

THE PONTIFICAL ACADEMY OF SCIENCES  
THE PONTIFICAL ACADEMY OF SOCIAL SCIENCES

# Statement on *Globalization and Education*

*issued by the first joint workshop of the Pontifical Academy of Sciences  
and the Pontifical Academy of Social Sciences  
and approved by the same Academies*

## Erklärung zu *Globalisierung und Bildung*

*wurde von der Päpstlichen Akademie für Wissenschaften und Sozialwissenschaften  
zum Abschluß des ersten gemeinsamen Seminars genehmigt*

## Messaggio su *Globalizzazione ed Educazione*

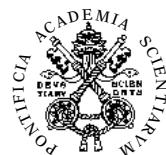
*approvato dalle Pontificie Accademie delle Scienze e delle Scienze Sociali  
a conclusione del primo seminario tenuto in comune*

## Declaración sobre *Globalización y Educación*

*aprovada por las Pontificias Academias de las Ciencias y de las Ciencias Sociales  
como conclusión del primer seminario tenido en común*

16-17 November 2005  
Casina Pio IV

Letter by Cardinal A. Sodano p. ④ Statement p. ⑤ Erklärung p. ⑥ Messaggio p. ⑦  
Declaración p. ⑧ Programme p. ⑨ List of Participants p. ⑩ Participant Biographies p. ⑪



VATICAN CITY 2006

In today's complex situation, not least because of the growth of a globalized economy, the Church's social doctrine has become a set of fundamental guidelines offering approaches that are valid even beyond the confines of the Church: in the face of ongoing development these guidelines need to be addressed in the context of dialogue with all those seriously concerned for humanity and for the world in which we live...On the other hand – and here we see one of the challenging yet also positive sides of the process of globalization – we now have at our disposal numerous means for offering humanitarian assistance to our brothers and sisters in need, not least modern systems of distributing food and clothing, and of providing housing and care. Concern for our neighbour transcends the confines of national communities and has increasingly broadened its horizon to the whole world. The Second Vatican Council rightly observed that “among the signs of our times, one particularly worthy of note is a growing, inescapable sense of solidarity between all peoples”. State agencies and humanitarian associations work to promote this, the former mainly through subsidies or tax relief, the latter by making available considerable resources. The solidarity shown by civil society thus significantly surpasses that shown by individuals.

\* \* \*

Nella situazione difficile nella quale oggi ci troviamo anche a causa della globalizzazione dell'economia, la dottrina sociale della Chiesa è diventata un'indicazione fondamentale, che propone orientamenti validi ben al di là dei confini di essa: questi orientamenti – di fronte al progredire dello sviluppo – devono essere affrontati nel dialogo con tutti coloro che si preoccupano seriamente dell'uomo e del suo mondo. ... D'altro canto – ed è questo un aspetto provocatorio e al contempo incoraggiante del processo di globalizzazione – il presente mette a nostra disposizione innumerevoli strumenti per prestare aiuto umanitario ai fratelli bisognosi, non ultimi i moderni sistemi per la distribuzione di cibo e di vestiario, come anche per l'offerta di alloggio e di accoglienza. Superando i confini delle comunità nazionali, la sollecitudine per il prossimo tende così ad allargare i suoi orizzonti al mondo intero. Il Concilio Vaticano II ha giustamente rilevato: “Tra i segni del nostro tempo è degno di speciale menzione il crescente e inarrestabile senso di solidarietà di tutti i popoli”. Gli enti dello Stato e le associazioni umanitarie asseggiano iniziative volte a questo scopo, per lo più attraverso sussidi o sgravi fiscali, gli uni, rendendo disponibili considerevoli risorse, le altre. In tal modo la solidarietà espressa dalla società civile supera significativamente quella dei singoli.

Encyclical Letter *Deus Caritas Est* of the Supreme Pontiff Benedict XVI to the Bishops, Priests and Deacons, Men and Women Religious, and all the Lay Faithful on Christian Love (25 December 2005).



**Statement on**  
*Globalization and Education*

**Erklärung zu**  
*Globalisierung und Bildung*

**Messaggio su**  
*Globalizzazione ed Educazione*

**Declaración sobre**  
*Globalización y Educación*

# *Globalization and Education*

---

**LETTER BY CARDINAL A. SODANO**



SECRETARIAT OF STATE

No. 17.731

From the Vatican, 16 November 2005

Your Excellency,

His Holiness Pope Benedict XVI was pleased to learn that the Pontifical Academy of Sciences would be meeting on 16-17 November 2005 to discuss the theme of Globalization and Education, and he sends warm greetings to all those participating in this important gathering.

A constant and concrete reflection on the mission of education in modern culture is one that is marked by a healthy exchange of ideas. Our shared historical experience in this field finds a common source in the natural desire to know truth, goodness and beauty. It is this longing which moves and nurtures each man and every culture. As Aristotle observed: 'All men naturally desire knowledge'. Indeed, the capacity to be educated is a characteristic which sets men and women apart from other creatures. Like all human endeavours, education first and foremost is centred on man: it is man who is educated, it is man who educates and, accordingly, it is man who is the subject of education.

His Holiness prays that this conference will make a major contribution in discerning ways to improve the training of present and future generations by helping others to realize that in our today's world there is an urgent need to provide a good education to all regardless of religious conviction, ethnic background or economic status. He earnestly hopes that this meeting will help all those involved in the task of human formation to be mindful that it is the human person, open to God, who is at the centre, the beginning, and the end of the educational process. Upon all those taking part in this meeting he invokes God's blessings of wisdom and peace.

With fraternal best wishes, I am

Yours sincerely in Christ,

*Angelo Card. Sodano*

Secretary of State

The Most Reverend Marcelo Sánchez Sorondo  
Chancellor  
Pontifical Academy of Sciences  
Casina Pio IV  
Roma

## **STATEMENT**

# *Globalization and Education*

*This Statement on Globalization and Education was produced by the joint workshop on the same subject of 16-17 November 2005 which was held at Casina Pio IV. On the basis of a text by Prof. Léna, Prof. Malinvaud, and the Bishop-Chancellor Sánchez, and in response to proposals made by the President of the PAS, Prof. Cabibbo, Prof. Battro, Prof. Gardner, Prof. Hide, Prof. Llach, Prof. Mittelstrass, Prof. Ramirez, Prof. Ryan, and Prof. Suárez Orozco, followed by a discussion between Prof. Léna, Prof. Malinvaud and the Chancellor, this document was formally approved by the Pontifical Academy of Sciences and the Pontifical Academy of Social Sciences.*

**A** human community that always thinks anew the goals of education possesses a healthy circulation of ideas and energies for the good of its members. Each generation should re-consider how to pass on its culture to its successors for it is through education that man becomes fully who he is, aware, free and responsible, a citizen of the world. To think about education is to think about future generations and thus is rooted in hope and requires generosity.

Globalization properly managed may provide a chance for education and peace, bringing human beings closer to one another and fostering the sharing of common values.

As in all human matters, education first and foremost must have an idea of what a human being is, because men and women are those who are educated and those who educate. Thus education must answer a key question, namely: what do we know today about men and women? The workshop sought to examine what an educational project could be in an increasingly globalized world. This project must be based on our current bio-anthropological knowledge of men and women, in dialogue with the sciences, within the context of the diversity and interdependence of cultures and the universality of religious, anthropological and ethical values, which increasingly intersect with communication and information technology, as well as with the new patterns of international migration.

In our globalized world, the problem of justice is central: namely that all men and women, wherever they are and whatever their condition of life, should have the right to, and the possibility of, a good education and general access to

culture. This means a goal of basic education – up to nine years – for all, then secondary and higher education on the basis of abilities and resources. Clearly, the globalized world also implies an improvement in education not only for the inhabitants of the developing world but also for the developed one. For all people today there is a tremendous wealth of knowledge which is unparalleled in history and which should be made available through new and suitable processes of synthesis and transmission. Everyone has the right to an education that sees the environment as a home, so as to prevent it from becoming harmful to health and well-being.

The workshop reached the following conclusions:

1. Despite the many declarations and statements of objectives, enunciated by the United Nations and other agencies, and despite significant efforts in some countries, education remains extraordinarily uneven within the world population, although the resources needed to improve this situation do not seem to be out of reach. A special cause for concern over the last decade has been the divergence and growing inequality, which is concomitant with globalization and related to policies in education, between developed or emerging countries and stagnating ones, the latter being caught in a poverty trap.
2. Given the growing importance of education, now more important than ever before in human history, of equal cause for concern is the wide and frequently increasing quality gap between schools attended by the poor and schools attended by those who are not poor. This happens

in such a way that differentiated or segregated educational pathways often emerge. Most alarming is the fact that world-wide nearly 200 million children and young people who should be receiving basic education are not enrolled in school at all.

3. Today, in the face of globalization, global migrations, the explosion of knowledge and the concomitant emergence of a knowledge-intensive economy, and above all the compelling obligation to fight poverty by all means throughout the world, education may require serious re-thinking. The adverse consequences of inadequate education policies for poor people are amplified by globalization.

4. Globalization has provoked an unprecedented increase in migrant populations either within host countries or within large countries. Today, international migrations are an integral part of global development. Migrations can be an extremely positive factor in mutual understanding and the mixing of cultures. Education plays an important role in the integration of the children of immigrants world-wide. While some of the children of immigrant families do better at school than the children of indigenous families, others seem to be marked out early on for social rejection and the experience of problems. Reducing the fracture with native cultures and languages, and helping to maintain family stability, are among some of the paths by which to achieve improvements in this area.

5. Education should aim at the full development of the human person, the promotion of the meaning of human dignity, and the strengthening of respect for human rights and fundamental freedoms. It should enable all persons to participate effectively in the human family and should advance understanding, friendship, and co-operation between all peoples, ethnic groups and religious communities. Education should also transmit knowledge, higher-order cognitive skills and the interpersonal sensibility required to help boys, girls, men and women to become fully themselves and to interact with others. It should develop their ability to observe, to reason, to synthesize and create ethical values, and to develop a sense of justice, respect, tolerance,

and compassion for others. It should emphasize the responsibility of people to protect the environment for the benefit of present and future generations, preventing pollution and ecological deterioration and promoting conservation and sustainable development. In its transmission of knowledge and its fostering of creativity, education should convey the deep lessons of the past and communicate the opportunities and risks that will be faced by humanity in the future.

6. In particular in the context of globalization, respect for cultural diversity and the preservation of the elements of cultural identity are essential in the educational process. New generations have to understand in a clear way their own culture in relation to other cultures in order to develop self-awareness when facing cultural changes and to promote peaceful understanding and tolerance, thereby identifying and encouraging true human values within an intercultural perspective.

