World Academy Forum on Global Higher Education

October 2-3, 2013
UC Berkeley, California

Envisioning the Future of Global Higher Education

Ivo Šlaus

George Breslauer

Garry Jacobs

Mo Qayoumi

An Krumberger

If you were going to design a system to deliver quality, innovative higher education to the whole world, how would you do it? This was the challenging question posed by WAAS President **Ivo Šlaus** to participants in the World Academy Forum on Global Higher Education organized by WAAS at the University of California at Berkeley on October 2-3, 2013, in association with Council One. Inaugurated by UC Executive Vice Chancellor **George Breslauer** with a keynote by San Jose State University President **Mo Qayoumi**, the conference brought together leading educators from five continents to meet with the leaders and faculty from leading American universities including UC Berkeley, UC Davis, UC Irvine, UCLA, Stanford, Carnegie Mellon, Duke, University of Phoenix, University of Florida, UNLV and Sofia University and companies pioneering new technologies and services in the field of education such as Google, Pearson, Fujitsu and 2U.com.

Quantitatively, the international system has to be expanded to accommodate an additional 95 million students by 2025, according to UNESCO – equivalent to founding three Harvard Universities every week for the next decade. Augmenting brick and mortar universities with On-line Education (OLE) is the only possible way to meet the world's expanding need for higher education according to **Garry Jacobs,** WAAS CEO. Efforts are also needed to bring down the skyrocketing cost of higher education, which places it beyond the reach of tens of millions of students in both economically advanced and developing countries. Course content needs to be upgraded and modified to close the widening gap between employer needs and labor force skills to wipe out unemployment. Qualitatively, research shows that on-line courses can produce equal or even superior learning outcomes. Imagine if every college student in the world had access to the world's best instructors for every class they took!

A new paradigm in higher education forms an essential element of the new paradigm in human development the Academy seeks to formulate. As Einstein said, "We cannot solve our problems with the same thinking we used when we created them." The conference called for a human-centered education that shifts the focus from teaching to learning, from abstract theories divorced from reality to life-centered knowledge relevant to each individual's personal development and career. The UC conference is the first in a series of WAAS events organized in collaboration with **An Krumberger** and his team at Council One to promote creative solutions in global higher education.

WORLD UNIVERSITY CONSORTIUM
by World Academy of Art and Science

The World Academy was founded in 1960 by distinguished individuals concerned with the impact of the explosive growth of knowledge to address global issues related to the social consequences and policy implications of knowledge. The aim of the founders was to create a forum where problems can be discussed objectively, scientifically, globally and free from vested interests or regional attachments, to arrive at solutions that affirm universal human rights and serve the interests of all humanity. WAAS was founded on

Currently, the Academy's broader program framework is to evolve a "New Paradigm for Human Development" better able to develop the potential and support actualization of the aspirations of all human beings. As the principal social organization evolved for the development of human capabilities, education must necessarily play a central role in this endeavor. Extending the reach, accessibility, quality, innovation and relevance of higher educational systems globally to meet the needs of all human beings the world over is a critical need for development and protection of human and social capital. The present system of national universities, which gradually evolved over a period of almost one thousand years has made enormous strides in the codification, dissemination and development of knowledge through teaching, research and extension work. Yet,

Introduction

Heitor Gurgulino de Souza

Role of WAAS

Alberto Zucconi

faith in the power of original and creative ideas – Real-Ideas with effective power to change the world – and its motto is "Leadership in Thought that Leads to Action."

The Academy's founding fathers intended that WAAS should function as *"an informal World University at the highest scientific and ethical level, in which deep human understanding and fullest sense of responsibility will meet."* Although some modest beginnings were made to establish a few regional centers of excellence, political conditions at the height of the Cold War, as well as limitations in transport and global communication, posed insurmountable obstacles to realize this vision at that time. Today a World University is an idea whose time has come.

the pace of social change is so rapid and the gap between human needs and existing capabilities is so vast that it is essential to seek innovative strategies and complementary means to meet the global human development challenge.

The World University Consortium seeks to become a network and umbrella group to facilitate educational partnerships and linkages with interested stakeholders with shared goals at the international level, to explore creative solutions to enhance the reach, quality and relevance of higher education globally and to provide a platform for new ideas, trans-disciplinary perspectives and integrated courseware intended to address real world opportunities and challenges at the national and global levels.

Heitor Gurgulino de Souza, Garry Jacobs, Winston Nagan, Ivo Šlaus & Alberto Zucconi

We invite WAAS Fellows to submit suggestions and proposals for the work of the Consortium and to encourage their institutional affiliates to join WUC and participate in its activities.

For more information, contact office@worlduniversityconsortium.org

Charter & Objectives

Mission
World-class higher education available to everyone, everywhere.

The mission of WUC is to evolve and promote accessible, affordable, quality higher education worldwide based on a human-centered approach that shifts the emphasis to active learning that enhances the capacity of students to think and discover knowledge for themselves, contextualized knowledge within a trans-disciplinary conceptual framework reflecting the complexity and integration of the real world, acquisition of knowledge, skills and values relevant to each individual's personal development and career – an educational system better suited to develop the full potentials of social personality and individuality for productive engagement, social welfare and psychological well-being.

Mission of World University Consortium

Winston Nagan

Objectives

1. **Person-centered:** Promote person-centered approaches that emphasize self-guided learning, critical and original thinking, inspirational forms of instruction, learning to learn, trans-disciplinary contextualized perspectives, learning by teaching and sharing with others, edutainment and experiential learning.

2. **Value-based:** Develop transcultural and culture-specific methods and content reflecting universal human values.

