unesco

International Institute for Higher Education in Latin America and the Caribbean

Thinking Higher and Beyond

Perspectives on the Futures of Higher Education to 2050

May 25, 2021

Published in 2021 by the United Nations Educational, Scientific and Cultural Organization, 7, place de Fontenoy, 75352 Paris 07 SP, France and UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC)

Copyright deposit: DC2021000616
ISBN 978-980-7175-57-9

Report compiled by Emma Sabzalieva, Eglis Chacón, Bosen Lily Liu, Diana Morales, Takudzwa Mutize, Huong Nguyen, Jaime Roser Chinchilla.

IESALC wishes to acknowledge the valuable feedback and input from the following colleagues: Dana Abdrasheva, Leanne Davey, Keri Facer, Keith Holmes, Harold Mera, José Antonio Quinteiro, Daniele Vieira.

Contents

Glossary

This report uses the UNESCO standard definitions of key concepts in higher education as developed for the Global Convention on the Recognition of Qualifications concerning Higher Education[1]:

Formal learning: learning derived from activities within a structured learning setting, leading to a formal qualification, and provided by an education institution recognized by a State Party's competent authorities and authorized thereby to deliver such learning activities.

Informal learning: learning which occurs outside the formal education system and which results from daily life activities related to work, family, local community, or leisure.

Higher education: all types of study programmes or sets of courses of study at the post-secondary level which are recognized by the competent authorities of a State Party, or of a constituent unit thereof, as belonging to its higher education system.

Higher education institution (HEI): an establishment providing higher education and recognized by a competent authority of a State Party, or of a constituent unit thereof, as belonging to its higher education system.

Non-formal learning: learning achieved within an education or training framework which places an emphasis on working life and which does not belong to the formal education system.

Qualification:

(a) **Higher education qualification**: any degree, diploma, certificate, or award issued by a competent authority and attesting the successful completion of a higher education programme or the validation of prior learning, where applicable;

(b) **Qualification giving access to higher education**: any degree, diploma, certificate, or award issued by a competent authority and attesting the successful completion of an education programme or the validation of prior learning, where applicable, and giving the holder of the qualification the right to be considered for admission to higher education.

[1] http://portal.unesco.org/en/ev.php-URL_ID=49557&URL_DO=DO_TOPIC&URL_SECTION=201.html

Region: any one of the areas identified in accordance with the UNESCO definition of regions with a view to the execution by the Organization of regional activities, namely, Africa, Arab States, Asia and the Pacific, Europe and North America, and Latin America and the Caribbean.

Foreword

Upon realizing that the International Institute for Higher Education (IESALC) could contribute to the UNESCO flagship initiative on the futures of learning from the perspective of the higher education sector, I thought that it would be useful to start with a theoretical framework. A forecast of this nature could benefit from four alternative approaches. The first is predictive, based on empirical social sciences. The second is interpretive, based not on forecasting the future, but on understanding the competing images of the future. The third is critical, derived from poststructural thought and focusing on the question of who benefits from the realization of certain futures. The fourth approach is participatory learning/research action. This approach is far more democratic and focuses on stakeholders developing their own future, based on their assumptions of the future and what is critical to them. I think this approach is the most suitable for this exercise on the futures of higher education.

Many policy researchers and analysts, including some among those at IESALC, would prefer a research on futures that is more short-term, immediately beneficial to the higher education sector, and framed within the language of UNESCO. However, by and large, this exercise is less about predicting the futures of higher education than with attempting to envision novel ways of designing, providing, and improving higher education for all.

At the Institute we are concerned not only with forecasting the futures, interpreting the futures, and critiquing the futures of higher education, but also with creating both potential and real futures of higher education – hopefully all positive.

I would like to express our gratitude to all the international experts who participated in this exercise, and to the contributions of our own committed team of analysts at IESALC who have all helped to create alternative futures by tackling the problematic involving basic assumptions on higher education and its contribution to the future. By questioning the futures, emerging issues, analyses, and scenarios, our intention is to move away from the present and create new potential for better futures of higher education.

Francesc Pedró

Director

UNESCO International Institute for Higher Education in Latin America and the Caribbean

The Futures of Higher Education project

This report, following from expert consultations, presents findings from the first phase of a multi-phased project on the Futures of Higher Education undertaken by UNESCO's International Institute for Higher Education (IESALC) during 2021.[2] The project is being undertaken within the framework of UNESCO's Futures of Education flagship initiative, which aims to "rethink education and shape the future".[3] Launched in September 2019, the Futures of Education initiative has so far engaged around a million people in global consultations, informing the work of the International Commission on the Futures of Education and its major report to be published in November 2021.

