting.net/Mouseion.htm>

67 There was also another great library, the one in Pergamon, built around the year 170 B.C. In the region of Mysia (today Turkey), south of the Marmara Sea and which came to have about 200,000 volumes, all of which had been donated by Mark Anthony to Cleopatra, as a wedding gift and incorporated into the Alexandria Library. Part of the collection of the Alexandria Library was nearby at Sarapeo. But the Alexandria and Pergamon collections were not the only ones in existence and ended up being partially or totally destroyed. The list could include: Ugarit, Syria c. 1200 B.C.; The library of the Forum in Rome, among which the library of Porticus Octavius and the Ulpiana library and the Villa of Papiro in Herculean; a Christian library in Cesare Maritima in the third century D.C. And the ancient universities in India such as Takshasila, Nalanda, Vikramshila and Kamchipuram; in which was located the Academy of Gandishapur, found during the Sassanid Empire in the third century A.D.; the so-called Celso Library in the city of Efeso, etc.

It was all destroyed and practically lost to posterity⁶⁸, although a part of the knowledge developed there was able to make it to our times.

18.2.4. Constantinople

The university of Constantinople was founded in 425 by Theodosius II, but it would be in 848 or 849 when it was recognized as a university. Among the studies that were realized there, were arithmetic, astronomy, law, philosophy, geometry, medicine, music, rhetoric, Greek and Latin. But the teaching was primarily centered on philosophy, rhetoric and law, and was orientated toward preparing students for careers in bureaucracy of the state or the church.

It is also know as the University of Magnaura, for the palace in which it was located.

The barbarian conquest of Constantinople by the savage soldiers of the Fourth Crusade⁶⁹ in 1204, left its mark on the destiny of the university, which barely survived as a semi-religious institution until the fall of Constantinople at the hands of the Ottomans in 1453.

68 Diana Delia, *Alexandria Citizenship During the Roman Principality*, Atlanta, Georgia: Scholars Press, 1991, J. -Y. Empereur, *Alexandria: Jewel of Egypt*, New York: Powell Books, 2002; Manfred Clauss, *Alexandria: Schicksale einer antiken Weltstadt*, Stuttgart: Klett-Cotta, 2003; W. M. Harris, and G. Ruffini (eds.), *Ancient Alexandria between Egypt and Greece*, Leiden and Boston: Brill, 2004; Niall Finneran, *Alexandria: A City and Myth*, Stroud: Tempus Pub Ltd. 2005; <http://www.journalofromanarch.com/samples/Haselberger.pdf>

69 Donald E. Quellar, *The Fourth Crusade: the conquest of Constantinople*, 1201-1204, Philadelphia: University of Pennsylvania Press, 1977; John Godfrey, *1204 The unholy Crusade*. Oxford and New York: Oxford University Press, 1980.



Mosque and University of Al-Karouin, in Fez, founded in 859



Al Azha (Cairo), Mosque (1975) and University. The madrassa was founded in 988



University of Bologna (1088)



University of Paris, La Sorbonne (ca. 1150)

18.3 Medieval Universities⁷⁰

18.3.1 India

The first that we are going to mention is the one at Nalanda, in India⁷¹ and we should appreciate that its origin should probably be listed in the Ancient Era, given that it is mentioned as a possible date of founding between 273 D.C. and 232 D.C. and that the Mauryan emperor, Ashoka the Great started its construction. However, its true development was produced between 472 and 1197 A.D. when it became an important cultural center that attracted students from a large part of the south and southeast Asia, including China and Greece, and at one time reached the number of more than ten thousand students.

It had a very important library, which according to some calculations, which are difficult to prove, had as many as nine million volumes.

The students studied subjects such as Buddhism, Literary Composition, Grammar, Logic, Analysis of the Vedas, Medicine, Metaphysics, Rhetoric, etc. As with anything, we should not forget that in this case, as with many others, the subjects studied can not easily be separated from religion.

Nalanda was localized in the Indian state of Bihar, to the south-east of Patna and its size can be estimated by ruins that cover a space of about 14 hectares.

.....
 70 Obviously we will only mention the most relevant ones, as there have been many institutions which claim a very ancient origin, which is not always legitimate. For example, without pronouncing them to be on or the other, we have to analyze the validity of the claim of the University of Industry Ngyungwan; which has as antecedent, the University of Gukjagam, founded in 992, whose name was changed in 1298 to Seonggyungam, which was in turn changed in 1308 to Seonggyungwan.

71 Anant Sadashiv Altekar, *Education in Ancient India*, Varansi: Nand Kishore, 1965; Ram Nath Sharma y Rajendra Kumar Sharma, *History of Education in India*, New Delhi: Atlantic Publishers and Distributors, 2004.

In spite of its relative importance, the University of Nalanda was not the only one, nor the first of the universities in ancient India. Others, worth mentioning were: a. Takshasila (o Taxila), around the fifth century B.C., in which among the subjects of study were law, medicine, and martial arts; b. Vikramshila Mahavihara, a monastery with an important educational dimension, which came to have about a hundred teachers and a thousand students; c. Kanchipuram, founded at the end of the eighth century or the beginning of the ninth century A.D. which continued in function until the beginning of the thirteenth century and whose classes were held in Tamil as well as Sanskrit.

18.3.2. Morocco

In the Muslim world two types of institutions of higher education were developed: the madrasas (or madrassas) and the jami'ahs. The first started off as centers of religious education, even though later they were able to give degrees, while the jami'ahs are the equivalent of universities in the sense that in addition to being larger institutions, they also offer a wide range of careers. One of these jami'ahs was founded in Fez (Morocco) in the year 859, by Fatima al-Fihri⁷², with the name of University Al-Karauin or Al-Qarawiyyin, together with a mosque, both of which are still functioning. Some consider this as the first university able to give

.....
72 Fatima, together with her sister Mariam had immigrated to Morocco from Karauin (Tunez) and the two decided to invest the fortune that their father Mohammad had left them in works of a general interest. Fatima choose to construct a mosque and the University of Karauin, while Mariam decided to contribute to the construction of the mosque of Al-Andalus (Cordoba, Andalusia, which was begun in 785 or 786 by Califa Abderraman or Adb-al-Rahman.



University of Salamanca



Universidad Complutense (1293, Studium Generale: 1499, Universitas Complutensis; 1836, transferred to Madrid as Universidad Literaria; 1851, re-named Universidad Central; since 1970, again called Universidad Complutense)



University of Santiago de Compostela (1495)



Royal and Pontifical University of Mexico (1551)

academic degrees, a feat which is claimed by other institutions as well.

It is worth remembering that Cordova, as the capital of Omeya Caliphate, with a population that was between half a million and a million inhabitants between 929 and 1031 was the cultural capital of Europe⁷³, sharing a position of leadership of world culture with Constantinople and Baghdad. It was estimated that there were about 70 libraries and one of them, the one of al-Hakam II had about 500,000 volumes. It is also attributed to Abderraman III (912-961) the foundation of the School of Medicine. All the fields of knowledge, were developed in Cordoba in that time and some great thinkers flourished there, such as Averroes, Ibn Tufail, Abu al-Qasim al-Zahrawi, Maimonides⁷⁴, Judah Halevi, etc.

18.3.3. Egypt

Another of the first great universities of the Muslim world in the Middle Ages was that of Al-Azhar, founded in the year 975 in Cairo. It developed from a mosque with the same name even though it was given the character of Jami'ah and not of madrassa. Its teachings were strongly impregnated with a religious flavor: such as Islamic astronomy, Arabic grammar, Islamic law, logic in Islamic philosophy, Islamic medicine, etc. There studied such important people as Maimonides and Abd-el-latif.

.....
73 See Julio Valdeon Baruque, *Abderraman III y el Califato de Cordoba*, Madrid: Editorial Debate, 2001.

74 Moses ben Maimon, born in Cordova, had to flee the country with his family and later lived in Egypt.

Another university that claims the double title of oldest and biggest in the medieval world, is Al-Nizamiyya, founded in 1091 in Baghdad. Also in Baghdad, in 1233 the Islamic university, Mustasiriya was founded in the model of the madrassas and it is not related to the current Al-Mustansiriya University. The ancient Mustansiriya did not limit itself to religious courses, but also offered studies in mathematics, natural sciences and philosophy.

18.4. Europe: from the middle ages to our times

Although we have already mentioned the previous existence of universities in Constantinople and Cordova, from a western perspective the first university in Europa is considered to be the University of Bologna which was founded in 1088 and was followed by a series of others until the end of the fifteenth century, when our references to medieval European universities⁷⁵ end.

As we have already said, the medieval European universities appear as an evolution of studies realized at middle levels and were

75 The main list is the following: Bologna est. 1088; Paris, est. 1150; Oxford, est. 1167; Cambridge, est. 1209; Valence, est. 1212; Salamander Montpelier, 1220; Padua, 1222; Naples Federico II, 1224; Tolosa 1229; Siena 1240; (Alcala of Henares) 1293; Lleida, 1300; The Sapienza of Rome, 1303; Pisa 1334; Valladolid, 1346; Prague, 1348; Pavia, 1361; Jagiellonia of Cracovia, 1364; Viena, 1365; Pecs, 1367; Ruprecht Karles in Heidelberg, 1386; Ferrara, 1391; Erfurt, 1392; Wurzburg, 1402; Leipzig, 1409; St Andrews, 1412; Rostock, 1491; Lovaina, 1425; Poitiers, 1431; Barcelona, 1450; Glasgow, 1451; Istanbul, 1453; Ernst Moritz Arndt, of Greifswald, 1456; Freiburg, 1457; Basilea, 1460; Munich, 1472; Mainz, 1477; Tubinga, 1477; Upsala, 1477; Everhard Karls, in Tubinga, 1477; Copenhagen, 1470; Aberdeen, 1494; Santiago de Compostela, 1495; Valencia, 1499; Among the firsts we can include the university of Salerno, even though as such university its date of creation is 1968, but it evolved from the College of Medicine that was functioning since the Greek and Roman eras and evolved through time until the University of Education "Giovanni Cuomo" was established in 1944, which is the real immediate predecessor of the University of Palermo. This is not an unprecedented situation; many universities present themselves as the heir of ancient institutions, something that is very often difficult to prove..

frequently related to religious institutions. Little by little they were configured as *universitas magistrorum et scholarium*, communities of students and teachers that were more or less organized and more or less formally recognized by the civil and religious authorities. With the passing of time, the importance of their role in society drew the attention of the state, which became interested in them and gave them legal backing both on the part of the monarchs as well as the Holy See before they decided to follow a lay path.

The universities of medieval Europe, as with in almost all the areas of the world at that time, were socially elitist in character and only those whose economic situation allowed for luxury were able to attend university in their country or abroad.

The transition from medieval universities to those of the modern era⁷⁶, happened without great qualitative changes. Perhaps the growth they experienced and the network that was formed in relationships with other countries by students and teachers who traveled beyond the borders of their countries, increased their importance and level of influence over society. There was also a certain convergence in the model for their academic and administrative organization⁷⁷, with a few differences depending on if they were public or private and if they were religious or not.

.....
 76 With the passing of the years, the numbers of universities grew in all of Europe: Granada, 1526; Marburgo, 1527; Saragossa, 1542; Seville, 1551; Iena, 1558; Oviedo, 1574; Leiden, 1575; Utrecht, 1636; The State University of Moscow Lomonosov, 1755; La Laguna (Tenerife), 1792; London, 1836.

77 With Rectors, vice rectors, presidents, vice presidents, chancellors or vice chancellors, university councils, academic councils, institutes, departments, or faculties etc.

18.5. The founding of universities in the Americas

There are three universities that claim the honor of being the first university in the Americas. The decision of which one holds this place depends on the interpretation of the facts related to each:

a. The Autonomous University of Santo Domingo, began its labors in 1518 as a seminary of the Dominican Order and was reorganized as a university by a Papal Bull (*Apostolatus culmine*) from Pope Paul III, on the 28 October of 1538, and received the name University of St. Tomas of Aquino with the official recognition of the Royal Decree in 1538.

b. The National University of St. Marcos, which was created by the Dominicans on May 12, 1551, and began classes on January 2, 1553. It was ratified by a Royal Decree from Carlos I of Spain and the Papal Bull from Pius V in 1571.

c. The National Autonomous University of Mexico, solemnly inaugurated on the 22 of September of 1910 having as a great inspiration Justo Sierra. It has the Royal and Pontificate University of Mexico⁷⁸ as an antecedent, founded by a Royal Decree on the 21 of September of 1551, which after independence changed it's name to the University of Mexico, which after various suspensions (1833, 1857, 1861, and 1865) was closed for good in 1871.

In the area of what is now the United States, the first university was Harvard, in 1636, later followed by a series of educational institutions of a diverse nature, some with the name university⁷⁹ and

78 Fry Alonso de la Vera Cruz was the first professor of the university. See John F. Blethen, "The Educational Activities of Fray Alonso de la Vera Cruz in Sixteenth Century Mexico," *The Americas*, Vol. 5, No. 1 (Jul., 1948), pp. 31-47

79 Some of the most representative: Harvard, 1636; Yale, 1701; Pennsylvania 1740; Princeton, 1746; Columbia, 1754; Brown, 1764; Rutgers, 1766; Dartmouth College, 1769; Pittsburgh, 1787; Georgetown, 1789; University of Michigan,

others with other names which in some cases served as the base for new universities.

18.6. Types of Universities

Still today there are a wide variety of names that show certain differences in the origin and organization of these institutions of higher learning, but they are rarely of use to underline the fundamental differences and even through there are those who take on the job of defining and classifying them, the truth is confusion reigns in this area among countries and even within some countries, making an tempt to do so a waste of time. However, without dwelling to long on this point, we will address a few of these names, especially those used in the United States⁸⁰: university, college or university college, community college, land-grant university⁸¹, collegiate university, research university, virtual university, distance university, open university, technological university, polytechnic university, and institute of technology.

1817; George Washington, 1821; City University of New York, 1847; Utah, 1850; University of Florida, 1853; Massachusetts Institute of Technology, 1861; Washington, 1861; University of California, 1867; Purdue, 1869; Ohio State, 1870; Texas, 1876; University of Southern California, 1880; Arizona, 1885; Arizona State, 1885; Stanford, 1885.

80 The Carnegie Foundation, first established in 1970 a classification, which was later modified and further developed. In 2009, the classification in place was the following: Colleges which give associates degrees, universities which give doctorates, universities and colleges which give Master's degrees, colleges which give classes mainly at the Bachelor's level, specialized institutions, and tribal colleges. Each category with a series of subcategories. Alexander C. McCormick and Chun-Mei Zhao, Rethinking and Reframing the Carnegie Classification, in http://www.carnegiefoundation.org/dynamic/publications/elibrary_pdf_634.pdf

81 This is a type of university, while the following denominations refer to university programs: sea-grant college, space-grant college, urban-grant university, and sun grant college.

In Germany⁸², there are three classes of institutions of higher education: a. Universität, b. Fachhochschule, c. Kunsthochschule, Kunstakademie, Musikhschule, Theaterhochschule, and Filmhschule.

In Japan, there are three categories: a. National Universities, from the federal government; b. Public Universities from the Prefecture or City governments; c. Private Universities.

And finally in the United States, in the state of California, the educational strategy for public higher education, is focus in three directions: a. the University of California (UC)⁸³ system, of a high quality and very selective, and with the highest cost⁸⁴, it is very focused on research and the development of postgraduate programs. b. The system of State Universities (CS)⁸⁵, which are more focused on undergraduate education, less selective and less expensive, to give more opportunities to those with less resources. And c. The lowest level is occupied by the Community Colleges, with two year degrees; it is a wide system with 72 districts and 110 colleges⁸⁶, in which two million six hundred thousand students study.

.....
82 It is interesting to compare the French and German systems, before the Bologna processes assimilates them; that is if that happens. See Erhard Friedber, and Christine Musselin, *En quête d'universités: étude comparée des universités en France et en RFA*, Paris: L'Harmattan, 2000.

83 With ten campuses: Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, Santa Cruz.

84 An inconvenience partly solved by a high number of scholarships.

85 The twenty-three campuses are: Bakersfield, Chanel Islands, Chico, Dominguez Hills, East Bay, Fresno, Fullerton, Humboldt State University, Long Beach, Los Angeles, California Maritime Academy, Monterey Bay, Northridge, California State Polytechnic University, Pomona, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, California Polytechnic State University San Luis Obispo, San Marcos, Sonoma, Stanislaus.

86 The list of campuses can be consulted on the internet at: <http://www.cccco.edu/CommunityColleges/CommunityCollegeListings/CollegeListingsAlphabetical/tabid/643/Default.aspx>

In the United Kingdom there is or has been a curious chronological classification: The Ancient Universities, that were founded up until the end of the sixteenth century; the so-called (originally in a derogatory way) red brick⁸⁷, for the material they were built with and were founded around the end of the nineteenth and beginning of the twentieth centuries; and the plate glass⁸⁸, created between 1945 and 1970.

18.7 The Humboldt Model

Without a doubt, the university model that had the largest influence in the organization of universities in the nineteenth and twentieth centuries was developed by Wilhelm von Humboldt⁸⁹, founder of the University of Berlin. This model is characterized by the importance placed on research, where a substantial part of the academic activities are centered, at the expense of teaching and other university functions, in the opinion of some.

Also important were his contributions to the principles that are today considered basic for a university, such as academic freedom (*lernfreiheit*) and secularism against the pressures from all types of churches.

The innovations of the Humboldt model bring many to remember the (false) dilemma of a university for the elite or for the masses, a contradiction, which in our opinion, cannot exist given that university education should lead precisely to the formation of the aca-

87 Birmingham, 1900; Liverpool, 1903; Leeds, 1904; Sheffield, 1905; Bristol, 1909

88 Sussex, 1961; East Anglia, 1963; York, 1963; Essex, 1964; Lancaster, 1964; Kent, 1965; Warwick, 1965.

89 His complete name was a little longer: Friedrich Wilhelm Christian Karl Ferdinand von Humboldt, with the treatment of de Freiherr before the von. To see more about his life, Paul Robison Sweet, *Wilhelm von Humboldt: a Biography*, Columbus: Ohio State University Press, 1978-c1980.

democratic elite⁹⁰. A drop in quality, to facilitate the reception of degrees for youth is a farce, because what is necessary is to give those of the lower classes a higher level of education, not only for them to climb up the social scale, but also to be able to become effective leaders to raise the cultural and economic level of the entire population.

In the English speaking world, the model of research universities, is the one that closely follows the model designed by Wilhelm Humboldt, even though it is not always expressly recognized.

The same University of Berlin, has, since its foundation in 1810, gone through a series of changes, following the political fortune of Germany: in 1928 its name was changed to *Friedrich-Wilhelms Universität*; under the national-socialism of Hitler it suffered persecution and the traditional burning of the books (some 20,000 volumes) led by such “illustrious” personalities as Goebbels and company; for a time it was known as *Unter den Linden Universität*; and from 1949 it was changed to *Humboldt Universität* in the period of the DDR (Deutsche Demokratische Republik), when a rival university sprung up on the west side of the Berlin wall, the *Freie Universität*. They try to restore its old splendor with its current name of *Humboldt Universität zu Berlin*

19. The Bologna Process: A European debate with serious consequences

19.1. The Origin and the Evolution of the Process

With the Bologna Process a program for the reorganization of the European universities was designed, with the purpose of improving

.....
90 Frank P Albritton Jr., “Humboldt’s Unity of Research and Teaching: Influence on the Philosophy and Development of U.S. Higher Education”, in *New World Encyclopedia*, October 2006.

quality and to guarantee the competitiveness against other regions of the world. The name was taken from the Bologna Declaration, but in reality, it includes a whole series of acts before and after this declaration.⁹¹

The fundamental milestones of the process are recorded in the following documents before and after Bologna.

- a. Magna Carta Universitatum, adopted in Bologna in September, 1988
- b. The Sorbonne Declaration of May, 1998
- c. The Bologna Declaration of June, 1999
- d. The Prague Communiqué of May, 2001
- e. The Berlin Communiqué of September, 2003
- f. The Bergen Communiqué of May, 2005
- g. The London Communiqué of May, 2007
- h. the Lovaina Communiqué of April, 2009

It's important to analyze its meaning because its impact is not only already felt in Europe where it provoked a strong academic and political controversy, which have lead to street demonstrations in many cities, but it may spread out to other parts outside of Europe that feel tempted to follow similar paths.

19.2. The goals of the Process

In the declaration of Bologna the first measures to be carried out were spelled out and although they define all the process they have to be complemented by the decisions adopted after the declaration.

⁹¹ For more information about the Bologna Process see <<http://www.ond.vlaanderen.be/hogeronderwijs/bologna>>

In short they intend to create a European Higher Education Area (EHEA), which at the beginning of 2010 already had 46 members.

In such a complicated and ambitious project it is expected that there would be positive aspects as well as questionable ones. Some of the proposed goals have undeniable logic, such as;

A better compatibility of credits through the ECTS (European Credit Transfer and Accumulation System).

Increased mobility of professors and students among European universities which recognize credits and degrees obtained.

A control over academic quality to assure homogeneity of the academic levels.

19.3. The Convergence of Systems

The achievement of homogeneity of levels of study is important, because it facilitates the necessary movement of professors and students and creates the possibility of better quality of university education through quality control which is easier to judge if the systems in question are similar. Furthermore, it also aids in the co-validation of studies because if there is not an affinity among study plans it is difficult to validate equivalences.

Of course, there cannot be a total homogenization because it's convenient to maintain a margin of discretion for the universities to take into account local interests. The process tries to make it clear that it's not seeking homogenization, but that's just rhetoric because it's evident (and logical) that it is looking for homogenization even with the limits spelled out above.

19.4. *The Formula 3+2+3*

Other measure that has sparked off a debate that goes well beyond the European borders, is the substitution of the five-year Bachelor's (Licentiate) degree for a new system, according to the 3 + 2 formula. That is, the first cycle (in which a short cycle can be incorporated) is essentially 3 years, more or less the equivalent to the Bachelor's Degree in the United States and Britain, and a second cycle to complete in 2 years a Master's Degree⁹².

Later in the Berlin Communiqué of 2003 it was decided to add to these two cycles a third, the doctoral studies in three years. In the Bergen Communiqué of May 2005, the knowledge requirements previously adopted in Lisbon in 2004 were assumed, just as they were defined in the so-called Dublin Descriptors (March 23, 2004) whose main lines are hereby explained⁹³:

- *Have demonstrated a systematic understanding of a field of study and mastery of research associated with that field.*
- *Have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity.*
- *Have made a contribution through original research that extends the frontier of knowledge by developing a substantial*

.....
⁹² We cannot avoid the impression that the Bologna Process focuses on the ease of obtaining a degree and not enough attention is given to the issues of quality and the reduction of quality that will come about due to the reduction of studies by one year. Reducing the first cycle to 3 years will mean students who stop studying after receiving this first degree, will face enormous competition generated by countries that place the focus on quality in education.

⁹³ See, Shared Dublin descriptors for Bachelor's, Master's, and Doctoral Awards. A report from a Joint Quality Initiative informal group (contributors to the document are provided in the Annex), 23 March 2004. <http://74.125.95.132/search?q=cache:FEN6TUWLBc4J:www.vitae.ac.uk/cms/files/Dublin-descriptors-for-doctorate-Mar-2004.pdf>.

body of work, some of which merits national or international refereed publication.

- *Are capable of critical analysis, evaluation and synthesis of new and complex ideas.*
- *Can communicate with their peers, the larger scholarly community, and with society in general about their areas of expertise.*
- *Can be expected to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.*

Basically it tries to bring closer, in a process of convergence, the university systems of the European countries, as it is explained, to adopt a system of degrees “easily comparable and understood” in such a way as to guarantee mobility of professors and students and one which recognizes their studies, independently of the country in which they were completed, permitting not only validation of said studies but also the accumulation of the credits obtained.

19.5. The Credit System

For this a credit system is established⁹⁴ called the European Credit Transfer and Accumulation System or (ECTS).⁹⁵ Through

94 The ECTS credit system was introduced in 1989, as part of the Erasmus (1099-1995) program, now incorporated into the Socrates program, and initially was used to transfer credits, to allow for the mobility of students. ETCS User’s Guide. European Credit Transfer and Accumulations System and the Diploma Supplement, Directorate General for Education and Culture, Brussels, August 2004. (http://ec.europa.eu/education/programmes/socrates/ects/doc/guide_en.pdf)

95 [Http://74.125.95.132/search?q=cache:FEN6TUWlBc4J:www.vitae.ac.uk/cms/files/Dublin-descriptors-for-doctorate-Mar-2004.pdf](http://74.125.95.132/search?q=cache:FEN6TUWlBc4J:www.vitae.ac.uk/cms/files/Dublin-descriptors-for-doctorate-Mar-2004.pdf)
Also www.jointquality.nl/contnt/Spanish%20Descriptors_de_Dublin/Spanish_Descriptores_de_Dublin.doc

which a numeric value between 1 and 60 is assigned to the work which a student has done towards a degree. There is a series of requirements: besides the teaching hours, all kind of works a student must do in the subject, library hours, labs, tutorials, internships, fieldwork, etc. The sixty credits⁹⁶ correspond to the normal academic year's work⁹⁷. The normal amount of work for 1 year's study is between 1,500 and 1,800 hours.

It is not clear for us what are the reasons to evaluate with credit this additional work which has always been supposed and is included in the requirements without having been quantified. Exams, work for class, and participation in class continue to be the most exact methods for measurement of knowledge, given that the other criteria for grading are more subjective than the above mentioned.

19.6. The Control over Academic Quality in European Universities

Another question is that related to the control of Academic Quality for which methods for certification and accreditation both public and private in character have proliferated around the world. In many countries there are organizations which are networks of groups dedicated to the certification and accreditation such as NQANH⁹⁸, the Council for Higher Education Accreditation in the United States⁹⁹ the National Agency for Quality Evaluation and

96 One credit is equivalent to between 25 and 30 hours of work.

97 An explanation of the relativity of credits ECTS can be found at <http://www.ulpgc.es/index.php?pagina=ECTS&ver=loscredits>.

98 Sweden, Norway, Denmark, Finland and Iceland.

99 Where they are very worried about what is perceived as a drop in academic quality at the university level, which together with multiple restrictions that have been established for the entry of foreign students, has greatly weakened the academic level, especially in postgraduate studies. See the projections of the *Draft Report of*

Accreditation (ANECA) in Spain, and the Council for Accreditation of Higher Education (COPAES) in Mexico, and the European Association (originally named European Network, which was created in 2000.)

In Europe in the framework of the Bologna Process at various times and levels a policy of control over university quality has been defined either by promoting cooperation among countries and organizations already in existence or by the promotion of criteria for quality.

Finally, in May of 2007, in a meeting of Ministers of Education held in London, it was decided to create the European Quality Assurance Register (EQAR)¹⁰⁰, recognizing the project developed by the so-called group of four by the European Association for Quality Assurance in Higher Education (ENQA), The European Student Union (ESU) and the European University Association (EUA) and the European Association of Schools of Higher Education (EURASHE); with this a jump is made, beyond the functions of promotion of cooperation, which are those of the European Association for Quality Assurance (ENQA)¹⁰¹, to those of a regulatory agency.

the Secretary of Education's Commission on the Future of Higher Education, which is a provisional discussion that was made public on June 22, 2006: ..."A lot of countries have followed our lead, and are now educating more of their citizens to more advanced levels than we are. Worse, they are passing us by at a time when education is more important to our collective prosperity than ever." (*Draft Commission Report*, 2006, p. 1) <http://www.bolognaoslo.com/expose/global/download.asp?id=28&fk=11&thumb>

100 European Register for Quality Assurance Agencies

101 Previously known as the European Network for Quality Assurance in Higher Education.

19.7. *The Impact of the Bologna Process Outside of Europe*

At the beginning of 2010, a few months after the European Space for Higher Education was established, the impact it has or will have can not be adequately evaluated, but there are two things that can be observed:

a. One is the resistance of partners of the Bologna Process to extend it's membership outside of the region.¹⁰² They prefer to place priority on strengthening the process within the European context. In June 2003, the Follow Up Group of Bologna released the final report in which it expressed the need to act with a lot of prudence in matters of cooperation with countries outside of Europe¹⁰³.

b. The other, is that the Bologna Process has provoked much interest in the diverse regions of the world, which have been constructing their own areas of cooperation, without reaching the level of formality of the European Process. You can see an era of expectation, to wait for the results of the Common European Space. This attitude of prudence can be better understood in view of the violent reactions that the process has produced in some sectors, especially among the students. Having said that, we must remember that

102 Muche, F. (ed.) (2005) *Opening up to the Wider World. The External Dimension of the Bologna Process*. ACA Papers on International Cooperation in Education. Bonn: Lemmens Verlags & Medienesellschaft.

103 "This task should not be complicated further by associating non-European countries to the process at this stage. Instead the Bologna-countries should cooperate in an open way with regions and countries in other parts of the world by promoting the idea and practice of regional cooperation and through practical cooperation and dissemination of experiences." See, Bologna Follow up Group, *Attractiveness, Openness and Co-operation. The European Higher Education Area and third countries*. Report by the Danish Presidency. 4th Draft, Athens, 20 June 2003 (1st draft, Copenhagen, 4 November 2002; 2nd draft, Athens, 18 February 2003). [http:// www.bolognaoslo.com/expose/global/ download.asp?id=28&fk=11&thumb](http://www.bolognaoslo.com/expose/global/download.asp?id=28&fk=11&thumb)

Europe itself has promoted initiatives to create other common areas in matter of education.¹⁰⁴

Outside of the European Region: *a.* For the Middle East and Arab World, The *Academia Conventions*, as the annual meetings have been designated which began in Beirut in 2003, through which they hope to integrate the regional educational market in a global context which presents even bigger challenges. *b.* The Arab Society for Quality Assurance in Education (ASQAE). *c.* Assurance and Recognition of Qualifications in Higher Education in Africa (February 2006) *d.* *Espaco Lusófono de Ensino Superior*, or ELES (Luanda, 2002). *e.* The proposals theoretically expressed in summits of Heads of State of Governments of Latin America and Caribbean Countries (ALC-EU) to create a Common-Area in Higher Education.¹⁰⁵ *f.* The Iboamerican University Council (CUIB) created in Cartagena (Colombia) in November, 2001 which is related with the Organization of American States for Scientific and Cultural Education and forms part of the Iberoamerican Network for Accreditation of Quality in Higher Education (RIACES). *g.* The cooperation agreement, signed in Guadalajara (Mexico) in May, 2004

.....
104 Such as the Declaration of Tarragon, adopted in June 2005 in a meeting held in that city, which received support from at least 137 universities from 30 countries out of 35 in the Euro-Mediterranean region and whose preamble has references to previous meetings with which the creation of a zone of cooperation has been sought. The same purpose was in the Barcelona Declaration, also of 1995, and a meeting in Italy, in January, 2006 of the Ministers of Education of 12 Mediterranean countries, from which came the Catania Declaration, stating the goal of creating a Euro-Mediterranean Region of Higher Education, and insisting on the objectives of the conferences held in Catania in 2003 and 2005.

