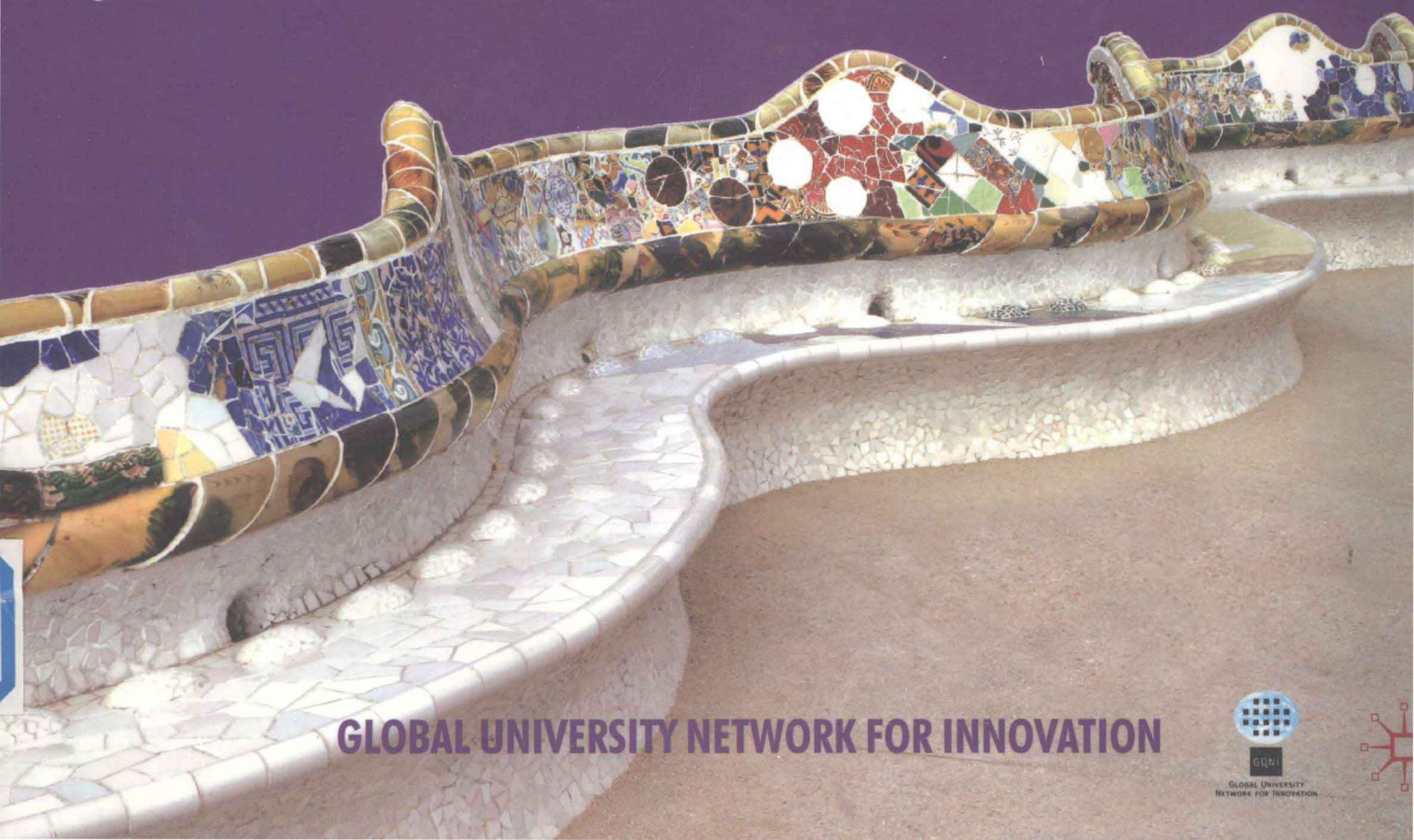


HIGHER EDUCATION IN THE WORLD 3

*Higher Education:
New Challenges and Emerging Roles
for Human and Social Development*



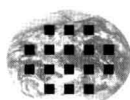
GLOBAL UNIVERSITY NETWORK FOR INNOVATION



GUNI SERIES ON THE SOCIAL COMMITMENT OF UNIVERSITIES 3

HIGHER EDUCATION IN THE WORLD 3

*Higher Education: New Challenges
and Emerging Roles for Human
and Social Development*