Setting higher education in the broader forward-looking debates and reflections on education, the IESALC Futures of Higher Education project also learns from and continues to develop the ideas and thinking represented in the many significant and ongoing contributions to higher education made by UNESCO since its foundation. The Futures of Higher Education project aims to stimulate creative and imaginative thinking and ideas about the futures of higher education from global perspectives, nurturing discussions around the role of higher education. The Futures of Higher Education project is guided by two open questions:

How would you like higher education to be in 2050?

How could higher education contribute to better futures for all in 2050?

The project is guided by how higher education has been shaped up until now, revisiting what in the recent past has already been proposed as desirable or plausible futures for higher education, but seeking to find ways to remove the constraints this may place on future visioning. This is particularly important in relation to notions of higher education that have become dominant, but which do not reflect the plurality of knowledge traditions that exist.

For each phase of the Futures of Higher Education project, IESALC is engaging with a range of stakeholders to innovatively generate new perspectives on the futures of higher education. The currently planned phases are: (1) Expert consultations (current report); (2) Public consultation (a short survey available in English, French and Spanish for members of the

[2] https://www.iesalc.unesco.org/en/futures-of-higher-education/
[3] https://en.unesco.org/futuresofeducation/

public); (3) Student focus groups (organized in the context of the Futures of Education initiative, a series of focus groups with students and on higher education); (4) Youth focus groups (hearing from young people in all world regions about their ideas on higher education); (5) Technology and sustainable futures (working with technology companies and innovators to understand how technology in higher education can be harnessed for the global common good), (6) Policy recommendations (generated from panel discussions with policymakers in all regions); and (7) Literature review (an extensive multilingual literature review of works published in the last decade relating to the futures of higher education).

This report synthesises the responses of higher education experts to the project's two guiding questions. The experts have all been deeply engaged with higher education issues across multiple higher education contexts and their viewpoints form a critical foundation to stimulate further thinking on the futures of higher education. Findings from other phases of the Futures of Higher Education project that bring in the voices of others with a stake in higher education will be reported later in 2021 and 2022. A final project report will bring together the findings from all phases.

Expert consultations

In this phase of the project, IESALC consulted with 25 higher education experts based around the world with expertise in all UNESCO regions and who have extensive experience in teaching, researching and/or enacting higher education. Close attention was paid to ensuring gender and regional balance and to including experts whose expertise in higher education incorporates knowledge traditions beyond formal learning structures.

During February and March 2021, each expert produced a short concept note summarizing their ideas in response to the project's two guiding questions. These notes were circulated among all the experts and have been published on the IESALC website in English, French, and Spanish where they can be freely consulted.[4]

[4] https://www.iesalc.unesco.org/en/futures-of-higher-education/expert-consultations/

In March 2021, experts participated in one of five two-hour online small group workshops to engage in dialogue, share knowledge, and extend the visions presented in the concept notes. Four workshops were held in English and one in Spanish.

IESALC extends its sincere gratitude to the experts for their willingness to participate in this phase of the Futures of Higher Education project, and for the wisdoms and ideas they so readily shared.

Listed alphabetically by last name, the experts are:

1. Professor Naomar Almeida-Filho, Visiting Professor, Institute of Advanced Studies at the University of São Paulo, Brazil
2. Professor N'Dri Thérèse Assié-Lumumba, Director of the Institute for African Development, Cornell University, USA
3. Professor Ronald Barnett, Emeritus Professor of Higher Education, University College London, UK
4. Professor Sir Hilary Beckles, Vice Chancellor, University of the West Indies
5. Professor José Joaquín Brunner, Director of the PhD in Higher Education; Director of the UNESCO Chair in Comparative Higher Education Policies, Universidad Diego Portales, Chile
6. Professor Michael Cross, Director of the Ali Mazrui Centre for Higher Education Studies, University of Johannesburg, South Africa
7. Professor Jocelyne Gacel-Ávila, Coordinator of the LAC Regional Observatory on Internationalization and Networks in Tertiary Education, University of Guadalajara, México
8. Professor Marek Kwiek, UNESCO Chair in Institutional Research and Higher Education Policy; Director of the Institute for Advanced Studies in Social Sciences and Humanities, University of Poznan, Poland
9. Professor Liu Haifeng, Senior Professor of Liberal Arts, College of Education, Zhejiang University, China