3. **Open Learning Systems:** Develop innovative, open learning systems and more effective models that extend the reach of quality higher education to people of all age groups globally.

4. **Hybrid Systems:** Explore new models of online and hybrid delivery systems designed to facilitate learning through teacher-student and student-student interaction.

5. **Global Forum:** Create a worldwide forum where all the stakeholders can meet, interact and create new networks, partnerships and projects.

6. **Best-practices:** Identify global best practices and develop effective global models and strategies to improve accessibility, affordability, quality, innovation and relevance in higher education appropriate to the needs of the 21st century.

Objectives of World University Consortium

Heitor Gurgulino de Souza

7. **New Metrics:** Enhance the learning process through research, development and application of advanced instruments for measurement and evaluation of educational processes.

Proposed Activities

In fulfillment of its mission and objectives, the Consortium may decide to undertake some or all of the following activities:

Activities of World University Consortium
Garry Jacobs

1. Develop an Internet portal on global higher education to provide information and examples of latest developments and best practices in the field of higher education with emphasis on online and hybrid learning models.

2. Conduct international conferences to promote new ideas and innovative practices to improve learning in the field of higher education.

3. Establish an online World Virtual University (WVU) system in collaboration with partnering organizations to offer new forms of learning, new types of courses, and new methods for interaction, assessment and certification.

4. Develop innovative contextualized foundation courses in various subjects that overcome the limitations of fragmented, specialized disciplines prevalent today and, possibly, to also develop a new trans-disciplinary field to study global challenges and opportunities from new perspectives.

5. Develop innovative types of courses intended to fill in gaps in the present curriculum and address pressing social needs such as leadership, human security, multilateralism, global rule of law, ecology, new economy, intercultural communication and diplomacy, sociology of knowledge, community health and psychology, person-centered relations and interpersonal communications, processes of social change and individuals as agents of social change.

6. Provide a platform for WAAS Fellows and other individuals and organizations to develop and offer courses providing new perspectives on global issues.

7. Create a clearing house where all the stakeholders can post or find all materials and information on education and the protection and promotion of human capital

8. Conduct research on alternative approaches to develop active learning, original thinking, universal values, creativity and individuation in the students.

9. Develop, test and promote multi-lingual learning platforms.

10. Develop criteria for evaluating online courses and establish an effective evaluation service for online courses.

11. Develop and apply research tools and methods in the field of higher education.

12. Provide a platform for retired teachers and other retirees to offer their knowledge and expertise to students through formal courses, counseling and mentoring.

13. Develop courses specifically designed to impart the knowledge and skills needed to promote entrepreneurship, self-employment and full-employment.

14. Provide a platform for experts and experienced professionals in every field to share their knowledge, skills and experience as mentors to students who are yet to enter the workforce.

15. Develop inventories and measures of work-related competencies.

16. Promote learning communities for acquisition and exchange of vocational knowledge, skills and competencies and for testing, certification and marketing of knowledge and vocational skills.

Innovations in Education

Year of the MOOCs

Can online education (OLE) successfully address the need to expand global capacity in higher education? The past 18 months have witnessed an explosion of open, on-line courseware in American higher education, prompting the New York Times to proclaim 2012 the "year of the MOOCs". Founded by Harvard and MIT in December 2011, edX now includes more than 20 partner universities offering 77 courses and more than a million students. Founded by Stanford professor Sebastian Thrun three months later, Udacity is already offering 25 courses to more than 400,000 students. Coursera now includes instructors from 73 universities, more than 440 courses and 4.7 million students in 196 countries. Universities such as UC Berkeley are experimenting with multiple approaches including public MOOCs, on-line for credit and certificate courses, and self-financing professional Master's Degree programs.
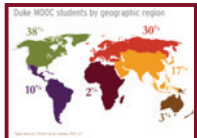
Major Players in the MOOC Universe
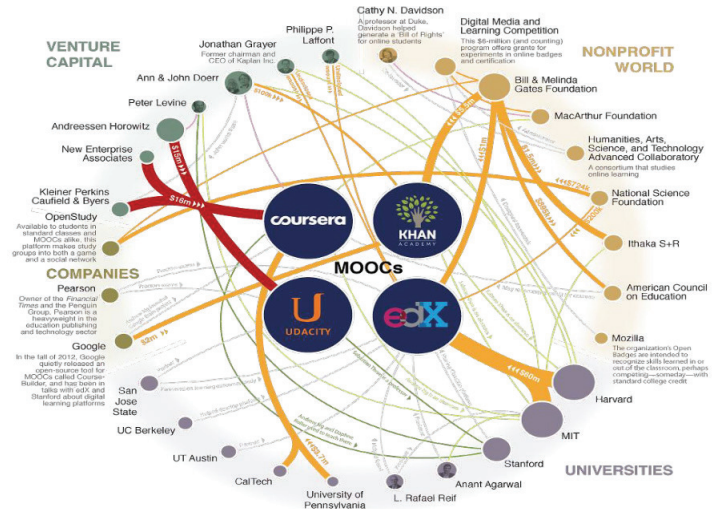
Gary Matkin, Dean of Continuing Education, UC Irvine, related his experience with 250,000 students on Coursera.

Lynne O'Brien, Associate Vice Provost at Duke, explained that of the 577,000 students who participated in Duke MOOCs last year, 62% live overseas.

One result of the explosion of MOOCs has been to break down the traditional boundaries separating institutions of higher learning. Today many institutions are sharing their technologies, course content, students and even faculty with other institutions in the same country as well as with students and institutions in other countries. Education is going global.

