

Education for Human Security Policy Brief

Volume 5, Issue 2 - August 2023

Janani Ramanathan

Secretary General, WAAS; Senior Research Fellow, The Mother's Service Society

Garry Jacobs

President and CEO, WAAS; President, The Mother's Service Society

Executive Summary

This brief identifies critical issues and corresponding policies for effectively introducing the UN concept of human security into the curriculum of global mainstream higher education. Human Security is a comprehensive framework developed by the United Nations for achieving the 17 UN Sustainable Development Goals. It links them all together into an integrated framework. In order to achieve the goals of Agenda 2030, a dramatic increase is urgently needed in humanity's commitment and the momentum of nation-states.

Human Security is the natural complement to the top-down, objective approach to quantifying human needs embodied in Agenda 2030. Human Security views reality from the personal perspective of each human being and empowers people to act for their own upliftment at the individual, community and national levels. It converts a global perspective into personal messaging that is context-specific, relevant, accessible and intelligible to everyone on our planet.

Widespread introduction of this transdisciplinary perspective into the course content of disciplines in the sciences, arts, humanities and professions can accomplish as much or more than a doubling of global financial investments in the SDGs. Combined with similar approaches by research institutes, businesses, financial institutions and other sectors of civil society, the human security approach has the potential to generate the broad-based global awareness and groundswell of public support needed to promote the fresh thinking, resourceful research, timely investment, technological innovations and organizational initiatives the world needs.

This policy brief is based on ideas generated during the International Conference on Education for Human Security organized by the World Academy of Art and Science (WAAS) and a wide network of partner organizations on March 7-9, 2023. This article is a summary of the insights generated by over 120 experts and 27 panels covering a broad range of academic and professional disciplines. Please see the Acknowledgements at the end of the article and the <u>WAAS website</u> for access to a complete list of partners, speakers and session videos.

The conference was conducted in support of a multi-sectoral, global campaign to promote <u>Human Security for All</u> (HS4A) launched by WAAS in collaboration with the UN Trust Fund

for Human Security (UNTFHS). Taken in concert with parallel initiatives in other sectors, it can generate the energy and momentum needed to significantly accelerate progress on Agenda 2030. The Policy Brief ends with an illustrative list of practical measures that can be adopted by higher education institutions around the world in a short period of time with relatively little impact on cost.

1. Shift to a New Paradigm in Education

The conference sought to generate awareness and to initiate active discussion among educators and universities on the central importance of the Human Security Approach as an integral component of higher education. The 27 sessions focused primarily on the following questions:

- What do youth today need to learn in order to understand and act effectively in their own personal lives and as global citizens to address human security needs in these challenging times?
- How far are youth acquiring that knowledge in higher education today?
- What changes are needed in the content, pedagogy and delivery systems to prepare them to thrive personally and contribute collectively?
- What role can each discipline play in transforming higher education to more effectively promote human security for all?
- How effectively can we utilize education as a conscious catalyst and driver to accelerate global social evolution?

The conference presentations confirm that a fundamental change is needed in our concept of security and the strategies, policies and institutional framework by which we seek to achieve human security. Effective education in all fields and at all levels should include the principles of human security which are essential to the survival and sustainable development of every individual and community and to global society as a whole.

The world needs an education that addresses the current reality in which:

- A smartphone provides instantaneous access to more information than any individual has ever committed to memory.
- Youth need the training to create new jobs through self-employment, entrepreneurship
 and in higher order creative activities that cannot be readily carried out by automation
 and AI.
- Entrepreneurship requires an education which imparts self-reliance, initiative, problem solving capabilities, networking skills and capacity for independent thinking needed to fashion new solutions.
- The values of cooperation, teamwork and harmony are more essential for work in today's networked society than the competitive individualism still fostered by education.

- An integrated understanding of the complex interactions, dependencies and contextual relations between fields of knowledge and fields of their application has become more important than specialized knowledge in increasingly narrow fields.
- The capacity to ask the right questions is of far greater adaptive value than knowing the right answer to a standardized examination question unadjusted to recent developments and specific context.
- Low-cost, global information delivery systems for education are available, including AI driven custom-individualized self-learning and evaluation systems, hybrid pedagogy combining individual knowledge acquisition with facilitated group discussion, etc.
- In an age of globalization, understanding of both universal values and the diversity
 of subjective cultural perspectives as represented through the arts and humanities is
 essential.
- Students need to acquire the rationality needed to distinguish opinions, beliefs, egocentric perspectives, cultural and social biases, and fake news from evidence-based impartial judgement.
- Knowledge of the psychology of individuality as represented in history, biography and literature becomes as important for accomplishment as that of standardized objective processes and statistics.