7. At the same time, education should aim to establish that common sense of humanity which is essential for the maintenance of peace. This could be achieved by drawing on the universality of ethical principles and norms, which are, for instance, expressed in the concepts of human rights and the dignity of the person, as well as on the universality of knowledge, wisdom and science. It is thus also necessary to offer at some points in the educational process the new image of the universe that the scientific community has proposed of the cosmos, the earth, life, and the emergence of humans and their societies.

8. The relativist and nihilistic tendencies of some modern movements, which Benedict XVI and his predecessors have criticized with increasing force, have been matched by a welcome and progressive return of ethical, philosophical and religious questions. The ‘wonder’ that stimulated the origin of science and the path taken by science has not diminished but increased with the new discoveries in the physical and life sciences. This ‘new world’, which has been increasingly investigated by man, has given rise to even greater amazement at the universe which could open up a new positive horizon of meaning by which to understand the mystery of the Creation. In this

way, as a result of science, religion and philosophy have returned to the fore, as is demonstrated by the increasing attention paid to their recognized roles in their quest for truth. From this springs the need to take into account science, philosophy and religion, and their correlative interdisciplinary dialogue, in establishing a sound anthropological basis as the pre-condition of education today.

9. Education begins in the maternal womb and at birth. Mothers, fathers and families in their primary educational role need help to understand – in the new global context – the importance of this early stage in life, and should be prepared to act accordingly. One of the critical paths to a higher quality of education at the school level is the increased participation of families and local communities in the governance of their educational projects.

10. Human development depends upon multiple parameters such as education, health, and cultural visions of the family and of the respective roles of men and women in human society. Yet it can be asserted that education, especially at the primary level, remains dramatically insufficient in some parts of the world. The ‘classic’ basic skills expected of primary education – reading, writing and arithmetic – are no longer sufficient in a globalized world. They need to be supplemented by skills leading towards such objectives as the improvement, the protection or the preservation of work abilities, the cultural and linguistic heritage, ethical values, social cohesion, and the environment. In the future, this classic triad may expand into a new objective: ‘reading, writing, mathematics, reasoning, synthesising’.

11. Teaching requires on the part of teachers a high level of knowledge so that students, who learn through the process of instruction, may achieve a standard of education that they would not obtain on their own. Their role as

agents of education has to be recognised and supported by every possible means: for example, continuous coaching by those who have a more direct access to knowledge (especially trained scholars and scientists), the updating of professional training, suitable salaries, and the availability of information technology. In order to facilitate a successful educational process, and so as to provide every member of society, and communities themselves, with that level of knowledge and learning which is a primary factor in conferring autonomy and encouraging co-operation, it is important to aim for high standards of quality within the teaching profession, especially at the level of higher education. This is also required so that, given that the expertise of every teacher is limited, what a student does not learn from one teacher he or she may learn from another, and so that teachers may learn from each other within a context of synergy. To support and promote this dual process, which is at the origin of schools, universities and other educational institutions, suitable national, international and private resources must be made available to them so that, throughout the world, they can carry out their tasks in an effective way.

12. Communication and information technology (IT) offers extraordinary opportunities for the renewal of education because of its capacity to connect people, its ability to promote the accessibility of remote areas, its decreasing costs, and the potential volume of the information it can convey. It will thus be possible to reduce the costs of education for each child, even in poor areas. However, IT tools do not necessarily achieve education on their own. They need to be accompanied by a conceptual vision in order to promote dialogue, the active participation of teachers, the organisation of knowledge, and an awareness of the importance of values.

## **ERKLÄRUNG**

# *Globalization and Education*

*Diese Erklärung zu Globalisierung und Bildung wurde anlässlich eines gemeinsamen Workshops zu demselben Thema erarbeitet, der am 16./17. November 2005 in der Casina Pio IV. abgehalten wurde. Auf der Grundlage eines Texts von Prof. Léna, Prof. Malinvaud und Bischof-Kanzler Sánchez und als Reaktion auf die Vorschläge des Präsidenten der PAS, Prof. Cabibbo, Prof. Battro, Prof. Gardner, Prof. Hide, Prof. Llach, Prof. Mittelstrass, Prof. Ramirez, Prof. Ryan und Prof. Suarez Orozco, einschließlich einer Diskussion zwischen Prof. Léna, Prof. Malinvaud und dem Kanzler, wurde dieses Dokument von der Päpstlichen Akademie der Wissenschaften und der Päpstlichen Akademie für Sozialwissenschaften offiziell gebilligt.*

**E**ine menschliche Gemeinschaft, die stets die Ziele der Bildung neu überdenkt, verfügt über einen gesunden Kreislauf von Ideen und Energien zum Wohl ihrer Mitglieder. Jede Generation sollte erneut überlegen, wie sie ihre Kultur ihren Nachfahren weitergibt, denn durch Bildung wird der Mensch vollständig zu dem, der er ist, bewusst, frei und verantwortlich, ein Weltbürger. Ein Nachdenken über Bildung bedeutet ein Nachdenken über künftige Generationen, wurzelt somit in der Hoffnung und erfordert Großzügigkeit.

Richtig gehandhabte Globalisierung kann eine Chance für Bildung und Frieden bedeuten, die Menschen einander näher bringen und das Bestreben verstärken, gemeinsame Werte miteinander zu teilen.

Wie bei allen menschlichen Belangen muss der Bildung zunächst und in erster Linie eine Vorstellung davon zugrunde liegen, was der Mensch ist, denn es sind Männer und Frauen, die Bildung erhalten und Bildung weitergeben. Somit muss Bildung eine Schlüsselfrage beantworten, nämlich die: was wissen wir heute über Männer und Frauen?

Der Workshop bemühte sich zu untersuchen, was ein Bildungsprojekt in einer zunehmend globalisierten Welt sein könnte. Ein solches Projekt muss auf unserem derzeitigen bio-anthropologischen Wissen über Männer und Frauen gründen, im Dialog mit den Naturwissenschaften stehen, sich innerhalb eines Kontextes der Vielfältigkeit und wechselseitigen Abhängigkeit der Kulturen bewegen sowie der Universalität religiöser, anthropologischer und ethischer Werte. Mittels der Kommunikations- und Informationstechnologie kreuzen sich alle diese Gegebenheiten und Kräfte zunehmend. Schließlich muss ein solches Projekt

auch die neuen Muster internationaler Migration einbeziehen.

In unserer globalisierten Welt ist Gerechtigkeit ein zentrales Thema: das heißt, alle Männer und Frauen, wo auch immer sie sich befinden und welches auch immer ihre Lebensbedingungen sind, sollten ein Anrecht auf eine gute Bildung, Möglichkeiten der Erziehung und einen allgemeinen Zugang zur Kultur haben. Dies beinhaltet das Ziel einer Grundschulbildung – bis zu neun Jahren – für alle, und sodann höherer und akademischer Bildung nach Maßgabe der Fähigkeiten und der Mittel. Es ist klar, dass die globalisierte Welt auch eine Verbesserung der Bildung nicht nur für die Bewohner von Entwicklungsländern, sondern auch für die der entwickelten Welt mit sich zu bringen hat. Für alle Menschen ist heute ein ungeheurer, in der Geschichte noch nie dagewesener Wissensschatz vorhanden, der ihnen durch neue und geeignete Verfahren der Verknüpfung und Übertragung zur Verfügung gestellt werden sollte. Jeder besitzt ein Anrecht auf eine Bildung, welche die Umwelt als Heimstatt betrachtet, um zu verhindern, dass sie eine für die Gesundheit und das Wohlergehen schädliche Entwicklung nimmt

Der Workshop kam zu folgenden Schlüssen:

1. Trotz der vielen von den Vereinten Nationen und anderen Organisationen abgegebenen Erklärungen und Zielfeststellungen und trotz bedeutender Anstrengungen in einigen Ländern ist die Bildung innerhalb der Weltbevölkerung noch außergewöhnlich ungleichmäßig verteilt, obgleich die zur Verbesserung dieser Situation benötigten Ressourcen nicht unerreichbar zu sein scheinen. Besonderen Grund zur Besorgnis im Verlauf der letzten zehn Jahre gibt die Divergenz und zunehmende Ungleichheit - eine Begleiterscheinung der Globalisie-

rung und mit Bildungspolitik im Zusammenhang stehend - zwischen den entwickelten und den Schwellenländern einerseits und den stagnierenden Ländern andererseits, wobei letztere sich in einer Armutsfalle gefangen sehen.

2. Ein gleicher Grund zur Besorgnis angesichts der wachsenden Bedeutung der Bildung und jetzt wichtiger denn je in der Geschichte der Menschheit ist der große und oft noch zunehmende Qualitätsabstand zwischen den Lerninstituten, die von den Armen und solchen, die von den nicht Armen besucht werden. Dies entwickelt sich in einer Weise, dass oftmals differenzierte oder nach gewissen Kriterien gesonderte Bildungspfade entstehen. Höchst alarmierend ist die Tatsache, dass weltweit fast 200 Millionen Kinder und junge Menschen, die eine Grundbildung erhalten sollten, überhaupt keine Schule besuchen.

3. Heute, in Anbetracht der Globalisierung, globaler Migrationsbewegungen, der Wissensexpllosion und des gleichzeitigen Entstehens einer wissensintensiven Wirtschaft sowie vor allem der zwingenden Verpflichtung zur Bekämpfung der Armut mit allen Mitteln auf der ganzen Welt kann Bildung ein ernsthaftes Umdenken erfordern. Die nachteiligen Folgen unzulänglicher Bildungspolitik für Arme werden durch die Globalisierung verstärkt.

4. Die Globalisierung hat eine bislang ungekannte Zunahme von Migrationspopulationen hervorgerufen. Heute bilden internationale Migrationen einen wesentlichen Bestandteil der globalen Entwicklung. Migrationen können einen äußerst positiven Faktor zum gegenseitigen Verstehen und für das Vermischen von Kulturen darstellen. Bildung spielt eine wichtige Rolle bei der Integration der Kinder von Immigranten auf der ganzen Welt. Während einige der Kinder von Immigrantenfamilien in der Schule erfolgreicher sind als die Kinder einheimischer Familien, scheinen andere frühzeitig dazu bestimmt zu sein, sozial ausgegrenzt zu werden und den Problemen ausgeliefert zu sein. Eine Verringerung des Bruchs mit der jeweiligen Heimatkultur und der Muttersprache und eine Unterstützung bei der Aufrechterhaltung der Familienstabilität sind einige der Wege, auf denen Verbesserungen auf diesem Gebiet erzielt werden können.