GUNI

GLOBAL UNIVERSITY
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LIST OF ABBREVIATIONS USED IN THIS REPORT

AAC&U	American Association of Colleges and Universities	CBHE	Cross-border Higher Education
AAGR	Average Annual Growth Rate	CBPR	Community-based Participatory Research
AAOU	Asian Association of Open Universities	CCD	Centre for Development Cooperation
AASCU	American Association of State Colleges and Universities	CDESR	Steering Committee for Higher Education and Research
AAU	Association of African Universities	CEE	Central and Eastern Europe
ACCORD	African Centre for the Constructive Resolution of Disputes	CEGEP	Colleges of General and Vocational Education
ACU	Association of Commonwealth Universities	CEPES	European Centre for Higher Education
ADB	Asian Development Bank	CIDA	Canadian International Development Agency
ADEA	Association for the Development of Education in Africa	CIHR	Canadian Institutes for Health Research
ADF	African Development Fund	CITIES	Sustainability Centre
AECI	Spanish Agency for International Cooperation	CMS	City Montessori School
AIDS	Acquired Immune Deficiency Syndrome	CNDPI	National Committee for the Development of the Indigenous Peoples
AISHE	Auditing Instrument for Sustainability in Higher Education	CONCORD	European NGO Confederation for Relief and Development
AJKU	University of Azad Jammu and Kashmir	C-SCAIBE	Centre for Sustainable Communities Achieved through Integrated Professional Education
ALECSO	Arab League Education, Culture and Science	CSL	Community Service-learning
APQN	Asia-Pacific Quality Network	CSOs	Civil Society Organizations
ARC	Arab Regional Conference	CSPR	Committee on Scientific Planning and Review
ASSWI	Association of Schools of Social Work in India	CSUCA	Higher Council of Latin American Universities
ASTF	Arab Science and Technology Foundation	CURA	Community University Research Alliance
AU	African Union	DAAD	German Academic Exchange Service
AUAP	Association of Universities of Asia and the Pacific	DDT	Dichloro-Diphenyl-Trichloroethane
AUCC	Association of Universities and Colleges of Canada	DHO	Dutch National Network for Sustainable Development in Higher Education Curricula
AVOIR	African Virtual Open Initiative and Resource	DMPA	Depot Medroxyprogesterone Acetate
BA	Bachelor of Arts	EC	European Commission
BC	British Columbia	ECDO	Expertise Centre for Sustainable Development
BFUG	Bologna Follow-up Group		
CARICOM	Caribbean Community		
CAUT	Canadian Association of University Teachers		

ECTS	European Credit Transfer System	HIV	Human Immunodeficiency Virus
EFA	Education for All	HPI	Human Poverty Index
EHEA	European Higher Education Area	IAU	International Association of Universities
EI	Education International	IB	International Baccalaureate Programme
EIT	European Institute of Technology	ICI	Institute of Sciences
ELSI	Ethical, Legal and Social Implications	ICO	Institute of Conurbation
EMAS	Eco-management and Audit Scheme	ICRG	International Council for Risk Governance
ENHR	Essential National Health Research	ICSU	International Council for Science
ENQA	European Association for Quality Assurance in Higher Education	ICT	Information and Communication Technology
ENTS	National School of Social Work	IDB	Inter-American Development Bank
ERA	European Research Area	IDEI	Institute of Industry
ESREA	European Society for Research on the Education of Adults	IDH	Institute of Human Development
ESU	European Student Union	IDRC	International Development Research Centre
EU	European Union	IDS	Institute of Development Studies
EUA	European University Association	IEEE	Institute of Electrical and Electronic Engineers
EURASHE	European Association of Institutions in Higher Education	IESALC	International Institution for Higher Education in Latin America and the Caribbean
EWB	Engineers Without Borders	IGNOU	The Indira Gandhi National Open University
FAO	Food and Agriculture Organization of the United Nations	IGOs	Inter-governmental Organizations
FAWE	Forum for African Women Educationalists	IHDP	International Human Development Programme
FLACSO	Latin American Faculty of Social Sciences	IICBA	International Institute for Capacity Building in Africa
FTE	Full-time Equivalent	IIEP	International Institute for Educational Planning
GATS	General Agreement on Trade in Services	IISUE	Institute for Research on Universities and Education
GATT	General Agreement on Tariffs and Trade	ILO	International Labour Organization
GCAP	Global Call to Action Against Poverty	IMF	International Monetary Fund
GDI	Gender-related Development Index	IMHE	Programme on Institutional Management in Higher Education
GDP	Gross Domestic Product	IPCC	Inter-governmental Panel on Climate Change
GE	General Education	ISESCO	Islamic Educational, Scientific and Cultural Organization
GER	Gross Enrolment Ratio	ISSC	International Social Science Council
GERD	Gross Expenditure on Research and Development	ISSNET	International Science Shop Network
GHESP	Global Higher Education for Sustainability Partnership	IT	Information Technologies
GNP	Gross National Product	ITU	International Telecommunication Union
GPI	Gender Parity Index/Genuine Progress Indicator	IUAES	International Union of Anthropological and Ethnological Sciences
GUNI	Global University Network for Innovation	IVIC	Venezuelan Institute for Scientific Research
HD	Human Development	KU	Kingston University
HDI	Human Development Index	LAC	Latin America and the Caribbean
HE	Higher Education	LDCs	Less Developed Countries
HECS	Higher Education Contribution Scheme		
HEFCE	Higher Education Funding Council for England		
HE4SD	Higher Education for Sustainable Development		
HEI	Higher Education Institution		
HESA	Higher Education South Africa		