The sudden rise of the MOOCs has raised fundamental questions about the essential ingredients for effective education. **Jorge Klor de Alva,** former President of the University of Phoenix, identified essential elements for a global educational model, including scalability, centralized aggregation of curriculum, structured scheduling, quality assurance, accreditation, financial viability and regulatory challenges posed by local and national authorities.

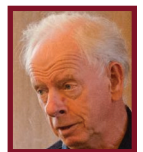MOOCs can play an important role as a complement or supplement to traditional lectures. **Neal King,** President of International Association of University Presidents and President of Sofia University, chaired the discussion on learning from the pioneers. Many universities are experimenting with hybrid, flipped classroom models in which a significant portion of content delivery takes place online outside the classroom, leaving faculty more time to interact directly with students.

Candace Thille reported results from hybrid courses at Carnegie Mellon in which learning time was abridged from 16 weeks to 8 weeks and four classes to two classes a week, with better learning outcomes. Khosrow Ghadiri at San Jose State utilized a hybrid model to raise the pass rate in his electronics course from 65% to 91%. **Armando Fox** and **Philip Stark** of UC Berkeley also reported superior results from OLE.

Tony Bates argued that a strategy combining MOOCs and classroom training can make the best quality course content accessible globally, including places with a shortage of qualified teachers and textbooks. MOOCs in some form and combination with personalized interaction offer considerable promise as a solution for expanding accessibility and overcoming the critical shortage and high cost of faculty.

In future, groups of campuses could be pooling their courses to widen the range available to students everywhere. **Fabian Banga** of Berkeley Community College described how the State of California plans to link its 112 community colleges together so that over 2.4 million students enrolled can have access to thousands of on-line courses offered by the colleges in the system.

Deep Drivers

Roberto Peccei

Roberto Peccei, former Vice Chancellor of Research at UCLA, moderated a session examining the deep drivers compelling change in higher education. Recent developments raise fundamental questions regarding the role of the instructor in higher education. No longer is the instructor adequately described as one who has already acquired knowledge. Instruction implies also the capacity to transmit knowledge effectively to others. This in turn requires a knowledge of the learning process and how to facilitate it. Furthermore, the conversion of live lectures into OLE requires several sets of skills that few faculty members now possess. *"Learning should be anticipatory and participatory."*

Robert Fuller, former President of Oberlin College, recounted how American universities became an instrument for social progress during the 1970s by promoting rapid racial integration: "Today the same challenge is at the global level. What can education do to create meaningful lives for a billion more people? Education is the single best weapon to counter terrorism by promoting the rise of a Global Middle Class ."

Robert Fuller

Changing Role of Faculty

Jeremy Johnson

Recent developments raise fundamental questions regarding the role of the instructor in higher education. No longer is the instructor adequately described as one who has already acquired knowledge. Instruction implies also the capacity to transmit knowledge effectively to others. This in turn requires a knowledge of the learning process and how to facilitate it. **Jeremy Johnson,** Chief Strategy Officer, 2U.com, explained how his firm is partnering with academic institutions to bring their content online and prepare faculty for their new roles.

Conversion of live lectures into OLE requires several sets of skills that few faculty members now possess. The rapid growth of the MOOCs has led to breaking up the task of course development into numerous roles, each performed by a specialist. Faculty provide the content. Learning architects trained in structural design create workflow process models to improve learning speed and retention rates. Content developers reorganize the content into smaller segments of knowledge, typically 10-15 minutes in length, combined with short quizzes and interactive exercises. Trained actors are often utilized to film lecture segments. Udacity is experimenting with the use of mentors available 24 hours to monitor student learning activity, help them acquire skills in self-learning, and promote interaction with other students.

OLE makes it possible to harness the enormous knowledge and teaching capacity of retired faculty to fill the growing gap between the demand and availability of qualified instructors and to utilize their capabilities to teach people anywhere in the world.

One of the challenges is to devise the right mix of incentives to overcome the indifference, fear or reluctance of faculty to embrace new methods. Developing and running online courses also requires a considerable investment of time by faculty who design and administer them. By one estimate it requires up to 400 hours to convert a traditional lecture course into a fully interactive online learning experience. **John Mitchell** estimates that only about 5% of faculty will engage in OLE in 2013 at Stanford, the innovative birthplace of Coursera and Udacity. Low faculty participation rates show we are still in the earliest stage of the OLE revolution.

John Mitchell

A Textbook Case

Paul Corey

The shift from print to electronic media is transforming the textbook from a passive medium for knowledge storage into an active, interactive, dynamic learning platform combining text, images, audio, video, animation, data analysis, self-paced learning and continuous performance assessment into an integrated learning system. **Paul Corey,** President of the Science, Business and Technology Division of Pearson, the world's largest textbook publisher, explained how his firm is reorganizing around emerging technology and global needs. Data analysis of individual learning patterns now makes it possible to develop products that deliver personalized learning experiences to each student. Pearson is also experimenting how to promote virtual peering between students for both motivation and knowledge transfer. Latest e-books include interactive quizzes, weblinks, audio, video, animation and search features. Inkling, another company offering interactive digital textbooks, allows readers to create study groups online, and lets each student see others' notes and highlights in real time, creating running discussions on the go.

Peer to Peer Learning

Dan Clancy

Interactivity among students is an essential component of the learning experience. **Dan Clancy,** Director of Education at Google, expects peer to peer instruction, including small group learning and team assessment, to play a much greater role in the education of the future. As he put it, *"The crux of education is social interaction."* Online education can enable students to connect in ways never done before to students across continents, cultures and age groups. Clancy envisions a model in which any student can directly email the lecturer, have a live chat discussion, or participate in a video conference. Skype, Webex, Google Hangouts are video conferencing platforms that enable the creation of global classrooms.