5. Bildung sollte auf die volle Entwicklung der menschlichen Person abzielen, auf die Entfaltung der Bedeutung der Menschenwürde und auf eine Stärkung der Achtung der Menschenrechte und Grundfreiheiten. Sie sollte es allen Personen ermöglichen, effektiv an der Menschheitsfamilie teil-

zu haben, und sollte das Verstehen, die Freundschaft und die Zusammenarbeit zwischen allen Völkern, ethnischen Gruppen und Religionsgemeinschaften fördern. Bildung sollte auch Kenntnisse vermitteln, kognitive Fähigkeiten höherer Art und eine zwischenmenschliche Offenheit, die erforderlich ist, um Jungen, Mädchen, Männern und Frauen zu helfen, völlig sie selbst zu werden und mit anderen zu interagieren. Sie sollte ihre Fähigkeit entwickeln zu beobachten, vernünftig zu denken, Verknüpfungen herzustellen und ethische Werte zu schaffen sowie den Sinn für Gerechtigkeit, Achtung, Toleranz und Mitgefühl für andere zu entfalten. Sie sollte die Verantwortung der Menschen betonen, die Umwelt zum Nutzen jetziger und künftiger Generationen zu schützen unter Vermeidung von Vergiftung und ökologischem Niedergang wie auch zur Förderung ihrer Erhaltung und einer nachhaltigen Entwicklung. Bildung sollte bei der Weitergabe von Kenntnissen und beim Entwickeln der Kreativität die tiefgreifenden Lehren der Vergangenheit weitergeben und die Möglichkeiten und Risiken aufzeigen, welche in der Zukunft auf die Menschheit zukommen.

6. Insbesondere im Zusammenhang mit der Globalisierung sind Achtung der kulturellen Vielfalt und Erhaltung der Elemente kultureller Identität für den Bildungsprozess wesentlich. Neue Generationen müssen ihre eigene Kultur in der Beziehung zu anderen Kulturen in einer klaren Weise verstehen, um Selbstbewusstsein zu entwickeln, wenn sie sich kulturellen Veränderungen gegenübergestellt sehen, und friedliches Verstehen und Toleranz verstärken. Hiermit erkennen und unterstützen sie echte menschliche Werte im Rahmen einer interkulturellen Perspektive.

7. Gleichzeitig sollte Bildung darauf abgestellt sein, jenes gemeinsame Gefühl für die Menschheit zu festigen, welches zur Erhaltung des Friedens wesentlich ist. Dazu könnte sie sich auf die Allgemeingültigkeit ethischer Grundsätze und Normen stützen, die beispielsweise in den Begriffen der Menschenrechte und Menschenwürde Ausdruck gefunden haben, wie auch auf das Allumfassende von Kenntnissen, Verstandeseinsicht und Wissenschaft. Es ist somit auch erforderlich, an manchen Punkten im Bildungsprozess das neue Bild des Universums vorzustellen, welches die Wissenschaftsgemeinschaft vom Kosmos, von der Erde, vom Leben und von der Entstehung des Menschen und seiner Gesellschaften entwickelt hat.

8. Den relativistischen und nihilistischen Tendenzen mancher moderner Bewegungen, die von Be-

nedikt XVI. und seinen Vorgängern verstärkt kritisiert wurden, stand eine begrüßenswerte und zunehmende Rückkehr ethischer, philosophischer und religiöser Fragen entgegen. Das „Wunder“, das den Ursprung der Wissenschaft in Bewegung setzte, und der Weg, den die Wissenschaft eingeschlagen hat, ist nicht geringer geworden, sondern steigerte sich mit den neuen Entdeckungen in der Physik sowie in Medizin und Biologie. Diese „neue Welt“, die vom Menschen zunehmend erforscht wird, ruft ein nur noch größeres Staunen über das Universum hervor, was dem Verstehen des Schöpfungsgeheimnisses einen neuen positiven Bedeutungshorizont eröffnen könnte. Auf diese Weise sind als Ergebnis der Wissenschaft Religion und Philosophie wieder in den Vordergrund getreten, wie es sich in der zunehmenden Aufmerksamkeit zeigt, welche ihren anerkannten Rollen bei der Suche nach Wahrheit gezielt wird. Hieraus ergibt sich das Erfordernis, bei der Errichtung einer fundierten anthropologischen Grundlage als Vorbedingung heutiger Bildung Wissenschaft, Philosophie und Religion und den jeweiligen interdisziplinären Dialog einzubeziehen.

9. Bildung beginnt im Mutterleib und mit der Geburt. Mütter, Väter und Familien benötigen in ihrer primären Bildungsrolle Hilfe im neuen globalen Zusammenhang zum Verstehen der Wichtigkeit dieser frühen Lebensstufe und sollten auf ein entsprechendes Handeln vorbereitet werden. Einer der entscheidenden Wege zu einer höheren Qualität der Bildung auf Schulebene ist die zunehmende Beteiligung von Familien und lokalen Gemeinschaften in der Lenkung ihrer Bildungsprojekte.

10. Menschliche Entwicklung beruht auf vielfältigen Parametern wie Bildung, Gesundheit und kulturellen Vorstellungen von der Familie und den jeweiligen Rollen von Männern und Frauen innerhalb der menschlichen Gesellschaft. Es bleibt jedoch festzuhalten, dass Bildung, insbesondere auf der Primärstufe, in manchen Teilen der Welt nach wie vor außerordentlich unzureichend ist. Die „klassischen“ grundlegenden Fähigkeiten, die von einer Grundbildung erwartet werden – Lesen, Schreiben, Rechnen – reichen in einer globalisierten Welt nicht mehr aus. Sie müssen durch Kenntnisse ergänzt werden, die zu Zielen führen wie die Verbesserung, der Schutz oder die Erhaltung von Fähigkeiten zur Arbeit, das kulturelle und linguistische Erbe, die ethischen Werte, der soziale Zusammenhalt wie auch die Umwelt. In Zukunft kann diese klassische Triade sich zu einem neuen

Bündel von Zielen erweitern: „Lesen, Schreiben, Mathematik, vernünftiges Denkvermögen, Verknüpfung.“

11. Das Lehren erfordert einen hohen Wissensstand seitens der Lehrer, damit Schüler durch den Vorgang des Lehrens einen Bildungsstandard erlangen können, den sie allein nicht erreichen würden. Die Rolle der Lehrer als Bildungsübermittler muss anerkannt und mit allen möglichen Mitteln unterstützt werden: beispielsweise fortlaufende Weiterbildung durch jene, die einen direkteren Zugang zu Wissen besitzen (besonders ausgebildete Wissenschaftler), Aktualisierung der beruflichen Ausbildung, angemessene Gehälter sowie Verfügbarkeit von Informationstechnologie. Um einen erfolgreichen Bildungsprozess zu ermöglichen und somit allen Mitgliedern der Gesellschaft und auch den Gemeinwesen selbst jenen Wissen- und Lernstand zu vermitteln, der einen primären Faktor für das Verleihen von Autonomie und Anspornen zur Zusammenarbeit darstellt, ist es erforderlich, hohe Qualitätsstandards innerhalb des Lehrberufs anzustreben, insbesondere auf der Ebene der höheren Bildung. Dies ist auch angesichts dessen erforderlich, dass die Sachkenntnis eines jeden Lehrers begrenzt ist. Ein Schüler sollte das, was er von einem Lehrer nicht lernt, von einem anderen lernen können und Lehrer sollten in der Lage sein, voneinander zu lernen. Um diesen dualen Prozess zu unterstützen und zu fördern, welcher Schulen, Universitäten und sonstigen Bildungseinrichtungen zugrunde liegt, müssen ihnen entsprechende nationale, internationale und private Ressourcen zur Verfügung gestellt werden, damit sie auf der ganzen Welt ihre Aufgaben wirkungsvoll erfüllen können.

12. Kommunikations- und Informationstechnologie (IT) bieten außerordentliche Möglichkeiten für die Erneuerung der Bildung. Das kommt von ihrer Fähigkeit, Menschen miteinander zu verbinden, von ihrer Möglichkeit, abgelegene Gegenden zu erreichen, von ihren abnehmenden Kosten und von dem potentiellen Umfang der Informationen, die sie übermitteln können. Auf diese Weise wird es machbar, die Kosten der Bildung für jedes Kind zu senken, auch in armen Gegenden. Jedoch schaffen IT-Geräte nicht notwendigerweise von selbst Bildung. Sie müssen von einer Zusammenschau der Vorstellungen begleitet sein, um den Dialog, die aktive Teilnahme von Lehrern, die Organisation von Wissen und das Bewusstsein für die Bedeutung der Werte zu steigern.

*Questo Messaggio su Globalizzazione ed Educazione è stato realizzato dalla Pontificia Accademia delle Scienze e dalla Pontificia Accademia delle Scienze Sociali a conclusione del primo seminario tenuto in comune il 16-17 novembre 2005 presso la Casina Pio IV. Quindi, tale messaggio è stato ufficialmente approvato dalle stesse Accademie sulla base di un testo redatto dai Professori Léna, Malinvaud e dal Vescovo-Cancelliere Mons. Sánchez, e in risposta ai suggerimenti del Presidente della PAS, Prof. Cabibbo, e dei Professori Battro, Gardner, Hide, Llach, Mittelstrass, Ramirez, Ryan e Suárez Orozco, e dopo un'ulteriore discussione tra i Professori Léna, Malinvaud e il Cancelliere.*

**U**na comunità umana che ripensa costantemente le finalità dell'educazione fa circolare in modo sano idee ed energie da impiegare per il bene dei suoi membri. Ogni generazione dovrebbe riesaminare i modi in cui trasmettere la propria cultura ai suoi discendenti, perché è attraverso l'educazione che l'uomo diviene pienamente ciò che è: un cittadino del mondo, consapevole, libero e responsabile. Pensare l'educazione vuol dire pensare alle future generazioni e dunque è qualcosa di radicato nella speranza e che necessita di generosità.

Una globalizzazione correttamente gestita può costituire una grande opportunità per l'educazione e per la pace, dal momento che può avvicinare gli esseri umani gli uni agli altri ed è in grado di promuovere la condivisione di valori comuni.

Come in tutte le questioni umane, l'istruzione presuppone innanzitutto un'idea di cosa sia un essere umano, poiché sono uomini e donne coloro che vengono educati ed anche coloro che educano. Dunque, l'istruzione deve innanzitutto rispondere a una domanda fondamentale, vale a dire: cosa sappiamo oggi degli uomini e delle donne?

Il Seminario ha cercato di esaminare in cosa può consistere un progetto educativo in un mondo sempre più globalizzato. Tale progetto deve essere basato sulle nostre attuali conoscenze bio-antropologiche circa gli uomini e le donne, in dialogo con le scienze, nel contesto della diversità e dell'interdipendenza delle culture, e sull'universalità dei valori religiosi, antropologici ed etici, che sempre più si intrecciano con le tecnologie dell'informazione e della comuni-

cazione, nonché con nuovi modelli di migrazione internazionale.