105 The so-called *Madrid Compromise*, Political Declaration adopted in a meeting held there on the 17 of May 2006 for the “priority in the creation of a Common Area in Higher Education, ALC-EU focusing on (academic) mobility and cooperation” <http://ec.europa.eu/comm/world/lac/con_en/decl.htm>.

between CUIB and the European University Association (EUA): The program ALFA (Latin American Academic Formation) among universities from eighteen Latin American Countries.¹⁰⁶ *h.* The Asean University Network (AUN) created in 1995 and the Asean-EU University Network Program (AUNP), the result of a financial agreement between the European Commission and ANUP, in the year 2000. *i.* In the Brisbane Communiqué in 2006, twenty-seven ministers from the Asian-Pacific region underlined the need for internationalization of higher education, which could open the path towards the establishment of an Asian-Pacific Area of Higher Education. *j.* Two years later on January, 18th, 2008, in Chiba (Japan) the principles which carry that name were adopted with an objective of improving quality in higher education.¹⁰⁷

There are many other pacts for regional collaboration of a more or less specialized nature which have made international cooperation more complicated and we are in need of some type of general agreement that focuses on or at least clears up compatibility. This could be a new job for UNESCO or the United Nations if they come out of its lethargy.

19.8. The Positives and the Negatives of the Bologna Process

If we take globalization as an irreversible fact and also as a process which speeds up, it is vital to share many of the goals of

106 Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

107 <http://brisbanecomunique.deewr.gov.au/NR/rdonlyres/F7C48BD9-DA8D-4CFD-8C6A-914E001E2E39/23073/FinalQAPrincipi>

Bologna. Such as the need to bring closer even if it doesn't reach total uniformity the university projects, such as majors, curricula, teaching methods and grading criteria, to facilitate through a system of grades (or credits) previously agreed upon, the validation of studies, accumulation of credits and finally the geographic mobility of students. But many of us fear that the paths chosen for many of these objectives will lead us to unexpected results.

To begin with, even though it seems an exaggeration to say that it is all orientated towards the privatization of university teaching, we cannot help but perceive a certain odor of privatization and in general a false conception of what a university is. As we have stated throughout this book, for us a university is not just an educational institution, but essentially an instrument for cultural change in society. Also to conserve and create cultural values regional as well as national or universal and one cannot reduce the role of the university to a human resource factory for businesses. That is why, the continued insistence on molding the university to the job market appears insufficient to us, because it silences the other side, the much more important side of its functions which is the transformation of society to acquire precisely the development of that society and along with that the creation of jobs and the promotion of social mobility as a stabilizing element.

Something to be worry about is the transformation of the bachelor (licence) from a five year degree to a three year one. Given the complexity of science and technology of our time, three years is not enough to delve deeply into anything. You can establish all the mechanisms for quality assurance that you want, but if there is not

enough time to assimilate the information, mature and reflect on learning, it won't do any good and Europe will lose competitiveness against other countries that have understood that these times are not the times to slow the pace, but rather to pick it up. We see it when there is a confrontation of knowledge: the students who come from more disciplined systems, particularly Asian, always have the advantage. If Europe thinks that it is going to be the example to follow, it is very mistaken, because Europe's real competitors will not fall into this trap.

The central topic of the economy and ultimately the sovereignty of countries, is the often mentioned competitiveness, which can only be obtained through academic quality. The governments, instead of fabricating smokescreens looking for a way to reduce investment in education, would be better off focusing with a little imagination on making true plans for society with a clear focus for the economy. Unfortunately, they have chosen the wrong path and while trying to reduce the budgets of universities, they want to place on the students, the cost of an education that should benefit the whole of society rather than taking advantage of the chance for an economic solution of a social nature, a sliding scale for fees, in which the cost of tuition would be according to the economic situation of the students. The students would pay a certain percentage in proportion to their financial standing and there would be a high number of scholarships, tied to academic output for students with less ability to pay. The later contribution of these students of quality, to the development of the society, would more than compensate for the investment made in them. What's more, in this form we could

substantially increment the number of full time students, which is indispensable if you want to be at the front of the train of scientific and technological development.

Another debate that also hasn't been correctly planted deals with the confrontation of science and technology and the social sciences and humanities, primarily in the area of teaching and research, but also in other areas such as cultural outreach, continuing education, cultural extension, etc. The university cannot renounce what has constituted and continues to be one of its principal functions; but this problem needs to be taken on with serenity and responsibility, without neglect or demagoguery. All the universities should continue to be agents of cultural development, with a series of activities orientated to the university community and the general population. But in terms of teaching and research, they should adequately administer their resources to create economies of scale, avoiding the fragmentation of economic and human resources that could lead to inefficiency and frustration. In other words, they must concentrate their human and economic resources where they will get the biggest returns in cultural terms. Frequently, there is a request for the creation of academic units for the teaching of the humanities, in places where the demand for such will be very low. The ends that are hoped to be achieved, can be served not by opening erroneous degree programs, but by creating research institutes that are perfectly capable of responding to the cultural needs.

The future will show the errors committed by trying to ignore reality and consider universities as a luxury and not as a the most important investment of the state and, say what they will, also by

trying to speed up the arrival of skilled labor in the job market, with the inevitable consequence of an abatement of quality or the imposition of conditions which will marginalize many students, All this will come at an enormous social and economic cost.

But in regards to the positive dimensions of the Bologna Process, they should amplify the objectives to achieve a closeness to all the universities in the world, within such required diversity, so that they can homogenize knowledge and academic degrees and thus guarantee the mobility of students and professors on the international level, but above all work towards the generation of common values that are so lacking in mankind in the twenty-first century.

*P*art II
The Practice



1. Utopia

My ideas about universities appear in the preceding pages. They are the result of almost six decades of university life, as a student and as an academic; gathering experiences both positive and negative in very diverse university settings: Madrid, Paris, Berlin, Salt Lake City, México, principally, but also in numerous universities in Europe, America, and the Middle East which I have visited to participate in conferences and give workshops, and the privilege of personal friendships with academicians from every continent. When it comes to evaluating these experiences I don't know whether the positives outweigh the negatives because I believe it is just as important to know what to do as it is to know what not to do.

I have spent the greater part of my professional life at the National Autonomous University of México (UNAM), teaching, doing research and participating very actively in the creation and transformation of institutions. My intense participation at a certain crucial phase of Spanish political life, and my close following of life in México which I felt committed to from the first moment for fifty years have given me a vision of reality and a mental attitude with which to confront it that I would not have been able to acquire any other way.

I learned to dream with my eyes on the ground; I accepted the enormous opportunity, after certain initial doubts, to serve the people of Mexico and in particular, the people of Oaxaca. I had the great advantage of not having to look for either fame or money as I had enough of both not to feel frustrated. I had to constantly balance the left hand with the right, conciliation whenever possible and firmness whenever necessary. Above all, when it came to making a

decision, I never considered whether my job was at risk. I have only been interested in results. For this reason, we have been able to do something that seemed impossible at the beginning: the creation of first quality universities that are public and at the service of the least privileged Mexicans in one of the most marginalized states of Mexico. After all, these universities are more a product of the heart than of intelligence.

One very important circumstance which allowed for the development and success of this project was the personal friendship and absolute respect for my position as rector on the part of the four governors with whom I collaborated: Heladio Ramírez López, who had the initial idea to create the first two universities, which I designed and developed (The Technological University of the Mixtec and the University of the Sea, Puerto Angel Campus); Diodoro Carrasco Altamirano, who secured the continuation of the project; José Murat, who decided to extend the model throughout the state of Oaxaca and Ulises Ruiz, who almost tripled the project, consolidated it and completed it. The enthusiastic way the people of Oaxaca embraced the idea of development through the creation of quality universities also contributed fundamentally to the consolidation of the Oaxaca System of State Universities. This enthusiasm has in turn provided me with the enthusiasm necessary to carry out the intense labor this effort has required over the last twenty years. It would not be right to forget the federal authorities in the education sector, the Under Secretaries of Higher Education (Luis Eugenio Todd, Antonio Gago, Javier Barros Valero, Daniel Reséndiz, Julio Rubio, Rodolfo Tuirán) as well as the Directors of CONACYT (Fausto Alzati, Carlos

Installations

TECHNOLOGICAL UNIVERSITY OF THE MIXTECA (UTM) General Plan



- Buildings**
 - 1. Computer facilities
 - 2. Design studios
 - 3. Design studios
 - 4. Design studios
 - 5. Design studios
 - 6. Physics and Electronics facilities
 - 7. Physics and Electronics facilities
 - 8. Physics and Electronics facilities
- Centres**
 - 9. Centre of Design, Business Studies
 - 10. Language Centre
 - 11. Centre of published Engineering
- Postgraduate**
 - 12. Studies of Postgraduate Studies
- Laboratories**
 - 13. Physics and Applied Mathematics Laboratory
 - 14. Language Laboratory
 - 15. Chemistry Laboratory
 - 16. Chemistry Laboratory
 - 17. Food Sciences Laboratory
 - 18. Control Electronics Laboratory
 - 19. Robotics Laboratory
 - 20. Communications Laboratory
 - 21. Mathematics Laboratory
 - 22. Mathematics Laboratory
 - 23. Mathematics Laboratory
 - 24. Mathematics Laboratory
 - 25. Mathematics Laboratory
 - 26. Mathematics Laboratory
 - 27. Mathematics Laboratory
 - 28. Mathematics Laboratory
 - 29. Mathematics Laboratory
 - 30. Mathematics Laboratory
 - 31. Mathematics Laboratory
 - 32. Mathematics Laboratory
 - 33. Mathematics Laboratory
 - 34. Mathematics Laboratory
 - 35. Mathematics Laboratory
 - 36. Mathematics Laboratory
 - 37. Mathematics Laboratory
 - 38. Mathematics Laboratory
 - 39. Mathematics Laboratory
 - 40. Mathematics Laboratory
 - 41. Mathematics Laboratory
 - 42. Mathematics Laboratory
 - 43. Mathematics Laboratory
 - 44. Mathematics Laboratory
 - 45. Mathematics Laboratory
 - 46. Mathematics Laboratory
 - 47. Mathematics Laboratory
 - 48. Mathematics Laboratory
 - 49. Mathematics Laboratory
 - 50. Mathematics Laboratory
 - 51. Mathematics Laboratory
 - 52. Mathematics Laboratory
 - 53. Mathematics Laboratory
 - 54. Mathematics Laboratory
 - 55. Mathematics Laboratory
 - 56. Mathematics Laboratory
 - 57. Mathematics Laboratory
 - 58. Mathematics Laboratory
 - 59. Mathematics Laboratory
 - 60. Mathematics Laboratory
 - 61. Mathematics Laboratory
 - 62. Mathematics Laboratory
 - 63. Mathematics Laboratory
 - 64. Mathematics Laboratory
 - 65. Mathematics Laboratory
 - 66. Mathematics Laboratory
 - 67. Mathematics Laboratory
 - 68. Mathematics Laboratory
 - 69. Mathematics Laboratory
 - 70. Mathematics Laboratory
 - 71. Mathematics Laboratory
 - 72. Mathematics Laboratory
 - 73. Mathematics Laboratory
 - 74. Mathematics Laboratory
 - 75. Mathematics Laboratory
- Workshops**
 - 76. Mathematics Laboratory
 - 77. Mathematics Laboratory
 - 78. Mathematics Laboratory
 - 79. Mathematics Laboratory
 - 80. Mathematics Laboratory
 - 81. Mathematics Laboratory
 - 82. Mathematics Laboratory
 - 83. Mathematics Laboratory
 - 84. Mathematics Laboratory
 - 85. Mathematics Laboratory
 - 86. Mathematics Laboratory
 - 87. Mathematics Laboratory
 - 88. Mathematics Laboratory
 - 89. Mathematics Laboratory
 - 90. Mathematics Laboratory
 - 91. Mathematics Laboratory
 - 92. Mathematics Laboratory
 - 93. Mathematics Laboratory
 - 94. Mathematics Laboratory
 - 95. Mathematics Laboratory
 - 96. Mathematics Laboratory
 - 97. Mathematics Laboratory
 - 98. Mathematics Laboratory
 - 99. Mathematics Laboratory
 - 100. Mathematics Laboratory
- Administration**
 - 101. Mathematics Laboratory
 - 102. Mathematics Laboratory
 - 103. Mathematics Laboratory
 - 104. Mathematics Laboratory
 - 105. Mathematics Laboratory
 - 106. Mathematics Laboratory
 - 107. Mathematics Laboratory
 - 108. Mathematics Laboratory
 - 109. Mathematics Laboratory
 - 110. Mathematics Laboratory
 - 111. Mathematics Laboratory
 - 112. Mathematics Laboratory
 - 113. Mathematics Laboratory
 - 114. Mathematics Laboratory
 - 115. Mathematics Laboratory
 - 116. Mathematics Laboratory
 - 117. Mathematics Laboratory
 - 118. Mathematics Laboratory
 - 119. Mathematics Laboratory
 - 120. Mathematics Laboratory
 - 121. Mathematics Laboratory
 - 122. Mathematics Laboratory
 - 123. Mathematics Laboratory
 - 124. Mathematics Laboratory
 - 125. Mathematics Laboratory
 - 126. Mathematics Laboratory
 - 127. Mathematics Laboratory
 - 128. Mathematics Laboratory
 - 129. Mathematics Laboratory
 - 130. Mathematics Laboratory
 - 131. Mathematics Laboratory
 - 132. Mathematics Laboratory
 - 133. Mathematics Laboratory
 - 134. Mathematics Laboratory
 - 135. Mathematics Laboratory
 - 136. Mathematics Laboratory
 - 137. Mathematics Laboratory
 - 138. Mathematics Laboratory
 - 139. Mathematics Laboratory
 - 140. Mathematics Laboratory
 - 141. Mathematics Laboratory
 - 142. Mathematics Laboratory
 - 143. Mathematics Laboratory
 - 144. Mathematics Laboratory
 - 145. Mathematics Laboratory
 - 146. Mathematics Laboratory
 - 147. Mathematics Laboratory
 - 148. Mathematics Laboratory
 - 149. Mathematics Laboratory
 - 150. Mathematics Laboratory
 - 151. Mathematics Laboratory
 - 152. Mathematics Laboratory
 - 153. Mathematics Laboratory
 - 154. Mathematics Laboratory
 - 155. Mathematics Laboratory
 - 156. Mathematics Laboratory
 - 157. Mathematics Laboratory
 - 158. Mathematics Laboratory
 - 159. Mathematics Laboratory
 - 160. Mathematics Laboratory
 - 161. Mathematics Laboratory
 - 162. Mathematics Laboratory
 - 163. Mathematics Laboratory
 - 164. Mathematics Laboratory
 - 165. Mathematics Laboratory
 - 166. Mathematics Laboratory
 - 167. Mathematics Laboratory
 - 168. Mathematics Laboratory
 - 169. Mathematics Laboratory
 - 170. Mathematics Laboratory
 - 171. Mathematics Laboratory
 - 172. Mathematics Laboratory
 - 173. Mathematics Laboratory
 - 174. Mathematics Laboratory
 - 175. Mathematics Laboratory
- Services**
 - 176. Mathematics Laboratory
 - 177. Mathematics Laboratory
 - 178. Mathematics Laboratory
 - 179. Mathematics Laboratory
 - 180. Mathematics Laboratory
 - 181. Mathematics Laboratory
 - 182. Mathematics Laboratory
 - 183. Mathematics Laboratory
 - 184. Mathematics Laboratory
 - 185. Mathematics Laboratory
 - 186. Mathematics Laboratory
 - 187. Mathematics Laboratory
 - 188. Mathematics Laboratory
 - 189. Mathematics Laboratory
 - 190. Mathematics Laboratory
 - 191. Mathematics Laboratory
 - 192. Mathematics Laboratory
 - 193. Mathematics Laboratory
 - 194. Mathematics Laboratory
 - 195. Mathematics Laboratory
 - 196. Mathematics Laboratory
 - 197. Mathematics Laboratory
 - 198. Mathematics Laboratory
 - 199. Mathematics Laboratory
 - 200. Mathematics Laboratory



Institute of Social Sciences and Humanities,
Technological University of the Mixtec.



Parcial view of the Technological University of the Mixtec.

Bazdresch, Gustavo Chapela and Juan Carlos Romero Hicks), who, after overcoming their initial (understandable) reticence have supported, and continue to support, these universities.

A part of my ideas about universities could have universal value for different countries and for any type of university. But other parts apply specifically to the type of universities that respond to the objectives we have set up in a certain concrete model. That is to say, universities with limited dimensions situated in depressed areas and created to serve as cultural instruments of transformation of the social environment. I should point out, however, that this model of a university is scalable and in fact all our universities began with limited dimensions and broadened those dimensions according to necessity. Neither are they regional universities limited to regional development; they intend to reach the highest level of quality, so as to be able to receive as well as to project the state of the art advances in science and technology. Each campus will be a regional development pole, but all together, the whole system, already (beginning of 2010) composed of eight universities and fourteen campuses, aims at becoming a national development pole.

2. The essential objectives of a utopian project

We start from a very crude reality: Oaxaca is among the last places in the socioeconomic indicators of México and some of its towns are the least developed in the country. This reality is complicated by a series of geographic and cultural factors, such as a very mountainous terrain, which makes communication difficult and has resulted in the isolation of communities, the enormous cultural

diversity, the multiethnic character of the population with 16 major ethnic groups, and a multitude of languages and their diverse variants or dialects. The social panorama is further complicated by the immigration of young people who go looking for work in other places inside and outside the country, and create a human decapitalization in local communities which lose the leadership and dynamism of younger populations.

In the last 20 years an enormous effort has been put forth to develop highway communication. The construction of the super highway to the city of Oaxaca considerably reduced the travel time from the national capital and the opening of new and modern highways from the city of Oaxaca to Puerto Escondido and from the city of Oaxaca to the Isthmus of Tehuantepec, as well as the highway from Puerto Escondido to Huatulco, herald a new dawn for a population that had remained outside economic development.

But Oaxaca is a miracle that needs to be proclaimed: it possesses all climates, all altitudes, and all soils. It is a marvel from a geological standpoint, with a wide array of mineral resources and an enormous biotic richness. Additionally, it possesses a population with a very special aptitude for the assimilation of science and technology, as we have seen.

2.1 The Beginning

In this context, with so many positive and negative nuances, the idea of creating a university in Huajuapán de León in the Mixtec Region came up. Governor Heladio Ramírez charged me with carrying out the idea. That was in December of 1988, and by the be-

ginning of January, he had the first project which he submitted and talked about with President Carlos Salinas de Gortari. With the green light from the president, the work began at the site of a goat farm, from the Federal Department of Agriculture, that had never worked near the city of Huajuapán.

Construction took place during 1989 and in 1990 the Technological University of the Mixtec began its academic activities with forty eight students, five professors, five small buildings and a total of two classrooms. Three of the professors were on loan from the Madrid Polytechnic University for the preparatory course offered during the summer thanks to the efforts of its two Vice Rectors, Manuel López Quero and Manuel Abejón and the decision of the Rector, Rafael Portaencasa. Later we recruited some professors locally, but they didn't stay long. In any case, UTM continued to develop with the construction of new buildings which by 2010 exceeded 100, the expansion of educational offering, with new majors, with a graduate division, with research institutes, a virtual university and the growth of the number of professors and students along with the acquisition of equipment for teaching and research.

The project continued to evolve with the correction and broadening of goals and the modification of procedures to incorporate new experiences. This flexibility explains to a great degree the success of the UTM experiment.

For example, at the beginning I thought about establishing a degree course in hydrology and mining. The former because of the abundance of mineral resources in the state, which suggested the development of professionals dedicated to exploiting these r

sources and the later because water was beginning to be a basic problem for the population of all the countries of the world. However, upon thinking about the job market for hydrologists, we immediately saw that it was essentially limited to the public sector, with very little space in the private sector, and almost nil the possibility of opening small businesses in the field of hydrology. At least that was the situation two decades ago, and with regards to mining, a study undertaken on the national level and consulting with the other universities in the country which offered this degree program, we came to the conclusion that it was not feasible to open new programs when in several of these institutions they were being closed. We continue to believe that it is a mistake not to encourage the preparation of mining engineers, but we didn't want to go against the current. In any case, given that mining and hydrology are topics of national interest, we decided to establish the institutes of mining and hydrology to pose questions and find solutions to the problems that arise in these nationally vital fields of interest.

UTM followed a process of development which occurred along parallel lines with the development of infrastructure and equipment, and the broadening of teaching areas, research, cultural diffusion and promotion of development.

2.2 Objectives of this model of a university

The essential objectives to be sought are:

- a. Decentralize higher education in order to avoid the concentration of academic and scientific resources in areas which are dispro-

Principle Characteristics of this University Model

1. Preparatory courses to increase knowledge in basic subjects and to homogenize the classes.
2. Highly selective, with admission exams to enter the preparatory courses and upon completion thereof, for entrance into the university.
3. Full time for teachers and students, who must remain on-campus a minimum of eight hours a day Monday through Friday.
4. A strict work ethic
5. Professors divide their time principally between teaching and research, but also collaborate in the diffusion of culture and the promotion of development.
6. An advisory system in which groups of students are assigned to each professor.
7. A tutorial system by means of which students have access to any teacher for consultation regarding their respective courses or areas.
8. Inclusion in the general program of studies of History of Philosophy and General Systems Theory to improve education (we use to say: “to improve the students’ operating system”), and two or three subjects in business administration to give students the ability to create their own businesses and not be limited to looking for work.

9. Obligatory reading of a novel once a month and the submitting of a four page summary under the control of a professor to develop the communication abilities.
10. Students are required to attend classes, computer labs, library, workshops, laboratories and register for the advisory sessions.
11. Obligatory field trips according to the calendar approved by the Academic Council.
12. Professional internships: two months every summer upon completing the sixth and eighth semesters in accordance with the programs created by the Department of Student Services.
13. Obligatory study of the English language and optional study of other languages, which, according to the campus, could be French or Chinese, which are currently being taught and other languages that may be added in the future.
14. Optional conferring of degrees, by thesis or the CENEVAL general examination
15. A high number of working days, taking off only the obligatory holidays and three vacation periods: ten days at the end of July and December and five days during the Holy Week.

portionately getting stronger and becoming increasingly different to the rest of the country;

b. Prevent the loss of human capital in the most deprived regions, which because of the lack of educational opportunities watch the younger generations leave, at an age that facilitates its permanent lack of roots, because of affective and emotional ties and the interests that are produced in the place of residence. Their recuperation becomes almost impossible, with logical effects, in a society that loses its younger generations;

c. Improve the knowledge of the economic resources in the region to establish the basis of firm social and economic development;

d. Form social leaders in both public and private arenas;

e. Introduce a professional elite in a society where there is no one, so that this serves as a catalyst for the transformation;

f. Improve cultural competitiveness in the zone of influence of the respective university, as the reception of ideas and modernizing concepts are combined with the conservation and reinforcement of the people's own values;

g. Contribute, in a globalized world, to the competitiveness of the economy of Oaxaca and Mexico, in searching for the highest standards of quality in teaching and research without any kind of absurd inferiority complex.

We said at the beginning of this ambitious project that we would try to become the best and we have demonstrated that it can be done at both national and international levels. Obviously, as in football, one can't always win the championship, and the place on the league table can vary each year, but the most im-

able and social elitism which is unacceptable. There are those who don't seem to understand that the alternative to academic elitism is mediocrity in which there is no social progress whatsoever, especially for people from more humble social backgrounds; for them to have a profession based on high quality preparation may be the only way of securing social mobility.

Anyway, the passing of time led to a general recognition of the work being done by the university, and a progressive lowering of internal resistance which at the beginning was very strong, almost exclusively by some teachers who didn't want to accept the idea of full time and exclusive dedication. They were always trying to convert their university position into a position of privilege and not one of service. But those groups, always minoritarian were reduced by time alone until they became completely irrelevant, amongst the general repudiation of the other professors and also the students and the workers, who soon understood that their own destiny was at play.

A complete series of parallel activities were developing as part of the idea that the university is a cultural instrument of social transformation:

a. Supporting the communities. It started with the elaboration of concrete projects and soon became institutionalized with the creation of the promotion of development brigade, a group of agronomists, veterinarians and a technician that go out everyday in a van to visit villages in the Mixteca region with a series of actions, from curing and preventing diseases in domestic animals to encouraging reforestation and land conservation, the detection of aquifers, training artisans and officials, evaluating mining resources, establishing agricultural farms

etc.. Today, the promotion of development brigade, which gets through hundreds of projects a year, is an integrated part of the Coordination for the Promotion of Development which receives and directs the petitions of support from the communities.

b. Teacher training for high school teachers for which every year courses are offered for the teachers on a variety of basic subjects. Hundreds of teachers attend the courses every year.

c. Training for officials of different levels and businessmen from small and medium sized businesses.

d. The opening of the university bookshop in the city centre of Huajuapán, situated underneath the bandstand in the central plaza of the city, whose free use has been granted by the city council. The bookshop has contributed substantially to the promotion of reading. It is worth remembering that in the first year the 'fabulous' amount of \$4000 pesos was sold in books and that nowadays the annual sales figures are around \$2, 500, 000 pesos.

e. Construction and installation of a seismology station in collaboration with UNAM which provided that equipment (UTM constructed that building and provides the personnel). The station is connected in real time to UNAM and the World Meteorological Organization in Geneva.

f. The State Historical Mining Archive, granted by the Secretary of Economy of the Federal Government. In order to house the archive the university constructed a special building. All the documents were given a special treatment to keep them in good condition. They will be available for consultation by the public when the digitalization process is completed, so that they are not destroyed by too much handling.

g. The Technological Park of the Mixteca was constructed on university property, between the university and the city of Huajuapán. KADASoftware, a software manufacturer, operates in the park and the park is also being promoted as a site for other companies.

With the growth of the university came a reinforcement of academic quality. As the infrastructure and equipment improved, the initial difficulty of recruiting professors diminished and also the rotation of academic personnel which we had considered to be inevitable in the initial project, given the relative isolation of the university and the shortage of services that can be offered by Huajuapán. As we are at the end of the first decade of the 21st century, the prestige which the university has acquired, together with the quality of the facilities and equipment, has made it very attractive for professors and now there is no problem whatsoever to integrate new academic personnel. UTM has accumulated national and international awards of which we will only mention the following: Motorola Premio Oro 2000 for technological innovation; first place in the world in the prestigious ACM competition (Association for Computing Machinery) from HCI (Human Computer Interaction), winner in Florence, Italy in 2008, after having achieved second place in San Jose, California in 2007; four times finalist in the ACM world computer programmers competition (Shanghai 2005, San Antonio, Texas 2006, Tokyo 2007 and Stockholm 2009)¹⁰⁸; first place nationally in Computer Engineering, according to the CENEVAL General Knowledge Exams in 2007, repeating similar

.....
 108 Only about one hundred groups made it to Stockholm from more than eleven hundred.

results from previous years; in the top places in Business Science in the same CENEVAL exams.

It is also fair to mention that in the last twenty years the City of Hualajuapán de León has gone through a notable positive transformation.

4. Universidad del Mar

When the Universidad Tecnológica (UTM) was just becoming operational, the Governor Heladio Ramírez mentioned to me his idea of building a university on the coast of Oaxaca which he wanted to call the Universidad del Mar. I accepted his request to start the project with the understanding that a rector would be sought once the university was operational. I also asked for his permission to look for a rector myself, something I did without success. I spoke with some academics who didn't take my invitation seriously.

The negativity was understandable as Puerto Ángel at the time was rather isolated. The highway stopped at Puerto Ángel and to arrive there a long and difficult journey was inevitable. What's more, the town only had one telephone. To make things more complicated, the facilities of the Escuela Secundaria Técnica Pesquera where the university was going to be established were in deplorable conditions in every point of view.

Finally work was started on remodelling the whole infrastructure in the autumn of 1991. I established a small committee that helped me in the development of the project which followed exactly the same lines as the model I had elaborated for the Universidad Tecnológica de la Mixteca, except for the field of studies which I had decided would be concentrated in the themes of the sea.

One of the first decisions was for the Universidad del Mar to specialize in maritime themes to which I added tourism which represents a basic activity for the coast of Oaxaca and the entire state. Initially only two bachelor degree programmes were offered: Marine Biology and Tourist Administration. Afterwards, the bachelor degree programs Aquaculture, Marine Biology, Phishing Engineering, Maritime Sciences, Oceanography and Environmental Engineering were added. Later on the Postgraduate Division was created with a Master's and PhD in Marine Ecology to which would be added a Master's in Environmental Science, subdivided in two specializations, Environmental Chemistry and Environmental Engineering. Other bachelor degree programs and masters would be added in later years.

The choice of UMAR's field of work, as with all the other universities, responded to the need to specialize each unit of the campus to achieve economies of scale that render their operation profitable, allowing the exchange of teachers between bachelor degree programs and the use of the same instruments for teaching and research. But in the case of UMAR the specialization that it was given turned out to be indispensable because of the desire to promote the emergence of a sea culture, as it is inconceivable that a country as geographically oceanic as Mexico has lived and continues living with its back to the sea.¹⁰⁹

.....
 109 It is enough to see the statistics: the total area of oceans in Mexico is 2,946,825 square kilometers, including 231,813 km of ocean territories and 2,715,012 km of the exclusive economic zone, while the coasts themselves have a length of 11,122 km, of which 650 km belong to Oaxaca. To that we have to add about 1,000 islands, with another 5,800 square kilometers, the extraordinary location of Mexico between the northern and southern hemispheres and between the Pacific and Atlantic Oceans, and the land configuration, with the Isthmus of Tehuantepec as a crossroads between both oceans. This data should be enough to explain the rationale of the Universidad del Mar in Oaxaca.

To organize the research activities four institutes were created: the Resources Institute, which has been assigned the function of systematically creating an inventory of marine and coastal resources of Oaxaca; the Institute for Industries, to study and propose methods for the productive use of these resources; and the Ecology Institute, whose mission is to complete the necessary studies to oversee that the use of Oaxaca's marine and coastal resources is sustainable and does not involve environmental damage. Furthermore, to create groups of field professors from the social sciences, the Institute of Social Science and Humanities was also established. There are now more research institutes at the other campuses of Puerto Escondido and Huatulco.

At the end of spring 1992, the Universidad del Mar (UMAR) began academic activities, with introductory courses for a small group of students, and on August 21 it was officially inaugurated by the Mexican President Carlos Salinas de Gortari, along with the Oaxacan Governor Heladio Ramírez and the Secretary of Education Ernesto Zedillo. A few years later, Zedillo would go on to become president of Mexico and would come back to UMAR in October 1997 under the tragic circumstances of the partial destruction of UMAR facilities in Puerto Angel due to Hurricane Paulina, and, a few weeks later, Hurricane Rick. After just two months of frantic night and day work we succeeded in entirely rebuilding the University.

Work began in less-than-ideal conditions, with a small number of faculty and no laboratories. A classroom was used as a library and there was a small auditorium that allowed us to celebrate sporadic academic and cultural activities that gave a certain air of solemnity to our work.



University of La Cañada. Partial view from the air.



University of the Istmus, Tehuantepec Campus. Institute of Energy and Laboratory for Research on Energy.



University of Sierra Juárez. Partial view.



University of Sierra Sur. Partial view.

The mandate for Governor Heladio Ramírez came to a close, three months after the official inauguration, but the following governors, Dióodoro Carrasco, José Murat, and Ulises Ruíz, continued supporting the UMAR as they had the UTM. However, the shortage of available economic resources in Oaxaca made it very difficult for the university to function, along with problems arising from the opposition of a number of professors, who did not like a university model that required them to take their functions seriously. This problem had also been present at UTM as well. It was difficult to impose on faculty coming from less demanding institutions the need to understand that the sacrifices of the Mexican community to create and maintain these types of institutions should be met with responsibility and, if necessary, with sacrifice.