10. Professor Ahmad Y. Majdoubeh, Vice President for Humanities, University of Jordan, Jordan

11. Professor Mpine Makoe, Commonwealth of Learning Chair in Open Educational Resources, Institute for Open Distance Learning, University of South Africa, South Africa

12. Professor Takyiwaa Manuh, Emeritus Professor of African Studies, Institute of African Studies, University of Ghana, Ghana

13. Professor Simon Marginson, Professor of Higher Education; Director of the ESRC/OFSRE Centre for Global Higher Education, University of Oxford, UK

14. Dr Pankaj Mittal, Secretary General, Association of Indian Universities, India

15. Professor Marcela Mollis, Research Director on Comparative Higher Education, Instituto Universitario de la Cooperación, Argentina

16. Professor Rajani Naidoo, Director of the International Centre of Higher Education Management; UNESCO Chair in Higher Education Management, University of Bath, UK

17. Dr Oomandra Nath Varma, Director, Mauritius Institute of Education, Mauritius

18. Dr Dorcas Beryl Otieno, OGW, UNESCO Chair on Higher Education for a Green Economy and Sustainability; Senior Lecturer, Department of Environmental Studies and Community Development, Kenyatta University, Kenya

19. Professor Dzulkifli (Dzul) Razak, Rector, International Islamic University Malaysia

20. Professor Nagla Rizk, Professor of Economics; Founding Director of Access to Knowledge for Development Center, The American University in Cairo, Egypt

21. Professor Patricia Mariella Ruiz Bravo López, UNESCO Chair in Gender Equality in Higher Education, Pontifical Catholic University of Peru, Perú

22. Professor Emeritus Chanita Rukspollmuang, Vice President, Siam University, Thailand

23. Luis Fernando Sarango, Pushak/Rector, Pluriversidad Amawtay Wasi, Ecuador

24. Professor Linda Tuhiwai Smith, Professor of Indigenous Education, University of Waikato, New Zealand

25. Professor Felisa Tibbitts, UNESCO Chair in Human Rights and Higher Education; Chair in Human Rights Education, Utrecht University, Netherlands

Organization of the report

The contents of the report emerged from the experts' concept notes and the online workshops. Recognizing that each expert's perspectives are grounded in their unique combination of ontological, epistemological, professional, and geographical backgrounds, the report seeks to share their ideas so that they can be meaningful for different regions and types/forms of higher education and higher education institution (HEI). However, given that the report is a synthesis of a consultative process, it is not designed to cover every imaginable aspect relating to the futures of higher education.

Whereas the primary objective of this report is to bring forward experts' viewpoints, the overall organization of the report, its headings, and the choices with regard to what could be included was curated by IESALC. Where applicable, links between the findings and UNESCO programmes and activities are provided in footnotes.

Many of the ideas and themes in the report were raised by multiple experts, whether expressed using the same vocabulary or described using similar terms to those recorded here. No preference is implied in the choice of certain words over their synonyms. Other directions portrayed in this report are based on ideas from one or a small number of the experts. All of the proposals, arguments and topics that were put forward were considered to be equally relevant and important, whether stemming from one or several experts.

That being said, it was neither possible nor desirable to reproduce the nuances and differences coming out of the concept notes, which have been published as a linked but separate set of resources.[5] IESALC has endeavoured to present a narrative that is both robust and courageous, venturing to focus more on the convergences than the divergences among the experts.

[5] https://www.iesalc.unesco.org/en/futures-of-higher-education/expert-consultations/

In those cases where there are quotations or a point attributable to a certain expert based on their concept note, their last name is referenced in brackets. The closed discussions at the workshops were designed to generate more dialogic outcomes and to bridge the content of the publicly available written concept notes. As a result, propositions or themes raised in this report that came out of the workshops are intended to give a general sense of the overall rather than be individually attributable.

Some points in the report are suggestions of how the futures of higher education might come to be, and/or how we might achieve better futures for all through higher education. The language used in the report reflects this through phrases such as "Higher education can…" and "Higher education should…". It is important to note that these are not intended to be definitive statements, nor do they express collective consensus on the futures of higher education.