Nel nostro mondo globalizzato, centrale è il problema della giustizia: vale a dire che tutti gli uomini e le donne, dovunque si trovino e qualunque sia la loro condizione di vita, dovrebbero avere il diritto e la possibilità di ricevere una buona istruzione e godere di un generale accesso alla cultura. Questo vuol dire un'istruzione base – fino a nove anni – per tutti, seguita da un'istruzione secondaria e superiore sulla base delle capacità e delle risorse. Chiaramente, il mondo globalizzato implica un miglioramento dell'educazione non solo per gli abitanti del mondo in via di sviluppo, ma anche di quello sviluppato. Oggi, per tutte le persone, c'è una straordinaria abbondanza di sapere che è senza precedenti nella storia e che dovrebbe essere resa disponibile attraverso nuovi ed adeguati processi di sintesi e di comunicazione. Tutti hanno il diritto ad un'istruzione che consideri l'ambiente come la sua casa, tale da impedire che esso diventi dannoso per la salute ed il benessere.

Il Seminario è giunto alle seguenti conclusioni:

1. Malgrado le molte affermazioni e le numerose dichiarazioni di intenti, formulate dalle Nazioni Unite e da altre agenzie, e sebbene sforzi significativi siano stati compiuti in alcune nazioni, i livelli di istruzione permangono straordinariamente disuguali nella popolazione mondiale, e ciò nonostante che le risorse necessarie per il miglioramento di tale situazione non sembrino fuori dalla nostra portata. Nel corso dell'ultimo decennio uno speciale motivo di preoccupazione è stata la divergente e crescente disuguaglianza, concomitante con la globalizza-

zione e collegata alle politiche nel campo dell'istruzione, tra paesi sviluppati o emergenti, e paesi che si trovano in una condizione di stagnazione, ovvero che sono bloccati nella trappola della povertà.

2. Vista la crescente importanza dell'educazione, ora più che mai nella storia dell'uomo, un'analogia fonte di preoccupazione è rappresentata dal grande e spesso crescente divario tra le scuole frequentate dai poveri e dai non poveri. Ciò è tanto vero che frequentemente emergono percorsi educativi differenziati e separati. Ancora più allarmante è il fatto che in tutto il mondo circa 200 milioni di bambini e ragazzi che dovrebbero ricevere un'istruzione di base non vengono neanche iscritti a scuola.

3. Oggi, davanti alla globalizzazione, le migrazioni globali, il grande sviluppo del sapere e la concomitante affermazione di un'economia fondata nella conoscenza (*knowledge-intensive economy*), e soprattutto di fronte all'irrefutabile obbligo di combattere la povertà con tutti i mezzi possibili ovunque nel mondo, è necessario ripensare seriamente l'istruzione. Difatti, per i poveri le conseguenze negative di inadeguate politiche educative vengono amplificate dalla globalizzazione.

4. La globalizzazione ha provocato un aumento senza precedenti di popolazioni che migrano tra paesi ospitanti o all'interno di nazioni molto vaste, tanto che oggi, le migrazioni internazionali sono parte integrante dello sviluppo globale. Le migrazioni possono essere un fattore estremamente favorevole per la comprensione reciproca e per la fusione di culture, e in questo l'educazione riveste in tutto il mondo un ruolo importante per l'integrazione dei figli degli immigranti. Tuttavia, mentre alcuni bambini delle famiglie immigranti rendono a scuola meglio dei bambini delle famiglie indigene, altri sembrano essere molto presto segnati dal rifiuto sociale e da esperienze negative. In questo campo i percorsi da seguire per giungere a dei miglioramenti sono la riduzione della frattura con le culture e le lingue native, e il mantenimento della stabilità familiare.

5. L'educazione dovrebbe mirare al completo sviluppo della persona, alla promozione del significato della dignità umana, e al consolidamento del rispetto dei diritti e delle libertà fon-

damentali dell'uomo. Dovrebbe consentire a tutte le persone di partecipare attivamente alla grande famiglia umana e favorire la comprensione, l'amicizia, e la cooperazione tra tutte le popolazioni, i gruppi etnici e le comunità religiose. L'educazione dovrebbe anche trasmettere il sapere, le abilità cognitive superiori e la sensibilità interpersonale, tutti elementi necessari per aiutare ragazzi, ragazze, uomini e donne a divenire interamente se stessi ed a interagire con gli altri. Dovrebbe sviluppare la loro capacità di osservare, ragionare, sintetizzare e creare valori etici, e sviluppare un senso di giustizia, rispetto, tolleranza, e compassione verso gli altri. Dovrebbe rimarcare la responsabilità che tutti abbiamo nella protezione dell'ambiente a beneficio delle generazioni presenti e future, contribuendo così a combattere l'inquinamento e il deterioramento ecologico e a promuovere la conservazione e lo sviluppo sostenibile. Nel trasmettere il sapere e nell'incoraggiare la creatività, l'istruzione dovrebbe diffondere la profonda lezione del passato e comunicare le opportunità ed i rischi che l'umanità si troverà ad affrontare nel futuro.

6. In particolare nel contesto della globalizzazione, nel processo educativo sono essenziali il rispetto delle diversità culturali e la conservazione degli elementi di identità culturale. Le nuove generazioni devono comprendere chiaramente la loro stessa cultura in relazione alle altre culture, in modo da sviluppare auto-consapevolezza quando posti di fronte a cambiamenti culturali, e per promuovere la pacifica comprensione e la tolleranza, individuando e favorendo autentici valori umani all'interno di una prospettiva interculturale.

7. Allo stesso tempo, l'istruzione dovrebbe stabilire quel comune senso di umanità che è essenziale al mantenimento della pace. Ciò può essere ottenuto attingendo all'universalità dei principi e delle norme etiche, che sono, ad esempio, espressi nei concetti di diritti umani e dignità della persona, ma anche riferendosi all'universalità del sapere, della conoscenza e della scienza. È dunque anche necessario offrire, nel corso del processo educativo, la nuova immagine dell'universo che la comunità scientifica ha proposto del cosmo, della terra, della vita, dell'origine dell'umanità e delle società umane.

8. Alle tendenze relativiste e nichiliste di alcuni movimenti moderni, che Benedetto XVI e i suoi predecessori hanno criticato con sempre maggior forza, fa riscontro la ripresa giusta e progressiva dell'appello etico, filosofico e religioso. La 'meraviglia' che ha stimolato la nascita ed il cammino della scienza non è diminuita, anzi è aumentata con le nuove scoperte delle scienze fisiche e quelle della vita. Questo 'nuovo mondo', che è stato gradualmente investigato dall'uomo, ha dato origine ad uno stupore ancora più grande di fronte all'universo, che potrebbe aprire nuovi e certi orizzonti di significato grazie ai quali comprendere il mistero della Creazione. In questo modo, a seguito dei progressi della scienza, la religione e la filosofia sono tornate d'attualità, come è dimostrato dalla crescente attenzione prestata alla loro riconosciuta funzione nella ricerca della verità. Da questo oggi scaturisce il bisogno di tener conto della scienza, della filosofia e della religione nello stabilire una solida base antropologica come precondizione dell'educazione.

9. L'educazione inizia nel ventre materno ed alla nascita. Madri, padri e famiglie nel loro ruolo educativo primario hanno bisogno di aiuto per comprendere – nel nuovo contesto globale – l'importanza di questo stadio iniziale della vita, e dovrebbero essere preparate ad agire di conseguenza. Uno dei percorsi cruciali verso una qualità superiore dell'istruzione a livello scolastico è la crescente partecipazione delle famiglie e delle comunità locali al governo dei loro progetti educativi.

10. Lo sviluppo umano dipende da molteplici parametri come l'istruzione, la salute, e le vedute culturali sulla famiglia e sui rispettivi ruoli degli uomini e delle donne nella società umana. Nondimeno si può affermare che l'istruzione, specialmente a livello elementare, rimane drammaticamente insufficiente in alcune parti del mondo. Le 'classiche' abilità base previste dall'istruzione elementare – leggere, scrivere e matematica – non sono più sufficienti in un mondo globalizzato. Devono essere integrate da abilità che conducano ad obiettivi quali il miglioramento, la difesa e la conservazione delle abilità lavorative, del patrimonio culturale e linguistico, dei valori etici, della coesione sociale, e dell'ambiente. In futuro, la classica triade potrà ampliarsi verso nuovi obiettivi: 'leggere, scrivere, matematica, ragionamento, sintesi'.

11. Da parte dei docenti l'insegnamento richiede un alto livello di conoscenze così che gli studenti, che apprendono attraverso il processo educativo, possono raggiungere uno standard di istruzione che non potrebbero ottenere da soli. Il loro ruolo di agenti dell'istruzione deve venir riconosciuto e sostenuto con ogni mezzo possibile: ad esempio, con una formazione continua impartita da coloro che hanno un accesso più diretto al sapere (in particolare studiosi e scienziati preparati), con l'aggiornamento della formazione professionale, con stipendi adeguati, e con la disponibilità di tecnologie dell'informazione. Al fine di facilitare un compiuto processo educativo, in modo da fornire ad ogni membro della società, e alle comunità stesse, quel livello di conoscenza e apprendimento che è un fattore primario nel conferire autonomia e nell'incoraggiare la cooperazione, è importante mirare ad alti standard qualitativi nella professione educativa, specialmente a livello dell'educazione superiore. Ciò è richiesto anche dal fatto che, poiché l'expertise di ogni insegnante è limitata, ciò che uno studente non apprende da un docente, lo può apprendere da un altro, ed anche gli insegnanti possono apprendere l'uno dall'altro all'interno di un contesto sinergico. Per sostenere e promuovere questo duplice processo, che è all'origine delle scuole, delle università e di altre istituzioni educative, devono essere rese disponibili adeguate risorse nazionali, internazionali e private così che, in tutto il mondo, gli insegnanti possono svolgere le loro mansioni in modo efficace.

12. La tecnologia della comunicazione e dell'informazione (IT) offre straordinarie opportunità per il rinnovamento dell'istruzione grazie alla sua capacità di connettere le persone, di favorire l'accessibilità di aree molto lontane, i suoi costi decrescenti, e il potenziale volume di informazioni che può veicolare. Sarà dunque possibile ridurre i costi dell'istruzione per ogni singolo bambino, persino in aree povere. Tuttavia, gli strumenti IT da soli non producono necessariamente istruzione. Devono essere accompagnati da un quadro concettuale che promuova il dialogo, la partecipazione attiva degli insegnanti, l'organizzazione del sapere, e una consapevolezza circa l'importanza dei valori.