In spite of this, UMAR grew rapidly. The number of bachelor degree programs offered grew, along with a corresponding number of professors, while maintaining, as it had been in the UTM, a strict control of the expansion of the administrative and operative personnel. Laboratories, for both teaching and research, were opened and equipped. A full-size library and new auditorium were built, along with a sports field, a 25-meter swimming pool, a gymnasium, a graduate school building, and an administrative building. Donations were received, including a boat for oceanography and fisheries research, and a bookstore was opened in downtown Pochutla. The campus, originally barely more than four hectares, grew with the purchases and donations, and now is eight hectares.

On the academic side, the quality of teaching improved significantly, as reflected in the numerous awards given to UMAR professors and students over the years.

In the year 2000, UMAR added two new campuses, in Puerto Escondido and Huatulco, and assigned specializations designated a bit arbitrarily as Earth Sciences in the first case and Social Sciences and Humanities in the second.

In Puerto Escondido, the bachelor degree programs of Forest Engineering, Biology, Zoology and Informatics are offered, along with a Master in Livestock Production, a Master in Genomics and a Genetics Institute, whose principle mission is the inventory and conservation of genetic resources of this part of the country, along with organization of research in this field of study.

In Huatulco, which had begun with bachelor degree programs in Tourism Administration –transferred from Puerto Angel– and International Relations, two bachelor degree programs, in Communication Sciences and Economics were added, and, since 2009, a Master of International Relations, with a minor in Environmental Studies. In 2010 two new masters were also added: International Relations with a minor in International Criminal Law, and Tourism Marketing.

The number of research institutes was also increased with the institutes of International Relations, Institute of Tourism and Institute of Communications.

The Tourism Administration bachelors degree, according to the institutional evaluation of CENEVAL, is among the best in the country.

UMAR has carried out numerous activities of social interest, such as the promotion of national and international events, which contribute to an increase in the arrival of tourists to the Oaxacan coast; the opening of other general bookstores in downtown Puerto

Escondido and Huatulco, in addition to Pochutla; the creation of the Chepilme (Pochutla) and Puerto Escondido botanic gardens and the experimental field in Bajos de Chila, in which, among other activities, there is an iguana farm for the research and conservation of the species. In this same field, the Zoology students and scholars have a space for their field work, especially raising cattle, swines, ostriches and sheep, There is also a research laboratory. And a greenhouse for forestry experiments and reforestation projects.

In cooperation with state and federal bodies, along with private businesses, various projects are developed that, in addition to contributing to the economic development of the country, collect resources for the university, which allows it to have first-rate laboratories, including the Environmental Engineering laboratory in Puerto Angel.

Since 2009 UMAR has a fourth campus in the City of Oaxaca, with a Hotel School and a training center.

5. The State Universities extend throughout the territory of Oaxaca

In the year 2000, when the UMAR expansion had just begun with two new campuses in Puerto Escondido and Huatulco, I received a petition from Governor Murat to assume projects in other universities – the Universidad del Istmo in Tehuantepec and Ixtepec, and the Universidad del Papaloapan in Loma Bonita and Tuxtepec – that had started but hadn't advanced, along with two other projects in Huautla de Jiménez and in Acatlán de Pérez Figueroa. Further down the line, construction projects would begin in two other uni-



University of La Cañada. Partial view.



University of the Sea. Puerto Escondido. General view.

versities: in Ixtlán de Juárez, the Universidad de la Sierra Juárez, and in Teotitlán de Flores Magón, the Universidad de la Cañada. It was also decided to add a new campus to the Universidad del Istmo en Juchitán, but apart from selecting the land for its future location (which would later be modified by Governor Ulises Ruiz), no other action was taken.

5.1. The Universidad del Istmo

Work on the Universidad del Istmo began simultaneously in its two campuses in Tehuantepec and Ixtepec in the year 2002. The Tehuantepec campus is focused towards science and technology, with a specialty related to energy. The university began with bachelor degree programs of Petroleum Engineering, Chemical Engineering and Design Engineering, and later Industrial Engineering, Computer Engineering (which was transferred from Ixtepec), and Applied Mathematics, along with two Masters in Wind Power and Solar Power.

The Institute of Energy Studies was opened, which is supported by an energy research laboratory and a laboratory for heavy chemistry. The objective of this Institute is the study of diverse sources of energy, especially wind energy, solar and biomass energy, so that the Isthmus region offers favorable conditions, but also others like geothermic energy, ocean-related sources (waves, tides, chemical and thermal differential) and hydraulic energy. Hydrocarbons are an object of research and teaching, with two bachelor degree programs, Petroleum Engineering and Chemical Engineering, and in these fields it must be highlighted that collaborative contracts have been signed with PEMEX (Petroleos de

México), not only for work within the Isthmus but also outside of the State of Oaxaca.

The only source of energy that has been excluded is nuclear, for obvious reasons: the high level of investment that such study would require and the fact that there is already an Institute of Nuclear Investigation that fulfills all of Mexico's requirements in that regard.

The interest for energy-related topics extends to all economic and social aspects, and a research team has been formed to specialize in these questions, as a complement to scientific and technological research.

The Ixtepec campus focuses on social sciences and humanities, with bachelor degree programs in Public Administration, Business Science, Computer Science (transferred from Tehuantepec), and Law. Since 2010 a Master in Energy Law is offered.

The variety of study options will continue to expand in the future, as in all other universities, and it bears note to also mention the Zapotec Culture Week, the bookshop in Juchitán, etc.

5.2. The Universidad del Papaloapan

The Universidad del Papaloapan began with a campus in Loma Bonita, in a land of 10 hectares, which was later expanded to include 6 more, acquired through municipal authorities. Work was complemented following our university model. As it was a land used for agriculture very few trees had been left, but today is a beautifully forested area. One of the areas is a wetland, and the construction company insisted on draining it, but we followed a different strategy, taking out land and creating a lake, which offered us an ideal

place for fresh water field work, with the small inconvenience that we sometimes have to remove small crocodiles that seek refuge there.

When the first class of students entered in 2002, bachelor degree programs in Aquaculture, Computer Engineering and Design Engineering were offered, to which were later added Mechatronics and Production of Tropical Agriculture, and Applied Mathematics.

For fieldwork, necessary for the Zoology studies, the university has two experimental fields (called “postas”, with 4 and 5 additional Has.) outside of the main campus and obtained through a municipal donation and from the commission of communal lands.

The Tuxtepec campus was established on the lands of an Industrial Park which was practically abandoned. There are more than 30 hectares (to which probable 100 more will be added in 2010), and in several parts there remain plantations of Hule trees (olacahuite), of which we decided to conserve various mature trees, and the rest was intensely reforested with different types of trees from the region, creating a beautiful campus full of vegetation.

Food Engineering, Biotechnology, Chemistry, Business Sciences and Nursing are the courses offered at the university. As well as two masters en Chemistry and in Biotechnology and two Doctorates also in Chemistry and Biotechnology.

As of 2010, there are two research institutes at UNPA: Biotechnology, located at the Tuxtepec campus and Agroengineering at the Loma Bonita Campus.

As with other universities, bookshops have been opened in both cities, Loma Bonita and Tuxtepec, creating a bigger market for books and getting people used to buying them. It’s interesting to note that

people are getting into the habit of visiting the bookstores, in particular in the evenings. Even if no books are bought, it's promoting a culture of reading within these communities. In 2008 the first Cultural Week took place at both campuses and it has now become an annual event as with the other SUNEО universities.

5.3. The Universidad de la Sierra Sur

The network of universities was enlarged during governor José Murat's tenure with the addition of the Universidad de la Sierra Sur, situated in Miahuatlan. Its beginnings, however, were very troubled and the institution lacked a concrete vision. That project was completely different from the one under my direction.

The university was opened by the president of Mexico, Vicente Fox along with the governor Murat, but the university was in complete chaos only a few months later. The infrastructure was lacking most of the minimal services, the equipment was sub-standard and the teaching staff inadequate which lead to low moral and students leaving the university in their droves.

Faced with this situation, the governor asked me to incorporate the university into the SUNEО system. After meeting the staff and students, I started the transformation of the institution by implementing the same model as the other SUNEО universities and putting in place the necessary infrastructure. I gave staff the option of leaving or staying and working under new conditions: increased hours and a more disciplined working environment, but also increased salary and improved benefits. The majority decided to stay on, though a part of them would later leave when they realized that we meant business.

In a few years, the university underwent a rapid transformation: a fence was placed around the perimeter of the institution, more pathways connecting the different buildings on campus were constructed, the infrastructure was improved and the university was better equipped. These changes lead to an increase in student numbers. The number of building grew exponentially.

More courses were also offered. In 2009, it was possible to take degrees in nursing, public administration, municipal administration, business science, informatics and nutrition. There are also three Masters, in Municipal Strategic Planning, in Public Health and in Electronic Government.

A university library was also opened in the centre of Mihuatlán as well as a clinic on campus offering excellent service to the public and allowing the nursing students to carry out professional practice; by the end of 2009 it had offered medical services to more than 30.000 patients. To aid learning, a building for pedagogical studies was built with robots to give students the best possible training without risk of harming patients.

As regards to research, the Institute for Municipal Studies was opened and besides doing research it periodically to gives training courses to local government workers and administrators and also carries out consultancy work. There is also a Public Health Research Institute.

5.4. The Universidad de la Sierra Juárez

The Universidad de la Sierra Juárez (UNSIJ) is situated in Ixtlan de Juárez in the Sierra Norte about one hour's drive from Oaxaca City. It is situated next to the county of Guelatao, the home of Benito Juarez.

The campus at UNSIJ is large; 45.67 hectares were donated by the local community, and as of 2010, the university is in the process of taking over the land owned by Professor Boone Hallbert, who married an indigenous Zapotec from the region and for the last forty years has been working to develop an agricultural experimental field.

Construction of the university, started by Governor Murat, lasted several years and was finally completed in 2005, when it was officially opened by Governor Ulises Ruiz.

One of the special areas of study at UNSIJ is the environment and there are many activities carried out related to this issue. Degrees in environmental sciences, biology, forestry engineering, wood technology and information technology are offered. There is also a Master in Forest Conservation.

As regards to research, the Institute of Environmental Research was created along with a corresponding laboratory. Adjoining classrooms were also added. As with the other universities, a bookshop was opened in the town of Ixtlan in a building provided by the local municipality.

One serious problem in Ixtlan is the lack of accommodation for professors and students due to the land tenure system which prohibits private property and makes it impossible for private investors to build houses or apartment building. For that reason is very difficult for teachers and especially students to find accommodation; the situation is becoming more critical as the student population grows. To confront this problem, an initiative has been put into place and the Oaxaca government is financing the local authorities to build houses and apartments for professors and students. It is hoped that



University of the Istmus. Tehuantepec Campus. Partial view.



University of La Cañada. Rector's building.



Institute of Mining, Technological University of the Mixtec.



University of the Sea, Puerto Escondido Campus. Partial View.

over time, the shortage of accommodation will no longer be a problem and the local community will start to build more lodgings as well as other services, such as restaurants, stationery shops, etc.

The stance taken by the local population regarding the sale of private land is understandable and shows undoubted wisdom: once the land no longer belongs to the community, the control and destiny of this land is lost forever and people become strangers in their own community.

The beauty of that zone together with the proximity to the City of Oaxaca would provoke the rapid development of the real estate industry and the sale of land to the people of Oaxaca city with economic power. The question of maintaining that position in the future is subject to discussion because it could undoubtedly cause a downturn in the economic development in the area; but when a change in the ownership of the land is seriously considered, the university will have already created a number of leaders in the community which will allow it to better face up to external pressures. For this reason the role of these universities is very important, as not only do they promote social modernization, but they also allow the local communities to defend their own values and interests.

5.5 The Universidad de la Cañada

The university is located in the outskirts of the City of Teotitlán de Flores Magón, in the region of the Cañada, which is characterised by its aridity, with certain exceptions in some places, such as Cuicatlán, where the conditions are ideal for fruit growing.

In the beginning an additional campus was considered in Huautla de Jiménez, in the Sierra Mazateca, on the highway that links the Cañada with the region of Papaloapan. However, a careful study of the topographic conditions of Huautla showed that the minimum required conditions didn't exist for a campus of this model which is why it was decided to convert the campus, under construction, in Huautla to form part of the subsystem represented by the other model of the NovaUniversitas.

Construction at the Teotitlán campus begun in the period of Governor Murat was halted and practically abandoned for many months. It was finally completed, and UNCA was inaugurated by Governor Ulises Ruiz in March of 2006.

The specialization of this university was essentially oriented towards the biological sciences. The idea was to move on two parallel levels: on the level of short term practical results with degrees in Agribusiness and Food Engineering; and on the level of a longer term strategic objective of developing the pharmaceutical industry based on identifying the active ingredients of plants taking account of Oaxaca's enormous biotic resources, which have not been duly exploited. There is an ancient tradition of the use of plants in traditional medicine. For this reason, the Pharmacobiology degree program was added and the Institute of Pharmacobiology was created, where scientific research of this area is centered.

Another degree program has been added which is offered in many SUNEО universities in Oaxaca, and that is Informatics. We decided to repeat it for many reasons that go against the general trend in the country, which rather is abandoning it and substi-

tuting it with Computer Engineering. For this reason we should explain the reasons for our decision to maintain it and expand it, at least for some time. We are doing it because it is a less difficult and less expensive degree program than Computer Engineering and in rural Oaxaca it is important to encourage the development of information technology among professionals who will stay in their native land to assist locally in the implementation and development of the aforementioned technologies. This having been said, it must be noted that this bachelors' degree has not retained its original form, but has been brought to a higher level, extending the knowledge of electronics, especially managing networks, in such a way that, without reaching the levels of engineering, it already exceeds the narrow limits of how these studies were originally conceived. Concurrently, we have continued developing computer engineering in the the other state universities of a quality that has garnered important national and international recognition. This academic quality has given rise to an unforeseen situation: many highly regarded computer companies hire a high percentage of our graduates. This has caused critics to ask how it benefits Oaxaca to form high-quality engineers if they then leave the state or the country. To this, we have similarly asked how poorly-trained professionals who stayed in the state would benefit Oaxaca. But the criticism does remain valid, since it is not our state universities' role to form personnel for transnational companies; however, the problem cannot be resolved by lowering educational standards, but by promoting the development of businesses in Oaxaca. This should be done in various ways, one of which is by encouraging a

greater number of high-quality engineers, especially when those engineers have training in business administration, as is the case with graduates of our universities.

UNCA also has external facilities, such as the university bookstore in the center of the city of Teotitlán de Flores Magón.

In 2009, the cultural weeks of Cañada began, which are celebrated every year, in the same way as in the rest of the state.

6. The model of administrative organization

The organizational model of the SUNEО universities is based on a series of guiding principles, of which the following are noteworthy:

1. Strong academic leadership
2. Reduced administration
3. Strict control of expenses and honest use of resources
4. Rigorous maintenance of infrastructure and equipment
5. Protection of the university environment, which is completely enclosed and protected by security personnel day and night. Security guards only have the authority to protect against outside threats; they lack jurisdiction over professors, university students and staff.
6. Absolute respect for political and religious ideologies, but with a strict prohibition against proselytism in the university facilities
7. Vigilant prevention of drug- and alcohol use, and a permanent campaign against nicotine addiction
8. Severe sanctions against every type of physical or verbal violence, as well as against any attack on natural resources
9. Promotion of the civic values of responsibility, social solidarity, and work as a means of achieving human dignity.

The governing organs are the following:

The Rector (equivalent to a President or a Chancellor), who is the highest university authority, and is appointed and removed by the state governor.

The academic Vice Rector and administrative Vice Rector, appointed by the Rector.

The Vice Rector of relations and resources, also appointed by the Rector. This position exists only in the cases of the Universidades de la Mixteca and del Mar, which are in charge of the SUNEI offices in Mexico City and Oaxaca, respectively.

The department chairs and the directors of research institutes, as well as the chairpersons of the post-graduate divisions. These posts are appointed by the Rector.

The highest collegial body is the Academic Council, which comprises the Rector, the Vice Rectors, the department chairs and institute directors, the chair of the post-graduate division, the two more senior professors from the highest category, and the two students who earned the highest grade point average in the previous semester.

The Academic Council has very important responsibilities, since it is this body that approves the budget and monitors expenses. Such expenses include bids for public work and the purchasing of equipment.

The Academic Council must also approve professors' temporary contracts, competitive exams for the position of professor, and the personnel on panels that judge professors. It also ratifies, on the recommendation of the commission of academic personnel, the tenure of professors. Further, it holds regulatory power and is the com-

petent organ for deciding whether to create new bachelor degree programs and for approving curricula.

Under the Academic Vice Rector fall department chairs, directors of research institutes, school services, and laboratories, workshops, and libraries.

The Administrative Vice Rector works through the departments of personnel, material services, and financial services; and the operative staff is organized in four sectors: maintenance, janitorial, gardening, and transportation and security. For security purposes, contracts are signed with the police force of the state, and there are also guards contracted directly by the university.

The administration must be small and efficient, with automated services. Its structure is the following:

a) Academic: Academic Vice Rector

- Institutes and centers, which gather the professors into groups by interest areas, and according to number and importance.
- Degree programs, with the duties of programing the teaching staff, coordinating the schedule and use of classrooms, proposing and revising courses of study, and methods of teaching.
- School services
- Laboratories and workshops for education
- Library

b) Administrative: Vice Recor of Administration

- Personnel: the entire administrative aspect of hiring, appointments, discipline, and sanctions.

- Assistance: hiring and supervision of the services of maintenance, janitorial services, groundskeeping, and transportation.
- General supplies: carrying out of shopping orders, the storing and distribution of goods and products, maintaining inventory.
- Bookstore, library, and publications, in collaboration with the academic vice president's office.

c. Vice Rector for Relations and Resources

Directly under the Rector are the general legal counsel, internal auditing, coordination of development, coordination of cultural sharing, and the coordination of research.

Obviously, a great number of administrative roles are missing that are surely convenient, but we have preferred to stick to the criterion of maintaining a very reduced administration in order to focus expenses on academic activities. In this way, the percentage of administrative expenses is very low in comparison to the total budget; it would be difficult to find universities that spend less on administration.

7. The subsystem of NovaUniversitas: a pragmatic solution to university education in a rural environment

7.1 The problem

The success of the universities of SUNEIO has piqued interest from all parts of the state of Oaxaca to get a university. Obviously, there are physical limits to the possibilities of the expansion of the university system. In large part these limits arise from population

sizes and their isolation. The small size of many towns makes it difficult or impossible to achieve the economies of scale necessary to make a university cost-effective. Their isolation makes them unattractive to professors of a sufficient level to provide the minimum quality that an institution of higher learning requires.

However, the social pressure placed on the state government was so great that Governor Ulises Ruiz asked me to find a formula that would allow for university education for some of the small and isolated communities. Two objectives are in play:

- a. to retain young people, keeping them from joining the flow of emigration that robs the various regions of the state of Oaxaca of the most dynamic section of its population,
- b. to raise the cultural and professional level of these young people, creating leaders able to promote economic and social development in their own communities.

7.1.1 A false solution

The first solution that occurred to me to the problem of quality education in isolated regions where high-level professors don't want to stay, was to return to the model of distance education in its various forms. But on thinking of how this would work in a rural environment, I immediately realized that this road would lead to failure, as results to date have shown. The reasons are easy to understand: in impoverished regions, young people do not have electronic forms of communication at their disposal, nor the necessary connections to access computer networks. But the principle reason for failure is that the young people would remain in

their accustomed family environment, and would not have a sufficient work ethic to focus on their studies, nor could they escape their families' requests for help with daily tasks. Given such circumstances, predictably, academic work would be progressively reduced until its abandonment. In such a situation, only two (equally unacceptable) options would remain: to settle for a very small number of students, or lower academic standards to retain as many as possible.

7.1.2 Squaring the circle

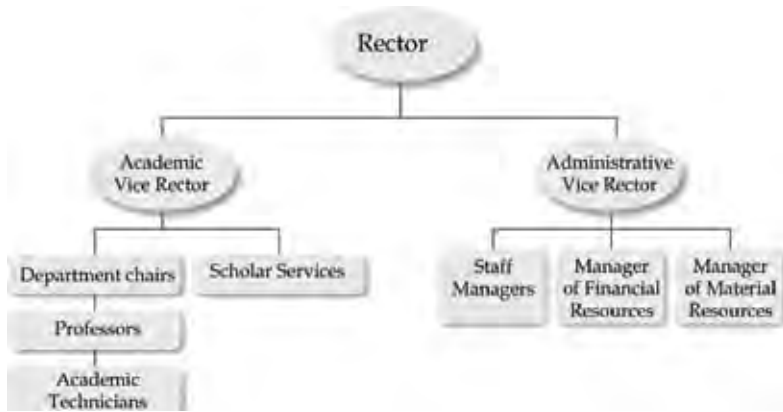
As for the professors, the problem was solved with the establishment of a central campus in Ocotlán (near Oaxaca City), which serves as their workplace. As for the students, they are required to be present for eight hours a day at one of the peripheral campuses. This is the same time requirement made of the students of the other subsystem of SUNEО.

The professors will give their class in real time to their students, creating a kind of virtual classroom for the entire state. Each peripheral campus will have its corresponding monitors. On each of the campuses, the students can see the professor on the screen; at the same time, they can see the professor's visual aids on a smart-board situated to one side.

The classrooms are equipped with one computer per student, and each group is controlled by an academic technician who, besides taking attendance, also fulfils the role of tutor, acting as an intermediary with the professor and assisting the students in the work they have to complete.

Aside from the classes and the corresponding work in the laboratories or workshops, as well as their time in the library, the students must attend a series of cultural activities.

The special characteristics of this model demand a change in the administrative structure. As in the other model, the university depends on a Rector and two Vice Rectors, the Academic and the Administrative. But the higher number of peripheral campuses (eight of them were planned in 2010) made it necessary to unify the leadership of each campus with an executive, the director, who is supported by a subdirector, who substitutes for him when he is absent in such a way that there is always someone directing the campus.



NovaUniversitas: Flowchart of the central campus.

In other respects, the governing structure is the same as in the other universities. The reduced number of potential students also

suggested a reduction in infrastructure, with a smaller campus size and far fewer students.



Campus plan, with the ideal arrangement of buildings

In the attached graphic, one can see the campus plan with the ideal layout of basic buildings. This plan can be modified according to topography, and can be adjusted to the rise of student demand.

Insofar as degree programs are concerned, their selection follows certain criteria. The most important are the following: to offer students a preparation that can be put into practice in their own environment and to choose specializations that do not involve the construction of expensive laboratories or workshops, due to the reduced economies of scale in these locations.

For the justification of the Informatics bachelors' degree, that was the first one selected, we submit ourselves to the previous statement, but in respect to Agronomy, a degree that seems to be in decline, we have to explain that we decided to set it up because it is

the most immediately profitable result, given that it responds to the possibilities of the young people in those isolated regions, in which for the time being there is no hope of the arrival of large businesses, and in which for as long as land tenure remains the same way, modern agriculture on a grand scale is not possible.

Correctly oriented, the agronomy studies will permit the improvement of agricultural production, in order to begin the exit from the economic level of subsistence, as it is now and to pass into small agricultural businesses that are more efficient and profitable. In order to decide to set up this major we also had to take into account the burden that the creation of laboratories on every campus implies, but taking everything into consideration we decided to go forward with the implementation of this major.

Anyway, with the passage of time, it will be necessary to cancel some of the majors and set up others and this has to be carefully planned, in order to avoid the saturation of the job market and to take into account the economic necessities that may come up in the diverse communities. That is inevitable, given the reduced size of the communities that result in an educational demand hardly numerous. Whatever the circumstances, it should not be forgotten that our universities do not only have an educational function, but also the very important reason of being transformers of society and that function should be carried out independently of the number of students.

7.2 The Development of NovaUniversitas

In february 2010, the Central Campus in Ocotlan and the peripheral annex Campus of San Jacinto, became operational. Owing

to the fact that they are contiguous, the Central Campus and the periferal of San Jacinto share various common buildings, such as the library, the auditorium and the cafeteria.

At this time we will continue with the construction of 7 peripheral campuses, in Acatlan de Perez Figueroa, Huautla de Jiménez, Juxtlahuaca, Matias Romero, Nochixtlán, Putla and Sola de Vega, and the possible location of another campus to cover the Mixe Region is still being considered.

8. The Future

The future is reached every day, and immediately becomes the past. In the universities of SUNEО, the changes are evident and every few months it is possible to appreciate a profound change: in the expansion of the infrastructure and the equipment, in the growth of the vegetation, that fills all of the spaces with trees and bushes, and the growth of the number of student and faculty; but the change doesn't affect only the existing universities rather it is necessary to also see the process of development of the system, that is still in full expansion.

Eight universities with 14 campuses existed at the beginning of 2010, and two more universities with 11 additional campuses will be added: Universidad de la Costa, in Pinotepa Nacional; Universidad de Chalcatongo in the Oaxacan Mixteca, and the seven new campuses of the NovaUniversitas already mentioned. All of them are in different stages of construction and the beginning of functions at the Universidad de Chalcatongo is planned for the Summer of 2010. Also the construction of the third campus of the Universidad del Istmo, in Juchitán, is expected to be open around the same time.

Oaxaca State University System (SUNEO)

Basic Data

Extension of the campuses (in use and in construction): about 650 Has.
 Buildings: more than 400 already in service
 Professors: about 800, all of them full time
 Students: 8000, in July 2009, expected to increase to 11.000 in July 2010
 Bachelor degree programs: 39
 Masters: 29
 Doctorates: 9
 Research Institutes: 24

Bachelor degree programs

Agribusiness, UNCA; Agronomy, NU; Applied Physics, UTM; Applied Mathematics, UNISTMO (T), UNPA (LB), UTM; Aquaculture, UMAR (PA), UNPA (LB); Biology, UMAR (PE), UNSIJ; Biotechnology, UNPA (TX); Business Sciences, UTM, UNISTMO (I), UNPA (TX), UNSIS; Chemistry, UNPA (TX); Chemical Engineering, UNISTMO (T); Computer Engineering, UTM, UNISTMO (T), UNPA (LB); Communication Sciences, UMAR (H); Design Engineering, UTM, UNISTMO (T), UNPA (LB); Economics, UMAR (H); Electronics Engineering, UTM; Environmental Engineering UMAR (PA); Environmental Sciences, UNSIJ; Food Engineering, UTM, UNPA (TX), UNCA; Forestry Engineering, UMAR (PE), UNSIJ; Industrial Engineering, UTM, UNISTMO (T); Informatics, UMAR (PE), UNISTMO (I), UNSIS, UNSIJ, UNCA; International Relations, UMAR (H); Law UNISTMO (I); Marine Biology, UMAR (PA); Maritime Sciences, UMAR (PA); Mecatronics Engineering, UTM, UNPA (LB); Mexican Studies, UTM; Municipal Administration, UNSIS; Nursery, UNSIS, UNPA (TX); Nutrition, UNSIS; Oceanography, UMAR (PA); Petroleum Engineering, UNISTMO (T); Pharmacobiology, UNCA; Phishing Engineering, UMAR (PA); Public Administration, UNISTMO (I), UNSIS; Tourism Administration, UMAR (H); Tropical Agricultural Engineering, UNPA (LB); Wood Technology Engineering, (UNSIJ); Zootechnics, UMAR (PE), UNPA (LB)

Graduate Studies

Doctorates

Biotechnology (TX); Chemical Sciences (TX); Marine Ecology (PE); Electronic Government (UNSIJ); Mathematic Modeling (UTM); Environmental Chemistry (PA); Robotics (UTM); Intelligent Applied Systems (UTM); Applied Computing Technologies and Computer Engineering (UTM).

Masters

Advanced Manufacturing Technology (UTM); Animal Production, UMAR (PE); Applied Computing Technologies (UTM); Applied Intelligent Systems (UTM); Biotechnology, UNPA (TX); Business Administration (UTM); Chemistry, UNPA (TX); Conservation of Forest Resources (UNSIJ); Distributed System (UTM-Virtual); Electronic Government (UNSIJ); Energy Law, UNISTMO (I); Environmental Chemistry, M. in Sciences, UMAR (PA); Fashion Design (UTM); Furniture Design (UTM); Genomic Sciences, UMAR (PE); Interactive Media (UTM); International

Criminal Law, UMAR (H); International Relations: Environmental Law (H); Marine Ecology, M. in Sciences, UMAR (PA); Mathematic Modeling (UTM); Molecular Biology, UMAR (PE); Municipal Strategic Planning (UNSI); Natural Products and Food, M. in Sciences (UTM); Public Health (UNSI); Robotics (UTM); Solar Energy, UNISTMO (T); Software Engineering (UTM); Tourism Marketing, UMAR (H); Wildlife Management, UMAR (PE); Wind Energy, UNISTMO (T).

Scientific Research

Research-Professors

SUNEO currently has about 800 full time Professors. About 10% of them are SNI (National Council of Science and Technology, CONACYT) members.

Research Institutes

Agribusiness, UTM; Agroengineering, (LB) ; Biotechnology, (TX); Communication Sciences (H) ; Computing, UTM; Constitutional and Administrative Studies, UNISTMO (I); Design Engineering(UTM); Ecology (PA); Electronics and Mechatronics, UTM; Energy Studies, UNISTMO (T); Environmental Studies, UNSIJ; Genetics, UMAR (PE); Hidrology, UTM; Industries, UMAR (PA); International Studies, UMAR (H); Marine Resources, UMAR (PA); Mining, UTM; Municipal Studies, UNSI; Pharmacobiology, UNCA; Physics and Applied Mathematics, UTM; Public Health Research, UNSI; Social Sciences and Humanities, UTM and UMAR (H); Tourism, UMAR (H).

Public Services

Public bookshops (12): Huajuapán de León, Huatulco, Ixtlán, Juchitán, Loma Bonita, Miahuatlán, Oaxaca, Puerto Ángel, Puerto Escondido, Tehuantepec, Teotitlán de Flores Magón, Tuxtepec; Public Library: Tehuantepec; **Botanic gardens** (2): Chepilme-Pochutla, Puerto Escondido; **Seismological Stations** (2): UMAR, UTM; **University Hospital (open to the public)**: UNSI-Miahuatlán; **Experimental fields** (3): Tuxtepec, Loma Bonita (2); **Technology Park**: UTM-Huajuapán de León; **Mining Historical Archive of the State of Oaxaca**: UTM; **Hotel school**: UMAR-Oaxaca; **Museum of Diversity**: UTM-Oaxaca; **Ship for oceanographic and fishing research**: UMAR-Salina Cruz.

Abbreviations:

UMAR (PA) Universidad del Mar, Campus Puerto Ángel
UMAR (PE) Universidad del Mar , Campus Puerto Escondido
UMAR (H) Universidad del Mar, Campus Huatulco
UNCA: Universidad de la Cañada, Teotitlán de Flores Magón
UNPA (LB): Universidad del Papaloapan, Campus Loma Bonita
UNPA (TX): Universidad del Papaloapan, Campus Tuxtepec
UNSIJ: Universidad de la Sierra Juárez, Ixtlán
UNSI: Universidad de la Sierra Sur, Miahuatlán
UNISTMO (I) Universidad del Istmo, Campus Ixtepec
UNISTMO (T) Universidad del Istmo, Campus Tehuantepec
UTM: Universidad Tecnológica de la Mixteca, Huajuapán de León
(NU-O): NovaUniversitas, Campus Central Ocotlán
(NU-SJ): NovaUniversitas, Campus Periférico San Jacinto.

The project will close with these units already under construction; however it would be possible to add another peripheral campus of the NovaUniversitas in the Mixe region, as we have already mentioned.