Education that takes into account these criteria will be our best hope for a better future. When properly designed and administered, it can become an instrument for conscious social evolution.

2. Bridging the Disciplinary Knowledge Divide

The divide between academic disciplines and between education and social needs is most apparent in fields where disciplinary expertise is unable to address the complex, interdependent challenges confronting humanity today. The challenges posed by complex interdependencies are glaringly apparent in macro level issues such as the global pandemic, war in Ukraine, resurgence of competitive nationalism, re-militarization, governance of AI and climate change.

The natural tendency of the human mind is to divide its understanding of reality into so many separate and independent fields of knowledge and to develop each into a specialized field or disciplinary silo. The complex practical interdependencies between fields have spurred academia to emphasize inter-disciplinary and multidisciplinary studies more closely aligned with the reality of modern life. But an enormous gap persists between the compartmentalized, intellectual formulations of disciplinary theories and the actual interdependencies that exist in the real world. For example, apart from being a medical problem, COVID-19 had a severe impact on employment, economy, domestic and international transport, food distribution, education, tourism, manufacturing, industrial supply chains, inflation, the entertainment industry, and countless other apparently independent fields.

The war in Ukraine is impacting energy prices, global food prices and supplies, the mental health of refugees and direct victims of violence, migration of workers, economic growth rates, employment, government budgets, inflation, etc. The impacts of climate change are only beginning to be felt, but it is already apparent that they will exceed those of all the other major threats combined.

"Technology education imparts specialized knowledge required to develop increasingly sophisticated systems, but ignores the social consequences and policy implications of those systems for individuals, society and the world at large."

What could be more important to the future of humanity than the 17 UN Sustainable Development Goals adopted by 193 nations in 2015 to address the most salient and urgent challenges confronting humanity in the 21st century? All these goals are interlinked and interdependent on one another. None can be fully achieved without progress on many or all of the others. Yet education today continues to address them largely as specialized, independent issues studied and taught separately from one another in different fields of specialization to guide policy, decision-makers and implementation agencies.

Academic handling of these complex interdependencies remains limited and inadequate. Prevailing economic theory is largely divorced from employment, social equity, investment theories and sustainability. Investment theory focuses on maximizing returns without reference to social impact or environmental externalities. Business education focuses on maximization of profit rather than maximization of prosperity and wellbeing in society. Technology education imparts specialized knowledge required to develop increasingly sophisticated systems, but ignores the social consequences and policy implications of those systems for individuals, society and the world at large. Arts education focuses on technique and technology, imagination and creativity, but largely ignores the unique role of the arts in projecting the subjective aspirations and values of humanity and harnessing that power for the benefit of global society. Education for human security seeks to reorient each field of study to make primary the capacities and wellbeing of individuals, the welfare of societies and the sustainability of the planet.

The top-down, macro-level global perspective presented by the UN's Agenda 2030 has been a useful guide for researchers and decision-makers on specific policy issues, but it fails to sufficiently stress the complex interdependencies that necessitate a comprehensive, integrated approach. The abstract, quantitative, global approach incorporated in computer modeling makes it appear unintelligible or irrelevant to billions of the earth's citizens. But it has been far less successful in generating awareness and promoting action by organizations and individuals at the local level. It appeals to specialists and leaves the public unmoved. Indeed the majority are unlikely to understand the personal relevance and importance of

more than one or two of the goals. The abstract, macro-level context studied in higher education most often fails to engage the hearts and emotions of the population to spur them to action, even when it is effectively communicated to the mind.

Today we confront a paradox. At a time of unprecedented economic, technological and scientific development, humanity feels less secure and confident of its future and is experiencing equally unprecedented levels of uncertainty, anxiety and "What human security is to the individual, the SDGs are to our collective."

insecurity. Human Security provides a personalized, contextual approach that addresses both the objective causes and the subjective fears of every human being for food, health, economic welfare, human rights, community and individual security.