## **DECLARACIÓN**

# *Globalization and Education*

*Esta Declaración sobre Globalización y Educación ha sido realizada por la Pontificia Academia de las Ciencias y la Pontificia Academia de las Ciencias Sociales como conclusión del primer seminario tenido en común el 16 y 17 de noviembre de 2005 en la Casina Pío IV. Así tal declaración ha sido oficialmente aprobada por parte de las mismas Academias sobre la base de un texto redactado por los Profesores Léna, Malinvaud y el Obispo-Canciller Mons. Sánchez, y en respuesta a las sugerencias del Presidente de la PAS, Prof. Cabibbo, y de los Profesores Battro, Gardner, Hide, Llach, Mittelstrass, Ramirez, Ryan e Suárez Orozco, y después de una ulterior discusión entre los Profesores Léna, Malinvaud y el Canciller.*

**E**n una comunidad humana que se replantea permanentemente sus metas educativas existe una circulación de ideas y energías que resulta beneficiosa para sus miembros. Cada generación debería reconsiderar cómo transmitir su cultura a la siguiente, ya que es a través de la educación que el ser humano alcanza su máximo potencial y se convierte en un ser consciente, libre y responsable: un ciudadano del mundo. Pensar en la educación es pensar en las generaciones futuras; por lo tanto, es algo que está arraigado en la esperanza y requiere generosidad.

La globalización, bien manejada, puede representar una oportunidad para la educación y para la paz, ya que acerca a los seres humanos y los alienta a compartir los valores comunes.

Al igual que el resto de las cuestiones humanas, la educación antes que nada presupone una idea del ser humano, porque son los hombres y las mujeres quienes reciben educación y quienes educan. Por lo tanto, la educación debe responder a una pregunta fundamental: ¿qué sabemos hoy acerca de los hombres y de las mujeres?

El Seminario tuvo como propósito examinar qué proyecto educativo podía plantearse en un mundo cada vez más globalizado. Este proyecto debe basarse en los conocimientos bioantropológicos actuales sobre hombre y la mujer, en diálogo con las ciencias, dentro del contexto de la diversidad y la interdependencia de las culturas y de la universalidad de los valores religiosos, antropológicos y éticos, que cada vez se interrelacionan más con las actuales tecnologías de la comunicación y de la información y los nuevos modelos migratorios internacionales.

En nuestro mundo globalizado, el problema de la justicia es fundamental. Concretamente, todos los hombres y las mujeres, dondequiera que

se encuentren y cualquiera sea su condición de vida, deben tener el derecho y la posibilidad de recibir una buena educación y de acceder sin impedimentos a la cultura, a través de una educación básica (de hasta nueve años) para todas las personas, y luego una educación secundaria y superior acorde a sus capacidades y recursos. Evidentemente, el mundo globalizado también implica una mejora de la educación, no sólo para los habitantes de los países en vías de desarrollo, sino también para los de los países desarrollados. Toda persona podría contar hoy con una inmensa riqueza de conocimientos sin precedentes en la historia, que deberían ponerse a su disposición mediante nuevos procesos de síntesis y transmisión adecuados. Todo ser humano tiene derecho a una educación que considere el medio ambiente como su casa, para así evitar que éste se transforme en algo dañino para su salud y su bienestar.

El Seminario llegó a las siguientes conclusiones:

1. A pesar de las muchas declaraciones y objetivos formulados por la Organización de las Naciones Unidas (ONU) y otros organismos, y de los importantes esfuerzos realizados por algunos países, la educación sigue siendo extraordinariamente desigual entre la población mundial, aunque da la impresión de que los recursos necesarios para mejorar esta situación no están fuera de alcance. En el curso de la última década resulta especialmente preocupante el criterio divergente y la creciente desigualdad – concomitantes con la globalización y relativo a las políticas educativas – que se observó entre los países desarrollados o los emergentes y los estancados, con estos últimos atrapados en los lazos de la pobreza.

2. Dada la importancia cada vez mayor de la educación, que ahora cobra un significado sin prece-

dentes en la historia de la humanidad, resultan igualmente preocupantes las grandes y, a menudo, crecientes brechas en la calidad de las escuelas a las que asisten los pobres y quienes no lo son. Esta situación se da de manera tal que suelen observarse senderos educativos diferenciados o segregados. Lo que resulta más alarmante es el hecho de que, a nivel mundial, casi doscientos millones de niños y jóvenes que deberían estar recibiendo educación primaria no se encuentran matriculados en ninguna escuela.

3. Hoy en día, en vista de la globalización, las migraciones internacionales, la explosión del conocimiento, el surgimiento conjunto de una economía basada en el desarrollo intensivo del conocimiento (*knowledge-intensive economy*), y, sobre todo, la imperiosa obligación de luchar contra la pobreza a nivel mundial con todos los medios, es posible que haya que repensar seriamente la educación. Con la globalización, aumentan las consecuencias negativas que deben sufrir los pobres a causa de políticas educativas inadecuadas.

4. La globalización ha provocado un aumento sin precedentes de las poblaciones migratorias, ya sea entre distintos países o dentro de los países más grandes. En la actualidad, las migraciones internacionales forman parte del desarrollo mundial y pueden ser un factor extremadamente positivo para la mutua comprensión y la mezcla de las culturas. La educación juega un papel importante en la integración de los hijos de los inmigrantes en todo el mundo. Sin embargo, mientras algunos niños de las familias inmigrantes tienen un mejor desempeño en las escuelas que los nativos, otros parecen estar marcados tempranamente por el rechazo y los problemas sociales. Disminuir la brecha con las culturas y las lenguas autóctonas y ayudar a mantener la estabilidad familiar son algunos de los caminos para mejorar en este aspecto.

5. La educación debería apuntar al completo desarrollo de la persona humana, inculcando el sentido de su dignidad y reforzando el respeto por los derechos humanos y las libertades fundamentales. Debería permitir a todas las personas participar en forma efectiva en la familia humana, promover la comprensión, la amistad y la colaboración entre todos los pueblos y todas las comunidades étnicas y religiosas. La educación también debería transmitir el saber, las habilidades cognos-

citivas de orden superior y la sensibilidad interpersonal, es decir todo lo que se requieren para ayudar a los niños, niñas, hombres y mujeres a ser plenamente sí mismos y a interactuar con los demás. Debería desarrollar su capacidad de observar, razonar, sintetizar y crear valores éticos y cultivar el sentido de justicia, respeto, tolerancia y compasión por los otros. Debería enfatizar la responsabilidad de proteger el medio ambiente, para el beneficio de las generaciones presentes y futuras, evitando la contaminación y la degradación ecológica y promoviendo la conservación y el desarrollo sostenido. En su transmisión de conocimientos y su fomento de la creatividad, la educación debería transmitir las grandes lecciones del pasado y las oportunidades y los riesgos que puede enfrentar la humanidad en el futuro.

6. En particular en el contexto de la globalización, el respeto por la diversidad cultural y la preservación de los elementos que hacen a la identidad cultural son especialmente fundamentales en el proceso educativo. Las nuevas generaciones deben comprender con claridad su propia cultura, en relación con las demás, para desarrollar la auto-comprensión al enfrentar los cambios culturales, y así promover una mutua comprensión pacífica y la tolerancia. De esta manera se podrán identificar y fomentar los verdaderos valores humanos dentro de una perspectiva intercultural.

7. Al mismo tiempo, la educación debería aspirar a aquel desarrollo de un sentido común de humanidad que es esencial para el mantenimiento de la paz. Para alcanzar este objetivo, es necesario basarse tanto en la universalidad de los principios y de las normas éticas, que están, por ejemplo, expresados en los conceptos de los derechos humanos y de la dignidad humana de la persona, como también en la universalidad del saber, del conocimiento, y de la ciencia. Por lo tanto, también es necesario que en algunas instancias del proceso educativo se ofrezca la nueva imagen del universo que la comunidad científica ha propuesto en lo que respecta al cosmos, el planeta tierra, la vida, la aparición de los seres humanos y de sus sociedades.

8. A las tendencias relativistas y nihilistas de algunos movimientos modernos, que Benedicto XVI y sus predecesores han criticado con creciente fuerza, responde el retorno positivo y progresivo de los interrogantes éticos, filosóficos y

religiosos. La “maravilla” que ha estimulado el origen y el constante camino de las ciencias no ha disminuido, por el contrario, ha crecido con los nuevos descubrimientos de la física y de las ciencias de la vida. Este “nuevo mundo”, que el hombre ha investigado siempre en modo creciente, ha dado origen a un estupor incluso mayor frente al universo, el cual podría abrir un nuevo horizonte de sentido para comprender el misterio de la Creación. Así, como consecuencia de las ciencias, la religión y la filosofía han recobrado actualidad. Esto está evidenciado por la atención cada vez mayor que se les otorga en el reconocido servicio que ellas prestan en la búsqueda de la verdad. De aquí surge la necesidad sea de tener en cuenta a las ciencias, a la filosofía y a la religión, sea al correlativo diálogo interdisciplinario, para establecer una base antropológica sólida como condición previa de la educación hoy.

9. La educación comienza en el vientre materno y en el momento del nacimiento. Las madres, los padres y las familias, en su rol educativo primario, necesitan ayuda para comprender, en el nuevo contexto global, la importancia de esta temprana etapa de la vida, y estar preparados para actuar en consecuencia. Una de las formas fundamentales de mejorar la calidad de la educación a nivel escolar es permitir una mayor participación de las familias y las comunidades locales en el control de los proyectos educativos.

10. El desarrollo humano depende de múltiples parámetros, como la educación, la salud, la visión cultural de la familia y los respectivos roles del hombre y la mujer en la sociedad humana. Aún así, se puede afirmar que la educación, especialmente en el nivel primario, continúa siendo dramáticamente insuficiente en algunos lugares del mundo. Las habilidades “clásicas” que se esperan de la educación primaria (leer, escribir y matemáticas) ya no bastan en un mundo globalizado. Deben complementarse con otras habilidades orientadas a objetivos tales como mejorar, proteger o conservar la capacidad laboral, el patrimonio cultural y lingüístico, los valores éticos, la cohesión social y del medio ambiente. Para el futuro, la tríada clásica puede ampliarse hacia nuevos objetivos: “leer, escribir, matemáticas, razonamiento, síntesis”.