Parallel to the expansion of these campuses follows the consolidation of each one of them, expanding the internal infrastructure in order to respond to the increase in the number of students and reinforcing all of the sectors of research, that require the opening of new laboratories and the expansion of the equipment. The other dimension of the consolidation is academic quality, but as all universities follow the same model (with the partial exception of NovaUniversitas) the results we are getting are equally satisfactory. That is manifest in the grades received by the students from the participation in the general knowledge exams of the CENEVAL or in national and international competitions, and the high productivity of our professors in different fields of scientific research and the constant growth of the percentage of professors that enter the National System of Researchers of CONACYT.

Now we are in the process of formalizing the constitution of the Oaxaca State University System (SUNEO) in order to legally integrate the member universities. In recent years all of the regulations have been revised to update them and make them uniform, and to correct the observed growing divergence among each one of the universities.

This process of updating and convergence will continue, in order to establish that University System. The figure of a General Rector will be created, to direct the whole system with the support of the General Academic Council, that will be the principal regu-

lating and controlling body. Each member university will have a Rector and the corresponding Academic Council, whose functions are to be defined by the General Statute of the System. It is hoped that such a system will secure the unity and the quality of our universities that up to now have worked so efficiently.

BIBLIOGRAPHY

- Baldwin, Patricia, *Covering the Campus: The History of the "Chronicle of Higher Education," 1966-1993* (Denton, TX: U. North Texas Press, 1995).
- Barrow, Clyde W. (1990) *Universities and the Capitalist State: Corporate Liberalism and the Reconstruction of American Higher Education, 1894-1928*, Madison, Wisconsin: University of Wisconsin Press.
- Béjar, Raúl y Jorge Isaac, (Coords.) (2005), *Investigación y Docencia. Una relación compleja en la universidad moderna México*; Centro de Estudios para el Desarrollo Alternativo, A.C. and Plaza y Valdés.
- _____, Coords., (2005) *Educación Superior y Universidad Pública*, México: Centro de Estudios para el Desarrollo Alternativo, A.C. y Plaza and Valdés.
- Bennett, W. J. (1984) *To Reclaim a Legacy: A Report on the Humanities in Higher Education*, Washington, (D.C.: National Endowment for the Humanities.
- Borrero Cabal, Alfonso (1993) *The University as an Institution Today*, Paris and Ottawa: UNESCO and IDRC.
- Brint, Steven G. and Jerome Karabel, *The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America, 1900-1985* (New York: Oxford Univ. Press, 1989).
- Brooking, Annie (1996) *Intellectual Capital: Core Asset for the Third Millennium Enterprise*, Londres: International Thomson Business Press.
- Cameron, J.M. (1978) *The Idea of a University*, Toronto: University of Toronto Press.

- Canfoa, Luciano, *The Vanished Library: A Wonder of the Ancient World*, 1987. (The only modern history.) Londres: Hutchinson Radius (1990).
- CENEVAL (2006), *La Educación Superior en el Nuevo Milenio*, México: Centro Nacional de Evaluación para la Educación Superior.
- Chomsky, Noam, ed. *The Cold War & the University: Toward an Intellectual History of the Postwar Years* (New Press, 1997).
- Christy, Ralph D., Lionel Williamson, *A Century of Service: Land-Grant Colleges and Universities, 1890-1990* (New Brunswick, N.J.: Transaction, 1992).
- Clark, B.R. (1983) *The Higher Education System*, Berkeley, CA : University of California Press.
- _____, (1997), *Universidades Modernas: espacios de investigación y docencia*, México: UNAM y Miguel Ángel Porrúa.
- Delgado Criollo, Buenaventura (Coordinator): *Historia de la Educación, en España y América*, Morata: Fundación Santa María, 1994.
- Dewey, John,, *Electronic Text Center*, University of Virginia Library. In: modeng/public/DewDemo.html
- Eaton, Judith S., *The Unfinished Agenda: Higher Education and the 1980's* (New York : American Council on Education / Macmillan Pub. Co.; Toronto: Collier Macmillan Canada, 1991).
- Edwinsson, Leif y Michael S. Malone, (1999) *El Capital Intelectual. Cómo identificar y calcular el valor de los recursos intangibles de su empresa*, Barcelona: Ediciones Gestión 2000 S.A.

- Elliott, Orrin Leslie, *Stanford University: The First Twenty-Five Years* (Stanford: Stanford Univ. Press, 1937)
- Eschbach, Elizabeth Seymour, *The Higher Education of Women in England and America, 1865-1920* (New York : Garland, 1993)
- Feingold, Moderchai, (Editor) *History of Universities*, Vols. XIX-XXIII, Oxford University Press, 2004- 2008
- Flexner, Abraham, *Universities: American, English, German* (NY: Oxford UP, 1930)
- Freeland, Richard M., *Academia's Golden Age: Universities in Massachusetts, 1945-1970* (NY: Oxford UP, 1992)
- Garcia-Guadilla, C. (2004), *El difícil equilibrio: La educación superior como bien público y comercio de servicios*, Cuenca: Universidad de Castilla-La Mancha
- Geiger, Roger L., *To Advance Knowledge: The Growth of American Research Universities, 1900-1940* (NY: Oxford Univ. Press, 1986)
- , (1993) *Research and Relevant Knowledge: American Research Universities Since World War II*. NY: Oxford University Press
- , *The Publicness of Private Higher Education* (Pennsylvania State University), CHER Meeting: Enschede, Holanda, Septiembre 17-18, 2004. Ver en: <http://www.utwente.nl/cheps/documenten/cherkey-notepapergeiger.pdf>
- Gibb, H. A. R. (1970), "The University in the Arab-Moslem World", in Bradby, Edward, *The University Outside Europe: Essays on the Development of University*, Ayer Publishing, pp. 281-298.

- Gilli, Patrick, Jacques Verger y Daniel Le Blévec (Editores), *Les universités et la ville au Moyen Âge. Cohabitation et tensión*, Leiden y Boston: Brill, 2007.
- Graham, Hugh Davis and Nancy Diamond, *The Rise of American Research Universities: Elites and Challengers in the Postwar Era* (Baltimore, MD: Johns Hopkins Univ. Press, 1996)
- Jaspers, Karl, *La idea de la universidad (1946). En: La idea de la Universidad en Alemania*. Editorial Sudamericana, Buenos Aires 1959
- Kerr, C. (1982), *The Uses of the University*, Cambridge, Mass: Harvard University Press
- _____, (1991) *The Great Transformation in Higher Education, 1960-1980*. Albany, N.Y.: State University of New York Press
- Levine, Arthur, ed., *Higher Learning in America, 1980-2000* (Baltimore: Johns Hopkins Univ. Press, 1993)
- Levin John S. (2001), *Globalizing the Community College. Strategies for Change in the Twenty-First Century*, New York: Palgrave
- Locke, Robert R., *The End of the Practical Man: Entrepreneurship and Higher Education in Germany, France, and Great Britain, 1880-1940* (Greenwich, CT: JAI, 1984)
- , *Management and Higher Education Since 1940: The Influence of America and Japan on West Germany, Great Britain, and France* (Cambridge / New York: Cambridge Univ. Press, 1989)
- MacLeod, Roy (Editor), *The Library of Alexandria: Centre of Learning in the Ancient World*, Edición Revisada, Londres y Nueva York: I. B. Tauris, 2004.

- Madueño, R. y Sylvia Ortega, (sf) *Los actores sociales en la planeación universitaria*, Pachuca: Instituto Hidalguense de Educación Media Superior y Superior
- McGrath, Fergal, *Newman's University: Idea and Reality* (London: Longmans, Green, 1951)
- Muche, F. (ed.) (2005). *Opening up to the Wider World. The External Dimension of the Bologna Process*. ACA Papers on International Cooperation in Education. Bonn: Lemmens Verlags & Mediengesellschaft.
- Nash, Arnold, *The University and the Modern World: An Essay in the Philosophy of University Education* (New York: Macmillan, 1944)
- Newman, John Henry Cardinal, *The Idea of a University. Defined and Illustrated* (London, New York: Longman, Green and CO., 1907)
- Nisbet, R. (1971) *The Degradation of the Academic Dogma*, London: Heineman
- OCDE (1987), *Universities under Scrutiny*, Paris: Organization for Economic Co-operation and Development
- Ortega y Gasset, J. (1930) *Misión de la Universidad*, Madrid: Ediciones de la Revista de Occidente
- Patrick Gilli, Jacques Verger et Daniel Le Blévec (Editores) *Les universités et la ville au Moyen Âge. Cohabitation et tension*, Leiden and Boston: Brill, 2007
- Porta, J. y Manuel Lladonosa. Coordinators, (1998), *La Universidad en el Cambio de Siglo*, Madrid: Alianza Editorial
- Readings, Bill (1990) *The University in Ruins*, Cambridge: Harvard University Press
- Reséndiz Núñez, D. (2000) *Futuros de la Educación Superior en México*, México: Siglo XXI Editores.

- Riesman, D. (1998) *On Higher Education. The Academic Enterprise in an Era of Rising Student Consumerism*, New Brunswick, N.J. : Transaction Publishers
- Rodríguez Gómez, R. (1994) *Universidad Contemporánea. Racionalidad Política y Vinculación Social*. México : Centro de Estudios sobre la Universidad, UNAM y Miguel Ángel Porrúa
- Rothblatt, Sheldon and Bjorn Wittrock, *The European and American University Since 1800: Historical and Sociological Essays* (New York: Cambridge Univ. Press, 1993)
- Rüegg, Walter (editor general). *Historia de la Universidad en Europa*. Volumen I. (1994) Vol. II (1999), Bilbao: Universidad del País Vasco
- Sadashiv Altekar, Anant, *Education in Ancient India*, Varansi: Nand Kishore, 1965
- Secretaría de Educación Pública, (2005) *Equidad, Calidad e Innovación en el Desarrollo*, Mexico: SEP
- Stone, James C. and Donald P. DeNevi, *Portraits of the American University, 1890-1910* (San Francisco: Jossey-Bass, 1971) *Educativo Nacional*, México: Fondo de Cultura Económica
- Trumble, Kelly, *The Library of Alexandria*, Clarion Books of Houghton Mifflin Company, Boston, 2003
- Veysey, Laurence, *The Emergence of the American University* (Chicago: U. Chicago Press, 1965)

*A*nexos



Annex I

Basic Documents of the Bologna Process

1. Magna Charta Universitatum, Bologna, 18 September 1988.

Preamble

The undersigned Rectors of European Universities, gathered in Bologna for the ninth centenary of the oldest University in Europe, four years before the definitive abolition of boundaries between the countries of the European Community; looking forward to far-reaching co-operation between all European nations and believing that peoples and States should become more than ever aware of the part that universities will be called upon to play in a changing and increasingly international society, Consider:

1. that at the approaching end of this millenium the future of mankind depends largely on cultural, scientific and technical development; and that this is built up in centres of culture, knowledge and research as represented by true universities;

2. that the universities' task of spreading knowledge among the younger generations implies that ,in today's world, they must also serve society as a whole; and that the cultural, social and economic future of society requires, in particular, a considerable investment in continuing education;

3. that universities must give future generations education and training that will teach them, and through them others, to respect the great harmonies of their natural environment and of life itself.

The undersigned Rectors of European universities proclaim to all States and to the conscience of all nations the fundamental principles which must, now and always, support the vocation of universities.

Fundamental principles

1. The university is an autonomous institution at the heart of societies differently organized because of geography and historical heritage; it produces, examines, appraises and hands down culture by research and teaching. To meet the needs of the world around it, its research and teaching must be morally and intellectually independent of all political authority and economic power.

2. Teaching and research in universities must be inseparable if their tuition is not to lag behind changing needs, the demands of society, and advances in scientific knowledge.

3. Freedom in research and training is the fundamental principle of university life, and governments and universities, each as far as in them lies, must ensure respect for this fundamental requirement.

Rejecting intolerance and always open to dialogue, a university is an ideal meeting-ground for teachers capable of imparting their knowledge and well equipped to develop it by research and innovation and students entitled, able and willing to enrich their minds with that knowledge.

4. A university is the trustee of the European humanist tradition; its constant care is to attain universal knowledge to fulfil its vocation it transcends geographical and political frontiers, and affirms the vital need for different cultures to know and influence each other.

The means

To attain these goals by following such principles calls for effective *means*, suitable to present conditions.

1. To preserve freedom in research and teaching, the instruments appropriate to realize that freedom must be made available to all members of the university community.

2. Recruitment of teachers, and regulation of their status, must obey the principle that research is inseparable from teaching.

3. Each university must - with due allowance for particular circumstances - ensure that its students' freedoms are safeguarded, and that they enjoy conditions in which they can acquire the culture and training which it is their purpose to possess.

4. Universities - particularly in Europe - regard the mutual exchange of information and documentation, and frequent joint projects for the advancement of learning, as essential to the steady progress of knowledge.

Therefore, as in the earliest years of their history, they encourage mobility among teachers and students; furthermore, they consider a general policy of equivalent status, titles, examinations (without prejudice to national diplomas) and award of scholarships essential to the fulfilment of their mission in the conditions prevailing today.

The undersigned Rectors, on behalf of their Universities, undertake to do everything in their power to encourage each State, as well as the supranational organizations concerned, to mould their policy sedulously on this Magna Carta, which expresses the universities' unanimous desire freely determined and declared.

2. Sorbonne Joint Declaration

Joint declaration on harmonisation of the architecture of the European higher education system, May 25 1998

The European process has very recently moved some extremely important steps ahead. Relevant as they are, they should not make one forget that Europe is not only that of the Euro, of the banks and the economy: it must be a Europe of knowledge as well. We must strengthen and build upon the intellectual, cultural, social and technical dimensions of our continent. These have to a large extent been shaped by its universities, which continue to play a pivotal role for their development.

Universities were born in Europe, some three-quarters of a millenium ago. Our four countries boast some of the oldest, who are celebrating important anniversaries around now, as the University of Paris is doing today. In those times, students and academics would freely circulate and rapidly disseminate knowledge throughout the

continent. Nowadays, too many of our students still graduate without having had the benefit of a study period outside of national boundaries.

We are heading for a period of major change in education and working conditions, to a diversification of courses of professional careers with education and training throughout life becoming a clear obligation. We owe our students, and our society at large, a higher education system in which they are given the best opportunities to seek and find their own area of excellence. An open European area for higher learning carries a wealth of positive perspectives, of course respecting our diversities, but requires on the other hand continuous efforts to remove barriers and to develop a framework for teaching and learning, which would enhance mobility and an ever closer cooperation.

The international recognition and attractive potential of our systems are directly related to their external and internal readabilities. A system, in which two main cycles, undergraduate and graduate, should be recognized for international comparison and equivalence, seems to emerge.

Much of the originality and flexibility in this system will be achieved through the use of credits (such as in the ECTS scheme) and semesters. This will allow for validation of these acquired credits for those who choose initial or continued education in different European universities and wish to be able to acquire degrees in due time throughout life. Indeed, students should be able to enter the academic world at any time in their professional life and from diverse backgrounds.

Undergraduates should have access to a diversity of programmes, including opportunities for multidisciplinary studies, development of a proficiency in languages and the ability to use new information technologies.

International recognition of the first cycle degree as an appropriate level of qualification is important for the success of this endeavour, in which we wish to make our higher education schemes clear to all.

In the graduate cycle there would be a choice between a shorter master's degree and a longer doctor's degree, with possibilities to transfer from one to the other.

In both graduate degrees, appropriate emphasis would be placed on research and autonomous work.

At both undergraduate and graduate level, students would be encouraged to spend at least one semester in universities outside their own country. At the same time, more teaching and research staff should be working in European countries other than their own. The fast growing support of the European Union, for the mobility of students and teachers should be employed to the full.

Most countries, not only within Europe, have become fully conscious of the need to foster such evolution. The conferences of European rectors, University presidents, and groups of experts and academics in our respective countries have engaged in widespread thinking along these lines.

A convention, recognising higher education qualifications in the academic field within Europe, was agreed on last year in Lisbon. The convention set a number of basic requirements and acknowledged that individual countries could engage in an even more constructive scheme. Standing by these conclusions, one can build on them and go further. There is already much common ground for the mutual recognition of higher education degrees for professional purposes through the respective directives of the European Union.

Our governments, nevertheless, continue to have a significant role to play to these ends, by encouraging ways in which acquired knowledge can be validated and respective degrees can be better recognised. We expect this to promote further inter-university agreements. Progressive harmonisation of the overall framework of our degrees and cycles can be achieved through strengthening of already existing experience, joint diplomas, pilot initiatives, and dialogue with all concerned.

We hereby commit ourselves to encouraging a common frame of reference, aimed at improving external recognition and facilitating student mobility as well as employability. The anniversary of the University of Paris, today here in the Sorbonne, offers us a solemn opportunity to engage in the endeavour to create a European area of higher education, where national identities and common interests can interact and strengthen each other for the benefit of Europe, of its students, and more generally of its citizens. We call on other Member States of the Union and other European countries to join us in this objective and on all European Universities to consolidate Europe's standing in the world through continuously improved and updated education for its citizens.

3. The Bologna Declaration, of 1999.

Joint declaration of the European Ministers of Education, meeting in Bologna , 19 June 1000.

The European process, thanks to the extraordinary achievements of the last few years, has become an increasingly concrete and relevant reality for the Union and its citizens. Enlargement prospects together with deepening relations with other European countries, provide even wider dimensions to that reality.

Meanwhile, we are witnessing a growing awareness in large parts of the political and academic world and in public opinion of the need to establish a more complete and far-reaching Europe, in particular building upon and strengthening its intellectual, cultural, social and scientific and technological dimensions.

A Europe of Knowledge is now widely recognised as an irreplaceable factor for social and human growth and as an indispensable component to consolidate and enrich the European citizenship, capable of giving its citizens the necessary competences to face the challenges of the new millennium, together with an awareness of shared values and belonging to a common social and cultural space.

The importance of education and educational co-operation in the development and strengthening of stable, peaceful and democratic societies is universally acknowledged as paramount, the more so in view of the situation in South East Europe.

The Sorbonne declaration of 25th of May 1998, which was underpinned by these considerations, stressed the Universities' central role in developing European cultural dimensions. It emphasised the creation of the European area of higher education as a key way to promote citizens' mobility and employability and the Continent's overall development.

Several European countries have accepted the invitation to commit themselves to achieving the objectives set out in the declaration, by signing it or expressing their agreement in principle. The direction taken by several higher education reforms launched in the meantime in Europe has proved many Governments' determination to act.

European higher education institutions, for their part, have accepted the challenge and taken up a main role in constructing the European area of higher education, also in the wake of the fundamental principles laid down in the Bologna Magna Charta Universitatum of 1988. This is of the highest importance, given that Universities' independence and autonomy ensure that higher education and research systems continuously adapt to changing needs, society's demands and advances in scientific knowledge.

The course has been set in the right direction and with meaningful purpose. The achievement of greater compatibility and comparability of the systems of higher education nevertheless requires continual momentum in order to be fully accomplished. We need to support it through promoting concrete measures to achieve tangible forward steps. The 18th June meeting saw participation by authoritative experts and scholars from all our countries and provides us with very useful suggestions on the initiatives to be taken.

We must in particular look at the objective of increasing the international competitiveness of the European system of higher education. The vitality and efficiency of any civilisation can be measured by the appeal that its culture has for other countries. We need to ensure that the European higher education system acquires a world-wide degree of attraction equal to our extraordinary cultural and scientific traditions.

While affirming our support to the general principles laid down in the Sorbonne declaration, we engage in co-ordinating our policies to reach in the short term, and in any case within the first decade of the third millennium, the following objectives, which we consider to be of primary relevance in order to establish the European area of higher education and to promote the European system of higher education world-wide:

- Adoption of a system of easily readable and comparable degrees, also through the implementation of the Diploma Supplement, in order to promote European citizens employability and the international competitiveness of the European higher education system.

- Adoption of a system essentially based on two main cycles, undergraduate and graduate. Access to the second cycle shall require successful completion of first cycle studies, lasting a minimum of three years. The degree awarded after the first cycle shall also be relevant to the European labour market as an appropriate level of qualification. The second cycle should lead to the master and/or doctorate degree as in many European countries.
- Establishment of a system of credits - such as in the ECTS system - as a proper means of promoting the most widespread student mobility.
- Credits could also be acquired in non-higher education contexts, including life-long learning, provided they are recognised by receiving Universities concerned.
- Promotion of mobility by overcoming obstacles to the effective exercise of free movement with particular attention to:
 - for students, access to study and training opportunities and to related services.
 - for teachers, researchers and administrative staff, recognition and valorisation of periods spent in a European context researching, teaching and training, without prejudicing their statutory rights.
- Promotion of European co-operation in quality assurance with a view to developing comparable criteria and methodologies.
- Promotion of the necessary European dimensions in higher education, particularly with regards to curricular development, interinstitutional co-operation, mobility schemes and integrated programmes of study, training and research.

We hereby undertake to attain these objectives - within the framework of our institutional competences and taking full respect of the diversity of cultures, languages, national education systems and of University autonomy - to consolidate the European area of higher education. To that end, we will pursue the ways of intergovernmental co-operation, together with those of non governmental European organisations with competence on higher education. We expect Universities again to respond promptly and positively and to contribute actively to the success of our endeavour.

Convinced that the establishment of the European area of higher education requires constant support, supervision and adaptation to the continuously evolving needs, we decide to meet again within two years in order to assess the progress achieved and the new steps to be taken.

4. The Prague Communiqué. Towards the European Higher Education Area, of 2001.

Communiqué of the meeting of European Ministers in charge of Higher Education in Prague on May 19th 2001

Two years after signing the Bologna Declaration and three years after the Sorbonne Declaration, European Ministers in charge of higher education, representing 32 signatories, met in Prague in order to review the progress achieved and to set directions and

priorities for the coming years of the process. Ministers reaffirmed their commitment to the objective of establishing the European Higher Education Area by 2010. The choice of Prague to hold this meeting is a symbol of their will to involve the whole of Europe in the process in the light of enlargement of the European Union.

Ministers welcomed and reviewed the report “Furthering the Bologna Process” commissioned by the follow-up group and found that the goals laid down in the Bologna Declaration have been widely accepted and used as a base for the development of higher education by most signatories as well as by universities and other higher education institutions. Ministers reaffirmed that efforts to promote mobility must be continued to enable students, teachers, researchers and administrative staff to benefit from the richness of the European Higher Education Area including its democratic values, diversity of cultures and languages and the diversity of the higher education systems.

Ministers took note of the Convention of European higher education institutions held in Salamanca on 29-30 March and the recommendations of the Convention of European Students, held in Göteborg on 24-25 March, and appreciated the active involvement of the European University Association (EUA) and the National Unions of Students in Europe (ESIB) in the Bologna process. They further noted and appreciated the many other initiatives to take the process further. Ministers also took note of the constructive assistance of the European Commission.

Ministers observed that the activities recommended in the Declaration concerning degree structure have been intensely and widely dealt with in most countries. They especially appreciated how the work on quality assurance is moving forward. Ministers recognized the need to cooperate to address the challenges brought about by transnational education. They also recognized the need for a lifelong learning perspective on education.

FURTHER ACTIONS FOLLOWING THE SIX OBJECTIVES OF THE BOLOGNA PROCESS.

As the Bologna Declaration sets out, Ministers asserted that building the European Higher Education Area is a condition for enhancing the attractiveness and competitiveness of higher education institutions in Europe. They supported the idea that higher education should be considered a public good and is and will remain a public responsibility (regulations etc.), and that students are full members of the higher education community. From this point of view Ministers commented on the further process as follows:

Adoption of a system of easily readable and comparable degrees

Ministers strongly encouraged universities and other higher education institutions to take full advantage of existing national legislation and European tools aimed at facilitating academic and professional recognition of course units, degrees and other awards, so that citizens can effectively use their qualifications, competencies

and skills throughout the European Higher Education Area. Ministers called upon existing organisations and networks such as NARIC and ENIC to promote, at institutional, national and European level, simple, efficient and fair recognition reflecting the underlying diversity of qualifications.

Adoption of a system essentially based on two main cycles

Ministers noted with satisfaction that the objective of a degree structure based on two main cycles, articulating higher education in undergraduate and graduate studies, has been tackled and discussed. Some countries have already adopted this structure and several others are considering it with great interest. It is important to note that in many countries bachelor's and master's degrees, or comparable two cycle degrees, can be obtained at universities as well as at other higher education institutions. Programmes leading to a degree may, and indeed should, have different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs as concluded at the Helsinki seminar on bachelor level degrees (February 2001).

Establishment of a system of credits

Ministers emphasized that for greater flexibility in learning and qualification processes the adoption of common cornerstones of qualifications, supported by a credit system such as the ECTS or one that is ECTS-compatible, providing both transferability and accumulation functions, is necessary. Together with mutually recognized quality assurance systems such arrangements will facilitate students' access to the European labour market and enhance the compatibility, attractiveness and competitiveness of European higher education. The generalized use of such a credit system and of the Diploma Supplement will foster progress in this direction.

Promotion of mobility

Ministers reaffirmed that the objective of improving the mobility of students, teachers, researchers and administrative staff as set out in the Bologna Declaration is of the utmost importance. Therefore, they confirmed their commitment to pursue the removal of all obstacles to the free movement of students, teachers, researchers and administrative staff and emphasized the social dimension of mobility. They took note of the possibilities for mobility offered by the European Community programmes and the progress achieved in this field, e.g. in launching the Mobility Action Plan endorsed by the European Council in Nice in 2000.

Promotion of European cooperation in quality assurance

Ministers recognized the vital role that quality assurance systems play in ensuring high quality standards and in facilitating the comparability of qualifications throughout Europe. They also encouraged closer cooperation between recognition and quality assurance networks. They emphasized the necessity of close European cooperation and mutual trust in and acceptance of national quality assurance systems. Further they encouraged universities and other higher education institutions to disseminate

examples of best practice and to design scenarios for mutual acceptance of evaluation and accreditation/certification mechanisms. Ministers called upon the universities and other higher education institutions, national agencies and the European Network of Quality Assurance in Higher Education (ENQA), in cooperation with corresponding bodies from countries which are not members of ENQA, to collaborate in establishing a common framework of reference and to disseminate best practice.

Promotion of the European dimensions in higher education

In order to further strengthen the important European dimensions of higher education and graduate employability Ministers called upon the higher education sector to increase the development of modules, courses and curricula at all levels with “European” content, orientation or organisation. This concerns particularly modules, courses and degree curricula offered in partnership by institutions from different countries and leading to a recognized joint degree.

FURTHERMORE MINISTERS EMPHASIZED THE FOLLOWING POINTS:

Lifelong learning

Lifelong learning is an essential element of the European Higher Education Area. In the future Europe, built upon a knowledge-based society and economy, lifelong learning strategies are necessary to face the challenges of competitiveness and the use of new technologies and to improve social cohesion, equal opportunities and the quality of life.

Higher education institutions and students

Ministers stressed that the involvement of universities and other higher education institutions and of students as competent, active and constructive partners in the establishment and shaping of a European Higher Education Area is needed and welcomed. The institutions have demonstrated the importance they attach to the creation of a compatible and efficient, yet diversified and adaptable European Higher Education Area. Ministers also pointed out that quality is the basic underlying condition for trust, relevance, mobility, compatibility and attractiveness in the European Higher Education Area. Ministers expressed their appreciation of the contributions toward developing study programmes combining academic quality with relevance to lasting employability and called for a continued proactive role of higher education institutions. Ministers affirmed that students should participate in and influence the organisation and content of education at universities and other higher education institutions. Ministers also reaffirmed the need, recalled by students, to take account of the social dimension in the Bologna process.

Promoting the attractiveness of the European Higher Education Area

Ministers agreed on the importance of enhancing attractiveness of European higher education to students from Europe and other parts of the world. The readability and comparability of European higher education degrees world-wide should be en-

hanced by the development of a common framework of qualifications, as well as by coherent quality assurance and accreditation/certification mechanisms and by increased information efforts. Ministers particularly stressed that the quality of higher education and research is and should be an important determinant of Europe's international attractiveness and competitiveness. Ministers agreed that more attention should be paid to the benefit of a European Higher Education Area with institutions and programmes with different profiles. They called for increased collaboration between the European countries concerning the possible implications and perspectives of transnational education.

CONTINUED FOLLOW-UP

Ministers committed themselves to continue their cooperation based on the objectives set out in the Bologna Declaration, building on the similarities and benefiting from the differences between cultures, languages and national systems, and drawing on all possibilities of intergovernmental cooperation and the ongoing dialogue with European universities and other higher education institutions and student organisations as well as the Community programmes.

Ministers welcomed new members to join the Bologna process after applications from Ministers representing countries for which the European Community programmes Socrates and Leonardo da Vinci or Tempus-Cards are open. They accepted applications from Croatia, Cyprus and Turkey.

Ministers decided that a new follow-up meeting will take place in the second half of 2003 in Berlin to review progress and set directions and priorities for the next stages of the process towards the European Higher Education Area. They confirmed the need for a structure for the follow-up work, consisting of a follow-up group and a preparatory group. The follow-up group should be composed of representatives of all signatories, new participants and the European Commission, and should be chaired by the EU Presidency at the time. The preparatory group should be composed of representatives of the countries hosting the previous ministerial meetings and the next ministerial meeting, two EU member states and two non-EU member states; these latter four representatives will be elected by the follow-up group. The EU Presidency at the time and the European Commission will also be part of the preparatory group. The preparatory group will be chaired by the representative of the country hosting the next ministerial meeting.

The European University Association, the European Association of Institutions in Higher Education (EURASHE), the National Unions of Students in Europe and the Council of Europe should be consulted in the follow-up work. In order to take the process further, Ministers encouraged the follow-up group to arrange seminars to explore the following areas: cooperation concerning accreditation and quality assurance, recognition issues and the use of credits in the Bologna process, the development of joint

degrees, the social dimension, with specific attention to obstacles to mobility, and the enlargement of the Bologna process, lifelong learning and student involvement.

5. The Berlin Communiqué, of 2003.

Realising the European Higher Education Area

Communiqué of the Conference of Ministers responsible for Higher Education in Berlin on 19 September 2003

Preamble

On 19 June 1999, one year after the Sorbonne Declaration, Ministers responsible for higher education from 29 European countries signed the Bologna Declaration. They agreed on important joint objectives for the development of a coherent and cohesive European Higher Education Area by 2010. In the first follow-up conference held in Prague on 19 May 2001, they increased the number of the objectives and reaffirmed their commitment to establish the European Higher Education Area by 2010. On 19 September 2003, Ministers responsible for higher education from 33 European countries met in Berlin in order to review the progress achieved and to set priorities and new objectives for the coming years, with a view to speeding up the realisation of the European Higher Education Area. They agreed on the following considerations, principles and priorities:

Ministers reaffirm the importance of the social dimension of the Bologna Process. The need to increase competitiveness must be balanced with the objective of improving the social characteristics of the European Higher Education Area, aiming at strengthening social cohesion and reducing social and gender inequalities both at national and at European level. In that context, Ministers reaffirm their position that higher education is a public good and a public responsibility. They emphasise that in international academic cooperation and exchanges, academic values should prevail. Ministers take into due consideration the conclusions of the European Councils in Lisbon (2000) and Barcelona (2002) aimed at making Europe “the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion” and calling for further action and closer co-operation in the context of the Bologna Process.