The intentional use of the plural in words such as futures, knowledges, and purposes in this report supports the intention of the International Commission on the Futures of Education not to define a single way ahead but rather to identify multiple "promising paths to build policies and strategies that will shape desirable futures and repair past injustices".[6]

Executive summary

The two guiding questions of the Futures of Higher Education project (How would you like higher education to be in 2050? How could higher education contribute to better futures for all in 2050?) provide the overall framework for this report. The report is a synthesis of expert consultations organized by IESALC and questions common assumptions about higher education and its contributions, in so doing creating a bold series of possibilities for different – and better – futures for higher education.

This report, IESALC's submission to the International Commission on the Futures of Education, is also designed to be read as a standalone report on the findings of the first phase of IESALC's Futures of Higher Education project. The report travels from the concept and purposes of higher education (sections 1 and 2); moves on to the functions of higher education (sections 3

[6] UNESCO, "International Commission on the Futures of Education: Progress Update" (UNESCO, March 2021), p.3, https://unesdoc.unesco.org/ark:/48223/pf0000375746/

and 4); and from there goes to the ways in which higher education could realize its missions (sections 5 and 6). The opportunities and challenges that may lie ahead on the paths to 2050 are addressed at the end of the report (section 7).

Section 1 of the report brings forward the key messages that the higher education experts conveyed to the International Commission. Sections 2 to 6 present the main points that were raised in the expert consultations on the futures of higher education. In each case, the findings highlight the many tensions, paradoxes and contradictions that arise in the course of conveying these diverse perspectives. Section 7 weaves these ideas together with IESALC's reflections on the opportunities and challenges that may lie ahead between now and 2050.

1. Key messages on the futures of higher education

The key messages on the futures of higher education are expressed in four broad statements on how higher education could be shaped and refined to lead to better futures for all. The statements speak of taking active responsibility for our common humanity, promoting wellbeing and sustainability, drawing strength from intercultural and epistemic diversity, and upholding and creating interconnectedness at multiple levels.

2. Shaping the purposes of higher education

Higher education in 2050 will change in ways that are both transformative and incremental, disruptive and smooth. Section 2 of the report sets out how the purposes of higher education may take shape in the futures. Higher education should take on responsibility for promoting the wellbeing of the earth (2a) as well as contributing to social and economic development (2b). Higher education's position in the domain of knowledges should be viewed in the public arena, discussed in the sub-section on funding a public good (2c). In undertaking these responsibilities, the conceptualization of connecting the higher education ecosystem (2d) helps us to understand the ways in which entanglements between and beyond individual higher education institutions could unfold.

3. Designing higher education for all

Higher education's core function of supporting learning is discussed in section 3 in the context of how every learner can be enabled to develop their full potential so they may put their own "life project" into practice (Sarango). Access to higher education around the world has

expanded exponentially (even in relative terms) but looking ahead, more should be done in fulfilling the right to higher education for all (3a). Higher education should be organized in a way which focuses on integrating learning across disciplines (3b). As learners change, so too will the role of those who support them, as discussed in the sub-section on guiding and nurturing learners (3c). It follows that greater focus should be placed on crafting flexible and inclusive programmes and pathways (3d), as well as adaptive and creative approaches to assessing and accrediting learning outcomes (3e).

4. Creating and sharing knowledges

Just as learning and teaching will remain at the heart of higher education, so too will its role in creating and sharing knowledges, discussed in section 4. The outputs and benefits of higher education should be for everyone, reviewed in the sub-section on producing knowledges for the common good (4a). An important way to incorporate multiple ways of knowing in higher education is by grounding contextually relevant knowledges (4b). Higher education's abilities and capacities to create and share knowledges are both supported and challenged by technology, as explored in the sub-section on bridging digital divides (4c). While not intended to be a mapping exercise, several of the experts put forward thoughtful and well-constructed ideas that help in imagining alternative models of the knowledge organization (4d).

5. Generating strength in diversity

Section 5 of the report considers how higher education could be organized based on the fundamental message from the experts that higher education's strength lies in diversity. Not only is this forward-looking but it also addresses historical external domination as well as inherited legacies and current risks of global homogenization. Higher education should work on embracing plural ways of knowing and doing (5a). Diversity exists in multiple forms and consideration is given to responding to diverse learners (5b): how they can be supported and the barriers that may preclude access to higher education. Diversity can also be supported through valuing diverse institutional landscapes (5c) particularly if access to higher education continues to widen. The critical role for HEIs in creating spaces for dialogue (5d) – both physical and virtual – can reinforce higher education's commitments to diversity.