11. La enseñanza requiere, por parte de los maestros, un elevado nivel de conocimientos de manera que los alumnos, que aprenden a través del proceso educativo, alcancen un nivel de educación que no podría obtener por sí mismos. La función de los maestros, como agentes de la educación, debe reconocerse y respaldarse con todos los medios posibles: por ejemplo, con el acompañamiento constante de quienes tienen un acceso más directo a los conocimientos (especialmente los estudios y científicos capacitados), con la actualización de la formación profesional, con salarios adecuados y con instrumentos de tecnología informática. Para contribuir a un cabal proceso educativo y brindar a cada integrante de la sociedad y a las comunidades mismas aquel nivel de conocimientos y enseñanza que constituye un factor primordial para otorgar autonomía y estimular la cooperación, es importante apuntar a altos estándares cualitativos en la profesión educativa, especialmente en el nivel de la educación superior. Este objetivo también es necesario para que, como la experiencia de cada educador es limitada, lo que un alumno no aprenda de un maestro lo pueda aprender de otro, y para que los maestros puedan aprender unos de otros en un contexto de sinergia. Para respaldar y promover este proceso dual, que está en el origen mismo de las escuelas, universidades y demás instituciones educativas, deben ponerse a disposición de los educadores los recursos nacionales, internacionales y privados adecuados de manera que, en todo el mundo, puedan cumplir sus tareas de manera efectiva.

12. Las tecnologías de la comunicación y la informática ofrecen posibilidades extraordinarias para una renovación de la educación, gracias a su capacidad de conectar a las personas, su capacidad de promover el acceso a zonas remotas, a los costos cada vez menores y a la riqueza potencial de la información transmitida. El gasto educativo por niño podrá así reducirse, incluso en las zonas carenciadas. Aún así, las herramientas de tecnología informática no necesariamente alcanzan la educación por sí mismas, sino que requieren que se las acompañe con una visión conceptual, para promover el diálogo, la participación activa de los maestros, la construcción organizada de los conocimientos y la toma de conciencia acerca de la importancia de los valores.

## PROGRAMME

# Globalization and Education

WEDNESDAY, 16 NOVEMBER

9:00	<i>Word of Welcome</i> <b>Prof. EDMOND MALINVAUD</b> and <b>Prof. PIERRE LÉNA</b> , Coordinators of the meeting
<b>NEW APPROACHES TO EDUCATION IN THE GLOBALIZED WORLD</b>	
9:30	Chairperson: <b>Prof. PIERRE LÉNA</b> Speaker: ◆ <b>Prof. HOWARD GARDNER</b> <i>The Synthesizing of Knowledge: An Imperative in a Global Society</i> Discussion
<b>THE ROLE OF COMMUNICATION AND INFORMATION TECHNOLOGIES</b>	
10:20	Coffee Break
10:50	Speaker: ◆ <b>Prof. NICHOLAS NEGROPONTE</b> <i>The \$100 Laptop</i> Discussion
11:40	Speaker: ◆ <b>Prof. M. GOVIND KUMAR MENON</b> <i>Globalization and Education: An Overview</i> Discussion
12:30	General Discussion chaired by <b>Prof. YVES QUÉRÉ</b>
13:00	Lunch at the Casina Pio IV
<b>THE EFFECTS OF GLOBALIZATION ON EDUCATION</b>	
14:30	Chairperson: <b>Prof. ANTONIO BATTRO</b> Speaker: ◆ <b>Prof. MICHEL SERRES</b> <i>The Grand Narrative Told by the Sciences</i> Discussion
15:20	Speaker: ◆ <b>Mr. MORTIMER ZUCKERMAN</b> <i>News, Global Communication Technologies and Education</i> Discussion
16:10	Speaker: ◆ <b>Prof. RAJENDRA S. PAWAR</b> <i>No One Left Behind</i> Discussion
17:00	General Discussion chaired by <b>Prof. ANTONIO BATTRO</b>
17:30	Coffee Break

18:50	Speaker: ◆ <b>Prof. MOHAMED H.A. HASSAN</b> <i>Promoting South-South and North-South Cooperation in Education and Research</i> Discussion
19:40	General Discussion chaired by <b>Prof. KEVIN RYAN</b>
20:10	Dinner at the Casina Pio IV

THURSDAY, 17 NOVEMBER

EDUCATION OF IMMIGRANTS AND THEIR CHILDREN	
9:00	Chairperson: <b>Prof. MARGARET ARCHER</b> Speaker: ◆ <b>Prof. MARCELO SUÁREZ OROZCO</b> <i>Moving Stories: The Education of Immigrant and Refugee Children and Youth</i> Discussion
9:50	Speaker: ◆ <b>Prof. LOUIS-ANDRÉ VALLET</b> <i>What Can We Do to Improve the Education of Children from Disadvantaged Backgrounds?</i> Discussion
10:40	General Discussion chaired by <b>Prof. MARGARET ARCHER</b>
11:10	Coffee Break
EDUCATION AND CULTURAL DIVERSITY	
11:40	Chairperson: <b>Prof. MARY ANN GLENDON</b> Speaker: ◆ <b>Prof. WEI YU</b> <i>Globalization and Cultural Identity</i> Discussion
12:30	Speaker: ◆ <b>Prof. JEAN-CLAUDE BERTHÉLEMY</b> <i>Globalization and Challenges for Education in Least Developed Countries</i> Discussion
13:20	Lunch at the Casina Pio IV
15:00	Speaker: ◆ <b>Prof. MINA RAMIREZ</b> <i>Cultural Diversity</i> Discussion
15:50	Speaker: ◆ <b>Prof. JUAN JOSÉ LLACH</b> <i>Global Education Gaps: Recent Trends, Obstacles and Policies</i> Discussion
16:40	General Discussion chaired by <b>Prof. MARY ANN GLENDON</b>
17:10	Coffee Break

**WHICH ANTHROPOLOGICAL BASES FOR EDUCATION AND RESEARCH?**

17:40	Chairperson: <b>Prof. NICOLA CABIBBO</b> Speaker: ◆ <b>Prof. JEAN-DIDIER VINCENT</b> <i>What Is Our Bioanthropological Knowledge of the Human Being</i> Discussion
18:30	Speaker: ◆ <b>Prof. JÜRGEN MITTELSTRASS</b> <i>Education between Ethical Universality and Cultural Particularity</i> Discussion
19:20	General Discussion chaired by <b>Prof. NICOLA CABIBBO</b>
19:50	Dinner at the Casina Pio IV

# Globalization and Education

**LIST OF PARTICIPANTS**

Outside Experts

NAME AND TITLE	NAT.	DISCIPLINE AND CHARGE	PAPER
<b>Prof. Jean-Claude Berthélemy</b>	F Paris	Professor of Economics at the University Panthéon-Sorbonne (Paris I)	<i>Globalization and Challenges for Education in Least Developed Countries</i>
<b>Prof. David E. Bloom</b>	USA Boston	C.J. Gamble Professor of Economics and Demography and Chairman, Department of Population and International Health, Harvard University	<i>Education and Global Development</i>
<b>Prof. Howard E. Gardner</b>	USA Cambridge	J.H. and E.A. Hobbs Professor of Cognition and Education at the Harvard Graduate School of Education	<i>The Synthesizing of Knowledge: An Imperative in a Global Society</i>
<b>Prof. Mohamed H.A. Hassan</b>	I Trieste	Executive Director of the Third World Academy of Sciences President of the African Academy of Sciences	<i>Promoting South-South and North-South Cooperation in Education and Research</i>
<b>Prof. Nicholas Negroponte</b>	USA Cambridge	Wiesner Professor of Media Technology at the Massachusetts Institute of Technology Founding Chairman of MIT's Media Laboratory	<i>The \$100 Laptop</i>
<b>Mr. Rajendra S. Pawar</b>	IND New Delhi	Chairman of the CII Committee on Education	<i>No One Left Behind</i>
<b>Prof. Michel Serres</b>	F Vincennes	Philosopher and Writer Member of the Académie française	<i>The Grand Narrative Told by the Sciences</i>
<b>Prof. Marcelo M. Suárez Orozco</b>	USA New York	The Courtney Sale Ross University Professor of Globalization and Education at The Steinhardt School of Education, New York University	<i>Moving Stories: The Education of Immigrant and Refugee Children and Youth</i>

NAME AND TITLE	NAT.	DISCIPLINE AND CHARGE	PAPER
<b>Prof. Louis-André Vallet</b>	F Malakoff	Senior Researcher at the French National Centre for Scientific Research (CNRS)	<i>What Can We Do to Improve the Education of Children from Disadvantaged Backgrounds?</i>
<b>Prof. Jean-Didier Vincent</b>	F Gif-sur-Yvette	Researcher and Professor at the University of Paris XI	<i>What Is Our Bioanthropological Knowledge of the Human Being</i>
<b>Prof. Wei Yu</b>	PRC Nanjing	Professor, Southeast University, Nanjing	<i>Globalization and Cultural Identity</i>
<b>Mr. Mortimer Zuckerman</b>	USA Washington	Chairman and Editor-in-Chief of U.S. News of the World Report, Publisher of New York Daily News Founder and Chairman of Boston Properties, Inc.	<i>News, Global Communication Technologies and Education</i>

NAME AND TITLE	NAT.	DISCIPLINE AND CHARGE
<b>Prof. Edith Archambault</b>	F Paris	Emeritus Professor of Economy at the University of Paris-I
<b>Prof. Yves Archambault</b>	F Paris	Physicist, retired from Université Paris-Sud
<b>Msgr. Tymon Tytus Chmielecki</b>	V Vatican City	Secretariat of State
<b>Msgr. Francesco Follo</b>	V Vatican City	Permanent Observer, United Nations Organization for Education, Science and Culture (UNESCO), France
<b>H.E. Msgr. Celestino Migliore</b>	USA New York	Permanent Observer, United Nations (ONU)
<b>H.E. Msgr. J. Michael Miller</b>	V Vatican City	Secretary of the Congregation for Catholic Education
<b>Dr. Carlina Rinaldi</b>	I Reggio Emilia	Director of the Municipal Infant-Toddler Centers and Preschools System, Reggio Emilia Executive Consultant for Reggio Children
<b>Sr. Enrica Rosanna, F.M.A.</b>	V Vatican City	Undersecretary of the Congregation for Institutes of Consecrated Life and Societies of Apostolic Life
<b>Dr. Courtney Ross</b>	USA New York	Founder and Chairperson of The Ross Institute
<b>Msgr. Angelo V. Zani</b>	V Vatican City	Under-Secretary of the Congregation for Catholic Education