What could be more relevant to today's youth than the study of the myriad ways to address the full spectrum of human security needs at the individual, community, national and global level? Today every citizen should understand the causes, threats and remedies for addressing global warming. Similarly, undergraduate education should incorporate knowledge from other disciplines essential for understanding and meeting the full range of human security threats.

3. Human Security as a Transdisciplinary Bridge

The challenges the world faces today are interrelated and interdependent, global in nature, and defy solution by piecemeal approaches and sectoral strategies. A transdisciplinary approach to teaching and learning can help transcend narrow disciplinary boundaries in thinking, policies and action. Today more than 1000 disciplines and subdisciplines are offered in universities. Instead of breaking down academic subjects into narrow specializations and teaching silo-based academic knowledge, students need to be exposed to the interdependencies between fields of research and work.

Human Security views each specialized issue within its broader relationship with other major social issues, the economic and political context, and public policy environment. Human Security is a comprehensive umbrella that places the needs and perceptions of individuals and groups at the center and views the full range of perceived threats from the perspective of their impact on people rather than as abstract theoretical constructs and measures.

Disciplines are separated from one another in order to facilitate education of instructors and researchers focused on specific areas, but the real world does not respect or fit into disciplinary boundaries any more than COVID-19 respected national borders or class boundaries.

Every discipline can contribute essential, relevant knowledge to face the challenges of the 21st century, and uncork a future that promises sustainable development and human security for all. Every academic subject can be reoriented to contribute more meaningfully to addressing the unprecedented challenges that humanity faces today. In order to make this happen, human security and sustainable development can be taken as a broad approach that integrates all the various disciplines of education, thereby integrating knowledge with life.

What human security is to the individual, the SDGs are to our collective. Today, we have the knowledge, finance, resources and the aspiration to facilitate human security for all and fulfill the SDGs. Relevant, quality education that takes the human security approach with reference to every subject, its content and pedagogy, is key to making this happen. A fundamental change is needed in our concept of security and the strategies, policies and institutional framework by which we seek to achieve it.

"Effective education cannot ignore the relationship between content and context."

4. Teaching Subjects through One Another

Every subject can be taught in the context of all others; all subjects can be taught in the context of one. Every subject can be taught within a context and the interlinkages between the various subjects can be shown. Topics such as economics, political and social stability, education, human security, human rights, sustainability, public health, crime, corruption, climate science, and such issues that touch every part of human life are best taught through transdisciplinary learning. An education that possesses the depth and insight needed to plumb the rich complexity of life and the world can provide students with inter-sectorial, integrated perspectives essential to meet the challenges of the future.

Theoretical knowledge is framed within defined conceptual systems. But policymaking that applies theoretical knowledge to life always crosses disciplinary boundaries and requires knowledge of interconnected fields. Climate change is not just an issue for meteorologists and environmentalists. Every discipline can contribute to addressing it. Faculty at the California State University at Chico have been urging that climate change issues be taught to students of every discipline since every student both contributes to and is affected by environmental changes. The natural sciences, economic, political, social and engineering sciences, law, medicine, architecture, journalism, literature, cinema and the fine arts can all play a central role in educating the public about each of the human security threats and their solutions.

Effective education cannot ignore the relationship between content and context. It needs to acquire the capacity to anticipate the unexpected consequences arising from the application of abstract knowledge in different social contexts. Instead of knowledge that is mechanistic, reductionistic, and divorced from wider social context, human needs and values, youth need to acquire an understanding of the physical, social, cultural, political, economic and personal contexts in which knowledge is applied. Rapid advances in antibiotics and vaccines were a major cause of the population explosion that began in the 1950s, yet no one at the time realized that food production must be dramatically expanded to feed the rapidly expanding population. And when the Green Revolution was launched in the 1960s to feed the multitude of youth, no one anticipated the environmental impact it would have on soil fertility, water resources and forest cover. Along with teaching the subject, there must be a constant emphasis on establishing contextual relationships—between one subject and the other subjects, between data and the circumstances in which the data was generated, between the lesson and the learners, and between knowledge and life itself.

5. Specific Recommendations

5.1. Business Education

The promotion of ESG measures by the UN is a welcome development, but the theoretical foundations on which they are based are often overlooked. Companies are social institutions. Every social institution has a fundamental role to play in the flourishing of society. Business is no exception. Human security and social welfare are business opportunities. The juxtaposition of social service and business profit is an aberration of neoliberalism. They are not contradictory goals. They are complementary and essential to support one another. History confirms that businesses flourish by serving essential social needs in a manner that is efficient and sustainable. Profit is a derivative and necessary condition for private enterprise to thrive, but it is not its essential purpose.