6. Engaging with soul and in solidarity

The ways in which higher education engages and fulfils its commitments are laid out in section 6. The concept of taking academic responsibility (6a) encompasses several principles for stewarding higher education into the years ahead. These are values-oriented ways in which higher education could work towards its missions. Higher education at system and institutional levels should be organized around particular values, or, as one expert put it, providing "education with a soul" (Dzulkifli) (6b). Driven by these 'soulful' values, higher education can stand and act together in collectively responding to global challenges (6c); shape the worlds around it by raising its voice in the global arena (6d) and reconsider its engagement across regions by pursuing mutually inclusive internationalization (6e).

7. Thinking higher and beyond: Opportunities and challenges on the paths to 2050

This report does not make recommendations about higher education in 2050. Nor does it cover everything that could be said about the opportunities, risks, and contradictions that higher education may confront along the many journeys ahead, and which are taken stock of in this final section. The temporal dimension is also noted, in that the futures of higher education can, as one expert noted, "only be imagined in the intersecting contexts" (Cross) of its past and current interfaces. These legacies and current events form crucial elements in the multiple paths to 2050.

1. Key messages on the futures of higher education

During the consultation process, experts were invited to offer a key message about the futures of higher education to be conveyed to the International Commission on the Futures of Education.

While necessarily wide-ranging, these key messages nevertheless provide a clear and bold steer on how the purposes, functions, and missions of higher education could be shaped and refined to support better futures for all.

The key messages have been blended into four broad statements on the futures of higher education. In this compound vision, higher education:

Takes active responsibility for our common humanity

- Opens up and develops the potential of all humans
- Grapples with risks and bridges divides across time, people, and places
- Advocates for knowledges and ways of knowing as a global common good

Promotes wellbeing and sustainability

- Orients towards justice, solidarity, and human rights
- Supports a life project that strengthens individuals, their families, communities, and humanity
- Acts and is organized sustainably, ethically, and responsively

Draws strength from intercultural and epistemic diversity

- Respects cultures and identities, whether collective, institutional, or personal
- Creates spaces for reflection and dialogue
- Makes comparisons in good faith, without imposing or implying homogeneity

Upholds and creates interconnectedness at multiple levels

- Forges collaborations between people, groups, local and global communities
- Sustains bonds between HEIs, levels of education, formal, non-formal and informal learning
- Relates humans with other humans, non-humans, the Earth, and the universe

2. Shaping the purposes of higher education

Higher education in 2050 will change in ways that are both transformative and incremental, disruptive and smooth. This section sets out how the purposes of higher education may take shape in the futures. Higher education should take on responsibility for promoting the wellbeing of the earth (2a) as well as contributing to social and economic development (2b). Higher education's position in the domain of knowledges should be viewed in the public arena, discussed in the sub-section on funding a public good (2c). In undertaking these responsibilities, the conceptualization of connecting the higher education ecosystem (2d) helps us to understand the ways in which entanglements between and beyond individual higher education institutions could unfold.

2a. Promoting the wellbeing of the earth

Our common future is connected locally and globally, between humans and non-humans, as well as in matter and mind. Higher education should focus on the earth's wellbeing, "its diversity and sustainability, its security and beauty" (Smith) and better human guardianship of all earth's entities, human and non-human (Barnett). The recognition of our interconnectedness with each other and with our environment needs to shape higher education within a "public good model"[7] (Marginson). This is a model that has been decisively demonstrated during the Covid-19 pandemic to be able to better sustain stable institutions.

HEIs can harness their "collective disruptive thinking" (Beckles) to support a shift in global and regional development paradigms that support more sustainable futures and engage in activities that are beneficial for humanity. In this vision, research will "create the new knowledge and research to address global challenges and provide evidence for informed public policy" (Manuh) and track and evaluate progress towards sustainability goals. Working across borders to redistribute historic power imbalances, HEIs will be able to "respond in a more authentic fashion to global wellbeing" (Naidoo).

[7] The notion of higher education as a public good was affirmed at the Second UNESCO World Conference on Higher Education in 2009. https://unesdoc.unesco.org/ark:/48223/pf0000183277.