## Academics

NAME AND TITLE	NAT.	DISCIPLINE AND CHARGE	PAPER
<b>Prof. Nicola Cabibbo</b>	I Rome	Professor of Physics La Sapienza University of Rome President of the Pontifical Academy of Sciences	
<b>H.E. Msgr. Marcelo Sánchez Sorondo</b>	V Vatican City	Professor of the History of Philosophy LUMSA University of Rome Chancellor of the Pontifical Academy of Sciences and the Pontifical Academy of Social Sciences	
<b>Prof. Margaret S. Archer</b>	UK Coventry	Professor of Sociology at the University of Warwick	
<b>Prof. Antonio M. Battro</b>	RA Buenos Aires	Physician and Neuroscientist Visiting Professor, Graduate School of Education, Harvard University 2002-03	
<b>Prof. Mary Ann Glendon</b>	USA Boston	Professor of Law Harvard University Law School President of the Pontifical Academy of Social Sciences	
<b>Prof. Raymond Hide</b>	UK Surrey	Emeritus Professor of Physics, Oxford University Senior Research Investigator in Mathematics, Imperial College, London	
<b>Prof. Pierre J. Léna</b>	F Paris	Emeritus Professor of Astrophysics at the University Denis-Diderot (Paris VII) & Observatoire de Paris	
<b>Prof. Juan José Llach</b>	RA Buenos Aires	Professor of Economics at the Universidad Austral Former Minister of Education, Argentina Member of the Council of the PASS	<i>Global Education Gaps: Recent Trends, Obstacles and Policies</i>
<b>Prof. Edmond Malinvaud</b>	F Paris	Emeritus Professor of Economics Former President of the Pontifical Academy of Social Sciences	
<b>Prof. M. Govind Kumar Menon</b>	IND New Delhi	Dr.Vikram Sarabhai Distinguished Professor, Indian Space Research Organisation, Govt. of India Member of the Council of the PAS	<i>Globalization and Education: An Overview</i>
<b>Prof. Jürgen Mittelstrass</b>	D Constance	Professor of Philosophy and Philosophy of Science at the University of Constance	<i>Education between Ethical Universality and Cultural Particularity</i>
<b>Prof. Yves Quéré</b>	F Paris	Emeritus Professor at the Ecole Polytechnique in Paris Co-Chair of the InterAcademy Panel (IAP)	
<b>Prof. Mina Ramirez</b>	RP Manila	President of the Asian Social Institute (ASI) Inc., Graduate School of Social Transformative Praxis	<i>Cultural Diversity</i>
<b>Prof. Kevin Ryan</b>	USA Boston	Founder and Director Emeritus of the Center for the Advancement of Ethics and Character, Boston University	
<b>Prof. Paulus M. Zulu</b>	ZA Durban	Professor of Sociology, University of Natal, Durban	

# *Globalization and Education*

## **PARTICIPANT BIOGRAPHIES**

**Prof. Jean-Claude Berthélemy** was born in 1955 in Bamako (Mali) and is a graduate of the Ecole Nationale de la Statistique et de l'Administration Economique in France. He obtained his PhD in 1984 from the University Panthéon-Sorbonne (Paris I), where he has been Professor of Economics since 1992. He was Director of the CEPPII (Centre d'Etudes Prospectives et d'Informations Internationales), a leading French think tank specialized in international economics, from 1998 to 2000, and Head of Research at the OECD Development Centre between 1994 and 1997. He has also collaborated as a senior expert with the OECD, the World Bank and United Nations agencies, as well as with several African governments. He is a vice-chair of the European Development Research Network and a resource-person of the African Economic Research Consortium. He has published eleven books, eight edited volumes and numerous articles related to development economics. In recognition of his contributions to development economics, he was awarded in 2003 the Luc Durand-Reville Prize by the French Académie des Sciences Morales et Politiques. His current research areas are economic growth analysis, education and development finance, with a focus on Africa.

ADDRESS: *Université Paris 1  
Panthéon-Sorbonne  
TEAM/Maison des Sciences Economiques  
106, boulevard de l'Hôpital  
F-75013 Paris (France)  
Tel. +33 1 46610306 – Fax +33 1  
Email: berthele@univ-paris1.fr*

**Prof. David Bloom** was born in 1955 in New York City. He received a BSc in Industrial and Labor Relations from Cornell University in 1976, an MA in Economics from Princeton University in 1978, and a PhD in Economics and Demography from Princeton University in 1981. He taught at Carnegie-Mellon University, was Assistant and then Associate Professor in Harvard University's Department of Economics, and then Professor and Chairman of the Department of Economics at Columbia University. Bloom is currently Clarence James Gam-

ble Professor of Economics and Demography and Chairman of the Department of Population and International Health at the Harvard School of Public Health. He previously served as deputy director of the Harvard Institute for International Development. Bloom is a Fellow of the American Academy of Arts and Sciences, a Faculty Research Associate of the Labor Studies, Aging, and Health Economics programs of the National Bureau of Economic Research, a member of the Book Review Board of Science Magazine, and a member of the Board of Trustees of the American Foundation for AIDS Research. Bloom's research interests include health, demography, education, and labor. In recent years, he has written extensively on primary, secondary, and tertiary education in developing countries, and on the links between health status, population dynamics, and economic growth.

ADDRESS: *Harvard University School of Public Health  
Department of Population and International Health  
665 Huntington Avenue  
Boston, MA 02115 (USA)  
Tel. +1 617 4320654 – Fax +1 617 5660365  
Email: dbloom@hspf.harvard.edu*

**Prof. Howard Gardner** is the John H. and Elisabeth A. Hobbs Professor of Cognition and Education at the Harvard Graduate School of Education. He also holds positions as Adjunct Professor of Psychology at Harvard University, Adjunct Professor of Neurology at the Boston University School of Medicine, and Senior Director of Harvard Project Zero. Among numerous honors, Gardner received a MacArthur Prize Fellowship in 1981. In 1990, he was the first American to receive the University of Louisville's Grawemeyer Award in Education and in 2000 he received a Fellowship from the John S. Guggenheim Memorial Foundation. He has received honorary degrees from twenty colleges and universities, including institutions in Ireland, Italy and Israel. The author of over twenty books translated into twenty-two languages, and several hundred articles, Gardner

is best known in educational circles for his capacities as a synthesizer of vast amount of research and theory and for his theory of multiple intelligences, a critique of the notion that there exists but a single human intelligence that can be assessed by standard psychometric instruments. During the past two decades, he and colleagues at Project Zero have been working on the design of performance-based assessments; education for understanding; the use of multiple intelligences to achieve more personalized curriculum, instruction, and assessment; and the nature of interdisciplinary efforts in education.

---

ADDRESS: *Harvard Graduate School of Education*  
201 Larsen Hall - 14 Appian Way  
Cambridge, MA 02138 (USA)  
Email: [hgasst@pz.harvard.edu](mailto:hgasst@pz.harvard.edu)

---

**Prof. Mohamed H.A. Hassan** is Executive Director of the Third World Academy of Sciences (TWAS), President of the African Academy of Sciences (AAS), Secretary General of the Third World Network of Scientific Organizations (TWNSO) and serves on a number of committees in other organizations world-wide. He was born in the Sudan in 1947, and holds a PhD in Plasma Physics from the University of Oxford, UK (1974). A former professor and dean of the School of Mathematical Sciences at the University of Khartoum, he received the order of scientific merit of Brazil. He is a fellow of TWAS, AAS, and the Islamic Academy of Sciences as well as honorary member of the Colombian Academy of Exact, Physical and Natural Sciences, corresponding member of the Belgian Royal Overseas Academy of Sciences, and foreign fellow of the Pakistan Academy of Sciences. His research areas include theoretical plasma physics, physics of wind erosion and sand transport.

---

ADDRESS: *Executive Director*  
*Third World Academy of Sciences*  
*ICTP Enrico Fermi Building, Room 108*  
*Strada Costiera 11*  
*I-34014 Trieste (Italy)*  
Tel. +39 040 2240327 – Fax +39 040 224559  
Email: [mhassan@twas.org](mailto:mhassan@twas.org)

---

**Prof. Nicholas Negroponte** is the Wiesner Professor of Media Technology at the Massachusetts Institute of Technology and founding chairman of MIT's Media Laboratory. Professor Negroponte studied at MIT and has been an MIT faculty member since 1966. He was the founder of MIT's pioneering Architecture Machine Group, a combination lab and think tank responsible for many radically new approaches to the human-computer interface. In 1995, he published *The New York Times* bestseller *Being Digital*, which has been translated into over 40 languages. In the private sector, Professor Negroponte serves on the board of directors for Motorola, Inc., and as a special general partner in a venture capital firm focusing on technologies for information and entertainment. He was a founder of WiReD magazine and has been an 'angel investor' for over 40 start-ups, including three in China. Professor Negroponte helped to establish, and serves as chairman of, the 2B1 Foundation, an organization dedicated to bringing computer access to children in the most remote and poorest parts of the world. Most recently Professor Negroponte has launched a new program to develop a \$100 laptop – a technology that could revolutionize how we educate the world's children.

---

ADDRESS: *Massachusetts Institute of Technology*  
*The Media Laboratory*  
E15-210  
77 Massachusetts Avenue  
Cambridge, MA 02139-4307 (USA)  
Tel. +1 617 2535960 – Fax +1 617 2589212  
Email: [nn@media.mit.edu](mailto:nn@media.mit.edu)

---

**Mr. Rajendra S. Pawar** is Chairman and Founder of the NIIT Group that encompasses two businesses—NIIT, the Learning Services organization, and NIIT Technologies, the software and services arm. Set up in 1981, NIIT pioneered computer education in the non-formal sector in India, creating a completely new and ever-evolving industry segment. A distinguished alumnus of India's prestigious engineering institution, the IIT Delhi, Mr. Pawar has played a leadership role in nurturing NIIT and building it into Asia's largest IT education institution, with over 500,000 students on rolls in 30 coun-

tries. By driving research in Primary Education within NIIT and championing breakthrough innovations such as the Minimally Invasive Education-based 'Hole in the Wall Experiment', Mr. Pawar has enabled the organization to achieve its vision of providing learning to the less privileged sections of society. Mr. Pawar is a member of the International Business Council of the World Economic Forum. He is also actively involved in India's key Chambers of Commerce, giving voice to the sector's aspirations and goals. He is a Founder Member and Past President of MAIT (the Manufacturers' Association of Information Technology) and a Founder Member of NASSCOM (the National Association of Software & Service Companies). In recognition of his professional achievements and contributions to the development and growth of science and technology, he has been awarded the Degree of Doctor of Science (*Honoris Causa*) by the Rajiv Gandhi Technical University, India. He is a Fellow of many professional societies including the Computer Society of India, the Institution of Electronics & Telecom Engineers and the National Telematics Forum. Owing to his deep interest in Education, Mr. Pawar has been invited to serve on the Board of Governors of India's well-known educational institutions including the Indian Institute of Technology, Delhi; world's largest distance learning institute, the Indira Gandhi National Open University; India's first global management school, the Indian School of Business; the Shri Mata Vaishno Devi University in Jammu and Kashmir; and the Scindia School. Recognizing his pioneering and entrepreneurial work, Ernst & Young conferred on Mr. Pawar its prestigious 'Master Entrepreneur of the Year Award' in 1999. His contributions to the IT industry in India also earned him the 'IT Man of the Year 1998' award instituted by IT industry journal, *Dataquest*.