Business education should emphasize the symbiotic relationship between private profit and social welfare. It should be founded on values that are aligned with the well-being of all stakeholders—employees, customers, the community, the nation and the environment—not just shareholders. Business education needs to emphasize the strategic importance of attuning corporate strategy to changing social needs and emerging social opportunities. A company is a child of society. A company that is aligned with the evolution of society and fosters the human security of its citizens positions itself for growth, profitability and sustainable development.

5.2. Economics and Finance Education

What is true of business education is true of all fields of education in economy and finance. Every sector of society plays an indispensable role and thrives in the measure that it is aligned and in harmony with the others. Partial knowledge is dangerous. No activity can fully serve its basic social purpose unless education includes a study of its relationship with the wider society of which it is a part and its impact on the human security of its members, locally, nationally and globally.

Economy is founded on the social and political stability of society and thrives through activities that reinforce human rights, social justice, human security and the prosperity of all its citizens. Economic education that views economy in isolation from or in competition with these other social pillars leads to aberrations that undermine the strength and stability of the whole of which it is a part. Today's education largely ignores the underlying political and social forces that determine how social power is generated, exercised and distributed. The wider and more equitable the distribution of social power, the more stable, vibrant and sustainable the society.

Economics education should strive for holistic perspectives that harmonize the security of the individual, the stability of society and the sustainability of the environment in which they evolve. It should reconcile the objective dimensions of productivity, efficiency and innovation with the subjective dimensions of political stability, social harmony, psychological security and individual creativity. Business education should foster economic systems and social

organization that place a high priority on the eradication of social problems and creation of social opportunities.

"We could close 20% of the SDGs gap just by achieving internet connectivity and the flow of information that goes through that, and almost another 20% if technology transfer happens across countries."

5.3. Technology Education

The global debate regarding the opportunities and threats posed by rapid advances in AI, nanotechnology, biotechnology and other sciences highlights the fact that technology and society cannot be regarded as separate fields of knowledge. But in practice up until now education in AI and other computer sciences has focused almost exclusively on the technical aspect of the field and given little attention to its economic, political, social and psychological implications. The disruptive impact on political and social stability of fake news disseminated through social media dramatically demonstrates this obvious truth. During the past six months the explosive debate regarding AI has generated confusion and anxiety around the world. As long as the knowledge disseminated through education is partial, it is bound to generate unanticipated side effects and consequences that technology producers, users and policymakers are unprepared and ill-equipped to handle. Technical education must include knowledge of the social and human security context, not merely of technology for its own sake.

This simple and very obvious message resonated deeply with the 120,000 business and technology leaders who attended the 2023 Consumer Electronics Show in Las Vegas, US. For the first time in its 100-year history, the show adopted a theme – Human Security for All. It highlighted the obvious fact that social needs are business opportunities and called on its corporate members to shift their attention from corporate profit to meeting social challenges and opportunities.

5.4. Basic Sciences

When leading scientists such as Oppenheimer and Einstein realized the tremendous social and political consequences of their inventions, they founded institutions such as Pugwash and WAAS to insist on the social responsibility of science. Global scientific cooperation is an important source of new knowledge and a contributor to world peace. The European Organization for Nuclear Research (CERN) in Geneva is one example of the cooperation of scientists from different countries leading to great progress in science as well as improved understanding across different cultures.

2022 was proclaimed the <u>International Year of Basic Sciences for Sustainable Development</u> (IYBSSD 2022) by the 76th session of the United Nations General Assembly.

IYBSSD 2022 recognizes that the applications of basic sciences are vital for increasing societal well-being through improved collaboration toward the SDGs. Such an orientation of research on sustainability is a welcome initiative in which <u>WAAS</u> participated, and is now expanding to include the full spectrum of human security needs. Basic science education to meet real-world needs should start collaborating with other sciences and humanities disciplines to identify and fully understand the unmet social needs and challenges that will emerge in the coming decades.