Ministers take note of the Progress Report commissioned by the Follow-up Group on the development of the Bologna Process between Prague and Berlin. They also take note of the Trends-III Report prepared by the European University Association (EUA), as well as of the results of the seminars, which were organised as part of the work programme between Prague and Berlin by several member States and Higher Education Institutions, organisations and students. Ministers further note the National Reports, which are evidence of the considerable progress being made in the application of the principles of the Bologna Process. Finally, they take note of

the messages from the European Commission and the Council of Europe and acknowledge their support for the implementation of the Process.

Ministers agree that efforts shall be undertaken in order to secure closer links overall between the higher education and research systems in their respective countries. The emerging European Higher Education Area will benefit from synergies with the European Research Area, thus strengthening the basis of the Europe of Knowledge. The aim is to preserve Europe's cultural richness and linguistic diversity, based on its heritage of diversified traditions, and to foster its potential of innovation and social and economic development through enhanced co-operation among European Higher Education Institutions.

Ministers recognise the fundamental role in the development of the European Higher Education Area played by Higher Education Institutions and student organisations.

They take note of the message from the European University Association (EUA) arising from the Graz Convention of Higher Education Institutions, the contributions from the European Association of Institutions in Higher Education (EURASHE) and the communications from ESIB – The National Unions of Students in Europe.

Ministers welcome the interest shown by other regions of the world in the development of the European Higher Education Area, and welcome in particular the presence of representatives from European countries not yet party to the Bologna Process as well as from the Follow-up Committee of the European Union, Latin America and Caribbean (EULAC) Common Space for Higher Education as guests at this conference.

Progress

Ministers welcome the various initiatives undertaken since the Prague Higher.

Education Summit to move towards more comparability and compatibility, to make higher education systems more transparent and to enhance the quality of European higher education at institutional and national levels. They appreciate the co-operation and commitment of all partners - Higher Education Institutions, students and other stakeholders - to this effect.

Ministers emphasise the importance of all elements of the Bologna Process for establishing the European Higher Education Area and stress the need to intensify the efforts at institutional, national and European level. However, to give the Process further momentum, they commit themselves to intermediate priorities for the next two years. They will strengthen their efforts to promote effective quality assurance systems, to step up effective use of the system based on two cycles and to improve the recognition system of degrees and periods of studies.

Quality Assurance

The quality of higher education has proven to be at the heart of the setting up of a European Higher Education Area. Ministers commit themselves to supporting

further development of quality assurance at institutional, national and European level. They stress the need to develop mutually shared criteria and methodologies on quality assurance.

They also stress that consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework.

Therefore, they agree that by 2005 national quality assurance systems should include:

- A definition of the responsibilities of the bodies and institutions involved.
- Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results.
- A system of accreditation, certification or comparable procedures.
- International participation, co-operation and networking.

At the European level, Ministers call upon ENQA through its members, in cooperation with the EUA, EURASHE and ESIB, to develop an agreed set of standards, procedures and guidelines on quality assurance, to explore ways of ensuring an adequate peer review system for quality assurance and/or accreditation agencies or bodies, and to report back through the Follow-up Group to Ministers in 2005. Due account will be taken of the expertise of other quality assurance associations and networks.

Degree structure: Adoption of a system essentially based on two main cycles

Ministers are pleased to note that, following their commitment in the Bologna Declaration to the two-cycle system, a comprehensive restructuring of the European landscape of higher education is now under way. All Ministers commit themselves to having started the implementation of the two cycle system by 2005.

Ministers underline the importance of consolidating the progress made, and of improving understanding and acceptance of the new qualifications through reinforcing dialogue within institutions and between institutions and employers.

Ministers encourage the member States to elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile. They also undertake to elaborate an overarching framework of qualifications for the European Higher Education Area.

Within such frameworks, degrees should have different defined outcomes. First and second cycle degrees should have different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs. First cycle degrees should give access, in the sense of the Lisbon Recognition Convention, to second cycle programmes. Second cycle degrees should give access to doctoral studies.

Ministers invite the Follow-up Group to explore whether and how shorter higher education may be linked to the first cycle of a qualifications framework for the European Higher Education Area.

Ministers stress their commitment to making higher education equally accessible to all, on the basis of capacity, by every appropriate means.

Promotion of mobility

Mobility of students and academic and administrative staff is the basis for establishing a European Higher Education Area. Ministers emphasise its importance for academic and cultural as well as political, social and economic spheres. They note with satisfaction that since their last meeting, mobility figures have increased, thanks also to the substantial support of the European Union programmes, and agree to undertake the necessary steps to improve the quality and coverage of statistical data on student mobility.

They reaffirm their intention to make every effort to remove all obstacles to mobility within the European Higher Education Area. With a view to promoting student mobility, Ministers will take the necessary steps to enable the portability of national loans and grants.

Establishment of a system of credits

Ministers stress the important role played by the European Credit Transfer System (ECTS) in facilitating student mobility and international curriculum development. They note that ECTS is increasingly becoming a generalised basis for the national credit systems. They encourage further progress with the goal that the ECTS becomes not only a transfer but also an accumulation system, to be applied consistently as it develops within the emerging European Higher Education Area.

Recognition of degrees: Adoption of a system of easily readable and comparable degrees

Ministers underline the importance of the Lisbon Recognition Convention, which should be ratified by all countries participating in the Bologna Process, and call on the ENIC and NARIC networks along with the competent National Authorities to further the implementation of the Convention.

They set the objective that every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge. It should be issued in a widely spoken European language.

They appeal to institutions and employers to make full use of the Diploma Supplement, so as to take advantage of the improved transparency and flexibility of the higher education degree systems, for fostering employability and facilitating academic recognition for further studies.

Higher education institutions and students

Ministers welcome the commitment of Higher Education Institutions and students to the Bologna Process and recognise that it is ultimately the active participation of all partners in the Process that will ensure its long-term success.

Aware of the contribution strong institutions can make to economic and societal development, Ministers accept that institutions need to be empowered to take decisions on their internal organisation and administration. Ministers further call upon institutions to ensure that the reforms become fully integrated into core institutional functions and processes.

Ministers note the constructive participation of student organisations in the Bologna Process and underline the necessity to include the students continuously and at an early stage in further activities.

Students are full partners in higher education governance. Ministers note that national legal measures for ensuring student participation are largely in place throughout the European Higher Education Area. They also call on institutions and student organisations to identify ways of increasing actual student involvement in higher education governance.

Ministers stress the need for appropriate studying and living conditions for the students, so that they can successfully complete their studies within an appropriate period of time without obstacles related to their social and economic background. They also stress the need for more comparable data on the social and economic situation of students.

Promotion of the European dimension in higher education

Ministers note that, following their call in Prague, additional modules, courses and curricula with European content, orientation or organisation are being developed. They note that initiatives have been taken by Higher Education Institutions in various European countries to pool their academic resources and cultural traditions in order to promote the development of integrated study programmes and joint degrees at first, second and third level.

Moreover, they stress the necessity of ensuring a substantial period of study abroad in joint degree programmes as well as proper provision for linguistic diversity and language learning, so that students may achieve their full potential for European identity, citizenship and employability.

Ministers agree to engage at the national level to remove legal obstacles to the establishment and recognition of such degrees and to actively support the development and adequate quality assurance of integrated curricula leading to joint degrees.

Promoting the attractiveness of the European Higher Education Area

Ministers agree that the attractiveness and openness of the European higher education should be reinforced. They confirm their readiness to further develop scholarship programmes for students from third countries.

Ministers declare that transnational exchanges in higher education should be governed on the basis of academic quality and academic values, and agree to work in all appropriate fora to that end. In all appropriate circumstances such fora should include the social and economic partners.

They encourage the co-operation with regions in other parts of the world by opening Bologna seminars and conferences to representatives of these regions.

Lifelong learning

Ministers underline the important contribution of higher education in making lifelong learning a reality. They are taking steps to align their national policies to realise this goal and urge Higher Education Institutions and all concerned to enhance the possibilities for lifelong learning at higher education level including the recognition of prior learning. They emphasise that such action must be an integral part of higher education activity.

Ministers furthermore call those working on qualifications frameworks for the European Higher Education Area to encompass the wide range of flexible learning paths, opportunities and techniques and to make appropriate use of the ECTS credits.

They stress the need to improve opportunities for all citizens, in accordance with their aspirations and abilities, to follow the lifelong learning paths into and within higher education.

Additional Actions

European Higher Education Area and European Research Area

– two pillars of the knowledge based society

Conscious of the need to promote closer links between the EHEA and the ERA in a Europe of Knowledge, and of the importance of research as an integral part of higher education across Europe, Ministers consider it necessary to go beyond the present focus on two main cycles of higher education to include the doctoral level as the third cycle in the Bologna Process. They emphasise the importance of research and research training and the promotion of interdisciplinarity in maintaining and improving the quality of higher education and in enhancing the competitiveness of European higher education more generally. Ministers call for increased mobility at the doctoral and postdoctoral levels and encourage the institutions concerned to increase their cooperation in doctoral studies and the training of young researchers.

Ministers will make the necessary effort to make European Higher Education

Institutions an even more attractive and efficient partner. Therefore Ministers ask Higher Education Institutions to increase the role and relevance of research to technological, social and cultural evolution and to the needs of society.

Ministers understand that there are obstacles inhibiting the achievement of these goals and these cannot be resolved by Higher Education Institutions alone. It requires strong support, including financial, and appropriate decisions from national Governments and European Bodies.

Finally, Ministers state that networks at doctoral level should be given support to stimulate the development of excellence and to become one of the hallmarks of the European Higher Education Area.

Stocktaking

With a view to the goals set for 2010, it is expected that measures will be introduced to take stock of progress achieved in the Bologna Process. A mid-term stocktaking exercise would provide reliable information on how the Process is actually advancing and would offer the possibility to take corrective measures, if appropriate.

Ministers charge the Follow-up Group with organising a stocktaking process in time for their summit in 2005 and undertaking to prepare detailed reports on the progress and implementation of the intermediate priorities set for the next two years:

- quality assurance
- two-cycle system
- recognition of degrees and periods of studies

Participating countries will, furthermore, be prepared to allow access to the necessary information for research on higher education relating to the objectives of the Bologna Process. Access to data banks on ongoing research and research results shall be facilitated.

Further Follow-up

New members

Ministers consider it necessary to adapt the clause in the Prague Communiqué on applications for membership as follows:

Countries party to the European Cultural Convention shall be eligible for membership of the European Higher Education Area provided that they at the same time declare their willingness to pursue and implement the objectives of the Bologna Process in their own systems of higher education. Their applications should contain information on how they will implement the principles and objectives of the declaration.

Ministers decide to accept the requests for membership of Albania, Andorra, Bosnia and Herzegovina, Holy See, Russia, Serbia and Montenegro, “the Former Yugoslav Republic of Macedonia” and to welcome these states as new members thus expanding the process to 40 European Countries.

Ministers recognise that membership of the Bologna Process implies substantial change and reform for all signatory countries. They agree to support the new signatory countries in those changes and reforms, incorporating them within the mutual discussions and assistance, which the Bologna Process involves.

Follow-up structure

Ministers entrust the implementation of all the issues covered in the Communiqué, the overall steering of the Bologna Process and the preparation of the next ministerial meeting to a Follow-up Group, which shall be composed of the representatives of all members of the Bologna Process and the European Commission, with the Council of Europe, the EUA, EURASHE, ESIB and UNESCO/CEPES as consultative members.

This group, which should be convened at least twice a year, shall be chaired by the EU Presidency, with the host country of the next Ministerial Conference as vice-chair.

A Board also chaired by the EU Presidency shall oversee the work between the meetings of the Follow-up Group. The Board will be composed of the chair, the next host country as vice-chair, the preceding and the following EU Presidencies, three participating countries elected by the Follow-up Group for one year, the European Commission and, as consultative members, the Council of Europe, the EUA, EURASHE and ESIB. The Follow-up Group as well as the Board may convene ad hoc working groups as they deem necessary.

The overall follow-up work will be supported by a Secretariat which the country hosting the next Ministerial Conference will provide.

In its first meeting after the Berlin Conference, the Follow-up Group is asked to further define the responsibilities of the Board and the tasks of the Secretariat.

Work programme 2003-2005

Ministers ask the Follow-up Group to co-ordinate activities for progress of the Bologna Process as indicated in the themes and actions covered by this Communiqué and report on them in time for the next ministerial meeting in 2005.

6. The Bergen Communiqué, of 2005

The European Higher Education Area - Achieving the Goals

Communiqué of the Conference of European Ministers Responsible for Higher Education. Bergen, 19-20 May 2005

We, Ministers responsible for higher education in the participating countries of the Bologna Process, have met for a mid-term review and for setting goals and priorities towards 2010. At this conference, we have welcomed Armenia, Azerbaijan, Georgia, Moldova and Ukraine as new participating countries in the Bologna Process. We all share the common understanding of the principles, objectives and commitments of the Process as expressed in the Bologna Declaration and in the subsequent communiqués from the Ministerial Conferences in Prague and Berlin. We confirm our commitment to coordinating our policies through the Bologna Process to establish the European Higher Education Area (EHEA) by 2010, and we commit ourselves to assisting the new participating countries to implement the goals of the Process.

I. Partnership

We underline the central role of higher education institutions, their staff and students as partners in the Bologna Process. Their role in the implementation of the Process becomes all the more important now that the necessary legislative reforms are largely in place, and we encourage them to continue and intensify their efforts to establish the EHEA. We welcome the clear commitment of higher education institutions across Europe to the Process, and we recognise that time is needed to optimise

the impact of structural change on curricula and thus to ensure the introduction of the innovative teaching and learning processes that Europe needs.

We welcome the support of organisations representing business and the social partners and look forward to intensified cooperation in reaching the goals of the Bologna Process. We further welcome the contributions of the international institutions and organisations that are partners to the Process.

II. Taking stock

We take note of the significant progress made towards our goals, as set out in the General Report 2003-2005 from the Follow-up Group, in EUA's *Trends IV* report, and in ESIB's report *Bologna with Student Eyes*.

At our meeting in Berlin, we asked the Follow-up Group for a mid-term stocktaking, focusing on three priorities – the degree system, quality assurance and the recognition of degrees and periods of study. From the stocktaking report we note that substantial progress has been made in these three priority areas. It will be important to ensure that progress is consistent across all participating countries. We therefore see a need for greater sharing of expertise to build capacity at both institutional and governmental level.

The degree system

We note with satisfaction that the two-cycle degree system is being implemented on a large scale, with more than half of the students being enrolled in it in most countries. However, there are still some obstacles to access between cycles. Furthermore, there is a need for greater dialogue, involving Governments, institutions and social partners, to increase the employability of graduates with bachelor qualifications, including in appropriate posts within the public service.

We adopt the overarching framework for qualifications in the EHEA, comprising three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles. We commit ourselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007. We ask the Follow-up Group to report on the implementation and further development of the overarching framework.

We underline the importance of ensuring complementarity between the overarching framework for the EHEA and the proposed broader framework for qualifications for lifelong learning encompassing general education as well as vocational education and training as now being developed within the European Union as well as among participating countries. We ask the European Commission fully to consult all parties to the Bologna Process as work progresses.

Quality assurance

Almost all countries have made provision for a quality assurance system based

on the criteria set out in the Berlin Communiqué and with a high degree of cooperation and networking.

However, there is still progress to be made, in particular as regards student involvement and international cooperation. Furthermore, we urge higher education institutions to continue their efforts to enhance the quality of their activities through the systematic introduction of internal mechanisms and their direct correlation to external quality assurance.

We adopt the standards and guidelines for quality assurance in the European Higher Education Area as proposed by ENQA. We commit ourselves to introducing the proposed model for peer review of quality assurance agencies on a national basis, while respecting the commonly accepted guidelines and criteria. We welcome the principle of a European register of quality assurance agencies based on national review. We ask that the practicalities of implementation be further developed by ENQA in cooperation with EUA, EURASHE and ESIB with a report back to us through the Follow-up Group. We underline the importance of cooperation between nationally recognised agencies with a view to enhancing the mutual recognition of accreditation or quality assurance decisions.

Recognition of degrees and study periods

We note that 36 of the 45 participating countries have now ratified the Lisbon Recognition Convention. We urge those that have not already done so to ratify the Convention without delay. We commit ourselves to ensuring the full implementation of its principles, and to incorporating them in national legislation as appropriate. We call on all participating countries to address recognition problems identified by the ENIC/NARIC networks. We will draw up national action plans to improve the quality of the process associated with the recognition of foreign qualifications. These plans will form part of each country's national report for the next Ministerial Conference. We express support for the subsidiary texts to the Lisbon Recognition Convention and call upon all national authorities and other stakeholders to recognise joint degrees awarded in two or more countries in the EHEA.

We see the development of national and European frameworks for qualifications as an opportunity to further embed lifelong learning in higher education. We will work with higher education institutions and others to improve recognition of prior learning including, where possible, non-formal and informal learning for access to, and as elements in, higher education programmes.

III. Further challenges and priorities

Higher education and research

We underline the importance of higher education in further enhancing research and the importance of research in underpinning higher education for the economic and cultural development of our societies and for social cohesion. We note that the efforts to introduce structural change and improve the quality of teaching should not

detract from the effort to strengthen research and innovation. We therefore emphasise the importance of research and research training in maintaining and improving the quality of and enhancing the competitiveness and attractiveness of the EHEA. With a view to achieving better results we recognise the need to improve the synergy between the higher education sector and other research sectors throughout our respective countries and between the EHEA and the European Research Area.

To achieve these objectives, doctoral level qualifications need to be fully aligned with the EHEA overarching framework for qualifications using the outcomes-based approach. The core component of doctoral training is the advancement of knowledge through original research. Considering the need for structured doctoral programmes and the need for transparent supervision and assessment, we note that the normal workload of the third cycle in most countries would correspond to 3-4 years full time. We urge universities to ensure that their doctoral programmes promote interdisciplinary training and the development of transferable skills, thus meeting the needs of the wider employment market. We need to achieve an overall increase in the numbers of doctoral candidates taking up research careers within the EHEA. We consider participants in third cycle programmes both as students and as early stage researchers. We charge the Bologna Follow-up Group with inviting the European University Association, together with other interested partners, to prepare a report under the responsibility of the Follow-up Group on the further development of the basic principles for doctoral programmes, to be presented to Ministers in 2007. Overregulation of doctoral programmes must be avoided.

The social dimension

The social dimension of the Bologna Process is a constituent part of the EHEA and a necessary condition for the attractiveness and competitiveness of the EHEA. We therefore renew our commitment to making quality higher education equally accessible to all, and stress the need for appropriate conditions for students so that they can complete their studies without obstacles related to their social and economic background. The social dimension includes measures taken by governments to help students, especially from socially disadvantaged groups, in financial and economic aspects and to provide them with guidance and counselling services with a view to widening access.

Mobility

We recognise that mobility of students and staff among all participating countries remains one of the key objectives of the Bologna Process. Aware of the many remaining challenges to be overcome, we reconfirm our commitment to facilitate the portability of grants and loans where appropriate through joint action, with a view to making mobility within the EHEA a reality. We shall intensify our efforts to lift obstacles to mobility by facilitating the delivery of visa and work permits and by encouraging participation in mobility programmes. We urge institutions and students

to make full use of mobility programmes, advocating full recognition of study periods abroad within such programmes.

The attractiveness of the EHEA and cooperation with other parts of the world

The European Higher Education Area must be open and should be attractive to other parts of the world. Our contribution to achieving education for all should be based on the principle of sustainable development and be in accordance with the ongoing international work on developing guidelines for quality provision of cross-border higher education. We reiterate that in international academic cooperation, academic values should prevail.

We see the European Higher Education Area as a partner of higher education systems in other regions of the world, stimulating balanced student and staff exchange and cooperation between higher education institutions. We underline the importance of intercultural understanding and respect. We look forward to enhancing the understanding of the Bologna Process in other continents by sharing our experiences of reform processes with neighbouring regions. We stress the need for dialogue on issues of mutual interest. We see the need to identify partner regions and intensify the exchange of ideas and experiences with those regions. We ask the Follow-up Group to elaborate and agree on a strategy for the external dimension.

IV. Taking stock on progress for 2007

We charge the Follow-up Group with continuing and widening the stocktaking process and reporting in time for the next Ministerial Conference. We expect stocktaking to be based on the appropriate methodology and to continue in the fields of the degree system, quality assurance and recognition of degrees and study periods, and by 2007 we will have largely completed the implementation of these three intermediate priorities.

In particular, we shall look for progress in:

- implementation of the standards and guidelines for quality assurance as proposed in the ENQA report;
- implementation of the national frameworks for qualifications;
- the awarding and recognition of joint degrees, including at the doctorate level;
- creating opportunities for flexible learning paths in higher education, including procedures for the recognition of prior learning.

We also charge the Follow-up Group with presenting comparable data on the mobility of staff and students as well as on the social and economic situation of students in participating countries as a basis for future stocktaking and reporting in time for the next Ministerial Conference. The future stocktaking will have to take into account the social dimension as defined above.

V. Preparing for 2010

Building on the achievements so far in the Bologna Process, we wish to establish a European Higher Education Area based on the principles of quality and transpa-

rency. We must cherish our rich heritage and cultural diversity in contributing to a knowledge-based society. We commit ourselves to upholding the principle of public responsibility for higher education in the context of complex modern societies. As higher education is situated at the crossroads of research, education and innovation, it is also the key to Europe's competitiveness. As we move closer to 2010, we undertake to ensure that higher education institutions enjoy the necessary autonomy to implement the agreed reforms, and we recognise the need for sustainable funding of institutions.

The European Higher Education Area is structured around three cycles, where each level has the function of preparing the student for the labour market, for further competence building and for active citizenship. The overarching framework for qualifications, the agreed set of European standards and guidelines for quality assurance and the recognition of degrees and periods of study are also key characteristics of the structure of the EHEA.

We endorse the follow-up structure set up in Berlin, with the inclusion of the Education International (EI) Pan-European Structure, the European Association for Quality Assurance in Higher Education (ENQA), and the Union of Industrial and Employers' Confederations of Europe (UNICE) as new consultative members of the Follow-up Group.

As the Bologna Process leads to the establishment of the EHEA, we have to consider the appropriate arrangements needed to support the continuing development beyond 2010, and we ask the Follow-up Group to explore these issues.

We will hold the next Ministerial Conference in London in 2007.

7. The London Communiqué, of 2007

Towards the European Higher Education Area: responding to challenges in a globalised world, 18 Mai 2007

1. Introduction

1.1 We, the Ministers responsible for Higher Education in the countries participating in the Bologna Process, have met in London to review progress made since we convened in Bergen in 2005.

1.2 Based on our agreed criteria for country membership, we welcome the Republic of Montenegro as a member of the Bologna Process.

1.3 Developments over the last two years have brought us a significant step closer to the realisation of the European Higher Education Area (EHEA). Building on our rich and diverse European cultural heritage, we are developing an EHEA based on institutional autonomy, academic freedom, equal opportunities and democratic principles that will facilitate mobility, increase employability and strengthen Europe's attractiveness and competitiveness. As we look ahead, we recognise that, in a changing world, there will be a continuing need to adapt our higher education

systems, to ensure that the EHEA remains competitive and can respond effectively to the challenges of globalisation. In the short term, we appreciate that implementing the Bologna reforms is a significant task, and appreciate the continuing support and commitment of all partners in the process. We welcome the contribution of the working groups and seminars in helping to drive forward progress. We agree to continue to work together in partnership, assisting one another in our efforts and promoting the exchange of good practice.

1.4 We reaffirm our commitment to increasing the compatibility and comparability of our higher education systems, whilst at the same time respecting their diversity.

We recognise the important influence higher education institutions (HEIs) exert on developing our societies, based on their traditions as centres of learning, research, creativity and knowledge transfer as well as their key role in defining and transmitting the values on which our societies are built. Our aim is to ensure that our HEIs have the necessary resources to continue to fulfil their full range of purposes. Those purposes include: preparing students for life as active citizens in a democratic society; preparing students for their future careers and enabling their personal development; creating and maintaining a broad, advanced knowledge base; and stimulating research and innovation.

1.5 We therefore underline the importance of strong institutions, which are diverse, adequately funded, autonomous and accountable. The principles of nondiscrimination and equitable access should be respected and promoted throughout the EHEA. We commit to upholding these principles and to ensuring that neither students nor staff suffer discrimination of any kind.

2. Progress towards the EHEA

2.1 Our stocktaking report, along with EUA's *Trends V* report, ESIB's *Bologna With Student Eyes* and Eurydice's *Focus on the Structure of Higher Education in Europe*, confirms that there has been good overall progress in the last two years.

There is an increasing awareness that a significant outcome of the process will be a move towards student-centred higher education and away from teacher driven provision. We will continue to support this important development.

Mobility

2.2 Mobility of staff, students and graduates is one of the core elements of the Bologna Process, creating opportunities for personal growth, developing international cooperation between individuals and institutions, enhancing the quality of higher education and research, and giving substance to the European dimension.

2.3 Some progress has been made since 1999, but many challenges remain. Among the obstacles to mobility, issues relating to immigration, recognition, insufficient financial incentives and inflexible pension arrangements feature prominently. We recognise the responsibility of individual Governments to facilitate the delivery of visas, residence and work permits, as appropriate. Where these measures are

outside our competence as Ministers for Higher Education, we undertake to work within our respective Governments for decisive progress in this area. At national level, we will work to implement fully the agreed recognition tools and procedures and consider ways of further incentivising mobility for both staff and students. This includes encouraging a significant increase in the number of joint programmes and the creation of flexible curricula, as well as urging our institutions to take greater responsibility for staff and student mobility, more equitably balanced between countries across the EHEA.

Degree structure

2.4 Good progress is being made at national and institutional levels towards our goal of an EHEA based on a three-cycle degree system. The number of students enrolled on courses in the first two-cycles has increased significantly and there has been a reduction in structural barriers between cycles. Similarly, there has been an increase in the number of structured doctoral programmes. We underline the importance of curricula reform leading to qualifications better suited both to the needs of the labour market and to further study. Efforts should concentrate in future on removing barriers to access and progression between cycles and on proper implementation of ECTS based on learning outcomes and student workload. We underline the importance of improving graduate employability, whilst noting that data gathering on this issue needs to be developed further.

Recognition

2.5 Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components of the EHEA, both internally and in a global context. Easily readable and comparable degrees and accessible information on educational systems and qualifications frameworks are prerequisites for citizens' mobility and ensuring the continuing attractiveness and competitiveness of the EHEA. While we are pleased that 38 members of the Bologna Process, including Montenegro, have now ratified the Council of Europe/UNESCO Convention on the recognition of qualifications concerning Higher Education in the European region (Lisbon Recognition Convention), we urge the remaining members to do so as a matter of priority.

2.6 There has been progress in the implementation of the Lisbon Recognition

Convention (LRC), ECTS and diploma supplements, but the range of national and institutional approaches to recognition needs to be more coherent. To improve recognition practices, we therefore ask the Bologna Follow-up Group (BFUG) to arrange for the ENIC/NARIC networks to analyse our national action plans and spread good practice.

Qualifications Frameworks

2.7 Qualifications frameworks are important instruments in achieving comparability and transparency within the EHEA and facilitating the movement of learners within, as well as between, higher education systems. They should also help HEIs to

develop modules and study programmes based on learning outcomes and credits, and improve the recognition of qualifications as well as all forms of prior learning.

2.8 We note that some initial progress has been made towards the implementation of national qualifications frameworks, but that much more effort is required. We commit ourselves to fully implementing such national qualifications frameworks, certified against the overarching Framework for Qualifications of the EHEA, by 2010. Recognising that this is a challenging task, we ask the Council of Europe to support the sharing of experience in the elaboration of national qualifications frameworks. We emphasise that qualification frameworks should be designed so as to encourage greater mobility of students and teachers and improve employability.

2.9 We are satisfied that national qualifications frameworks compatible with the overarching Framework for Qualifications of the EHEA will also be compatible with the proposal from the European Commission on a European Qualifications Framework for Lifelong Learning.

2.10 We see the overarching Framework for Qualifications of the EHEA, which we agreed in Bergen, as a central element of the promotion of European higher education in a global context.

Lifelong Learning

2.11 The stocktaking report shows that some elements of flexible learning exist in most countries, but a more systematic development of flexible learning paths to support lifelong learning is at an early stage. We therefore ask BFUG to increase the sharing of good practice and to work towards a common understanding of the role of higher education in lifelong learning. Only in a small number of EHEA countries could the recognition of prior learning for access and credits be said to be well developed. Working in cooperation with ENIC/NARIC, we invite BFUG to develop proposals for improving the recognition of prior learning.

Quality Assurance and a European Register of Quality Assurance Agencies

2.12 The Standards and Guidelines for Quality Assurance in the EHEA adopted in Bergen (ESG) have been a powerful driver of change in relation to quality assurance. All countries have started to implement them and some have made substantial progress. External quality assurance in particular is much better developed than before. The extent of student involvement at all levels has increased since 2005, although improvement is still necessary. Since the main responsibility for quality lies with HEIs, they should continue to develop their systems of quality assurance. We acknowledge the progress made with regard to mutual recognition of accreditation and quality assurance decisions, and encourage continued international cooperation amongst quality assurance agencies.

2.13 The first European Quality Assurance Forum, jointly organised by EUA, ENQA, EURASHE and ESIB (the E4 Group) in 2006 provided an opportunity to discuss European developments in quality assurance. We encourage the four organisa-

tions to continue to organise European Quality Assurance Fora on an annual basis, to facilitate the sharing of good practice and ensure that quality in the EHEA continues to improve.

2.14 We thank the E4 Group for responding to our request to further develop the practicalities of setting up a Register of European Higher Education Quality Assurance Agencies. The purpose of the register is to allow all stakeholders and the general public open access to objective information about trustworthy quality assurance agencies that are working in line with the ESG. It will therefore enhance confidence in higher education in the EHEA and beyond, and facilitate the mutual recognition of quality assurance and accreditation decisions. We welcome the establishment of a register by the E4 group, working in partnership, based on their proposed operational model. The register will be voluntary, self-financing, independent and transparent. Applications for inclusion on the register should be evaluated on the basis of substantial compliance with the ESG, evidenced through an independent review process endorsed by national authorities, where this endorsement is required by those authorities. We ask the E4 group to report progress to us regularly through BFUG, and to ensure that after two years of operation, the register is evaluated externally, taking account of the views of all stakeholders.

Doctoral candidates

2.15 Closer alignment of the EHEA with the European Research Area (ERA) remains an important objective. We recognise the value of developing and maintaining a wide variety of doctoral programmes linked to the overarching qualifications framework for the EHEA, whilst avoiding overregulation. At the same time, we appreciate that enhancing provision in the third cycle and improving the status, career prospects and funding for early stage researchers are essential preconditions for meeting Europe’s objectives of strengthening research capacity and improving the quality and competitiveness of European higher education.

2.16 We therefore invite our HEIs to reinforce their efforts to embed doctoral programmes in institutional strategies and policies, and to develop appropriate career paths and opportunities for doctoral candidates and early stage researchers.

2.17 We invite EUA to continue to support the sharing of experience among HEIs on the range of innovative doctoral programmes that are emerging across Europe as well as on other crucial issues such as transparent access arrangements, supervision and assessment procedures, the development of transferable skills and ways of enhancing employability. We will look for appropriate opportunities to encourage greater exchange of information on funding and other issues between our Governments as well as with other research funding bodies.

Social dimension

2.18 Higher education should play a strong role in fostering social cohesion, reducing inequalities and raising the level of knowledge, skills and competences in

society. Policy should therefore aim to maximise the potential of individuals in terms of their personal development and their contribution to a sustainable and democratic knowledge-based society. We share the societal aspiration that the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations. We reaffirm the importance of students being able to complete their studies without obstacles related to their social and economic background. We therefore continue our efforts to provide adequate student services, create more flexible learning pathways into and within higher education, and to widen participation at all levels on the basis of equal opportunity.