Some forums allow voice messages in addition to text. Live chat makes online discussion as close to a classroom discussion. Forums keep track of the most popular topics and questions raised, and the MOOC instructor personally responds to them, or takes them up during subsequent live conferences. Questions posted in forums in Coursera courses are answered, on an average, in 22 minutes. Students can be evaluated on the degree of their interactivity. Posts can be voted for, and students whose forum posts receive the most votes are recognized.

Following instructors or peers on Facebook, Twitter and other social networking sites makes learning fun, and more effective. Using video conferencing facility, Harvard law professor **Michael Sandel** offers his famous course on Justice in a global classroom that includes live discussion between students in the US, Brazil, India and China.

Many educators are using Pinterest, the pinboard-style photo-sharing website, to aggregate images, create visual scrapbooks, publish students' work, and engage a group. The networking power of Facebook is already legendary. A study of Facebook usage among educators and students concluded that the participation of a mentor and mentee on a Facebook group page is seen to positively affect their relationship both online and offline. Students and mentors that interacted regularly, posting questions and receiving feedback through the page, were observed as having a stronger relationship than other mentor-mentee pairs.

Janani Harish

Peer review which is part of some online courses can be an education in itself. Online forums make it possible to raise questions and also for students to teach one another as well. Some MOOCs allow students to identify classmates from the same vicinity, and enables physical meetings, much as home schooling students have their study groups and joint activities on a regular basis. Coursera meetups allow Courserans living in the same locality to meet, discuss the course or any other subject. At a meetup in Menlo Park in 2012, the organizers expected a turnout of 100 students, but more than 600 attendees arrived, raising the question whether meetups are the new classrooms. Interaction, meetings and socializing are possible even in online education.

Janani Harish

Accreditation: A Creditable Alternative?

Ralph Wolff

Universal access to information and knowledge codified as courses is leading to what **Ralph Wolff,** WAAS Fellow and former President of the Western Association of Schools and Colleges (USA), terms the 'deinstitutionalization of learning'. He estimates that only about 17% of formal learning in the USA takes place in traditional programs. The rise of the MOOCs is leading to a coursification of learning, in which knowledge in delivered course-wise rather than degree-wise. There is an increasing emphasis on competency-based programs without credit hours, in which students study on their own and then are evaluated in terms of the extent of knowledge acquisition.

Alan Heppenstall & Danny King

Accreditation is one of the greatest challenges faced by the plethora of emerging MOOC platforms. Some universities are offering credit for OLE courses provided students pay tuition fees and appear for physical exams. Start-up Accredible.com is trying to shift the focus from certification of courses taken by students to validation of the actual competencies a person has acquired and can document, regardless of whether they were obtained through traditional classroom instruction, on-line learning, on the job learning or other forms of life experience. Its founders, **Alan Heppenstall** and **Danny King,** envision a decoupling of the educational and certification processes. Alternative means of certification can play an important role in making MOOCs credible.

Joanna Normoyle of UC Davis is using badges to promote a competency-based, learner-driven evaluation system for traditional class-room education as well.

J. Normoyle

Tomorrow's Universities

The content of the regular curriculum will probably be a three-tiered structure, with emphasis on streamlined but bedrock core programs, then lots of variation. The three tiers would cover:

- The foundation (a broad liberal arts and scientific exposure);
- The specialization in a discipline; and
- The trans-disciplinary exposure.

Flipped Instruction

Teaching will be seen on video on student own time and face time will be used for joint problem solving and mentoring

The teaching will teach above all "learning to learn" and an approach to knowledge and research, as specific content is likely to evolve rapidly. A firm and broad foundation in these attitudinal skills, learning skills, inter-personal skills, and socialized behavior, as well as good grounding in one discipline and a broad exposure to the values of the university, will lead to graduation and the job market, but then followed by continuing life-long education, through formal instruction either on-line or in person, or a combination of both.

A Global Program

The nature of global society towards which we are moving at frightening speed opens up new avenues that were barely feasible in the past. Already in Europe an acceptance of common standards and a systematic agreement between countries allows young people in the Erasmus Mundi program to take different semesters in different establishments in different countries as they work towards their degrees. This allows these young people to mix with youth of their age in different countries as they study with teachers of different nationalities and get exposed to the societies and cultures of various European countries. This undoubtedly broadens their perspectives, widens their networks of acquaintances and expands their horizons, regardless of the content of the courses they are formally studying. We have long advocated as part of the Euro-Med schemes that there would be an expansion of this Erasmus program to encourage youths from both sides of the Mediterranean to have the benefit of this multiple exposure to different cultures and different peoples.

Ismail Serageldin

Thinking boldly, there is no reason why the idea of such a program could not be adapted at a global scale. It could be built upon a foundation of MOOCs where membership in a class is no longer confined to those who are physically located near the professor and his or her base of teaching, it could be refined in the sense of having a consortium of participating universities that will agree to have such a program among their offerings, and make that option available to their students who participate in that program at the university, and a number of these students could then be the ones that physically go in different locations at different universities, and continue their studies in an expanded international framework. It takes the American "semester Abroad" concept and the European Erasmus program to a new scale and would open avenues for the brightest among the students of the developing countries to explore new avenues and become the first students who are truly trained and socialized as citizens of the world.
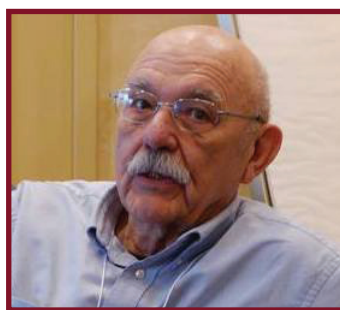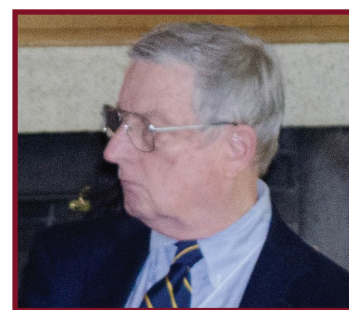
Ismail Serageldin