Today fundamental research in fields such as nanotechnology, AI, and bioscience is spilling over with increasing speed and impact on the societies in which they are created. Yet the social implications of scientific breakthroughs were not apparent until long afterwards. Fundamental research not only must assume responsibility for the unexpected consequences of its discoveries, it should also consciously orient its efforts to address pressing social problems that require resolution, such as the need for advances in hydrogen-based electricity as a possible answer to the dependence on fossil fuels.

5.5. Values-based Education

Knowledge, values and social responsibility go hand in hand. The secularization of education began during the Enlightenment when objective rational science sought to free itself from the limitations imposed by religion. Since then, education has gone from one extreme to another—from insisting on the veracity of religious dogma devoid of scientific evidence to affirming the sole legitimacy of objective observation and data while rejecting the wisdom embodied in subjective values and human emotions. Discarding insights from the arts and humanities in favor of objective data is as great a folly as its opposite. Until we restore the balance between objective observation and subjective perception, our knowledge will be one-sided, incomplete and grossly inadequate to promote human security for all.

Values represent the quintessence of human wisdom for lasting accomplishment in life derived from countless centuries of experience. Values education needs to permeate every academic discipline and every field of social activity. Students of business, science and engineering must learn about the impact of their discipline on individuals, organizations, the economy, the society, the world and the environment. There can be no sustained success in the absence of strong positive values. Education must build a sense of community in every learner. It must bring society much closer to the learning experience of students, and give them the means to maximize their well-being individually and collectively. Symbiosis literacy and ecoliteracy that help youngsters see humanity as a single living whole and learning activities that relate every student to the society around them must become part of education.

5.6. Social Responsibility of Knowledge

Academic knowledge cannot be separated from social responsibility for how that knowledge is used. This should be a basic premise instilled in every student, so we create academics, scientists and professionals who have a strong sense of responsibility for the common good of all humanity, and who become part of a scientific society that is ethically sound. Education will thus become an instrument for ensuring universal human rights, promoting peace and democracy, enhancing development and protecting the environment.

5.7. Arts & Humanities

The Arts and Humanities contain profound and subtle knowledge of life because they penetrate the subjective psychological and social consciousness of individuals and society. Science studies objective external facts within specialized academic disciplines. Reconciling art and science can help transcend the limitations of a purely material life science and discover the science of life.

The following are some of the fields suited for this reconciliation:

- Anthropology is a profound exploration of the evolution of civilizations and is about
 understanding the perspectives on which our views of reality are founded. It allows us
 to move away from looking through our own lens, to recognize the existence of the lens
 itself, and to discover our own tacit and unstated assumptions so as to apprehend the tacit
 and unstated assumptions of others. It equips us with skills that allow us to negotiate
 uncertainty.
- Literature offers unique insight into the process of personal growth, inter-generational change, technological and economic advancement, social development and evolution that govern the advancement of society, civilization and culture. A study of world literature can be a powerful complement to objective analysis of external institutions and events, providing youth with a historical perspective that enables them to perceive the lines of social evolution and prepare for the future.
- Films have the power to inform, educate, and to change society. Films, gaming and social media engage children, and can make education more relevant to life. They are some of the most influential mediums, but they have been relegated to entertainment. Visual storytelling can be a powerful teaching tool. Instead of advising youngsters to stay away from social media, if academia looks at social media simply as a tool, and integrates it with education, it will be able to use social media, Virtual Reality and other innovations to engage youngsters better and make learning effective.

5.8. Potential of Technology Stack

There are over 240 million children out of school in the world, and 60% of college-age youth are not enrolled in tertiary education. The monetary cost of not educating them is enormous. According to the World Bank, limited educational opportunities for girls to complete 12 years of education cost countries between \$15 trillion and \$30 trillion in lost lifetime productivity and earnings. The non-monetary cost of excluding girls from education is incalculable. Leaving anyone behind is no longer a viable path to social progress for humanity. At the same time, accommodating these children in existing educational institutions, or building the necessary new classrooms, schools and universities presents a daunting challenge. Technology is an immensely powerful tool that can bridge this gap. The spread of low-cost smartphones combined with AI learning software now makes it possible to deliver affordable, accessible, quality education to anyone anywhere in the world in any language using ICT.