The European Higher Education Area in a global context

2.19 We are pleased that in many parts of the world, the Bologna reforms have created considerable interest and stimulated discussion between European and international partners on a range of issues. These include the recognition of qualifications, the benefits of cooperation based upon partnership, mutual trust and understanding, and the underlying values of the Bologna Process. Moreover, we acknowledge that efforts have been made in some countries in other parts of the world to bring their higher education systems more closely into line with the Bologna framework.

2.20 We adopt the strategy “The European Higher Education Area in a Global Setting” and will take forward work in the core policy areas: improving information on, and promoting the attractiveness and competitiveness of the EHEA; strengthening cooperation based on partnership; intensifying policy dialogue; and improving recognition. This work ought to be seen in relation to the OECD/UNESCO *Guidelines for Quality Provision in Cross-border Higher Education*.

3. Priorities for 2009

3.1 Over the next two years, we agree to concentrate on completing agreed Action Lines, including the ongoing priorities of the three-cycle degree system, quality assurance and recognition of degrees and study periods. We will focus in particular on the following areas for action.

Mobility

3.2 In our national reports for 2009, we will report on action taken at national level to promote the mobility of students and staff, including measures for future evaluation. We will focus on the main national challenges identified in paragraph 2.3 above. We also agree to set up a network of national experts to share information, and help to identify and overcome obstacles to the portability of grants and loans.

Social Dimension

3.3 Similarly, we will report on our national strategies and policies for the social dimension, including action plans and measures to evaluate their effectiveness. We will invite all stakeholders to participate in, and support this work, at the national level.

Data collection

3.4 We recognise the need to improve the availability of data on both mobility and the social dimension across all the countries participating in the Bologna Process. We therefore ask the European Commission (Eurostat), in conjunction with Eurostudent, to develop comparable and reliable indicators and data to measure progress towards the overall objective for the social dimension and student and staff mobility in all Bologna countries. Data in this field should cover participative equity in higher education as well as employability for graduates. This task should be carried out in conjunction with BFUG and a report should be submitted to our 2009 Ministerial conference. Employability

3.5 Following up on the introduction of the three-cycle degree system, we ask BFUG to consider in more detail how to improve employability in relation to each of these cycles as well as in the context of lifelong learning. This will involve the responsibilities of all stakeholders. Governments and HEIs will need to communicate more with employers and other stakeholders on the rationale for their reforms. We will work, as appropriate, within our governments to ensure that employment and career structures within the public service are fully compatible with the new degree system. We urge institutions to further develop partnerships and cooperation with employers in the ongoing process of curriculum innovation based on learning outcomes.

The European Higher Education Area in a global context

3.6 We ask BFUG to report back to us on overall developments in this area at the European, national and institutional levels by 2009. All stakeholders have a role here within their spheres of responsibility. In reporting on the implementation of the strategy for the EHEA in a global context, BFUG should in particular give consideration to two priorities. First, to improve the information available about the EHEA, by developing the Bologna Secretariat website and building on EUA's Bologna Handbook; and second, to improve recognition. We call on HEIs, ENIC/NARIC centres and other competent recognition authorities within the EHEA to assess qualifications from other parts of the world with the same open mind with which they would expect European qualifications to be assessed elsewhere, and to base this recognition on the principles of the LRC.

Stocktaking

3.7 We ask BFUG to continue the stocktaking process, based on national reports, in time for our 2009 Ministerial conference. We expect further development of the qualitative analysis in stocktaking, particularly in relation to mobility, the Bologna Process in a global context and the social dimension. The fields covered by stocktaking should continue to include the degree system and employability of graduates, recognition of degrees and study periods and implementation of all aspects of quality assurance in line with the ESG. With a view to the development of more student-centred, outcome-based learning, the next exercise should also address in an integrated

way national qualifications frameworks, learning outcomes and credits, lifelong learning, and the recognition of prior learning.

4. Looking forward to 2010 and beyond

4.1 As the EHEA continues to develop and respond to the challenges of globalisation, we anticipate that the need for collaboration will continue beyond 2010.

4.2 We are determined to seize 2010, which will mark the passage from the Bologna Process to the EHEA, as an opportunity to reaffirm our commitment to higher education as a key element in making our societies sustainable, at national as well as at European level. We will take 2010 as an opportunity to reformulate the vision that motivated us in setting the Bologna Process in motion in 1999 and to make the case for an EHEA underpinned by values and visions that go beyond issues of structures and tools. We undertake to make 2010 an opportunity to reset our higher education systems on a course that looks beyond the immediate issues and makes them fit to take up the challenges that will determine our future.

4.3 We ask BFUG as a whole to consider further how the EHEA might develop after 2010 and to report back to the next ministerial meeting in 2009. This should include proposals for appropriate support structures, bearing in mind that the current informal collaborative arrangements are working well and have brought about unprecedented change.

4.4 Building on previous stocktaking exercises, *Trends*, and *Bologna With Student Eyes*, we invite BFUG to consider for 2010 the preparation of a report including an independent assessment, in partnership with the consultative members, evaluating the overall progress of the Bologna Process across the EHEA since 1999.

4.5 We delegate the decision on the nature, content and place of any Ministerial meeting in 2010 to BFUG, to be taken within the first half of 2008.

4.6 Our next meeting will be hosted by the Benelux countries in Leuven/Louvain-la-Neuve on 28-29 April 2009.

8. The Leuven/Louvain-la-Neuve Communiqué, of 2009

The European Higher Education Area in the new decade

Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009

We, the Ministers responsible for higher education in the 46 countries of the Bologna Process convened in Leuven/Louvain-la-Neuve, Belgium, on April 28 and 29, 2009 to take stock of the achievements of the Bologna Process and to establish the priorities for the European Higher Education Area (EHEA) for the next decade.

Preamble

1. In the decade up to 2020 European higher education has a vital contribution to make in realising a Europe of knowledge that is highly creative and innovative. Faced with the challenge of an ageing population Europe can only succeed in this en-

deavour if it maximises the talents and capacities of all its citizens and fully engages in lifelong learning as well as in widening participation in higher education.

2. European higher education also faces the major challenge and the ensuing opportunities of globalisation and accelerated technological developments with new providers, new learners and new types of learning. Student-centred learning and mobility will help students develop the competences they need in a changing labour market and will empower them to become active and responsible citizens.

3. Our societies currently face the consequences of a global financial and economic crisis. In order to bring about sustainable economic recovery and development, a dynamic and flexible European higher education will strive for innovation on the basis of the integration between education and research at all levels. We recognise that higher education has a key role to play if we are to successfully meet the challenges we face and if we are to promote the cultural and social development of our societies. Therefore, we consider public investment in higher education of utmost priority.

4. We pledge our full commitment to the goals of the European Higher Education Area, which is an area where higher education is a public responsibility, and where all higher education institutions are responsive to the wider needs of society through the diversity of their missions. The aim is to ensure that higher education institutions have the necessary resources to continue to fulfil their full range of purposes such as preparing students for life as active citizens in a democratic society; preparing students for their future careers and enabling their personal development; creating and maintaining a broad, advanced knowledge base and stimulating research and innovation. The necessary ongoing reform of higher education systems and policies will continue to be firmly embedded in the European values of institutional autonomy, academic freedom and social equity and will require full participation of students and staff.

I. Achievements and consolidation

5. Over the past decade we have developed the European Higher Education Area ensuring that it remains firmly rooted in Europe's intellectual, scientific and cultural heritage and ambitions; characterised by permanent cooperation between governments, higher education institutions, students, staff, employers and other stakeholders. The contribution from European institutions and organisations to the reform process has also been a significant one.

6. The Bologna Process is leading to greater compatibility and comparability of the systems of higher education and is making it easier for learners to be mobile and for institutions to attract students and scholars from other continents. Higher education is being modernized with the adoption of a three-cycle structure including, within national contexts, the possibility of intermediate qualifications linked to the first cycle and with the adoption of the European Standards and Guidelines for quality assurance. We have also seen the creation of a European register for quality as-

insurance agencies and the establishment of national qualifications frameworks linked to the overarching European Higher Education Area framework, based on learning outcomes and workload. Moreover, the Bologna Process has promoted the Diploma Supplement and the European Credit Transfer and Accumulation System to further increase transparency and recognition.

7. The objectives set out by the Bologna Declaration and the policies developed in the subsequent years are still valid today. Since not all the objectives have been completely achieved, the full and proper implementation of these objectives at European, national and institutional level will require increased momentum and commitment beyond 2010.

II. Learning for the future: higher education priorities for the decade to come

8. Striving for excellence in all aspects of higher education, we address the challenges of the new era. This requires a constant focus on quality. Moreover, upholding the highly valued diversity of our education systems, public policies will fully recognise the value of various missions of higher education, ranging from teaching and research to community service and engagement in social cohesion and cultural development. All students and staff of higher education institutions should be equipped to respond to the changing demands of the fast evolving society.

• Social dimension: equitable access and completion

9. The student body within higher education should reflect the diversity of Europe's populations. We therefore emphasize the social characteristics of higher education and aim to provide equal opportunities to quality education. Access into higher education should be widened by fostering the potential of students from underrepresented groups and by providing adequate conditions for the completion of their studies. This involves improving the learning environment, removing all barriers to study, and creating the appropriate economic conditions for students to be able to benefit from the study opportunities at all levels. Each participating country will set measurable targets for widening overall participation and increasing participation of underrepresented groups in higher education, to be reached by the end of the next decade. Efforts to achieve equity in higher education should be complemented by actions in other parts of the educational system.

• Lifelong learning

10. Widening participation shall also be achieved through lifelong learning as an integral part of our education systems. Lifelong learning is subject to the principle of public responsibility. The accessibility, quality of provision and transparency of information shall be assured. Lifelong learning involves obtaining qualifications, extending knowledge and understanding, gaining new skills and competences or enriching personal growth. Lifelong learning implies that qualifications may be obtained through flexible learning paths, including part-time studies, as well as workbased routes.

11. The implementation of lifelong learning policies requires strong partnerships between public authorities, higher education institutions, students, employers and employees. The European Universities' Charter on Lifelong Learning developed by the European University Association provides a useful input for defining such partnerships. Successful policies for lifelong learning will include basic principles and procedures for recognition of prior learning on the basis of learning outcomes regardless of whether the knowledge, skills and competences were acquired through formal, non-formal, or informal learning paths. Lifelong learning will be supported by adequate organisational structures and funding. Lifelong learning encouraged by national policies should inform the practice of higher education institutions.

12. The development of national qualifications frameworks is an important step towards the implementation of lifelong learning. We aim at having them implemented and prepared for self-certification against the overarching Qualifications Framework for the European Higher Education Area by 2012. This will require continued coordination at the level of the EHEA and with the European Qualifications Framework for Lifelong Learning. Within national contexts, intermediate qualifications within the first cycle can be a means of widening access to higher education.

- *Employability*

13. With labour markets increasingly relying on higher skill levels and transversal competences, higher education should equip students with the advanced knowledge, skills and competences they need throughout their professional lives. Employability empowers the individual to fully seize the opportunities in changing labour markets. We aim at raising initial qualifications as well as maintaining and renewing a skilled workforce through close cooperation between governments, higher education institutions, social partners and students. This will allow institutions to be more responsive to employers needs and employers to better understand the educational perspective. Higher education institutions, together with governments, government agencies and employers, shall improve the provision, accessibility and quality of their careers and employment related guidance services to students and alumni. We encourage work placements embedded in study programmes as well as on-the-job learning.

- *Student-centred learning and the teaching mission of higher education*

14. We reassert the importance of the teaching mission of higher education institutions and the necessity for ongoing curricular reform geared toward the development of learning outcomes. Student-centred learning requires empowering individual learners, new approaches to teaching and learning, effective support and guidance structures and a curriculum focused more clearly on the learner in all three cycles. Curricular reform will thus be an ongoing process leading to high quality, flexible and more individually tailored education paths. Academics, in close cooperation with student and employer representatives, will continue to develop learning outcomes and international reference points for a growing number of subject areas. We ask the

higher education institutions to pay particular attention to improving the teaching quality of their study programmes at all levels. This should be a priority in the further implementation of the European Standards and Guidelines for quality assurance.

- *Education, research and innovation*

15. Higher education should be based at all levels on state of the art research and development thus fostering innovation and creativity in society. We recognise the potential of higher education programmes, including those based on applied science, to foster innovation. Consequently, the number of people with research competences should increase. Doctoral programmes should provide high quality disciplinary research and increasingly be complemented by inter-disciplinary and inter-sectoral programmes. Moreover, public authorities and institutions of higher education will make the career development of early stage researchers more attractive.

- *International openness*

16. We call upon European higher education institutions to further internationalise their activities and to engage in global collaboration for sustainable development. The attractiveness and openness of European higher education will be highlighted by joint European actions. Competition on a global scale will be complemented by enhanced policy dialogue and cooperation based on partnership with other regions of the world, in particular through the organisation of Bologna Policy Fora, involving a variety of stakeholders.

17. Transnational education should be governed by the European Standards and Guidelines for quality assurance as applicable within the European Higher Education Area and be in line with the UNESCO/OECD Guidelines for Quality Provision in Cross- Border Higher Education.

- *Mobility*

18. We believe that mobility of students, early stage researchers and staff enhances the quality of programmes and excellence in research; it strengthens the academic and cultural internationalization of European higher education. Mobility is important for personal development and employability, it fosters respect for diversity and a capacity to deal with other cultures. It encourages linguistic pluralism, thus underpinning the multilingual tradition of the European Higher Education Area and it increases cooperation and competition between higher education institutions.

Therefore, mobility shall be the hallmark of the European Higher Education Area. We call upon each country to increase mobility, to ensure its high quality and to diversify its types and scope. In 2020, at least 20% of those graduating in the European Higher Education Area should have had a study or training period abroad.

19. Within each of the three cycles, opportunities for mobility shall be created in the structure of degree programmes. Joint degrees and programmes as well as mobility windows shall become more common practice. Moreover, mobility policies shall be based on a range of practical measures pertaining to the funding of mobility, re-

cognition, available infrastructure, visa and work permit regulations. Flexible study paths and active information policies, full recognition of study achievements, study support and the full portability of grants and loans are necessary requirements.

Mobility should also lead to a more balanced flow of incoming and outgoing students across the European Higher Education Area and we aim for an improved participation rate from diverse student groups.

20. Attractive working conditions and career paths as well as open international recruitment are necessary to attract highly qualified teachers and researchers to higher education institutions. Considering that teachers are key players, career structures should be adapted to facilitate mobility of teachers, early stage researchers and other staff; framework conditions will be established to ensure appropriate access to social security and to facilitate the portability of pensions and supplementary pension rights for mobile staff, making the best use of existing legal frameworks.

- *Data collection*

21. Improved and enhanced data collection will help monitor progress made in the attainment of the objectives set out in the social dimension, employability and mobility agendas, as well as in other policy areas, and will serve as a basis for both stocktaking and benchmarking.

- *Multidimensional transparency tools*

22. We note that there are several current initiatives designed to develop mechanisms for providing more detailed information about higher education institutions across the EHEA to make their diversity more transparent. We believe that any such mechanisms, including those helping higher education systems and institutions to identify and compare their respective strengths, should be developed in close consultation with the key stakeholders. These transparency tools need to relate closely to the principles of the Bologna Process, in particular quality assurance and recognition, which will remain our priority, and should be based on comparable data and adequate indicators to describe the diverse profiles of higher education institutions and their programmes.

- *Funding*

23. Higher education institutions have gained greater autonomy along with rapidly growing expectations to be responsive to societal needs and to be accountable. Within a framework of public responsibility we confirm that public funding remains the main priority to guarantee equitable access and further sustainable development of autonomous higher education institutions. Greater attention should be paid to seeking new and diversified funding sources and methods.

III. The organisational structure and follow-up

24. The present organisational structure of the Bologna Process, characterised by the cooperation between governments, the academic community with its representative organisations, and other stakeholders, is endorsed as being fit for purpose.

In the future, the Bologna Process will be co-chaired by the country holding the EU presidency and a non-EU country.

25. In order to interact with other policy areas, the BFUG will liaise with experts and policy makers from other fields, such as research, immigration, social security and employment.

26. We entrust the Bologna Follow-up Group to prepare a work plan up to 2012 to take forward the priorities identified in this Communiqué and the recommendations of the reports submitted to this Ministerial conference, allowing the future integration of the outcome of the independent assessment of the Bologna Process.

In particular the BFUG is asked:

- To define the indicators used for measuring and monitoring mobility and the social dimension in conjunction with the data collection;
- To consider how balanced mobility could be achieved within the EHEA;
- To monitor the development of the transparency mechanisms and to report back to the 2012 ministerial conference;
- To set up a network, making optimal use of existing structures, for better information on and promotion of the Bologna Process outside the EHEA;
- To follow-up on the recommendations of analysis of the national action plans on recognition.
- 27. Reporting on the progress of the implementation of the Bologna Process will be carried out in a coordinated way.
- Stocktaking will further refine its evidence-based methodology.
- Eurostat together with Eurostudent and in cooperation with Eurydice will be asked to contribute through relevant data collection.
- The work of reporting will be overseen by the Bologna Follow-up Group and will lead to an overall report integrating the aforementioned sources for the 2012 ministerial conference.

28. We ask the E4 group (ENQA-EUA-EURASHE-ESU) to continue its cooperation in further developing the European dimension of quality assurance and in particular to ensure that the European Quality Assurance Register is evaluated externally, taking into account the views of the stakeholders.

29. We will meet again at the Bologna anniversary conference jointly hosted by Austria and Hungary in Budapest and Vienna on 11-12 March 2010. The next regular ministerial conference will be hosted by Romania in Bucharest on 27-28 April 2012. The following ministerial conferences will be held in 2015, 2018 and 2020.

9. Convention on the Recognition of qualifications concerning higher education in the European region, Lisbon 11 April 1997.

The Parties to this Convention.

Conscious of the fact that the right to education is a human right, and that higher education, which is instrumental in the pursuit and advancement of

knowledge, constitutes an exceptionally rich cultural and scientific asset for both individuals and society;

Considering that higher education should play a vital role in promoting peace, mutual understanding and tolerance, and in creating mutual confidence among peoples and nations;

Considering that the great diversity of education systems in the European region reflects its cultural, social, political, philosophical, religious and economic diversity, an exceptional asset which should be fully respected;

Desiring to enable all people of the region to benefit fully from this rich asset of diversity by facilitating access by the inhabitants of each State and by the students of each Party's educational institutions to the educational resources of the other Parties, more specifically by facilitating their efforts to continue their education or to complete a period of studies in higher education institutions in those other Parties;

Considering that the recognition of studies, certificates, diplomas and degrees obtained in another country of the European region represents an important measure for promoting academic mobility between the Parties;

Attaching great importance to the principle of institutional autonomy, and conscious of the need to uphold and protect this principle;

Convinced that a fair recognition of qualifications is a key element of the right to education and a responsibility of society;

Having regard to the Council of Europe and UNESCO Conventions covering academic recognition in Europe:

European Convention on the Equivalence of Diplomas leading to Admission to Universities (1953, ETS No. 15), and its Protocol (1964, ETS No. 49);

European Convention on the Equivalence of Periods of University Study (1956, ETS No. 21);

European Convention on the Academic Recognition of University Qualifications (1959, ETS No. 32);

Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region (1979);

European Convention on the General Equivalence of Periods of University Study (1990, ETS No. 138);

Having regard also to the International Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in the Arab and European States bordering on the Mediterranean (1976), adopted within the framework of UNESCO and partially covering academic recognition in Europe;

Mindful that this Convention should also be considered in the context of the UNESCO conventions and the International Recommendation covering other Regions of the world, and of the need for an improved exchange of information between these Regions;

Conscious of the wide ranging changes in higher education in the European region since these Conventions were adopted, resulting in considerably increased diversification within and between national higher education systems, and of the need to adapt the legal instruments and practice to reflect these developments;

Conscious of the need to find common solutions to practical recognition problems in the European region;

Conscious of the need to improve current recognition practice and to make it more transparent and better adapted to the current situation of higher education in the European region;

Confident of the positive significance of a Convention elaborated and adopted under the joint auspices of the Council of Europe and UNESCO providing a framework for the further development of recognition practices in the European region;

Conscious of the importance of providing permanent implementation mechanisms in order to put the principles and provisions of the current Convention into practice, Have agreed as follows:

Section I. Definitions

Article I

Access (to higher education)

The right of qualified candidates to apply and to be considered for admission to higher education.

Admission (to higher education institutions and programmes)

The act of, or system for, allowing qualified applicants to pursue studies in higher education at a given institution and/or a given programme. (of institutions or programmes)

The process for establishing the educational quality of a higher education institution or programme.

Assessment (of individual qualifications)

The written appraisal or evaluation of an individual's foreign qualifications by a competent body.

Competent recognition authority

A body officially charged with making binding decisions on the recognition of foreign qualifications.

Higher education

All types of courses of study, or sets of courses of study, training or training for research at the post secondary level which are recognized by the relevant authorities of a Party as belonging to its higher education system.

Higher education institution

An establishment providing higher education and recognized by the competent authority of a Party as belonging to its system of higher education.

Higher education programme

A course of study recognized by the competent authority of a Party as belonging to its system of higher education, and the completion of which provides the student with a higher education qualification.

Period of study

Any component of a higher education programme which has been evaluated and documented and, while not a complete programme of study in itself, represents a significant acquisition of knowledge or skill.

Qualification

A. Higher education qualification

Any degree, diploma or other certificate issued by a competent authority attesting the successful completion of a higher education programme.

B. Qualification giving access to higher education

Any diploma or other certificate issued by a competent authority attesting the successful completion of an education programme and giving the holder of the qualification the right to be considered for admission to higher education (cf. the definition of access).

Recognition

A formal acknowledgement by a competent authority of the value of a foreign educational qualification with a view to access to educational and/or employment activities.

Requirement

A. General requirements

Conditions that must in all cases be fulfilled for access to higher education, or to a given level thereof, or for the award of a higher education qualification at a given level.

B. Specific requirements

Conditions that must be fulfilled, in addition to the general requirements, in order to gain admission to a particular higher education programme, or for the award of a specific higher education qualification in a particular field of study.

Section II. The competence of authorities

Article II.1

1 Where central authorities of a Party are competent to make decisions in recognition cases, that Party shall be immediately bound by the provisions of this Convention and shall take the necessary measures to ensure the implementation of its provisions on its territory.

Where the competence to make decisions in recognition matters lies with components of the Party, the Party shall furnish one of the depositories with a brief statement of its constitutional situation or structure at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, or any time thereafter. In such cases, the competent authorities of the components of the

Parties so designated shall take the necessary measures to ensure implementation of the provisions of this Convention on their territory.

2 Where the competence to make decisions in recognition matters lies with individual higher education institutions or other entities, each Party according to its constitutional situation or structure shall transmit the text of this convention to these institutions or entities and shall take all possible steps to encourage the favourable consideration and application of its provisions.

3 The provisions of paragraphs 1 and 2 of this Article shall apply, *mutatis mutandis*, to the obligations of the Parties under subsequent articles of this Convention.

Article II.2

At the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, or at any time thereafter, each State, the Holy See or the European Community shall inform either depository of the present Convention of the authorities which are competent to make different categories of decisions in recognition cases.

Article II.3

Nothing in this Convention shall be deemed to derogate from any more favourable provisions concerning the recognition of qualifications issued in one of the Parties contained in or stemming from an existing or a future treaty to which a Party to this Convention may be or may become a party.

Section III. Basic principles related to the assessment of qualifications

Article III.1

1 Holders of qualifications issued in one of the Parties shall have adequate access, upon request to the appropriate body, to an assessment of these qualifications.

2 No discrimination shall be made in this respect on any ground such as the applicant's gender, race, colour, disability, language, religion, political or other opinion, national, ethnic or social origin, association with a national minority, property, birth or other status, or on the grounds of any other circumstance not related to the merits of the qualification for which recognition is sought. In order to assure this right, each Party undertakes to make appropriate arrangements for the assessment of an application for recognition of qualifications solely on the basis of the knowledge and skills achieved.

Article III.2

Each Party shall ensure that the procedures and criteria used in the assessment and recognition of qualifications are transparent, coherent and reliable.

Article III.3

1 Decisions on recognition shall be made on the basis of appropriate information on the qualifications for which recognition is sought.

2 In the first instance, the responsibility for providing adequate information rests with the applicant, who shall provide such information in good faith.

3 Notwithstanding the responsibility of the applicant, the institutions having issued the qualifications in question shall have a duty to provide, upon request of the applicant and within reasonable limits, relevant information to the holder of the qualification, to the institution, or to the competent authorities of the country in which recognition is sought.

4 The Parties shall instruct or encourage, as appropriate, all education institutions belonging to their education systems to comply with any reasonable request for information for the purpose of assessing qualifications earned at the said institutions.

5 The responsibility to demonstrate that an application does not fulfil the relevant requirements lies with the body undertaking the assessment.

Article III.4

Each Party shall ensure, in order to facilitate the recognition of qualifications, that adequate and clear information on its education system is provided.

Article III.5

Decisions on recognition shall be made within a reasonable time limit specified beforehand by the competent recognition authority and calculated from the time all necessary information in the case has been provided. If recognition is withheld, the reasons for the refusal to grant recognition shall be stated, and information shall be given concerning possible measures the applicant may take in order to obtain recognition at a later stage. If recognition is withheld, or if no decision is taken, the applicant shall be able to make an appeal within a reasonable time limit.

Section IV. Recognition of qualifications giving access to higher education

Article IV.1

Each Party shall recognize the qualifications issued by other Parties meeting the general requirements for access to higher education in those Parties for the purpose of access to programmes belonging to its higher education system, unless a substantial difference can be shown between the general requirements for access in the Party in which the qualification was obtained and in the Party in which recognition of the qualification is sought.

Article IV.2

Alternatively, it shall be sufficient for a Party to enable the holder of a qualification issued in one of the other Parties to obtain an assessment of that qualification, upon request by the holder, and the provisions of Article IV.1 shall apply mutatis mutandis to such a case.

Article IV.3

Where a qualification gives access only to specific types of institutions or programmes of higher education in the Party in which the qualification was obtained, each other Party shall grant holders of such qualifications access to similar specific programmes in institutions belonging to its higher education system, unless a subs-

tantial difference can be demonstrated between the requirements for access in the Party in which the qualification was obtained and the Party in which recognition of the qualification is sought.

Article IV.4

Where admission to particular higher education programmes is dependent on the fulfilment of specific requirements in addition to the general requirements for access, the competent authorities of the Party concerned may impose the additional requirements equally on holders of qualifications obtained in the other Parties or assess whether applicants with qualifications obtained in other Parties fulfil equivalent requirements.

Article IV.5

Where, in the Party in which they have been obtained, school leaving certificates give access to higher education only in combination with additional qualifying examinations as a prerequisite for access, the other Parties may make access conditional on these requirements or offer an alternative for satisfying such additional requirements within their own educational systems. Any State, the Holy See or the European Community may, at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, or at any time thereafter, notify one of the depositories that it avails itself of the provisions of this Article, specifying the Parties in regard to which it intends to apply this Article as well as the reasons therefor.

Article IV.6

Without prejudice to the provisions of Articles IV.1, IV.2, IV.3, IV.4 and IV.5, admission to a given higher education institution, or to a given programme within such an institution, may be restricted or selective. In cases in which admission to a higher education institution and/or programme is selective, admission procedures should be designed with a view to ensuring that the assessment of foreign qualifications is carried out according to the principles of fairness and non-discrimination described in Section III.

Article IV.7

Without prejudice to the provisions of Articles IV.1, IV.2, IV.3, IV.4 and IV.5, admission to a given higher education institution may be made conditional on demonstration by the applicant of sufficient competence in the language or languages of instruction of the institution concerned, or in other specified languages.

Article IV.8

In the Parties in which access to higher education may be obtained on the basis of non-traditional qualifications, similar qualifications obtained in other Parties shall be assessed in a similar manner as non-traditional qualifications earned in the Party in which recognition is sought.

Article IV.9

For the purpose of admission to programmes of higher education, each Party may make the recognition of qualifications issued by foreign educational institutions ope-

rating in its territory contingent upon specific requirements of national legislation or specific agreements concluded with the Party of origin of such institutions.

Section V. Recognition of periods of study

Article V.1

Each Party shall recognize periods of study completed within the framework of a higher education programme in another Party. This recognition shall comprise such periods of study towards the completion of a higher education programme in the Party in which recognition is sought, unless substantial differences can be shown between the periods of study completed in another Party and the part of the higher education programme which they would replace in the Party in which recognition is sought.

Article V.2

Alternatively, it shall be sufficient for a Party to enable a person who has completed a period of study within the framework of a higher education programme in another Party to obtain an assessment of that period of study, upon request by the person concerned, and the provisions of Article V.1 shall apply mutatis mutandis to such a case.

Article V.3

In particular, each Party shall facilitate recognition of periods of study when:

- a. there has been a previous agreement between, on the one hand, the higher education institution or the competent authority responsible for the relevant period of study and, on the other hand, the higher education institution or the competent recognition authority responsible for the recognition that is sought; and
- b. the higher education institution in which the period of study has been completed has issued a certificate or transcript of academic records attesting that the student has successfully completed the stipulated requirements for the said period of study.

Section VI. Recognition of higher education qualifications

Article VI.1

To the extent that a recognition decision is based on the knowledge and skills certified by the higher education qualification, each Party shall recognize the higher education qualifications conferred in another Party, unless a substantial difference can be shown between the qualification for which recognition is sought and the corresponding qualification in the Party in which recognition is sought.

Article VI.2

Alternatively, it shall be sufficient for a Party to enable the holder of a higher education qualification issued in one of the other Parties to obtain an assessment of that qualification, upon request by the holder, and the provisions of Article VI.1 shall apply mutatis mutandis to such a case.

Article VI.3

Recognition in a Party of a higher education qualification issued in another Party shall have one or both of the following consequences:

a. access to further higher education studies, including relevant examinations, and/or to preparations for the doctorate, on the same conditions as those applicable to holders of qualifications of the Party in which recognition is sought;

b. the use of an academic title, subject to the laws and regulations of the Party or a jurisdiction thereof, in which recognition is sought.

In addition, recognition may facilitate access to the labour market subject to laws and regulations of the Party, or a jurisdiction thereof, in which recognition is sought.

Article VI.4

An assessment in a Party of a higher education qualification issued in another Party may take the form of:

a. advice for general employment purposes;

b. advice to an educational institution for the purpose of admission into its programmes;

c. advice to any other competent recognition authority.

Article VI.5

Each Party may make the recognition of higher education qualifications issued by foreign educational institutions operating in its territory contingent upon specific requirements of national legislation or specific agreements concluded with the Party of origin of such institutions.

Section VII. Recognition of qualifications held by refugees, displaced persons and persons in a refugee-like situation

Article VII

Each Party shall take all feasible and reasonable steps within the framework of its education system and in conformity with its constitutional, legal, and regulatory provisions to develop procedures designed to assess fairly and expeditiously whether refugees, displaced persons and persons in a refugee-like situation fulfil the relevant requirements for access to higher education, to further higher education programmes or to employment activities, even in cases in which the qualifications obtained in one of the Parties cannot be proven through documentary evidence.