Morley Lipsett & Ullica Segerstrale

John Cox

Bob Horn

*Ted Trzyna*

Opportunities Unlimited

Startups and established companies are introducing a multitude of products, services and ideas to improve online education. The range of subjects offered by MOOCs and providers of online education leaves the students spoilt for choice. There are search engines such as Moocse that search MOOCs for the required course. Class Central, MOOC List and moocs.co are online course aggregators or directories that list all available courses. Some even allow students to rate the courses they have taken and lecturers they have had, to guide others. Learning Management Systems (LMS) such as Blackboard, Moodle and Desire2Learn allow the creation and management of online courses. Presentation, audio, video and graphics software allow a subject expert to create all the components that make up the course.

One need not be a college lecturer or a PhD holder to create a MOOC course. Companies such as Udemy and Educreations allow anyone to host courses online and share knowledge with the world. Khan Academy, Codementor, Colingo, Magoosh and many others focus on one or a few subjects exclusively. TED Talks educate in an unconventional, inspiring way.

Knewton's Vice President **Brian Fitzgerald** explained how personal learning profiles can be used to store each student's concept-level strengths, weaknesses, background, and preferences, which can be carried from course to course, school to school, to make each learning experience more effective and tailored to individual needs.

Brian Fitzgerald

Personal Learning Profile
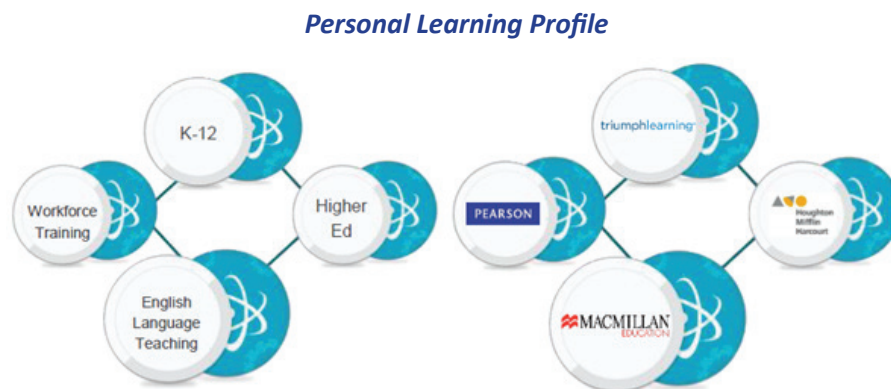
Major players such as Apple, Samsung, Nokia and Sony create devices that cater to the educational needs of students. Others like Datawind come up with low cost devices that aim to make digital education affordable to all.

Mark Fink, Vice Provost, UNLV, chaired the session exploring a plethora of new tools that are available for every conceivable aspect of learning – for event scheduling, translation, flashcard creation, mind mapping, document sharing, digital storytelling, screencasting, note taking, blogging so that the plethora of information does not overwhelm the student. Organizing software such as Zotero allow students to categorize data, ebooks, websites, videos, notes, and synchronize all this online with other users. Kno Inc. provides a personal study dashboard that helps students track their learning engagement for each ebook they use. Wordle, a tool for generating customized "word clouds" from text, can be used to make text more visually appealing, and put to uses that are limited only by our imagination. Biometric devices for identity verification aim to minimize fraud. Hardware, software and

Mark Fink

strategies that seek to prevent malpractice during the course and evaluation, and different revenue models that will make open courses sustainable are mooted.

Lloyd Etheredge presented a proposal to create a world digital library assessable without cost to students throughout the world. He called for a Global Virtual Library Agreement that will allow students in the new World University system to have online access to the books in the main libraries of Stanford, Berkeley, and other institutions of higher learning without charge or for a negotiated fee equal to, or less than, $5/year.

Lloyd Etheredge

Collaborations are the rule of the day, with tech giants and startups, government and voluntary organizations, universities and publishing houses coming together to educate. Google and edX are collaborating on a new online learning platform, MOOC.org, which they aim to make the YouTube for MOOCs. Udacity, along with other online education providers and tech companies in Silicon Valley, has launched *The Open Education Alliance,* which is an experiment in open education.

Janani Harish

Value-based Education

E. Constantinescu

Values matter. Extending the reach of education to a wider audience is extremely important. But the kind of picture of human and social possibilities education conveys is key to building a more equitable and sustainable future. In his address on "Higher Education – a Basis for Progress and Democracy in the Globalized World of the 21st Century," **Emil Constantinescu,** former President of Romania and Rector University of Bucharest, emphasized the importance of examining the values communicated through education.

Aftab Omer, President of Meridian University and former President of the Council for Humanistic and Transpersonal Psychologies, argued that education should focus on fostering the emergence of human capacities as well as tapping the creative potentials of conflict, diversity, and complexity.