Technology provides an enormous opportunity to ensure human security for all. All the educational, economic and social opportunities available to a small, elite group today can be made available to all—even the world's poorest and most remote groups with no access to the internet. This is possible through a stack of technologies that can transform learning and meet the SDGs:

- A fully functioning internet connection and last mile connectivity open up possibilities
 for a child to connect to knowledge across the whole world and to get that served in
 every form of media.
- A closed-end Hub connects the most remote places.
- The application of video-based learning materials and other edtech solutions developed in the private sector can make education far more engaging and effective.
- Virtual Reality and related technologies can provide immersive education, including technical and vocational training, to anyone anywhere in the world.
- The potential for the development and application of Artificial Intelligence and generative learning technologies is unlimited.

We could <u>close 20% of the SDGs gap</u> just by achieving internet connectivity and the flow of information that goes through that, and almost another 20% if technology transfer happens across countries.¹

5.9. Liberate Certification from Knowledge Delivery

Education directly and powerfully impacts all dimensions of human security, e.g. food and nutrition, health, economy and employment, exercise of human rights, community and individual development, and the capacity to harness technological advances for a better life and world. The commitment of nation states to universal education is one of the greatest contributions to human rights, human security and social welfare.

But achievement of that commitment to universal, affordable access to quality education lags far behind the goals. The time is past when universal education needed to depend solely on a mass system of education. Universal access to Open Educational Resources and knowledge from non-traditional sources are deinstitutionalizing learning. Knowledge generation and dissemination need no longer be confined to the formal system of higher education. Effective, lower-cost, innovative delivery systems already exist.

The primary obstacle to rapid adoption of alternative systems is the near monopoly of traditional forms of higher education on certification and credentialing systems. The separation of knowledge delivery from certification will enable students to acquire knowledge customized to their own interests and aspirations from a wide range of sources—formal and informal, self-taught and instructed, public and private, professional instructors and retired experts of all ages, local or global—and obtain certification of the knowledge they acquire from independent institutions authorized for the purpose. This will foster rapid innovation in pedagogy, learning systems, and delivery systems and unleash a torrent of creative

educational entrepreneurship. It will also greatly stimulate life-long learning processes which are so essential for the workforce in this age of very rapid technological innovation.

"The world needs a transdisciplinary education that possesses the insight needed to plumb the rich complexity of life, and provides students with inter-sectorial, integrated perspectives essential to face the future."

A global accrediting and evaluating organization, similar to that which certifies quality standards in business can be established to develop, license and monitor standards for assessment and certification, including micro-credentials, career certificates, and nanodegree programs.

5.10. Rational, Independent and Creative Thinking

The human mind is the chief instrument for all forms of higher education. Yet conventional education teaches very little about the fundamental nature of human mentation, the factors that influence it, and the blind spots, biases, inherent errors and weaknesses that impair and misguide it. Mind is humanity's most developed instrument for seeking knowledge. So it is essential that students starting at an early stage are taught to use it well. All higher education must include a course on the nature and limitations of mental ways of knowing and the means available for consciously developing our mental faculties to overcome their limitations and function more effectively. The historical record produced by great thinkers shows the central role played by intuitive thought processes in great scientific discoveries and creative work. Yet ironically, science which has benefitted so much from intuitive modes of thinking gives little or no attention to the study of ways to acquire and develop them. The World Academy of Art and Science has created such a course on Mind, Thinking and Creativity, with the aim of broadening the range and enhancing the quality of our thinking, thereby using the human mind more effectively and creatively to see greater possibilities and actualize them.

6. Conclusions

Education is the most powerful institution so far invented to support rapid conscious social evolution. It abridges the time required for individual and social progress by preserving, multiplying and transmitting the cumulative experience of humanity over millennia. It passes on to youth the essence of the accumulated knowledge of countless past generations in an organized, abridged form so that future generations can begin with all the capacities acquired by those before them. It has helped us understand nature, conquer space and time, extend human longevity and improve human lives immeasurably.

However, as it is widely practised around the world today, our system of education still largely functions according to a model of pedagogy that is centuries old. It largely relies on a delivery system that predates the telegraph, telephone, radio, television, computer, internet,

smart phone and generative AI. It emphasizes memorization of facts today when a handheld electronic device such as a smartphone provides instantaneous access to any information. It fosters obedience to authority at a time when the world needs individuals with initiative, problem solving capabilities and capacity for independent thinking. It emphasizes getting the right answers to questions when developing the capacity to ask the necessary questions is of greater value. It prepares youth for salaried jobs in positions threatened by the introduction of increasingly sophisticated technologies, rather than imparting the capacity to create new jobs through entrepreneurship in higher order activities that cannot be readily carried out by automation and AI. It fosters a competitive mode of learning in today's highly networked society where the capacity for cooperation and teamwork are the principal values required at work. It fosters specialized, compartmentalized knowledge within narrow disciplinary fields when human activities in all fields involve complex interactions and dependencies between virtually all dimensions and fields of activity.