LEAPS	Learning through Experience, Action, Partnership, and Service	SAUVCA	South African Universities Vice-Chancellors Association
LEED	Leadership in Energy and Environmental Design	SCA	Science Council of Asia
LOM	Learning Object Metadata	SCIPAS	Study and Conference on Improving Public Access to Science through Science Shops
MDGs	(United Nations) Millennium Development Goals	SD	Sustainable Development
MEW	Measure of Economic Welfare	SEAMEO	Southeast Asian Ministers of Education Organization
MIT	Massachusetts Institute of Technology	SELA	The Latin American Economic System
M.Phil.	Master of Philosophy	SGS	Steering Group for Sustainability
NASULGC	National Association of State Universities and Land Grant Colleges	SHD	Social and Human Development
NCE	Networks of Centres of Excellence	Sida	Swedish International Development Agency
NCES	National Center for Education Statistics	SPU	Argentine Secretariat of University Policies
NER	Net Enrolment Rate	SRU	Social Responsibility of Universities
NGO	Non-governmental Organization	SSA	Sub-Saharan Africa
NSERC	National Science and Engineering Research Council	SSHRC	Social Sciences and Humanities Research Council
OCW	OpenCourseWare	STD	Dutch Sustainable Technology Development
OCWC	OpenCourseWare Consortium	STI	Science, Technology and Innovation
ODA	Official Development Assistance	TB	Tuberculosis
ODCs	Other Developing Countries	TCU	University Community Work
OECD	Organisation for Economic Cooperation and Development	TNCs	Transnational Companies
PANCAP	Pan-Caribbean Partnership Against HIV and AIDS	TRAMS	Training and Mentoring of Science Shops
PD	Participatory Development	TTISSA	Teacher Training Initiative for Sub-Saharan Africa
Ph.D.	Doctor of Philosophy	TWAS	Third World Academy of Sciences
PR	Participatory Research	UACM	Autonomous University of Mexico City
PRE	Practice–Research Engagement	UAIN	Intercultural Autonomous University
PRIA	Society for Participatory Research in Asia	UAM	Autonomous University of Mexico
PSE	Post-secondary Education	UASLP	Autonomous University of San Luis Potosí
PSU	Portland State University	UBA	University of Buenos Aires
PUMC	Mexico Multicultural Nation University Programme	UBUNTU	World Forum of Civil Society Networks
R&D	Research and Development	UCC	Cooperative University of Colombia
RCE	Regional Centres of Expertise	UCLA	University of California at Los Angeles
REEP	Regional Environmental Education Programme	UDUAL	Union of Latin American Universities
RNCs	Regional Nodal Centres	UIA	Ibero-American University
RSL	Research Service-Learning	UIS	UNESCO Institute for Statistics
RVCC	National System of Recognition, Validation and Certification of Competences	UK	United Kingdom
SAARC	South Asian Association for Regional Cooperation	ULSF	University Leaders for a Sustainable Future
SADC	Southern African Development Community	UN	United Nations
SAP	Structural Adjustment Programme	UNAM	National Autonomous University of Mexico
SARUA	Southern African Regional Universities Association	UNCED	United Nations Conference on Environment and Development
S&T	Science and Technology	UNCTAD	United Nations Conference on Trade and Development

UNDP	United Nations Development Programme	URACAN	University of the Autonomous Regions of the Nicaraguan Coast
UNEP	United Nations Environment Programme	US	United States
UNESCO	United Nations Educational, Scientific and Cultural Organization	USA	United States of America
UNGS	National University of General Sarmiento	USDLA	United States Distance Learning Association
UNICE	Union of Industrial and Employers' Confederations of Europe	UV	University of Veracruz
UNICORE	Uniform Interface to Computing Resources	UVic	University of Victoria
UNITAR	United Nations Institute for Training and Research	UWC	University of the Western Cape
UNITWIN	University Twinning and Networking Scheme	UWI	University of the West Indies
UNPFII	United Nations Permanent Forum on Indigenous Issues	WB	World Bank
UNU	United Nations University	WCED	World Commission on Environment and Development
UPC	Technical University of Catalonia	WCHE	World Conference on Higher Education
UPEACE	University for Peace	WFEO	World Federation of Engineering Organizations
UPN	National Pedagogic University	WGHE	Working Group on Higher Education
		WHO	World Health Organization
		WIDER	World Institute for Development Economics Research
		WTO	World Trade Organization
		WWII	World War II