2b. Contributing to social and economic development

Notwithstanding the importance of positioning higher education at local, regional, and global levels, the state level will remain crucial to higher education's missions and purposes. HEIs "are expected to lead change by contributing meaningfully to the economic and social development of the country; increasing civic participation; advancing educational reform; and promoting the culture of peace and non-violence" (Makoe). Higher education systems should not lose sight of their role in the provision of public goods and will be a "driver of inclusive and sustainable development" (Beckles), using their capacity for paradigm shifting, knowledge transfer, and enabling scientific breakthroughs. Responsiveness to the needs and demands of society is, therefore, both a moral imperative and a strategic goal. Each institution should set goals and priorities which will be the focal points for policies and practices.

An enabling policy environment will better equip HEIs to serve different socio-economic development needs, for example by giving resourcing priority to HEIs in less-developed regions and funding ethnic minority students (Liu). Future policy agendas for higher education will need to better account for non-linear trajectories and could focus on facilitating openness, expanding higher education beyond the current array of qualifications, supporting digitalization, and reforming teacher education. Assuming robust public investment in higher education, policymakers can consider how to channel financing to support 'old' HEIs to open up and transform and how to share funding across different forms of higher education. On the other hand, inconsistencies, corruption, underfunding, inefficiencies, and excessive control by policymakers could severely constrain the futures for higher education.

2c. Funding a public good

The question of who will pay for higher education is a recurring issue that will remain pertinent into the future with the confluence of post-pandemic recovery, intensification of climate-related costs, proliferating global debt-built up, privatization trends, and ongoing expansion of access to post-compulsory education. HEIs that charge fees to students exclude many from participating and are increasingly at the behest of those who pay the fees. HEIs that face reductions in public funding and have to cut staffing, rely on precarious workers, and/or compete for international students will find it far more difficult to achieve their functions. For

higher education to meaningfully fulfil functions that are embedded in local and national communities and enhance global collaboration and solidarity i.e., to also be a driver of global common good, solid public expenditure on higher education is vital. The "public goods characteristics of knowledge" (Rizk) is a strong reason for HEIs to gain more public funding.

Yet until and unless higher education becomes a right in the same way that primary education is enshrined in human rights law[8], states are not obliged to provide free higher education, "though this would be ideal" (Tibbitts). Even with greater public financing, cross-national gaps in levels of investments in higher education and research may continue to perpetuate existing global inequalities. By 2050, different models may also financially support the publicness of higher education. For example, a "Global Learning Fund" (Rizk) could oblige economically richer countries and global businesses to contribute a portion of their profits to subsidize higher education across regions. Alternatively, the future expansion of tuition fees could "transform higher education beyond recognition" (Kwiek), making it more similar to current settings where there has been "increasing participation of private resources" (Brunner).

2d. Connecting the higher education ecosystem

Higher education is an ecosystem in which its purposes, missions, connections, institutions, traditions, and resources are shaped by and in turn influence the historical, social, political, and cultural contexts in which HEIs are based. Conceptualizing higher education in this interconnected way helps to think about "a new ecosystem where people will live together in a better world" (Dzulkifli). In the higher education ecosystem, HEIs in the future "will be distinguished from each other rather by the way in which they take responsibility, each with its own mission, traditions, resources, and means, to interact with those ecosystems" (Brunner). To do this, HEIs may take an institution-wide approach towards integrating programmes that are "holistic and well-aligned to the local context" (Dzulkifli), doing so by enhancing collaboration within the institution to drive the vision and plan for change.

Not only an ecosystem by itself, higher education has also "to become more connected, externally and internally, with the ecosystems with which it is entangled" (Barnett) such as

[8] Article 13, International Covenant on Economic, Social and Cultural Rights (1966), https://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx

knowledges, other social institutions, and the economy. One such ecosystem is education: any considerations about the missions and purposes of higher education cannot miss the inescapable connections to primary and secondary education, as well as to lifelong learning. For learners to be able to flourish in and beyond higher education in 2050, the values and organization of all levels of education should be connected. Embracing all levels of education "would allow everyone to develop their potential and thrive in a circular and regenerative system" (Assié-Lumumba).