The world today presents seemingly unsolvable challenges. Food shortages, pandemics, job insecurity, homelessness, persistent poverty, deprivation of freedom and human rights, rising levels of inequality, social unrest, war and, most serious of all, climate change pose threats around the world. Ironically, at the very time when technology and economic power are reaching unprecedented heights, the prevailing sense of insecurity among people around the world seems only to increase.

At the same time, these challenges are intricately intertwined with unprecedented opportunities. The remarkable technological advances in industry that fueled a 12-fold growth in real per capita income in the 19th and 20th centuries have led to severe depletion of water and other scarce resources, pollution of the soil, water, and air, and countless other unanticipated untoward consequences. So today, the latest technological advances in AI which multiply human capacities also threaten to displace hundreds of millions of workers and create social disparities, generating public discontent, political instability and conflict. While globalization opens up vast economic opportunities, it also increases the vulnerability and dependence of less developed regions.

These challenges and opportunities are all interrelated, interdependent, global in nature, transcend disciplinary boundaries. They defy solution by piecemeal approaches and sectoral strategies framed within the context of the prevailing values, concepts and institutions that presently dominate both the knowledge purveyed through education and the policies applied by governments. The true source of these crises lies in the ideas and values on which modern society is based, and they can only be permanently solved by radical changes in education that enable us to understand and address the crises from a deeper and wider perspective.

Education is one of our greatest hopes for the future. It can be a powerful instrument for conscious social evolution. Encumbered by outdated ideas, outmoded practices and self-preservative interests that resist change, it can be an obstacle to social progress. We cannot solve the unprecedented and multidimensional global challenges that we face today without fundamental changes in content, pedagogy and delivery systems around the world. To remain relevant as a guide and catalyst, education has to learn to respond, adapt and evolve far more

rapidly than it has so far to keep pace with the accelerated pace of social change and the ever more rapid technological and scientific progress.

The world needs a transdisciplinary education that possesses the insight needed to plumb the rich complexity of life, and provides students with inter-sectorial, integrated perspectives essential to face the future. Such a new paradigm in education is capable of more fully and effectively developing the latent capacities of our youth, and can radically abridge the time required for humanity to address critical issues related to economy, governance, ecology and lifestyle. It can foster in youth the capabilities of openness, adaptability, independent thinking, creativity, innovation, leadership and individuality so desperately needed to enlighten our economic, political, intellectual and cultural behavior. Education can thus become an instrument for promoting human security for all.

Acknowledgements

The organizations that collaborated with WAAS in designing the various sessions of the Conference were: Black Sea Universities Network, UNESCO BRIDGES, Force for Good, LSE IDEAS, National University of Political Studies and Public Administration, SDSN Europe, The International Anti-Corruption Academy, The Jena Declaration, The Julie Ann Wrigley Global Futures Laboratory at Arizona State University, and World University Consortium.

The keynote speakers in the Inaugural plenary session were: Federico Mayor, Director General, UNESCO (1987-1999); Garry Jacobs, President & CEO, WAAS; Irina Bokova, Director General, UNESCO (2009-2017); Kehkashan Basu, Founder-President, Green Hope Foundation; Ketan Patel, Chair, Force for Good; Olivia Bina, Principal Researcher and Deputy Director, University of Lisbon.

The <u>history</u> of the WAAS Future Education Conference Series, the <u>conference agenda</u>, list of <u>partner organizations</u>, the complete list of <u>speakers</u>, and the <u>recordings</u> of all the sessions can be found on the WAAS website.

Authors' Contact Information

Janani Ramanathan – Email: harish.janani@gmail.com

Garry Jacobs – Email: garryjacobs@gmail.com

Notes

 Technology for a Secure, Sustainable and Superior Future: Technology as a Force for Good (London: Force for Good, 2023) https://www.forcegood.org/report-2023