Section VIII. Information on the assessment of higher education institutions and programmes

Article VIII.1

Each Party shall provide adequate information on any institution belonging to its higher education system, and on any programme operated by these institutions, with a view to enabling the competent authorities of other Parties to ascertain whether the quality of the qualifications issued by these institutions justifies recognition in the Party in which recognition is sought. Such information shall take the following form:

a. in the case of Parties having established a system of formal assessment of higher education institutions and programmes: information on the methods and results of this

assessment, and of the standards of quality specific to each type of higher education institution granting, and to programmes leading to, higher education qualifications;

b. in the case of Parties which have not established a system of formal assessment of higher education institutions and programmes: information on the recognition of the various qualifications obtained at any higher education institution, or within any higher education programme, belonging to their higher education systems.

Article VIII.2

Each Party shall make adequate provisions for the development, maintenance and provision of:

a. an overview of the different types of higher education institutions belonging to its higher education system, with the typical characteristics of each type of institution;

b. a list of recognized institutions (public and private) belonging to its higher education system, indicating their powers to award different types of qualifications and the requirements for gaining access to each type of institution and programme;

c. a description of higher education programmes;

d. a list of educational institutions located outside its territory which the Party considers as belonging to its education system.

Section IX. Information on recognition matters

Article IX.1

In order to facilitate the recognition of qualifications concerning higher education, the Parties undertake to establish transparent systems for the complete description of the qualifications obtained.

Article IX.2

1. Acknowledging the need for relevant, accurate and up-to-date information, each Party shall establish or maintain a national information centre and shall notify one of the depositories of its establishment, or of any changes affecting it.

2. In each Party, the national information centre shall:

a. facilitate access to authoritative and accurate information on the higher education system and qualifications of the country in which it is located;

b. facilitate access to information on the higher education systems and qualifications of the other Parties;

c. give advice or information on recognition matters and assessment of qualifications, in accordance with national laws and regulations.

3. Every national information centre shall have at its disposal the necessary means to enable it to fulfil its functions.

Article IX.3

The Parties shall promote, through the national information centres or otherwise, the use of the UNESCO/Council of Europe Diploma Supplement or any other comparable document by the higher education institutions of the Parties.

Section X. Implementation mechanisms

Article X.1

The following bodies shall oversee, promote and facilitate the implementation of the Convention:

- a. the Committee of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region;
- b. the European Network of National Information Centres on academic mobility and recognition (the ENIC Network), established by decision of the Committee of Ministers of the Council of Europe on 9 June 1994 and the UNESCO Regional Committee for Europe on 18 June 1994.

Article X.2

1. The Committee of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (hereafter referred to as “the Committee”) is hereby established. It shall be composed of one representative of each Party.

2. For the purposes of Article X.2, the term “Party” shall not apply to the European Community.

3. The States mentioned in Article XI.1.1 and the Holy See, if they are not Parties to this Convention, the European Community and the President of the ENIC Network may participate in the meetings of the Committee as observers. Representatives of governmental and non-governmental organizations active in the field of recognition in the Region may also be invited to attend meetings of the Committee as observers.

4. The President of the UNESCO Regional Committee for the Application of the Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region shall also be invited to participate in the meetings of the Committee as an observer.

5. The Committee shall promote the application of this Convention and shall oversee its implementation. To this end it may adopt, by a majority of the Parties, recommendations, declarations, protocols and models of good practice to guide the competent authorities of the Parties in their implementation of the Convention and in their consideration of applications for the recognition of higher education qualifications. While they shall not be bound by such texts, the Parties shall use their best endeavours to apply them, to bring the texts to the attention of the competent authorities and to encourage their application. The Committee shall seek the opinion of the ENIC Network before making its decisions.

6. The Committee shall report to the relevant bodies of the Council of Europe and UNESCO.

7. The Committee shall maintain links to the UNESCO Regional Committees for the Application of Conventions on the Recognition of Studies, Diplomas and Degrees in Higher Education adopted under the auspices of UNESCO.

8. A majority of the Parties shall constitute a quorum.

9. The Committee shall adopt its Rules of Procedure. It shall meet in ordinary session at least every three years. The Committee shall meet for the first time within a year of the entry into force of this Convention.

10. The Secretariat of the Committee shall be entrusted jointly to the Secretary General of the Council of Europe and to the Director-General of UNESCO.

Article X.3

1. Each Party shall appoint as a member of the European network of national information centres on academic mobility and recognition (the ENIC Network) the national information centre established or maintained under Article IX.2. In cases in which more than one national information centre is established or maintained in a Party under Article IX.2, all these shall be members of the Network, but the national information centres concerned shall dispose of only one vote.

2. The ENIC Network shall, in its composition restricted to national information centres of the Parties to this Convention, uphold and assist the practical implementation of the Convention by the competent national authorities. The Network shall meet at least once a year in plenary session. It shall elect its President and Bureau in accordance with its terms of reference.

3. The Secretariat of the ENIC Network shall be entrusted jointly to the Secretary General of the Council of Europe and to the Director-General of UNESCO.

4. The Parties shall cooperate, through the ENIC Network, with the national information centres of other Parties, especially by enabling them to collect all information of use to the national information centres in their activities relating to academic recognition and mobility.

Section XI. Final clauses

Article XI.1

1. This Convention shall be open for signature by:

- a. the member States of the Council of Europe;
- b. the member States of the UNESCO Europe Region;
- c. any other signatory, contracting State or party to the European Cultural Convention of the Council of Europe and/or to the UNESCO Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region, which have been invited to the Diplomatic Conference entrusted with the adoption of this Convention.

2. These States and the Holy See may express their consent to be bound by:

- a. signature without reservation as to ratification, acceptance or approval; or
- b. signature, subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
- c. accession.

3. Signatures shall be made with one of the depositories. Instruments of ratification, acceptance, approval or accession shall be deposited with one of the depositories.

Article XI.2

This Convention shall enter into force on the first day of the month following the expiration of the period of one month after five States, including at least three member States of the Council of Europe and/or the UNESCO Europe Region, have expressed their consent to be bound by the Convention. It shall enter into force for each other State on the first day of the month following the expiration of the period of one month after the date of expression of its consent to be bound by the Convention.

Article XI.3

1 After the entry into force of this Convention, any State other than those falling into one of the categories listed under Article XI.1 may request accession to this Convention. Any request to this effect shall be addressed to one of the depositaries, who shall transmit it to the Parties at least three months before the meeting of the Committee of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region. The depositary shall also inform the Committee of Ministers of the Council of Europe and the Executive Board of UNESCO.

2 The decision to invite a State which so requests to accede to this Convention shall be taken by a two-thirds majority of the Parties.

3 After the entry into force of this Convention the European Community may accede to it following a request by its member States, which shall be addressed to one of the depositaries. In this case, Article XI.3.2 shall not apply.

4 In respect of any acceding States or the European Community, the Convention shall enter into force on the first day of the month following the expiration of the period of one month after the deposit of the instrument of accession with one of the depositaries.

Article XI.4

1 Parties to this Convention which are at the same time parties to one or more of the following Conventions:

European Convention on the Equivalence of Diplomas leading to Admission to Universities (1953, ETS No. 15), and its Protocol (1964, ETS No. 49);

European Convention on the Equivalence of Periods of University Study (1956, ETS No. 21);

European Convention on the Academic Recognition of University Qualifications (1959, ETS No. 32);

International Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in the Arab and European States bordering on the Mediterranean (1976);

Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region (1979);

European Convention on the General Equivalence of Periods of University Study (1990, ETS 138),

a. shall apply the provisions of the present Convention in their mutual relations;

b. shall continue to apply the above mentioned Conventions to which they are a party in their relations with other States party to those Conventions but not to the present Convention.

2. The Parties to this Convention undertake to abstain from becoming a party to any of the Conventions mentioned in paragraph 1, to which they are not already a party, with the exception of the International Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in the Arab and European States bordering on the Mediterranean.

Article XI.5

1. Any State may, at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, specify the territory or territories to which this Convention shall apply.

2. Any State may, at any later date, by a declaration addressed to one of the depositories, extend the application of this Convention to any other territory specified in the declaration. In respect of such territory the Convention shall enter into force on the first day of the month following the expiration of a period of one month after the date of receipt of such declaration by the depositary.

3. Any declaration made under the two preceding paragraphs may, in respect of any territory specified in such declaration, be withdrawn by a notification addressed to one of the depositaries. The withdrawal shall become effective on the first day of the month following the expiration of a period of one month after the date of receipt of such notification by the depositary.

Article XI.6

1. Any Party may, at any time, denounce this Convention by means of a notification addressed to one of the depositories.

2. Such denunciation shall become effective on the first day of the month following the expiration of a period of twelve months after the date of receipt of the notification by the depositary. However, such denunciation shall not affect recognition decisions taken previously under the provisions of this Convention.

3. Termination or suspension of the operation of this Convention as a consequence of a violation by a Party of a provision essential to the accomplishment of the object or purpose of this Convention shall be addressed in accordance with international law.

Article XI.7

1. Any State, the Holy See or the European Community may, at the time of signature or when depositing its instrument of ratification, acceptance or approval or accession, declare that it reserves the right not to apply, in whole or in part, one or more of the following Articles of this Convention:

Article IV.8

Article V.3

Article VI.3

Article VIII.2

Article IX.3

No other reservation may be made.

2. Any Party which has made a reservation under the preceding paragraph may wholly or partly withdraw it by means of a notification addressed to one of the depositories. The withdrawal shall take effect on the date of receipt of such notification by the depository.

3. A Party which has made a reservation in respect of a provision of this Convention may not claim the application of that provision by any other Party; it may, however, if its reservation is partial or conditional, claim the application of that provision in so far as it has itself accepted it.

Article XI.8

1. Draft amendments to this Convention may be adopted by the Committee of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region by a two-thirds majority of the Parties. Any draft amendment so adopted shall be incorporated into a Protocol to this Convention. The Protocol shall specify the modalities for its entry into force which, in any event, shall require the expression of consent by the Parties to be bound by it.

2. No amendment may be made to Section III of this Convention under the procedure of paragraph 1 above.

3. Any proposal for amendments shall be communicated to one of the depositaries, who shall transmit it to the Parties at least three months before the meeting of the Committee. The depository shall also inform the Committee of Ministers of the Council of Europe and the Executive Board of UNESCO.

Article XI.9

1. The Secretary General of the Council of Europe and the Director-General of the United Nations Educational, Scientific and Cultural Organization shall be the depositories of this Convention.

2. The depository with whom an act, notification or communication has been deposited shall notify the Parties to this Convention, as well as the other member States of the Council of Europe and/or of the UNESCO Europe Region of:

- a. any signature;
- b. the deposit of any instrument of ratification, acceptance, approval, or accession;
- c. any date of entry into force of this Convention in accordance with the provisions of Articles XI.2 and XI.3.4;
- d. any reservation made in pursuance of the provisions of Article XI.7 and the withdrawal of any reservations made in pursuance of the provisions of Article XI.7;
- e. any denunciation of this Convention in pursuance of Article XI.6;
- f. any declarations made in accordance with the provisions of Article II.1, or of

Article II.2;

- g. any declarations made in accordance with the provisions of Article IV.5;
- h. any request for accession made in accordance with the provisions of Article XI.3;
- i. any proposal made in accordance with the provisions of Article XI.8;
- j. any other act, notification or communication relating to this Convention.

3. The depository receiving a communication or making a notification in pursuance of the provisions of this Convention shall immediately inform the other depository thereof.

In witness thereof the undersigned representatives, being duly authorized, have signed this Convention.

Done at Lisbon on 11 April 1997, in the English, French, Russian and Spanish languages, the four texts being equally authoritative, in two copies, one of which shall be deposited in the archives of the Council of Europe and the other in the archives of the United Nations Educational, Scientific and Cultural Organization. A certified copy shall be sent to all the States referred to in Article XI.1, to the Holy See and to the European Community and to the Secretariat of the United Nations.

Annex II

World Declaration on Higher Education for the Twenty First Century: Vision and Action, 9 October 1998

Preamble

On the eve of a new century, there is an unprecedented demand for and a great diversification in higher education, as well as an increased awareness of its vital importance for sociocultural and economic development, and for building the future, for which the younger generations will need to be equipped with new skills, knowledge and ideals. Higher education includes 'all types of studies, training or training for research at the post-secondary level, provided by universities or other educational establishments that are approved as institutions of higher education by the competent State authorities'. Everywhere higher education is faced with great challenges and difficulties related to financing, equity of conditions at access into and during the course of studies, improved staff development, skills-based training, enhancement and preservation of quality in teaching, research and services, relevance of programmes, employability of graduates, establishment of efficient co-operation agreements and equitable access to the benefits of international co-operation. At the same time, higher education is being challenged by new opportunities relating to technologies that are improving the ways in which knowledge can be produced, managed, disseminated, accessed and controlled. Equitable access to these technologies should be ensured at all levels of education systems.

The second half of this century will go down in the history of higher education as the period of its most spectacular expansion: an over sixfold increase in student enrolments worldwide, from 13 million in 1960 to 82 million in 1995. But it is also the period which has seen the gap between industrially developed, the developing countries and in particular the least developed countries with regard to access and resources for higher learning and research, already enormous, becoming even wider. It has also been a period of increased socio-economic stratification and greater difference in educational opportunity within countries, including in some of the most developed and wealthiest nations. Without adequate higher education and research institutions providing a critical mass of skilled and educated people, no country can ensure genuine endogenous and sustainable development and, in particular, developing countries and least developed countries cannot reduce the gap separating them from the industrially developed ones. Sharing knowledge, international co-operation and new technologies can offer new opportunities to reduce this gap.

Higher education has given ample proof of its viability over the centuries and of its ability to change and to induce change and progress in society. Owing to the scope and pace of change, society has become increasingly knowledge-based so that higher learning and research now act as essential components of cultural, socio-economic

and environmentally sustainable development of individuals, communities and nations. Higher education itself is confronted therefore with formidable challenges and must proceed to the most radical change and renewal it has ever been required to undertake, so that our society, which is currently undergoing a profound crisis of values, can transcend mere economic considerations and incorporate deeper dimensions of morality and spirituality.

It is with the aim of providing solutions to these challenges and of setting in motion a process of in-depth reform in higher education worldwide that UNESCO has convened a World Conference on Higher Education in the Twenty-First Century: Vision and Action. In preparation for the Conference, UNESCO issued, in 1995, its *Policy Paper for Change and Development in Higher Education*. Five regional consultations (Havana, November 1996; Dakar, April 1997; Tokyo, July 1997; Palermo, September 1997; and Beirut, March 1998) were subsequently held. The Declarations and Plans of Action adopted by them, each preserving its own specificity, are duly taken into account in the present Declaration - as is the whole process of reflection undertaken by the preparation of the World Conference - and are annexed to it.

Proclaim the following:

MISSIONS AND FUNCTIONS OF HIGHER EDUCATION

Article 1 - Mission to educate, to train and to undertake research

We affirm that the core missions and values of higher education, in particular the mission to contribute to the sustainable development and improvement of society as a whole, should be preserved, reinforced and further expanded, namely, to:

(a) educate highly qualified graduates and responsible citizens able to meet the needs of all sectors of human activity, by offering relevant qualifications, including professional training, which combine high-level knowledge and skills, using courses and content continually tailored to the present and future needs of society;

(b) provide opportunities (*espace ouvert*) for higher learning and for learning throughout life, giving to learners an optimal range of choice and a flexibility of entry and exit points within the system, as well as an opportunity for individual development and social mobility in order to educate for citizenship and for active participation in society, with a worldwide vision, for endogenous capacity-building, and for the consolidation of human rights, sustainable development, democracy and peace, in a context of justice;

(c) advance, create and disseminate knowledge through research and provide, as part of its service to the community, relevant expertise to assist societies in cultural, social and economic development, promoting and developing scientific and technological research as well as research in the social sciences, the humanities and the creative arts;

(d) help understand, interpret, preserve, enhance, promote and disseminate national and regional, international and historic cultures, in a context of cultural pluralism and diversity;

(e) help protect and enhance societal values by training young people in the values which form the basis of democratic citizenship and by providing critical and detached perspectives to assist in the discussion of strategic options and the reinforcement of humanistic perspectives;

(f) contribute to the development and improvement of education at all levels, including through the training of teachers.

Article 2 - Ethical role, autonomy, responsibility and anticipatory function

In accordance with the Recommendation concerning the Status of Higher-Education Teaching Personnel approved by the General Conference of UNESCO in November 1997, higher education institutions and their personnel and students should:

(a) preserve and develop their crucial functions, through the exercise of ethics and scientific and intellectual rigour in their various activities;

(b) be able to speak out on ethical, cultural and social problems completely independently and in full awareness of their responsibilities, exercising a kind of intellectual authority that society needs to help it to reflect, understand and act;

(c) enhance their critical and forward-looking functions, through continuing analysis of emerging social, economic, cultural and political trends, providing a focus for forecasting, warning and prevention;

(d) exercise their intellectual capacity and their moral prestige to defend and actively disseminate universally accepted values, including peace, justice, freedom, equality and solidarity, as enshrined in UNESCO's Constitution;

(e) enjoy full academic autonomy and freedom, conceived as a set of rights and duties, while being fully responsible and accountable to society;

(f) play a role in helping identify and address issues that affect the well-being of communities, nations and global society.

SHAPING A NEW VISION OF HIGHER EDUCATION

Article 3 - Equity of access

(a) In keeping with Article 26.1 of the Universal Declaration of Human Rights, admission to higher education should be based on the merit, capacity, efforts, perseverance and devotion, showed by those seeking access to it, and can take place in a lifelong scheme, at any time, with due recognition of previously acquired skills. As a consequence, no discrimination can be accepted in granting access to higher education on grounds of race, gender, language or religion, or economic, cultural or social distinctions, or physical disabilities.

(b) Equity of access to higher education should begin with the reinforcement and, if need be, the reordering of its links with all other levels of education, particularly with secondary education. Higher education institutions must be viewed as, and must also work within themselves to be a part of and encourage, a seamless system starting with early childhood and primary education and continuing through life. Higher education institutions must work in active partnership with parents, schools,

students, socio-economic groups and communities. Secondary education should not only prepare qualified candidates for access to higher education by developing the capacity to learn on a broad basis but also open the way to active life by providing training on a wide range of jobs. However, access to higher education should remain open to those successfully completing secondary school, or its equivalent, or presenting entry qualifications, as far as possible, at any age and without any discrimination.

(c) As a consequence, the rapid and wide-reaching demand for higher education requires, where appropriate, all policies concerning access to higher education to give priority in the future to the approach based on the merit of the individual, as defined in Article 3(a) above.

(d) Access to higher education for members of some special target groups, such as indigenous peoples, cultural and linguistic minorities, disadvantaged groups, peoples living under occupation and those who suffer from disabilities, must be actively facilitated, since these groups as collectivities and as individuals may have both experience and talent that can be of great value for the development of societies and nations. Special material help and educational solutions can help overcome the obstacles that these groups face, both in accessing and in continuing higher education.

Article 4 - Enhancing participation and promoting the role of women

(a) Although significant progress has been achieved to enhance the *access of women* to higher education, various socio-economic, cultural and political obstacles continue in many places in the world to impede their full access and effective integration. To overcome them remains an urgent priority in the renewal process for ensuring an equitable and non-discriminatory system of higher education based on the principle of merit.

(b) Further efforts are required to eliminate all gender stereotyping in higher education, to consider gender aspects in different disciplines and to consolidate women's participation at all levels and in all disciplines, in which they are under-represented and, in particular, to enhance their active involvement in decision-making.

(c) Gender studies (women's studies) should be promoted as a field of knowledge, strategic for the transformation of higher education and society.

(d) Efforts should be made to eliminate political and social barriers whereby women are under-represented and in particular to enhance their active involvement at policy and decision-making levels within higher education and society.

Article 5 - Advancing knowledge through research in science, the arts and humanities and the dissemination of its results

(a) The advancement of knowledge through research is an essential function of all systems of higher education, which should promote postgraduate studies. Innovation, interdisciplinarity and transdisciplinarity should be promoted and reinforced in programmes with long-term orientations on social and cultural aims and needs. An appropriate balance should be established between basic and target-oriented research.

(b) Institutions should ensure that all members of the academic community engaged in research are provided with appropriate training, resources and support. The intellectual and cultural rights on the results of research should be used to the benefit of humanity and should be protected so that they cannot be abused.

(c) Research must be enhanced in all disciplines, including the social and human sciences, education (including higher education), engineering, natural sciences, mathematics, informatics and the arts within the framework of national, regional and international research and development policies. Of special importance is the enhancement of research capacities in higher education research institutions, as mutual enhancement of quality takes place when higher education and research are conducted at a high level within the same institution. These institutions should find the material and financial support required, from both public and private sources.

Article 6 - Long-term orientation based on relevance

(a) Relevance in higher education should be assessed in terms of the fit between what society expects of institutions and what they do. This requires ethical standards, political impartiality, critical capacities and, at the same time, a better articulation with the problems of society and the world of work, basing long-term orientations on societal aims and needs, including respect for cultures and environmental protection. The concern is to provide access to both broad general education and targeted, career-specific education, often interdisciplinary, focusing on skills and aptitudes, both of which equip individuals to live in a variety of changing settings, and to be able to change occupations.

(b) Higher education should reinforce its role of service to society, especially its activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger, environmental degradation and disease, mainly through an interdisciplinary and trans-disciplinary approach in the analysis of problems and issues.

(c) Higher education should enhance its contribution to the development of the whole education system, notably through improved teacher education, curriculum development and educational research.

(d) Ultimately, higher education should aim at the creation of a new society - non-violent and non-exploitative - consisting of highly cultivated, motivated and integrated individuals, inspired by love for humanity and guided by wisdom.

Article 7 - Strengthening co-operation with the world of work and analysing and anticipating societal needs

(a) In economies characterized by changes and the emergence of new production paradigms based on knowledge and its application, and on the handling of information, the links between higher education, the world of work and other parts of society should be strengthened and renewed.

(b) Links with the world of work can be strengthened, through the participation of its representatives in the governance of institutions, the increased use of domestic

and international apprenticeship/work-study opportunities for students and teachers, the exchange of personnel between the world of work and higher education institutions and revised curricula more closely aligned with working practices.

(c) As a lifelong source of professional training, updating and recycling, institutions of higher education should systematically take into account trends in the world of work and in the scientific, technological and economic sectors. In order to respond to the work requirements, higher education systems and the world of work should jointly develop and assess learning processes, bridging programmes and prior learning assessment and recognition programmes, which integrate theory and training on the job. Within the framework of their anticipatory function, higher education institutions could contribute to the creation of new jobs, although that is not their only function.

(d) Developing entrepreneurial skills and initiative should become major concerns of higher education, in order to facilitate employability of graduates who will increasingly be called upon to be not only job seekers but also and above all to become job creators. Higher education institutions should give the opportunity to students to fully develop their own abilities with a sense of social responsibility, educating them to become full participants in democratic society and promoters of changes that will foster equity and justice.

Article 8 - Diversification for enhanced equity of opportunity

(a) Diversifying higher education models and recruitment methods and criteria is essential both to meet increasing international demand and to provide access to various delivery modes and to extend access to an ever-wider public, in a lifelong perspective, based on flexible entry and exit points to and from the system of higher education.

(b) More diversified systems of higher education are characterized by new types of tertiary institutions: public, private and non-profit institutions, amongst others. Institutions should be able to offer a wide variety of education and training opportunities: traditional degrees, short courses, part-time study, flexible schedules, modularized courses, supported learning at a distance, etc.

Article 9 - Innovative educational approaches: critical thinking and creativity

(a) In a world undergoing rapid changes, there is a perceived need for a new vision and paradigm of higher education, which should be student-oriented, calling in most countries for in-depth reforms and an open access policy so as to cater for ever more diversified categories of people, and of its contents, methods, practices and means of delivery, based on new types of links and partnerships with the community and with the broadest sectors of society.

(b) Higher education institutions should educate students to become well informed and deeply motivated citizens, who can think critically, analyse problems of society, look for solutions to the problems of society, apply them and accept social responsibilities.

(c) To achieve these goals, it may be necessary to recast curricula, using new and appropriate methods, so as to go beyond cognitive mastery of disciplines. New pedagogical and didactical approaches should be accessible and promoted in order to facilitate the acquisition of skills, competences and abilities for communication, creative and critical analysis, independent thinking and team work in multicultural contexts, where creativity also involves combining traditional or local knowledge and know-how with advanced science and technology. These recast curricula should take into account the gender dimension and the specific cultural, historic and economic context of each country. The teaching of human rights standards and education on the needs of communities in all parts of the world should be reflected in the curricula of all disciplines, particularly those preparing for entrepreneurship. Academic personnel should play a significant role in determining the curriculum.

(d) New methods of education will also imply new types of teaching-learning materials. These have to be coupled with new methods of testing that will promote not only powers of memory but also powers of comprehension, skills for practical work and creativity.

Article 10 - Higher education personnel and students as major actors

(a) A vigorous policy of staff development is an essential element for higher education institutions. Clear policies should be established concerning higher education teachers, who nowadays need to focus on teaching students how to learn and how to take initiatives rather than being exclusively founts of knowledge. Adequate provision should be made for research and for updating and improving pedagogical skills, through appropriate staff development programmes, encouraging constant innovation in curriculum, teaching and learning methods, and ensuring appropriate professional and financial status, and for excellence in research and teaching, reflecting the corresponding provisions of the Recommendation concerning the Status of Higher-Education Teaching Personnel approved by the General Conference of UNESCO in November 1997. To this end, more importance should be attached to international experience. Furthermore, in view of the role of higher education for lifelong learning, experience outside the institutions ought to be considered as a relevant qualification for higher educational staff.

(b) Clear policies should be established by all higher education institutions preparing teachers of early childhood education and for primary and secondary schools, providing stimulus for constant innovation in curriculum, best practices in teaching methods and familiarity with diverse learning styles. It is vital to have appropriately trained administrative and technical personnel.

(c) National and institutional decision-makers should place students and their needs at the centre of their concerns, and should consider them as major partners and responsible stakeholders in the renewal of higher education. This should include student involvement in issues that affect that level of education, in evaluation, the

renovation of teaching methods and curricula and, in the institutional framework in force, in policy-formulation and institutional management. As students have the right to organize and represent themselves, students' involvement in these issues should be guaranteed.

(d) Guidance and counselling services should be developed, in co-operation with student organizations, in order to assist students in the transition to higher education at whatever age and to take account of the needs of ever more diversified categories of learners. Apart from those entering higher education from schools or further education colleges, they should also take account of the needs of those leaving and returning in a lifelong process. Such support is important in ensuring a good match between student and course, reducing drop-out. Students who do drop out should have suitable opportunities to return to higher education if and when appropriate.

FROM VISION TO ACTION

Article 11 - Qualitative evaluation

(a) Quality in higher education is a multidimensional concept, which should embrace all its functions, and activities: teaching and academic programmes, research and scholarship, staffing, students, buildings, facilities, equipment, services to the community and the academic environment. Internal self-evaluation and external review, conducted openly by independent specialists, if possible with international expertise, are vital for enhancing quality. Independent national bodies should be established and comparative standards of quality, recognized at international level, should be defined. Due attention should be paid to specific institutional, national and regional contexts in order to take into account diversity and to avoid uniformity. Stakeholders should be an integral part of the institutional evaluation process.

(b) Quality also requires that higher education should be characterized by its international dimension: exchange of knowledge, interactive networking, mobility of teachers and students, and international research projects, while taking into account the national cultural values and circumstances.

(c) To attain and sustain national, regional or international quality, certain components are particularly relevant, notably careful selection of staff and continuous staff development, in particular through the promotion of appropriate programmes for academic staff development, including teaching/learning methodology and mobility between countries, between higher education institutions, and between higher education institutions and the world of work, as well as student mobility within and between countries. The new information technologies are an important tool in this process, owing to their impact on the acquisition of knowledge and know-how.

Article 12 - The potential and the challenge of technology

The rapid breakthroughs in new information and communication technologies will further change the way knowledge is developed, acquired and delivered. It is also important to note that the new technologies offer opportunities to innovate on course

content and teaching methods and to widen access to higher learning. However, it should be borne in mind that new information technology does not reduce the need for teachers but changes their role in relation to the learning process and that the continuous dialogue that converts information into knowledge and understanding becomes fundamental. Higher education institutions should lead in drawing on the advantages and potential of new information and communication technologies, ensuring quality and maintaining high standards for education practices and outcomes in a spirit of openness, equity and international co-operation by:

(a) engaging in networks, technology transfer, capacity-building, developing teaching materials and sharing experience of their application in teaching, training and research, making knowledge accessible to all;

(b) creating new learning environments, ranging from distance education facilities to complete virtual higher education institutions and systems, capable of bridging distances and developing high-quality systems of education, thus serving social and economic advancement and democratization as well as other relevant priorities of society, while ensuring that these virtual education facilities, based on regional, continental or global networks, function in a way that respects cultural and social identities;

(c) noting that, in making full use of information and communication technology (ICT) for educational purposes, particular attention should be paid to removing the grave inequalities which exist among and also within the countries of the world with regard to access to new information and communication technologies and to the production of the corresponding resources;

(d) adapting ICT to national, regional and local needs and securing technical, educational, management and institutional systems to sustain it;

(e) facilitating, through international co-operation, the identification of the objectives and interests of all countries, particularly the developing countries, equitable access and the strengthening of infrastructures in this field and the dissemination of such technology throughout society;

(f) closely following the evolution of the 'knowledge society' in order to ensure high quality and equitable regulations for access to prevail;

(g) taking the new possibilities created by the use of ICTs into account, while realizing that it is, above all, institutions of higher education that are using ICTs in order to modernize their work, and not ICTs transforming institutions of higher education from real to virtual institutions.

Article 13 - Strengthening higher education management and financing

(a) The management and financing of higher education require the development of appropriate planning and policy-analysis capacities and strategies, based on partnerships established between higher education institutions and state and national planning and co-ordination bodies, so as to secure appropriately streamlined mana-

gement and the cost-effective use of resources. Higher education institutions should adopt forward-looking management practices that respond to the needs of their environments. Managers in higher education must be responsive, competent and able to evaluate regularly, by internal and external mechanisms, the effectiveness of procedures and administrative rules.

(b) Higher education institutions must be given autonomy to manage their internal affairs, but with this autonomy must come clear and transparent accountability to the government, parliament, students and the wider society.

(c) The ultimate goal of management should be to enhance the institutional mission by ensuring high-quality teaching, training and research, and services to the community. This objective requires governance that combines social vision, including understanding of global issues, with efficient managerial skills. Leadership in higher education is thus a major social responsibility and can be significantly strengthened through dialogue with all stakeholders, especially teachers and students, in higher education. The participation of teaching faculty in the governing bodies of higher education institutions should be taken into account, within the framework of current institutional arrangements, bearing in mind the need to keep the size of these bodies within reasonable bounds.

(d) The promotion of North-South co-operation to ensure the necessary financing for strengthening higher education in the developing countries is essential.

Article 14 - Financing of higher education as a public service

The funding of higher education requires both public and private resources. The role of the state remains essential in this regard.

(a) The diversification of funding sources reflects the support that society provides to higher education and must be further strengthened to ensure the development of higher education, increase its efficiency and maintain its quality and relevance. Public support for higher education and research remains essential to ensure a balanced achievement of educational and social missions.

(b) Society as a whole must support education at all levels, including higher education, given its role in promoting sustainable economic, social and cultural development. Mobilization for this purpose depends on public awareness and involvement of the public and private sectors of the economy, parliaments, the media, governmental and non-governmental organizations, students as well as institutions, families and all the social actors involved with higher education.