As connectivity for higher education in 2050 may be "in the field" (Rukspollmuang), different stakeholders should contribute both to HEIs' internal ecosystem as well as the ecosystems that higher education plays a role in at local, national, regional, and international levels. Higher education is not in isolation and if anything could take on more of a core position in coordinating various sources to push for development to further connect the world as a whole: "We are all interconnected, and we need to shape the future of higher education to serve that interconnectedness, not just with us as individuals but with us with our environment within – towards a cleaner environment and with larger universe. And in that sense, we are interconnected as people but also that our sense of ethics should be towards humanity" (Rizk).

3. Designing higher education for all

Higher education's core function of supporting learning is discussed in this section in the context of how every learner can be enabled to develop their full potential so they may put their own "life project" into practice (Sarango). Access to higher education around the world has expanded exponentially (even in relative terms) but looking ahead, more should be done in fulfilling the right to higher education for all (3a). Higher education should be organized in a way which focuses on integrating learning across disciplines (3b). As learners change, so too will the role of those who support them, as discussed in the sub-section on guiding and nurturing learners (3c). It follows that greater focus should be placed on crafting flexible and inclusive pathways and programmes (3d), as well as adaptive and creative approaches to assessing and accrediting learning outcomes (3e).

3a. Fulfilling the right to higher education

Higher education has a responsibility to help citizens fully develop their individual potential and participate in social and political life. While higher education for all is feasible, it may nevertheless be restricted should systems continue to be or become more vertically stratified and if costs (even where relatively low) continued to be passed to students (Kwiek). Barriers to learning must be removed, including discrimination by gender, age, or ethnicity, as well as affordability-related barriers. More attention should be paid to "including the most vulnerable and traditionally excluded groups, such as out-of-schoolers, women, unemployed youth and persons with disabilities, indigenous communities in accordance with the broader objective to leave no one behind" (Otieno). The Covid-19 pandemic has also added the digitally excluded to the categories of vulnerable groups. Whereas access to higher education has increased and is still expanding, that growth should go hand in hand with attention to quality, which is "the lifeline of higher education" (Liu).

In addition to being a human right, higher education can support learners through the promotion of academic cultures, formation of intellectuals, inventors, critics and educators, knowledge creation and social transformation (Almeida-Filho). Moving forward requires changes at the systemic level: it is not only HEIs that have permitted inequity but the operation of the system. The growth of alliances between high-status universities in economically poorer countries with 'top' global universities that recruit elites "apply decontextualized measures of academic merit based on performance (rather than potential) and connect graduates to global power nodes" (Naidoo), opening spaces for uneven development of higher education worldwide. The current emphasis on English language excludes many in higher education from the global conversation. HEIs should work together in incorporating intercultural education in a multilingual environment, promoting access to multiple languages, and translations of publications to facilitate the democratization of knowledges so that higher education truly is a right for all.

3b. Integrating learning across disciplines

Higher education in 2050 may be more adapted to its learners, which would be quite different from the current organization whereby learners must adapt to higher education's structures.

The new focal points of learning will be “learning to transform and learning to become” (Rukspollmuang). To support this, multidisciplinarity can replace today’s disciplinary silos. This could enable not only learners but teachers and researchers to benefit from the advantages yielded by studying across disciplines, also noting that “new knowledge can emerge from hybridity” (Majdoubeh). To form competent humans with the ability to act ethically and be committed to society and the common good, humanities, the arts, and the sciences should be intertwined with different areas of engineering, technology, and innovation to create an “integral education” (Ruiz Bravo López).

Interdisciplinary knowledges could help learners better understand the multisectoral connections of their learning to their subsequent paths in life. Multidisciplinarity could even be replaced with “inter-transdisciplinarity” (Almeida-Filho) and the promotion of new core competencies in languages, research skills, pedagogical competence, critical technological competence, and ecosocial sensibility. The growing interconnectedness between HEIs may necessitate a “move to a consensus on the minimum necessary learning in first degrees that will facilitate an integrated world: scientific and historical-cultural literacy, communications, languages, social relations, and preparation for work” (Marginson).

The social sciences and humanities could have more influence to curb the drive for (profit) maximization and place more emphasis on responsible business. At the same time, new areas of specialization may emerge as content moves to become more humane and aligned with the needs of the global citizen (Rizk). Learners should “receive peace and human rights education” (Tibbitts). Learning should emphasize the “human dimension” (Mittal) of higher education including problem solving, project work, entrepreneurship, developing curiosity, and wellbeing. Learners should be engaged globally through international collaborations, interdisciplinary teaching, and cross-disciplinary research (Mittal). Integrating the international dimension across higher education systems as opposed to focussing on individual strategies such as student or faculty mobility could raise the quality of education and support the acquisition of competences (Gacel-Ávila).