Aftab Omer
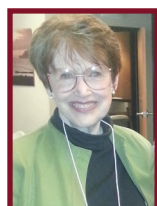
Riane Eisler

What kind of educational content will help achieve these goals? **Riane Eisler,** President, Center for Partnership Studies, Monterey, explained that to meet our global challenges education must include new knowledge, especially findings from neuroscience, showing that, contrary to popular theories, evolution actually equips us for mutuality and caring more than for domination and cruelty. As Einstein noted, we cannot solve problems with the same thinking that created them. There is an urgent need for new perspectives. For example, it is critically important to recognize that the socially constructed roles allotted to men and women determine whether a society is generally more peaceful and equitable, or alternately, more violent and inequitable. The World Economic Forum's Gender Gap reports show that the status of women is one of the best predictors of a society's general quality of life and economic success.

Dale Stephens, Founder and CEO of Uncollege.org, insisted that education needs to impart life values that equip youth to work harmoniously with others, handle real-world problems, think for themselves and evolve innovative approaches to addressing social needs. His firm offers students real-life experience in a variety of learning environments as a complement to the traditional classroom education.

Dale Stephens

The incorporation and development of materials for global education that help students envision and create a better world must be a priority. WAAS can play an important role in this essential enterprise.

The right to education and equality of access are core value stressed by **Roseann O'Reilly Runte,** President and Vice-Chancellor of Carleton University, Canada, in her video message to the conference. Knowledge is power to transform life. "Today we are on the verge of a revolution based on Big Data that has the potential to organize and make to people everywhere all the information in the world."

Roseann Runte

WAAS-WUC Foundation Courses

We are pleased to announce that WAAS is now a member of Inter-University Centre Dubrovnik, an independent international institution for advanced studies structured as a consortium of 170 member universities worldwide under the direction of WAAS Fellows **Sigmund Grønmo** (Chair of the Council), **Ivo Šlaus** (Vice Chair) and **Kruno Pisk** (Director General). IUC provides a platform for inter-university collaboration to conduct short post-graduate courses offered to students from all IUC member institutions.

The Academy plans to develop and conduct original transdisciplinary foundation courses at IUC in partnership with other member institutions in fields such as economic theory and human centered development, individuality and leadership, global rule of law and international security, network and complexity sciences. WAAS intends to videotape these courses so they can be converted and hosted online and made accessible globally.

Fellows interested in developing short courses for presentation to an international cross-section of students are invited to submit proposals for consideration to office@worlduniversityconsortium.org.

UCB Conference

New Paradigm in Human Development

Following on recent WAAS conferences at the United Nations in Geneva, the Library of Alexandria and the International Centre for Theoretical Physics in Trieste, WAAS conducted two intensive roundtables in Washington DC and Ottawa during September 2013 to explore possible elements and processes that could lead to emergence of a radically new global paradigm of human development.

The persistence of multiple crises at the international level compels us to look beyond incremental, piecemeal solutions by individual nation states. The current socio-economic-political paradigm is destroying our most precious capital – natural, human and social. The current paradigm is non-sustainable. It has to be changed!

Characteristics of the Present Paradigm

Left to Right: Saulo Bahia, Heitor de Souza & Ian Burton

The roundtables identified key characteristics of the present paradigm, including the intellectual premises on which it is based, the social institutions through which it acts, the entrenched values that support its continued existence, and the fundamental flaws that compel its eventual demise.

Left to Right: M. Donald, H. de Souza, A. Cordell & D. Harries

Is this paradigm sustainable?

► **Linearity – Economic Growth without Social Values**

► **Reductionism – Fragmentation of Knowledge**

► **Cartesian Duality – Separation from Nature**

► **Newtonian – Certainty and Predictability**

► **Employment – Labor is a Dispensable, Disposal Resource**

► **Dominance of Private over Public Good**

► **Competitive Security – Negative Concept of Peace**

► **Education – Mass, Mechanistic, Specialized**

► **Governance – Plutocracy masked as Democracy**

► **Dominant Values – Power, Efficiency, Conformity**

Recent Paradigm Changes

A clear understanding of the past and present constitutes essential foundations for knowledge of the future. Therefore, the roundtables gave considerable attention to radical social changes that have occurred in the past. The analysis included an investigation of the forces that compelled these transitions and the circumstances that precipitated them. These turning points show that radical changes can and do occur, often suddenly and with surprising swiftness.

INTELLECTUAL	POLITICAL	TECHNOLOGICAL
Biological Evolution	Russian Revolution	Electrification
Relativity & Uncertainty	End of Colonialism	Automobile & Mass Transit
Psychology of the Unconscious	Human & Civil Rights	ICT
Systems Theory and Complexity	End of the Cold War	Biotechnology

ECONOMIC	SOCIAL	
Industrial Revolution	New Deal – Welfare State	**WHAT IS NEXT?**
Keynesianism	Rise of Global Civil Society	
Globalization	Revolution of Rising Expectations	
Neoliberalism	Social Networks – Facebook	

Deep Drivers

Radical change can only be effected by irresistible forces of social evolution that will not be denied. Therefore, the Academy also seeks to identify the deep drivers that are active today beneath the surface emanating weak signals of more powerful tumultuous future events. These drivers include intellectual changes such as the growing understanding of the role of complexity and uncertainty; technological forces revolutionizing communications, education and the media; the persistent force exerted by the claim of human rights and social justice; the forces of democratization; demographic forces that are shifting the epicenter of global society; rising levels of unemployment in the West combined with rising levels of prosperity in the developing world combined with the rising expectations of the emerging global Middle Class and the frustrated expectations of those that have been left behind; and ecological warning signs that refuse to disappear and will not be ignored.

The Academy's endeavor to formulate a new paradigm draws substantially on recent WAAS programing on individuality, limits to rationality, employment, new economic theory, international security, global rule of law and human capital which coalesce in the realization of the need and outlines a new human-centered social, economic, political paradigm designed to enhance human and social capital and preserve the richness and diversity of our natural capital.