The Global University Network for Innovation (GUNI) was created in 1999 by UNESCO, the United Nations University (UNU) and the Technical University of Catalonia (UPC), the institution that hosts its Secretariat. GUNI is a global network composed of over 120 members from around the world that include the UNESCO Chairs in Higher Education, higher education institutions, research centres and networks related to higher education.

GUNI members are spread worldwide and distributed in five regions that follow specific UNESCO definitions (Africa, the Arab States, Asia and the Pacific, Europe and North America, and Latin America and the Caribbean). In each region GUNI has a regional office with at least one regional representative. One representative from each of the founding institutions (UNESCO, the UNU and the UPC) and a maximum of two representatives from each region constitute the Executive Committee of GUNI. The President of GUNI is the rector of the UPC.

Mission and objectives

GUNI's mission is to contribute to the reinforcement of higher education throughout the world by helping to put into practice the decisions taken at UNESCO's World Conference on Higher Education (WCHE) held in Paris in 1998. Its main objectives are to reflect on and to promote innovation, universities' social commitment and the quality of higher education. Specifically, GUNI aims to:

- Contribute to the implementation

of the WCHE's *World Declaration and Framework for Priority Action for Change and Development in Higher Education*, with a view to strengthening local, national and regional development. This includes helping to bridge the growing gap between developed and developing countries in the field of higher education and research

- Follow the lines of the UNESCO/UNU Forum in order to obtain an overall perspective of existing problems and propose potential solutions, and by so doing to consolidate the role of higher education as an essential means of development within knowledge societies
- Contribute to the reform and renewal of higher education policies across the world
- Contribute to research on higher education and to ensure that progress is made, particularly in developing countries
- Promote cooperation between higher education institutions and society.

Lines of Action

Higher Education in the World report

Higher Education in the World is published as part of the GUNI Series on the Social Commitment of Universities. This report is the result of an overall analysis of higher education in the world. A specific subject is chosen for each edition, reflecting on the key issues and challenges facing higher education and its institutions in the 21st century. A Delphi poll, statistical appendix, analytic maps and a detailed bibliography round off the report.

International Barcelona Conference on Higher Education

The GUNI Conference is an international forum for debate on the challenges facing higher education. Held

in Barcelona and attended by renowned experts, university leaders, academics, policymakers and practitioners from all over the world, the Conference addresses innovative proposals and the results of the latest research.

Universities and Social Commitment Observatory

The Observatory detects and disseminates good practices in its endeavour to serve as a meeting point between universities. Its purpose is to facilitate the transfer of good practices and to bring about change within higher education institutions. In order to disseminate practices among institutions and broaden their role in the construction of harmonious societies, the Observatory also acts as a resource centre, using the common goal of social commitment as its underlying premise.

Communication and Networking

GUNI uses information and communication technologies intensively to promote debate, creation and exchange of knowledge on higher education worldwide. The website, which has an increasing range of open-access multimedia content, and the monthly newsletter, which is delivered to thousands of subscribers, are cornerstones in the accomplishment of the GUNI mission.

Research Projects

GUNI undertakes research projects on higher education for public and private not-for-profit institutions. Every year a Delphi survey is conducted for the report to gauge the opinions of over 100 participants taken from academics, politicians, civil society members and professionals. To do so, it has a group of researchers who apply GUNI's mission to practical realities.

<http://www.guni-rmies.net>



Notes

Members approved in July 2007

Provisional members until October 2007 in brackets

Classification method: natural breaks (Jenks optimization)

MAP 1 Number of GUNI members per country



Vector layer source: ESRI Data; Projection: Robinson

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Cristina Escrigas

A report on the new challenges and emerging roles in higher education for human and social development would not have been possible without the participation of a large number of people and institutions. Although previous reports were also the result of a collective effort, the pluralism and diversity of the contributions in this report are especially notable. The report aims to provide ideas and proposals to give direction on the future role of higher education. This is not an easy, or indeed customary, exercise in the academic world, which is more accustomed to providing understanding of what already exists and generating new knowledge than to applying acquired knowledge to planning the future. The GUNI Secretariat asked for this exercise to be based on what should ideally happen in order for higher education to contribute to human and social development, rather than be based on possible future scenarios that might result from the present situation. These ideas were shaped from the excellent academic work and renowned research activities of all the contributors. I would therefore like to express my sincere gratitude to each and every one of the people who have supported this project and who have believed and participated in it.