---

ADDRESS: *NIIT Limited*  
8, Balaji Estate  
Sudarshan Munjal Marg, Kalkaji  
New Delhi 110 019 (India)  
Tel. +91 11 26203504 – Fax +91 11 26203333  
Email: [pawar@niit.com](mailto:pawar@niit.com)

---

**Prof. Michel Serres**, born September 1, 1930, is a French philosopher and author with an unusual career. Born the son of a barge man, Serres entered the Ecole Navale in 1949 and the Ecole Normale Supérieure in 1952. He gradu-

ated in 1955 after having studied philosophy. He spent the next few years as a naval officer before finally receiving his doctorate in 1968 and began teaching in Paris. Over the next twenty years Serres earned a reputation as a spell-binding lecturer and as the author of remarkably beautiful and enigmatic prose known so reliant on the sonorities of French that it is practically untranslatable. He took as his subjects such diverse topics as the mythical Northwest passage, the concept of the parasite, and the explosion of the Space Shuttle Columbia. More generally Serres is interested in developing a philosophy of science which does not rely on a metalanguage in which one account of science is privileged and accurate. To do this he relies on the concept of translation between accounts rather than settling on one as authoritative. For this reason Serres has relied on the figure of Hermes (in his earlier works) and angels (in more recent studies) as messengers who translate back and forth between domains. In 1990, Serres was appointed to the Académie française, a sign of his position as one of France's most prominent intellectuals. In the English-speaking world, Serres is perhaps best known for teaching at Stanford University and for influencing younger intellectuals such as Bruno Latour.

---

ADDRESS: *128, rue de Montreuil*  
*F-94300 Vincennes (France)*  
Tel. +33 1 43740369 – Fax +33 1 43982691  
Email: [m.abuelito@wanadoo.fr](mailto:m.abuelito@wanadoo.fr)

---

**Prof. Marcelo Suárez Orozco**'s work is interdisciplinary, comparative, and longitudinal. His basic research is on conceptual and empirical problems in the areas of cultural psychology and psychological anthropology with a focus on the study of immigration and globalization. He is author of numerous scholarly essays, books, and edited volumes. Professor Suárez-Orozco became a tenured professor of Human Development and Psychology at Harvard (in 1995) where he was appointed the Victor S. Thomas Professor of Education (in 2001). In 1997 along with Carola Suárez-Orozco he co-founded the Harvard Immigration Projects and began to codirect the largest study ever funded in the history of the National Science Foundation's Cultural Anthropology division – a study of Asian, Afro-Caribbean, and Latino immigrant youth in American society. Professor Suárez-Orozco lectures widely throughout the world. In the sum-

mer of 2004 he was invited by the Mexican Secretary of State and the Vatican's Pontifical Academy of Social Sciences to deliver a keynote address on Globalization and Education. In 1995 and again in 1997, he was elected Directeur d'Etudes Associé at the Ecole des Hautes Etudes en Sciences Sociales, Paris. He has been Visiting Professor of Psychology at the University of Barcelona (Spain), Visiting Professor of Anthropology at the Catholic University of Leuven (Belgium), and Fellow at the Center for Advanced Study in the Behavioral Sciences, Stanford. Professor Suárez-Orozco was educated in public schools in Latin America and at the University of California, Berkeley where he received his A.B. (Psychology, 1980), M.A. (Anthropology, 1981) and PhD (Anthropology, 1986). Winner of multiple honors and awards, he was elected to the National Academy of Education in 2004. In September 2004, he was appointed the first Courtney Sale Ross University Professor of Globalization and Education at The Steinhardt School of Education, New York University where he also holds the title of University Professor. Professor Suárez-Orozco and his wife are Co-Directors of Immigration Studies at NYU.

---

ADDRESS: *New York University  
The Steinhardt School of Education  
246 Greene Street  
New York, NY 10003 (USA)  
Tel. +1 617 9702125  
Email: mso3@nyu.edu*

---

**Dr Louis-André Vallet**, born in Angers (France) in 1957, was firstly educated in psychology, then got a PhD in quantitative sociology from the University of Paris-Sorbonne. He is currently senior researcher at the French National Centre for Scientific Research (CNRS). Before entering the CNRS in 1996, he was an assistant professor in the Catholic University of Angers during a dozen of years. Within CNRS, he belongs to the Quantitative Sociology Laboratory in the mixed research unit of CNRS and INSEE (the French Statistical Office) in the context of the Centre for Research in Economics and Statistics (Paris). He has been a member of the editorial board of *Revue française de sociologie* since 1991 and an Associate Editor of *European Sociological Review* since 2000. His main research interests are the sociology of stratification and social mobility and the sociology of education. In the context of French so-

cieté, he has studied the social mobility of women, the trends in intergenerational class mobility, the trends in educational inequalities between social classes and the school trajectories of the children of immigrants. From a methodological point of view, he has expertise in the analysis of categorical variables with log-linear and log-multiplicative models. His most recent publication is the chapter about France in the comparative volume *Social Mobility in Europe* (2004, Oxford University Press).

---

ADDRESS: *Quantitative Sociology Laboratory  
Centre for Research in Economics and Statistics  
Timbre J350 – 3 avenue Pierre Larousse  
F-92245 Malakoff Cedex (France)  
Tel. +33 1 41175733 – Fax +33 1 41175755  
Email: louis-andre.vallet@ensae.fr or  
louis-andre.vallet@wanadoo.fr*

---

**Prof. Jean-Didier Vincent** was born in Libourne Gironde, France. After being the Director of INSERM and of the Sciences du Vivant CNRS, he is currently a Researcher and a Professor at the University of Paris XI. His research centres on the dopaminergic system, hormonal phenomena triggered by behavioural events and neurophysiological mechanisms. He was the first to stress the modulatory action of certain hormones on brain activity and on the nervous mechanisms of functions such as the balance of water and salt in the body, hunger, thirst, reproduction, sleep, etc. He was also the first to show that cerebral osmoreceptors were not located in the neurosecretory cores but in the anterior region of the hypothalamus in contact with the ventricular wall. His latest research concerns the mechanisms of integration of the olfactory message in the olfactory bulb, showing the role of permanent neurogenesis of the gabaergic neurons in sensory discrimination. He is a member of the French Académie des Sciences and of the French Académie Nationale de Médecine. For his merits he was also received in the Légion d'honneur (Officier) and the Palmes Académiques (Officier). He has written numerous scientific publications and also many successful books for the general public.

---

ADDRESS: *Institut de Neurobiologie  
Alfred Fessard, C.N.R.S.,  
F-91198 Gif-sur-Yvette (France)  
Tel. +33 1 69823434 – Fax +33 1 69823445  
Email: vincent@iaf.cnrs-gif.fr*

---

**Mr. Mortimer Zuckerman** was born in 1937 in Canada and is Chairman and Editor-in-Chief of U.S. News & World Report and publisher of the New York Daily News. He is also founder and chairman of Boston Properties, Inc. He is a trustee of Memorial Sloan-Kettering, New York University, the Aspen Institute, the Hole in the Wall Gang Fund, Inc. and the Center for Communications. He is also a member of the J.P. Morgan National Advisory Board, the Council on Foreign Relations, the Washington Institute for Near East Studies and the International Institute of Strategic Studies. He is a former Associate Professor of City & Regional Planning at the Harvard Graduate School of Design, a former lecturer of City and Regional Planning at Yale, a past president of the Board of Trustees of

the Dana Farber Cancer Institute in Boston. Zuckerman was awarded the Commandeur De L'Ordre des Arts et des Lettres by the government of France, received three honorary degrees, the Lifetime Achievement Award from Guild Hall and the Gold Medal from the American Institute of Architecture in New York. Zuckerman is a graduate of McGill University, McGill Law School, The Wharton Graduate School of Business and the Harvard Law School.

ADDRESS: *U.S. News & World Report*  
1050 Thomas Jefferson Street NW  
Washington, DC 20007 (USA)  
Tel. +1 202 9552000

---

For the biographies of the Academicians cfr. *Pontificia Academia Scientiarvm, Year Book* (Vatican City 2004), p. 15 ff.; *Pontificia Academia Scientiarvm Socialivm, Year Book* (Vatican City 2004), p. 13 ff.

There is a God Himself who is called Truth. And that essential, divine generation that expresses all the perfection of the Divine Essence, the Word; and the Word means the Truth. And when God thought of saving the world it was the Word, it was Divine Truth, that came to save it. And when he was saving men, it was the title Teacher that most pleased him, and he accepted it and approved it: *Vocatis me magistrum et bene dicitis; sum etenim* (*Jn 13:13*). And when he sent out the Apostles to preach redemption to the world, he gave them, before anything else, the mandate to teach: *Euntes docete* (*Mt 28:19*. Cfr. *Mk 16:15* f.). This was really the cry of he who had said: the truth will make you free: *Veritas liberabit vos* (*Jn 8:32*).

And thus it was that, in order to fulfill this very important part of their mission, the Roman Pontiffs, our glorious antecedents, so magnificently, so splendidly, and also so heroically, constantly acted to gather together in our admirable Vatican library those treasures of which we have been the fortunate custodians. When the Roman Pontiffs did this, they thought that they were carrying out a part, a very notable part, of their Apostolic Ministry.

And therefore, we congratulate you with all our heart on the great good that you do here, on that which we have heard or now hear, on what you have gathered together in all the luminous fields of truth; and wishing and hoping that this Academy will become an increasingly rich source of that beneficial charity which Truth is.

Pius XI, *Address of 27 December 1925 to Inaugurate the Academic Year of the Pontifical Academy of Sciences*, in *Papal Addresses*, The Pontifical Academy of Sciences, Scripta Varia 100, Vatican City 2003, p. 25 f.

CASINA PIO IV  
V-00120 VATICAN CITY  
Tel: +39 0669883451 Fax: +39 0669885218  
Email: [academy.sciences@acdscience.va](mailto:academy.sciences@acdscience.va)  
[social.sciences@acdscience.va](mailto:social.sciences@acdscience.va)

*For further information please visit:*  
[http://www.vatican.va/roman\\_curia/pontifical\\_academies/acdscien/index.htm](http://www.vatican.va/roman_curia/pontifical_academies/acdscien/index.htm)