Jonathan Granoff & Saša Popović

Bob Berg

Michael Marien

Momir Djurovic

Alternative Pathways

The required paradigmatic change will have to be one of the most dramatic in the history of humankind, comparable or even more profound than the agricultural, commercial, democratic, and industrial revolutions of the past.

The creative exercise to envision alternative pathways for human development involves an examination of new concepts such as a more comprehensive notion of human security; of financial and economic institutions rededicated to their original purpose of promoting human welfare rather than fostering rising levels of insecurity, inequality and unsustainable exploitation of the natural environment; of political institutions of global governance responding to and reflecting the collective will of humanity as a whole; and of social institutions capable of delivering quality education and health care to all people everywhere.

The Academy's effort is far from complete. But early explorations generate confidence that viable solutions do exist to the pressing problems confronting humanity today, provided we have the courage to ask challenging questions and the willingness to entertain new approaches. Envisioning a new paradigm is an act of creative imagination. Creativity is required to define, develop and imagination is required to formulate the new paradigm and to formulate effective strategies for realizing it in practice.

Our endeavor is based on the premise, indeed the deep conviction, that the human being is the source of unlimited creative potential and that the present paradigm falls far short of fully developing the potential of its members. Solutions exist because unutilized human potential exists in abundance waiting to be developed and released. There must be and is a better way. History compels us to seek to find it. Humanity's remarkable achievements in the past give us confidence that we are capable of fashioning a better future.

This endeavor to define, develop and formulate a new paradigm demands, on one side, research, education and creativity and, on the other side, an integrated activity by a network of committed global organizations. Therefore, parallel to its intellectual effort, the Academy is seeking to

1. **Ban Speculation redirecting investment to real economy and environment**

2. **Human-centered, value-based Economic Theory to replace Newtonian mechanistic concepts**

3. **Cheap Energy Program to improve efficiency & develop renewables**

4. **World University to support universal right to education**

5. **Global Employment Program based on universal right to work**

6. **Regulate Democracy to reduce influence of money in politics**

7. **Abolish Nuclear and other Weapons of Mass Destruction**

8. **Democratize the UN system**

9. **Shift from competitive, military-based security to comprehensive, cooperative human security**

10. **Shift from narrow national sovereignty to global human sovereignty**

11. **Focus on fullest development of human capabilities, creativity and individuality**

12. **Knowledge founded on the complexity, integrality and consciousness of living beings and social systems.**

establish an umbrella group in which several global organizations can work together to envision and promote a new and better paradigm for all humanity. Plans are underway for a major international conference in Central Asia in late 2014 bringing together perceptive thinkers from different organizations to join this initiative.
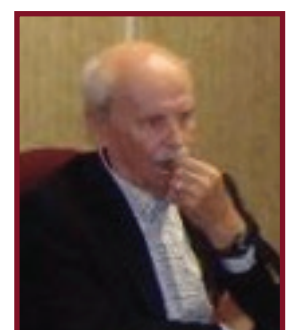
Garry Jacobs & Ivo Šlaus

Vivian Derryck & Ljudmila Popovich
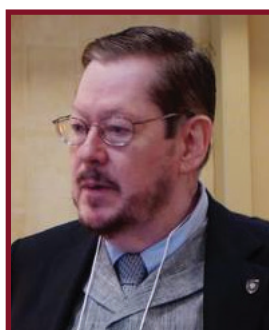
Carl Lindgren

Zbigniew Bochniarz

Bohdan Hawrylyshyn

Washington & Ottawa Roundtable

The World Academy continues to expand its network of regional centers with the establishment of a new office in Bucharest, Romania.

Bucharest: WAAS has entered into agreement with the *Romanian Ministry of Education* to establish a center of the World Academy in Bucharest under the leadership of **Emil Constantinescu,** Member of the WAAS Board of Trustees and former President of Romania and Rector of the University of Bucharest. The Center will promote the activities of the Academy within Romania and in collaboration with other institutions in Europe and the Mediterranean.

Podgorica: At the invitation of the *Montenegrin Academy of Sciences and Arts,* WAAS established the Podgorica Centre in June 2012 under the leadership of **Momir Djurovic,** President of MASA and Member of the WAAS Board of Trustees, when we jointly conducted a major conference and general assembly. The next conference in the series, *Transition to New Society,* focusing on issues related to the New Paradigm, will be held in Podgorica on 21-22 March, 2014.

Pondicherry: *The Mother's Service Society,* a social science research institute based in Pondicherry, India, has officially served as the Academy's administrative office and publishing center for *Cadmus, Eruditio* and WAAS newsletters since November 2011, under the direction of **Garry Jacobs,** CEO of WAAS and Vice President of MSS and **Ashok Natarajan,** WAAS Fellow and Secretary of MSS. In addition to research jointly conducted on new economic theory, employment, individuality, and related subjects, MSS has established a research team under Associate Fellow **Janani Harish** to support the activities of the World University Consortium on global higher education. MSS has also been a major donor for *Cadmus* and recent WAAS conferences.

Trieste: Since 2010 *The Risk Institute* has been collaborating with the South East European Division of WAAS and the Mother's Service Society to publish *Cadmus Journal.* In March 2013 Trieste became an official regional center of the Academy when it organized a major international conference, the Trieste Forum, on *Impact of Science and Technology on Society and Economy.* The Center is headed by **Orio Giarini,** WAAS Trustee and Director of the Risk Institute, and **Domenico Romeo,** WAAS Fellow and former Rector of the University of Trieste. The Institute was the major source of funds for the Forum and provides ongoing financial support for publication of Cadmus.