First, I would like to thank Antoni Giró Roca, President of the Global University Network for Innovation (GUNI) and Rector of the Technical University of Catalonia (UPC), for his constant, unconditional support, his useful suggestions and his complete confidence in the project. His willingness to help was especially important since GUNI's headquarters are located in a technical university, in which there is no department carrying out research on higher education. This is in itself an innovative characteristic, as the incorporation of knowledge across disciplines will be necessary in educational institutions in the future. I would like to point out that the UPC has demonstrated its ability to anticipate events in this way ever since it was founded. In its long history, it has always known how to identify developments that are ahead of their time and apply them in its own setting, thus providing leadership and becoming a reference point in universities' institutional innovation. The Rec-

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Finally I would like to apologize for any omissions and for any inconvenience or difficulties that we may have unintentionally caused during the project.

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Federico Mayor-Zaragoza earned a doctorate in pharmacy from the Complutense University of Madrid in 1958. In 1963, he became a professor of biochemistry in the School of Pharmacy at the University of Granada, where he later served as rector (1968–1972). In 1973, he was appointed professor in his specialty at the Complutense University of Madrid.

He has held the following political posts, among others: Undersecretary of Education and Science in the Spanish government (1974–1975), member of the Spanish Congress of Deputies (1977–1978), adviser to the Spanish Prime Minister (1977–1978), Minister of Education and Science (1981–82) and member of the European Parliament (1987). In 1978, he became deputy director-general of UNESCO. In 1987, he was elected director-general of UNESCO, a post he held until 1999, when he created the Foundation for a Culture of Peace, of which he is now president.

In 2005, the secretary-general of the United Nations named him co-chair of the High-Level Group for the Alliance of Civilizations, a post he held until November 2006 when the Group presented its final report in Istanbul. In addition to numerous scientific publications, he has published four collections of poems and several books of essays.

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Goolam Mohamedbhai is currently the president of the International Association of Universities. He was vice-chancellor of the University of Mauritius from 1995 to 2005. He obtained his bachelor's and doctoral degrees in civil engineering at the University of Manchester, UK. He then joined the University of Mauritius as a lecturer in 1972 and was appointed professor in 1978. In 1980, he carried out postdoctoral research at the University of California, Berkeley under a Fulbright-Hays Award. In Mauritius, he has served as chairman or member of a number of national boards and councils. He was also a director of the State Bank of Mauritius (2003–2006).

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Deepak Nayyar is professor of economics at Jawaharlal Nehru University, New Delhi. He has taught economics at the University of Oxford, the University of Sussex and the Indian Institute of Management, Calcutta. Until recently, he was vice-chancellor of the University of Delhi.

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He has served as a member of many commissions, committees and boards, both national and international: he is a member of the National Knowledge Commission in India; he was a member of the World Commission on the Social Dimension of Globalization; he was a director on the boards of the State Trading Corporation of India, the State Bank of India, the Export-Import Bank of India and Maruti Udyog (now Maruti Suzuki India Limited). He received the VKRV Rao Award for his contribution to research in economics and was president of the Indian Economic Association. He also sits on the editorial board of several professional journals.

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Rajesh Tandon is an internationally acclaimed leader and practitioner of participatory research and development. In 1982, he founded the Society for Participatory Research in Asia (PRIA), a voluntary organization that provides support to grassroots initiatives in South Asia. He remains the organization's chief official.

He is the holder of a Ph.D. from Case Western Reserve University, a degree in Electronic Engineering (IIT, Kanpur) and a postgraduate degree in Management (IIM, Kolkata) and has specialized in social and organizational change. His contributions to the enhancement of perspectives and capacities of many voluntary activists and organizations revolve around issues of participatory research, advocating for people-centred development, and policy reform and networking in India, South Asia and beyond. He has advocated a self-reliant, autonomous and competent voluntary sector in India and abroad. He is currently promoting local government bodies (*Panchayats* and municipalities) as institutions of local self-governance in South Asia, with a special focus on women and marginalized groups. He is also working to build alliances and partnerships among diverse sectors in societal development. Under his leadership, PRIA has created numerous innovative methodologies for participatory learning and training, participatory bottom-up micro-planning, and participatory monitoring and evaluation. In the past 25 years, he has conducted major research, training and educational work on a wide variety of topics in order to strengthen the capacities and institutional mechanisms of voluntary development organizations in India and other developing countries.

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