Article 15 - Sharing knowledge and know-how across borders and continents

(a) The principle of solidarity and true partnership amongst higher education institutions worldwide is crucial for education and training in all fields that encourage an understanding of global issues, the role of democratic governance and skilled human resources in their resolution, and the need for living together with different cultures and values. The practice of multilingualism, faculty and student exchange

programmes and institutional linkage to promote intellectual and scientific co-operation should be an integral part of all higher education systems.

(b) The principles of international co-operation based on solidarity, recognition and mutual support, true partnership that equitably serves the interests of the partners and the value of sharing knowledge and know-how across borders should govern relationships among higher education institutions in both developed and developing countries and should benefit the least developed countries in particular. Consideration should be given to the need for safeguarding higher education institutional capacities in regions suffering from conflict or natural disasters. Consequently, an international dimension should permeate the curriculum, and the teaching and learning processes.

(c) Regional and international normative instruments for the recognition of studies should be ratified and implemented, including certification of the skills, competences and abilities of graduates, making it easier for students to change courses, in order to facilitate mobility within and between national systems.

Article 16 - From 'brain drain' to 'brain gain'

The 'brain drain' has yet to be stemmed, since it continues to deprive the developing countries and those in transition, of the high-level expertise necessary to accelerate their socio-economic progress. International co-operation schemes should be based on long-term partnerships between institutions in the South and the North, and also promote South-South co-operation. Priority should be given to training programmes in the developing countries, in centres of excellence forming regional and international networks, with short periods of specialized and intensive study abroad. Consideration should be given to creating an environment conducive to attracting and retaining skilled human capital, either through national policies or international arrangements to facilitate the return - permanent or temporary - of highly trained scholars and researchers to their countries of origin. At the same time, efforts must be directed towards a process of 'brain gain' through collaboration programmes that, by virtue of their international dimension, enhance the building and strengthening of institutions and facilitate full use of endogenous capacities. Experience gained through the UNITWIN/UNESCO Chairs Programme and the principles enshrined in the regional conventions on the recognition of degrees and diplomas in higher education are of particular importance in this respect.

Article 17 - Partnership and alliances

Partnership and alliances amongst stakeholders - national and institutional policy-makers, teaching and related staff, researchers and students, and administrative and technical personnel in institutions of higher education, the world of work, community groups - is a powerful force in managing change. Also, non-governmental organizations are key actors in this process. Henceforth, partnership, based on common interest, mutual respect and credibility, should be a prime matrix for renewal in higher education.

We, the participants in the World Conference on Higher Education, adopt this Declaration and reaffirm the right of all people to education and the right of access to higher education based on individual merit and capacity;

We pledge to act together within the frame of our individual and collective responsibilities, by taking all necessary measures in order to realize the principles concerning higher education contained in the Universal Declaration of Human Rights and in the Convention against Discrimination in Education;

We solemnly reaffirm our commitment to peace. To that end, we are determined to accord high priority to education for peace and to participate in the celebration of the International Year for the Culture of Peace in the year 2000;

We adopt, therefore, this World Declaration on Higher Education for the Twenty-First Century: Vision and Action. To achieve the goals set forth in this Declaration and, in particular, for immediate action, we agree on the following Framework for Priority Action for Change and Development of Higher Education.

FRAMEWORK FOR PRIORITY ACTION FOR CHANGE AND DEVELOPMENT OF HIGHER EDUCATION

I. PRIORITY ACTIONS AT NATIONAL LEVEL

1. States, including their governments, parliaments and other decision-makers, should:

(a) establish, where appropriate, the legislative, political and financial framework for the reform and further development of higher education, in keeping with the terms of the Universal Declaration of Human Rights, which establishes that higher education shall be 'accessible to all on the basis of merit'. No discrimination can be accepted, no one can be excluded from higher education or its study fields, degree levels and types of institutions on grounds of race, gender, language, religion, or age or because of any economic or social distinctions or physical disabilities;

(b) reinforce the links between higher education and research;

(c) consider and use higher education as a catalyst for the entire education system;

(d) develop higher education institutions to include lifelong learning approaches, giving learners an optimal range of choice and a flexibility of entry and exit points within the system, and redefine their role accordingly, which implies the development of open and continuous access to higher learning and the need for bridging programmes and prior learning assessment and recognition;

(e) make efforts, when necessary, to establish close links between higher education and research institutions, taking into account the fact that education and research are two closely related elements in the establishment of knowledge;

(f) develop innovative schemes of collaboration between institutions of higher education and different sectors of society to ensure that higher education and research programmes effectively contribute to local, regional and national development;

(g) fulfil their commitments to higher education and be accountable for the pled-

ges adopted with their concurrence, at several forums, particularly over the past decade, with regard to human, material and financial resources, human development and education in general, and to higher education in particular;

(h) have a policy framework to ensure new partnerships and the involvement of all relevant stakeholders in all aspects of higher education: the evaluation process, including curriculum and pedagogical renewal, and guidance and counselling services; and, in the framework of existing institutional arrangements, policy-making and institutional governance;

(i) define and implement policies to eliminate all gender stereotyping in higher education and to consolidate women's participation at all levels and in all disciplines in which they are under-represented at present and, in particular, to enhance their active involvement in decision-making;

(j) establish clear policies concerning higher education teachers, as set out in the Recommendation concerning the Status of Higher-Education Teaching Personnel approved by the General Conference of UNESCO in November 1997;

(k) recognize students as the centre of attention of higher education, and one of its stakeholders. They should be involved, by means of adequate institutional structures, in the renewal of their level of education (including curriculum and pedagogical reform), and policy decision, in the framework of existing institutional arrangements;

(l) recognize that students have the right to organize themselves autonomously;

(m) promote and facilitate national and international mobility of teaching staff and students as an essential part of the quality and relevance of higher education;

(n) provide and ensure those conditions necessary for the exercise of academic freedom and institutional autonomy so as to allow institutions of higher education, as well as those individuals engaged in higher education and research, to fulfil their obligations to society.

2. States in which enrolment in higher education is low by internationally accepted comparative standards should strive to ensure a level of higher education adequate for relevant needs in the public and private sectors of society and to establish plans for diversifying and expanding access, particularly benefiting all minorities and disadvantaged groups.

3. The interface with general, technical and professional secondary education should be reviewed in depth, in the context of lifelong learning. Access to higher education in whatever form must remain open to those successfully completing secondary education or its equivalent or meeting entry qualifications at any age, while creating gateways to higher education, especially for older students without any formal secondary education certificates, by attaching more importance to their professional experience. However, preparation for higher education should not be the sole or primary purpose of secondary education, which should also prepare for the world of work, with complementary training whenever required, in order to provide

knowledge, capacities and skills for a wide range of jobs. The concept of bridging programmes should be promoted to allow those entering the job market to return to studies at a later date.

4. Concrete steps should be taken to reduce the widening gap between industrially developed and developing countries, in particular the least developed countries, with regard to higher education and research. Concrete steps are also needed to encourage increased co-operation between countries at all levels of economic development with regard to higher education and research. Consideration should be given to making budgetary provisions for that purpose, and developing mutually beneficial agreements involving industry, national as well as international, in order to sustain co-operative activities and projects through appropriate incentives and funding in education, research and the development of high-level experts in these countries.

II. PRIORITY ACTIONS AT THE LEVEL OF SYSTEMS AND INSTITUTIONS

5. Each higher education institution should define its mission according to the present and future needs of society and base it on an awareness of the fact that higher education is essential for any country or region to reach the necessary level of sustainable and environmentally sound economic and social development, cultural creativity nourished by better knowledge and understanding of the cultural heritage, higher living standards, and internal and international harmony and peace, based on human rights, democracy, tolerance and mutual respect. These missions should incorporate the concept of academic freedom set out in the Recommendation concerning the Status of Higher-Education Teaching Personnel approved by the General Conference of UNESCO in November 1997.

6. In establishing priorities in their programmes and structures, higher education institutions should:

(a) take into account the need to abide by the rules of ethics and scientific and intellectual rigour, and the multidisciplinary and transdisciplinary approach;

(b) be primarily concerned to establish systems of access for the benefit of all persons who have the necessary abilities and motivations;

(c) use their autonomy and high academic standards to contribute to the sustainable development of society and to the resolution of the issues facing the society of the future. They should develop their capacity to give forewarning through the analysis of emerging social, cultural, economic and political trends, approached in a multidisciplinary and transdisciplinary manner, giving particular attention to:

high quality, a clear sense of the social pertinence of studies and their anticipatory function, based on scientific grounds;

knowledge of fundamental social questions, in particular related to the elimination of poverty, to sustainable development, to intercultural dialogue and to the shaping of a culture of peace;

the need for close connection with effective research organizations or institutions that perform well in the sphere of research;

the development of the whole education system in the perspective of the recommendations and the new goals for education as set out in the 1996 report to UNESCO of the International Commission on Education for the Twenty-first Century;

fundamentals of human ethics, applied to each profession and to all areas of human endeavour;

(d) ensure, especially in universities and as far as possible, that faculty members participate in teaching, research, tutoring students and steering institutional affairs;

(e) take all necessary measures to reinforce their service to the community, especially their activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger and disease, through an interdisciplinary and transdisciplinary approach in the analysis of challenges, problems and different subjects;

(f) set their relations with the world of work on a new basis involving effective partnerships with all social actors concerned, starting from a reciprocal harmonization of action and the search for solutions to pressing problems of humanity, all this within a framework of responsible autonomy and academic freedoms;

(g) ensure high quality of international standing, consider accountability and both internal and external evaluation, with due respect for autonomy and academic freedom, as being normal and inherent in their functioning, and institutionalize transparent systems, structures or mechanisms specific thereto;

(h) as lifelong education requires academic staff to update and improve their teaching skills and learning methods, even more than in the present systems mainly based on short periods of higher teaching, establish appropriate academic staff development structures and/or mechanisms and programmes;

(i) promote and develop research, which is a necessary feature of all higher education systems, in all disciplines, including the human and social sciences and arts, given their relevance for development. Also, research on higher education itself should be strengthened through mechanisms such as the UNESCO/UNU Forum on Higher Education and the UNESCO Chairs in Higher Education. Objective, timely studies are needed to ensure continued progress towards such key national objectives as access, equity, quality, relevance and diversification;

(j) remove gender inequalities and biases in curricula and research, and take all appropriate measures to ensure balanced representation of both men and women among students and teachers, at all levels of management;

(k) provide, where appropriate, guidance and counselling, remedial courses, training in how to study and other forms of student support, including measures to improve student living conditions.

7. While the need for closer links between higher education and the world of work is important worldwide, it is particularly vital for the developing countries and espe-

cially the least developed countries, given their low level of economic development. Governments of these countries should take appropriate measures to reach this objective through appropriate measures such as strengthening institutions for higher/professional/vocational education. At the same time, international action is needed in order to help establish joint undertakings between higher education and industry in these countries. It will be necessary to give consideration to ways in which higher education graduates could be supported, through various schemes, following the positive experience of the micro-credit system and other incentives, in order to start small- and medium-size enterprises. At the institutional level, developing entrepreneurial skills and initiative should become a major concern of higher education, in order to facilitate employability of graduates who will increasingly be required not only to be job-seekers but to become job-creators.

8. The use of new technologies should be generalized to the greatest extent possible to help higher education institutions, to reinforce academic development, to widen access, to attain universal scope and to extend knowledge, as well as to facilitate education throughout life. Governments, educational institutions and the private sector should ensure that informatics and communication network infrastructures, computer facilities and human resources training are adequately provided.

9. Institutions of higher education should be open to adult learners:

(a) by developing coherent mechanisms to recognize the outcomes of learning undertaken in different contexts, and to ensure that credit is transferable within and between institutions, sectors and states;

(b) by establishing joint higher education/community research and training partnerships, and by bringing the services of higher education institutions to outside groups;

(c) by carrying out interdisciplinary research in all aspects of adult education and learning with the participation of adult learners themselves;

(d) by creating opportunities for adult learning in flexible, open and creative ways.

III. ACTIONS TO BE TAKEN AT INTERNATIONAL LEVEL AND, IN PARTICULAR, TO BE INITIATED BY UNESCO

10. Co-operation should be conceived of as an integral part of the institutional missions of higher education institutions and systems. Intergovernmental organizations, donor agencies and non-governmental organizations should extend their action in order to develop inter-university co-operation projects in particular through twinning institutions, based on solidarity and partnership, as a means of bridging the gap between rich and poor countries in the vital areas of knowledge production and application. Each institution of higher education should envisage the creation of an appropriate structure and/or mechanism for promoting and managing international co-operation.

11. UNESCO, and other intergovernmental organizations and non-governmental organizations active in higher education, the states through their bilateral and mul-

tilateral co-operation programmes, the academic community and all concerned partners in society should further promote international academic mobility as a means to advance knowledge and knowledge-sharing in order to bring about and promote solidarity as a main element of the global knowledge society of tomorrow, including through strong support for the joint work plan (1999-2005) of the six intergovernmental committees in charge of the application of the regional conventions on the recognition of studies, degrees and diplomas in higher education and through large-scale co-operative action involving, *inter alia*, the establishment of an educational credit transfer scheme, with particular emphasis on South-South co-operation, the needs of the least developed countries and of the small states with few higher education institutions or none at all.

12. Institutions of higher education in industrialized countries should strive to make arrangements for international co-operation with sister institutions in developing countries and in particular with those of poor countries. In their co-operation, the institutions should make efforts to ensure fair and just recognition of studies abroad. UNESCO should take initiatives to develop higher education throughout the world, setting itself clear-cut goals that could lead to tangible results. One method might be to implement projects in different regions renewing efforts towards creating and/or strengthening centres of excellence in developing countries, in particular through the UNITWIN/UNESCO Chairs Programme, relying on networks of national, regional and international higher education institutions.

13. UNESCO, together with all concerned parts of society, should also undertake action in order to alleviate the negative effects of 'brain drain' and to shift to a dynamic process of 'brain gain'. An overall analysis is required in all regions of the world of the causes and effects of brain drain. A vigorous campaign should be launched through the concerted effort of the international community and on the basis of academic solidarity and should encourage the return to their home country of expatriate academics, as well as the involvement of university volunteers - newly retired academics or young academics at the beginning of their career - who wish to teach and undertake research at higher education institutions in developing countries. At the same time it is essential to support the developing countries in their efforts to build and strengthen their own educational capacities.

14. Within this framework, UNESCO should:

(a) promote better co-ordination among intergovernmental, supranational and non-governmental organizations, agencies and foundations that sponsor existing programmes and projects for international co-operation in higher education. Furthermore, co-ordination efforts should take place in the context of national priorities. This could be conducive to the pooling and sharing of resources, avoid overlapping and promote better identification of projects, greater impact of action and increased assurance of their validity through collective agreement and review.

Programmes aiming at the rapid transfer of knowledge, supporting institutional development and establishing centres of excellence in all areas of knowledge, in particular for peace education, conflict resolution, human rights and democracy, should be supported by institutions and by public and private donors;

(b) jointly with the United Nations University and with National Commissions and various intergovernmental and non-governmental organizations, become a forum of reflection on higher education issues aiming at: (i) preparing update reports on the state of knowledge on higher education issues in all parts of the world; (ii) promoting innovative projects of training and research, intended to enhance the specific role of higher education in lifelong education; (iii) reinforcing international co-operation and emphasizing the role of higher education for citizenship education, sustainable development and peace; and (iv) facilitating exchange of information and establishing, when appropriate, a database on successful experiences and innovations that can be consulted by institutions confronted with problems in their reforms of higher education;

(c) take specific action to support institutions of higher education in the least developed parts of the world and in regions suffering the effects of conflict or natural disasters;

(d) make renewed efforts towards creating or/and strengthening centres of excellence in developing countries;

(e) take the initiative to draw up an international instrument on academic freedom, autonomy and social responsibility in connection with the Recommendation concerning the Status of Higher-Education Teaching Personnel;

(f) ensure follow-up to the World Declaration on Higher Education and the Framework for Priority Action, jointly with other intergovernmental and non-governmental organizations and with all higher education stakeholders, including the United Nations University, the NGO Collective Consultation on Higher Education and the UNESCO Student Forum. It should have a crucial role in promoting international co-operation in the field of higher education in implementing this follow-up. Consideration should be given to according priority to this in the development of UNESCO's next draft Programme and Budget.

ANNEX III

Questionnaire sent to a periodical which ranks universities by quality
Good universities, Bad universities and no universities

Dr. Modesto Seara Vázquez 4/10/03

A Problem

Lately it has become fashionable to qualify and classify universities, and the talk of “quality universities”, “the best universities”, “universities of excellence”, etc., Most of the time those claims are unwarranted or they are just marketing gimmicks.

What is a university?

For that reason it is necessary to clarify the concepts, and to begin with the definition of university. A university would be a high level cultural institution with the following functions:

- a) Teaching
- b) Research
- c) Cultural diffusion

and that because it has to act as depository of the national and universal cultural values, but also as a creator of new values to secure the positive transformation of society.

What is not a university?

A institution which forgets the functions of research and cultural diffusion does not deserve to be called a university, even in the improbable case of offering a high quality teaching. It would only be a school; nothing less but nothing more. There are plenty of those false universities, some of them public but most of them private.

That is why we should refuse the legitimacy of the use of the name of university to institutions that do not do research or cultural diffusion, nor do they train their own academic personnel or act on society to promote development.

Quality universities

In face of this publicity tide, oriented to sell as quality products universities that do not even deserve the name of university, it is important to present a list of objective criteria which may be used to verify the reality of the quality they proclaim.

Here are some of them:

The academic project

Function that they perform satisfactorily

- Teaching
- Research
- Cultural diffusion
- Promotion of development
- Bachelor degree programs

Social Pertinence.

It is measured according to different criteria: whether it answers the needs of the students or of the Mexican society, which do not always coincide; and that because the university must not limit itself to the demands of the job market, just as a purveyor of manpower; on the contrary it must assume the role of social transformer, and by that to contribute to the creation of jobs demanded by the development of modern society. It is a task in which science and technology should weight a lot, but the humanistic dimension must be also introduced in a complementary way.

Interaction with society

Are academic activities complemented with other activities in the private and public productive sectors?

Are scholar practices required?

Are internships required? For how long?

-Quality, flexibility and updating of the syllabus?

Graduate studies

Do they offer graduate studies? Do they offer other kind of graduate courses such as specialization, masters doctorates?

Professors

Percentage of full time professors

Proportion professors/students

Academic level (degrees) of the Professors:

Do they have members of the faculty at the bachelors level?. Is there any member of the faculty without a bachelor's degree?

What's the percentage of professors with a degree higher than a bachelor's?

Has the university a professors training program, within or outside the own university?

Has the university any upgrading programs for professors?

What's the proportion of professors member of the SNI (National System of Research- CONACYT)?

How many labor hours?

Infrastructure and Equipment

University campus or just buildings?

Do they have the necessary laboratories or workshops for each career?

How many laboratories and workshops do they have?

Do they have a library or several libraries, and auditorium?

Has every professor his own private office?

Do all professors have a computer?

Do they have access to INTERNET?

What is the proportion between the number of computers and students?

Do they have the necessary transportation equipment for the scholars practices

and for the academic activities of professors?

Are the premises well kept? Is there cleanliness and order in the University?

How many students in each typical classroom?

Research

Are there any scientific research activities?

Are formally organized the research activities?

Are there research institutes or centers?

Do professors have the necessary space?

Do they have the laboratories they need?

Do professors have their works published?

Have they been recognized for their Works?

Has the university any projects of cooperation with public institutions or or private business.

Do professors participate on a regular bases in national or international academics events?

Cultural Diffusion

Are cultural activities carried out in a systematic way?

Lectures, seminars, congresses, symposia, concerts, cinema, theater, dance, etc.?

Do they public books?

Do they have academic periodicals?

Do the students have cultural or recreational activities, such as choirs, dance groups, theater, different kind of musical groups, chess, sports?

Do they have the spaces required for those activities?

Promotion of Development

Is the university involved in promotion of development in a permanent way?

Has any exclusive department for that activity?

Does it offer professional training?

Is it involved in the study of natural resources?

Does it send recommendations on those matters to public institutions or private business?

Does it conclude contracts or agreements with the Federal or the State Governments or with private business?

Has the university any programs for the creation of business enterprises?

Dubious criteria to measure the quality of the universities

Terminal Efficiency

The concept of terminal efficiency El concepto de eficiencia terminal, es impreciso, pues no basta con medir el porcentaje de alumnos que concluyen los estudios. Importa mucho más ver el nivel de conocimientos con el que egresan. Hay instituciones educativas que tratan de ofrecer cifras favorables en materia de eficiencia terminal, por el simple procedimientos de disminuir los requisitos.

Average grades

For the granting of scholarships a minimum average grade is required, which would not be such a bad thing were it not for the fact that every university has its own criteria, very often oriented to facilitate the obtention of scholarships, and so average grades are meaningless as a tool to measure university quality because its worth depends on the criteria to give those grades. rant those

The perverse effect of this system, is that the students from non selective universities with a less than rigorous system of qualification are those who get the scholarship, while those who come from more serious institutions lose them. And so, when “the best students” get diplomas or scholarships, those who get them aren’t necessarily the best but just those with the highest grades, no matter how they got them.

The only way to accurately compare the quality of students from different universities is through common exams. CENEVAL could be the solution, and CONACYT, for instance, should ask for the students who apply for a scholarship to have the backing of CENEVAL.

Success in the job market

A useful method to judge the quality of universities is to see how successful their students are in the job market; of course taking into consideration the fact that those coming from high social and economic levels, for family reason have an easy riding in the private as well as in the public sector.

Index

Preface	7
Part I.	
The Theory	
1. The Social Context	13
2. The Purposes of a University	17
3. Quality Education	20
4. Dimensions and Physical Layout of the University	21
4.1 <i>The Dimensions</i>	
4.2 <i>The Physical Layout</i>	
5. Public and Private Universities	27
6. Free Universities and Paying Universities	32
7. The Democratic, Autocratic or Aristocratic University; Autonomy, Self-administration and Shared Governance	37
8. A Critical University?	46
9. Humanizing the Technological University	51
10. The Educational Dimensions of the University	58
10.1 <i>Professors</i>	
10.2 <i>Students</i>	
10.2.1 <i>Academic Formation</i>	
10.2.2 <i>Cultural Formations</i>	
10.2.3 <i>Physical Formation</i>	
10.2.4 <i>Civic Formation</i>	
11. Research	76
12. Cultural Diffusion and Outreach	81
13. The Promotion of Development	83
14. Continuous Education and Professional Updating	85
15. The University and Mass Media	86
16. University Administration	88
17. How to Measure the Quality of Universities?	92
17.1 <i>Certification and Accreditation</i>	
17.2 <i>The Ranking of Universities</i>	
18. Universities Throughout History	104
18.1 <i>The historical concep of university</i>	
18.2 <i>Ancient Universities</i>	

18.2.1. <i>China</i>	
18.2.2. <i>Greece</i>	
18.2.3. <i>Egypt</i>	
18.2.4. <i>Constantinople</i>	
18.3. <i>Medieval Universities</i>	
18.3.1. <i>India</i>	
18.3.2. <i>Morocco</i>	
18.3.3. <i>Egypt</i>	
18.4. <i>Europa: from the Middle Ages to our Time</i>	
18.5. <i>The Founding of Universities in the Americas</i>	
18.6. <i>Types of Universities</i>	
18.7. <i>The Humboldt Model</i>	
19. The Bologna Process: a European Debate with Serious Consequences	124
19.1. <i>The Origin and the Evolution of the Process</i>	
19.2. <i>The Goals of the Process</i>	
19.3. <i>The Convergence of Systems</i>	
19.4. <i>The Formula 3+2+3</i>	
19.5. <i>The Credit System</i>	
19.6. <i>The Control over Academic Quality in European Universities</i>	
19.7. <i>The Impact of the Bologna Process Outside of Europe</i>	
19.8. <i>The Positives and the Negatives in the Bologna Process</i>	

Part II. The Practice

1. Utopia	141
2. The Essential Objectives of a Utopian Project	145
2.1. <i>The Beginning</i>	
2.2. <i>Objectives of this Model of University</i>	
3. From the Universidad Tecnológica de la Mixteca to the Sistema de Universidades Estatales de Oaxaca (SUNEO)	152
4. The Universidad del Mar	156
5. The State Universities Extend Throughout the Territory of Oaxaca	163
5.1. <i>Universidad del Istmo</i>	
5.2. <i>Universidad del Papaloapan</i>	
5.3. <i>Universidad de la Sierra Sur</i>	
5.4. <i>Universidad de la Sierra Juárez</i>	
5.5. <i>Universidad de la Cañada</i>	

6. The Model of Administrative Organization	176
7. The subsystem of NovaUniversitas: a pragmatic solution to university education in a rural environment	180
7.1. <i>The Problem</i>	
7.1.1. <i>A False Solution</i>	
7.1.2 <i>Squaring the Circle</i>	
7.2. <i>The Development of NovaUniversitas</i>	
8. The Future	186

Annex

Annex I	299
The Bologna Process	
1. Magna Carta Universitatum, of 1988	
2. Sorbonne Declaration of 1998	
3. Bologna Declaration of 1999	
4. Prague Communiqué of 2001	
5. Berlin Communiqué of 2003	
6. Bergen Communiqué of 2005	
7. London Communiqué of 2007	
8. Leuven/Louvain-la-Neuve Communiqué of 2009	
9. Convention on the recognition of qualifications regarding higher education in the European region 11 April 1997	
Annex II	251
World Declaration on Higher Education for the Twenty-First Century: Vision and Action. 9 October 1998	
Annex III	269
Good Universities, Bad Universities and No Universities	

PUBLICACIONES DEL SUNE0

UNIVERSIDAD TECNOLÓGICA DE LA MIXTECA

Un nuevo Modelo de Universidad

Seara Vázquez, Modesto

2a. Edición, 2010. 316 págs.

El significado de los sueños y otros Temas Mixtecos

Ortiz Escamilla, Reina (editor)

2009. 190 págs.

Diccionario del Idioma Mixteco

Caballero Morales, Gabriel

2008. 811 págs.

Caminos de la Historia Mixteca

Ortiz Escamilla, Reina (editor)

2008. 190 págs.

Agua el Líquido de la Vida

Cuaderno de divulgación técnica y científica No. 2

Alvarez Olguín, Gabriela, et.al.

2008. 54 págs.

El Secreto del Espectro

Cuaderno de divulgación técnica y científica No. 1

Vázquez de la Cerda, Alberto Mariano (editor)

2008. 62 págs.

Presencias de la Cultura Mixteca.

López García, Ubaldo, et.al.

3ª. Impresión 2008, 111 págs.

Raíces Mixtecas

Gallegos Ruiz, Roberto, et.al.

2007. 285 págs.

Ñuu Savi. La Patria Mixteca

Ruiz Ortiz, Víctor Hugo, et.al.

2006. 227 págs.

Pasado y Presente de la Cultura Mixteca

Ojeda Díaz, Ma. De los Angeles, et.al.

2005. 321 págs.

Personajes e Instituciones del Pueblo Mixteco

Rivera Guzmán, Angel Iván., et.al.

2004. 126 págs

A new charter for the United Nations

Seara Vázquez, Modesto.

2003. 357 págs.

La Tierra del Sol y de la Lluvia

Galindo Trejo, Jesús., et.al.

2002. 211 págs.

Aplicación de un modelo de Balances Hídricos en la Cuenca del Río Mixteco

Blanco Andray, Alfredo y Martínez Ramírez Saúl.

2001. 250 págs.

La Vivienda Tradicional en la Mixteca Oaxaqueña

Fuentes Ibarra, Luis Guillermo

2000. 95 págs.

El Agua Recurso Vital

Arias Chávez, José, et.al.

1993. 147 págs.

Una Nueva Carta de las Naciones Unidas

Seara Vázquez, Modesto.

1993. 196 págs.

Cuaderno Estadístico Municipal

INEGI-UTM

1993. 113 págs.

Inteligencia Artificial

Galindo Soria, Fernando, et.al.

1992. 178 págs.

Electrónica y Computación en México.

Gil Mendieta, Jorge (comp.).

1991. 118 págs.

Revista: Temas de Ciencia y Tecnología

Publicación cuatrimestral. 1997 a la fecha.

36 números. 88 págs. cada una.

UNIVERSIDAD DEL MAR

La iguana negra. Fundamentos de reproducción, nutrición y su manejo en cautiverio
Arcos García, José Luis y López Pozos, Roberto
2009, 70 págs.

Diagnóstico de los Recursos Naturales de la Bahía y Micro-cuenca de Cacaluta
Domínguez Licona, Juan Manuel (editor)
2008, 453 págs.

Rusia hacia la Cuenca del Pacífico
Roldán, Eduardo (editor)
2008. 355 págs.

Estudio de Ordenamiento Ecológico para la Zona Costera del Istmo de Tehuantepec
Serrano Guzmán, Saúl. J.
2004. 159 págs.

Mujeres Empresarias y Turismo en la Costa Oaxaqueña
Informe Diagnóstico y Directorio
María José Fernández Aldecua, María José y Barradas Salas Pascal
2001. 81 págs.

Biología y Aprovechamiento del Camarón Duende
Castrejón Ocampo, Laura, et.al.
1993. 72 págs.

Diagramas Prácticos para la Acuicultura
Porrás Díaz, Demetrio y Castrejón Ocampo, Laura
1993. 111 págs.

Revista: Ciencia y Mar
Publicación cuatrimestral. 1997 a la fecha
34 números. 86 págs. cada una.

UNIVERSIDAD DEL ISTMO

La Cultura Zapoteca. Una cultura viva
Acevedo Conde, María Luisa. Et.al.
2009. 248 págs.

Secretos del Mundo Zapoteca
Méndez Martínez, Enrique, et.al.
2008. 321 págs.

Un recorrido por el Istmo
Ramírez Gasga, Eva (editor)
2006. 224 págs.

Etnobiología Zapoteca
Smith Stark, Tomas C., et.al.
2005. 293 págs.

Palabras de luz, palabras floridas
Winter, Marcus, et.al.
2004. 139 págs.

*Venta en las librerías del SUNEI y principales librerías del país.
Informes: Vicerectorías de Relaciones y Recursos

Pino Suarez No. 509. Centro
C.P. 68000
Oaxaca, Oax.
Tel. 01 951 13 269 58
01 951 13 253 30

Sacramento No. 347 Col. Del Valle
C.P. 3100.
México. D.F.
Tel: 01 55 55 75 13 65
01 55 55 75 15 89

Universidad Tecnológica de la Mixteca
www.utm.mx

Universidad del Mar
www.umar.mx

Universidad del Istmo
www.unistmo.edu.mx

Universidad del Papaloapan
www.unpa.edu.mx

Universidad de la Sierra Juárez
www.unsij.edu.mx

Universidad de la Sierra Sur
www.unsis.edu.mx

Universidad de la Cañada
www.unca.edu.mx

A New Model of University
Printed in México, April 2010
1000 copies.



Modesto Seara Vázquez (Allariz, 1931), strongly criticizes the commodization of universities and makes a passionate defense of the public university.

His opinions are backed by sixty years of life in the university, as a professor as well as a student, including twenty years as Rector of the State Universities of Oaxaca.

Modesto Seara is a world-famous professor of international Law and international relations, recognized as one of the founders of space law in the nineteen fifties. He is honorary President of the Mexican International Studies Association (AMEI) and was Vice President of the International Studies Association (USA).

He is the author of about twenty books and two hundred pamphlets, essays and academic articles published in different languages in fifteen countries. His treatise on Public International Law reached the 23th. Edition in 2009.

<http://www.modestoseara.com>