Zagreb: Collaborating since 2012 at the *Dag Hammarskjold University College,* the Zagreb Centre has been a focal point for organizing WAAS conferences in the region, including *Actions to Enhance Global Security,* a NATO funded symposium conducted in collaboration with the *European Leadership Network* at Zagreb on May 3-4, 2013 under the direction of **Ivo Šlaus,** President of WAAS and Dean of DHUC.

WAAS Partnerships

The World Academy is a network of over 700 distinguished intellectuals, scientists, artists and statesmen from over 80 countries committed to addressing the pressing global challenges confronting humanity. Each of our Fellows has an extensive network of professional relationships linked to other leading individuals and organizations around the world. Many of our Fellows are present or past leaders of nations, international organizations, universities and non-governmental agencies. Thus, WAAS is a network of networks. Our principal strength and power of accomplishment lie in the individual and institutional network of relationships of which we form a part. Partnering with an expanding circle of like-minded organizations to pursue shared values and common goals is a core strategy of the Academy. Below we report recent activities of our growing network of relationships in alphabetical order.

Club of Rome

In continuation of our close collaboration, about 20 WAAS Fellows participated in the Club's Annual Conference "Governance of the Commons" in Ottawa on September 19-21, 2013, many as speakers, panelists, session chairs on panels related to new economy and global rule of law.

Council One

Council One is an international organization dedicated to making a valuable and lasting contribution to the emerging new world. WAAS partnered with Council One to organize the World Academy Forum on Global Higher Education at UC Berkeley on October 2-3, 2013 and is planning to conduct a larger WAF event on the same theme.

European Leadership Network

ELN is a high level pan-European network of politicians and diplomats working for the complete elimination of nuclear weapons. In 2012-13, WAAS collaborated with ELN to conduct two NATO-sponsored conferences on international security: Nuclear Threats & Security at IUC in Dubrovnik on September 14-17, 2012 and Actions to Enhance Global Security at DHUC in Zagreb on May 3-4, 2013. ELN is chaired by **Lord Des Browne,** a Fellow of the Academy.

Inter-Academy Medical Panel

In October 2013 WAAS became a member of IAMP, a network of the world's medical academies and medical sections of academies of science and engineering, which is committed to improving health world-wide. The goals of the IAMP are to strengthen the capacity of academies to provide evidence based advice to governments on health and science policy; to support the creation of new academies; to support the creation of projects by member academies to strengthen research and higher education in their countries; and to issue consensus statements on matters of importance to global health. The IAMP Secretariat is hosted by TWAS, in Trieste, Italy.

Inter-University Centre Dubrovnik

WAAS is now a member of IUC, an independent international institution for advanced studies structured as a consortium of about 170 member universities worldwide with a mission to organise and promote contact and exchange through projects, study programmes, courses and conferences across a wide range of scientific concerns. WAAS plans to conduct foundation courses at IUC in partnership with other member institutions to evolve new course content on subjects such as new economic theory, human centered development, individuality and leadership, global rule of law and international security. Fellows interested in developing short courses for presentation to an international cross-section of students are invited to submit proposals to WAAS.

Institute for Cultural Diplomacy

Headquarters in Berlin, ICD's goal is to promote global peace and stability by strengthening and supporting intercultural relations at all levels. Over the past decade the ICD has grown to become one of Europe's largest independent cultural exchange organizations, hosting programs that facilitate interaction among individuals of all cultural, academic, and professional backgrounds, from across the world. In September 2013, WAAS and IUC signed an MOU establishing a partnership for cooperation in promoting conferences, research projects as well as a specific proposal to develop a PhD program in cultural diplomacy involving ICD, University of Bucharest, University of Cluj, University of Sienna, and the Dag Hammarskjöld University College of International Relations and Diplomacy. WAAS Trustee, **Emil Constantinescu,** is President of the ICD Academy for Cultural Diplomacy.

Library of Alexandria

Bibliotheca Alexandrina hosted a WAAS roundtable on Search for an Alternative Paradigm to address the Multi-dimensional Global Crisis at the Library in June 2013 preparatory to a major international conference to expand WAAS activities in the Mediterranean region. BA is also partnering with WAAS on the World University Consortium project. The Director of the library is **Ismail Serageldin,** a Fellow of WAAS.

Nizami Ganjavi International Centre

NGIC is a cultural, non-political organization based in Baku, Azerbaijan, dedicated to the memory of the Azerbaijani national poet Nizami Ganjavi, the study and dissemination of his works, the promotion of the principles embodied in his writings, the advancements of culture and creative expression, and the promotion of learning, dialogue and understanding between cultures and peoples. In September 2013, WAAS participated in an NGIC-Club of Madrid preparatory meeting in Baku on Shared Societies and entered into an MOU with NGIC to promote collaboration in matters of a culture of peace, dialogue, tolerance and understanding within the framework of the programs and sources of action of both entities, through joint programs in areas such as education, culture, science, the environment, human rights, public security with a particular focus on intercultural dialogue and action. WAAS Fellow **Ismail Serageldin,** Director of the Library of Alexandria, is Co-Chair of the Board of NGIC. As a result, WAAS has been invited to participate in a major international conference on shared societies being organized by the NGIC in collaboration with Club of Madrid next April in Baku. Discussions with NGIC are also underway to conduct a major WAAS conference on the new paradigm at Baku in late 2014.

United Nations Academic Impact

WAAS is now a member of the UNAI, an association of 1000 colleges and universities in some 120 countries working with the United Nations to promote global priorities, including peace, human rights and sustainable development. The Academy looks to collaborate with UNAI to promote a new paradigm in global higher education.