3c. Guiding and nurturing learners

Thinking ahead to 2050, "education in general and higher education in particular should be… the time/space combination that can fit every [learner]… where they are allowed to develop their own abilities and expertise to build up and put into practice their own life project" (Sarango). For learners to "have more freedom to explore and demonstrate a coherent outcome of their learning" (Nath Varma), the role of learners and of teachers as well as the structures around them should change. Learning pathways may become more targeted to learners' goals, supporting learners on demand, and assessing the outcomes of learning processes in terms of knowledges and the practical demonstrations of skills, for example in the performance of creative projects that can demonstrate problem solving and critical thinking skills. Augmenting learners' agency is key, which can be further improved by providing "preparation for the transition to self-earning economic life in every degree programme" (Marginson).

Higher education teachers should help identify and nurture learners' strengths, interests, and values. Therefore, teachers should be equipped with the necessary skills for coaching and facilitating as well as coping with and designing innovative modes of learning. Creativity will be a critical skill. There may be an increase in 'freelance teachers' who work across multiple HEIs to share the benefits of interconnectedness in curricula (Mittal), although this raises the possibility of generating new forms of precarity. Technology will also continue to affect the possibilities open to teachers through the ongoing normalization of technology assisted modes of delivery. It can make teachers' roles in designing learning environments more exciting and at the same time more overwhelming. However, teachers will never become obsolete: the sharing and regeneration of learning and values is best accomplished by humans.

3d. Crafting flexible and inclusive programmes and pathways

Increased flexibility and personalization in the organization of teaching and learning can support knowledges for collective good as part of "a system that loves them [learners]" (Smith). By 2050, learners may be able to customize their learning experiences drawing on processes and practices that are flexible and respond to individuals' unique needs. Multiple programmes should be offered to ensure inclusivity. This should also include more flexible pathways,

allowing for multiple entry and exit points and combining study and work "in less rigid ways than today" (Brunner). Collaboration between stakeholders would be essential: the flexible movement of students and lecturers is key to opening up education as well as supporting professional collaboration (Makoe). Greater flexibility "can only be successful if children are taught to become self-motivated learners from a young age. This attitude should be driven by a thorough redefinition of the curriculum right from an early age" (Nath Varma), underlining the existence of higher education within broader interconnected ecosystems.

At the institutional level, HEIs need to acknowledge, create, and apply multiple forms of knowledge to teach learners so that they will become publicly engaged citizens with civic responsibilities who are prepared and motivated to learn throughout life. Flexibility serves the purpose of not only opening disciplines but institutions, "so that learning can be possible not only within the different units of the university, but also outside its premises" – and in this way, bringing about "learning in co-existence" (Ruiz Bravo López). Opening up higher education in these ways also supports better co-existence between higher education and its communities by valuing knowledges and learning from, for example, the experiences currently called extra-curricular (Ruiz Bravo López). Flexibility can also be achieved by making effective use of educational technologies to "facilitate teaching and learning processes which will be more creative and practical" (Rukspollmuang). Online and blended learning has other benefits such as "increased access, self-paced learning, quick re-skilling, and re-tooling of adult learners as well as greater diversity and portability of certification through micro and digital credentialling" (Beckles).

3e. Assessing and accrediting learning outcomes

HEIs should adapt their outcomes and assessment structures to meet the varied learning needs of their more diverse learners, the impact of ongoing massification of higher education, and changes in how learners demonstrate their knowledge and skills. Current models are also challenged by the prospect of placing more emphasis on values and other intangible indicators "that cannot be measured" (Dzulkifli). This will result in "a big challenge for accreditation" (Rukspollmuang). Accreditation should be adapted in order to combine its quality assurance mechanisms with the ever-changing nature of qualifications, a relationship that can only work

if the right balance of flexibility and basic standards is found. Rethinking the structures of assessment may mean that what could be thought of as 'macro certificates' (today's Bachelor's, Master's, and PhD degrees) "may become less and less relevant due to their rapid obsolescence, generic and uniform nature" (Brunner). The expansion of lifelong learning and revisioning of qualifications can also create enabling spaces providing learners with the competencies needed to perform in new environments (Makoe).

The likely continuation of the perceived mismatches between graduates' skills and the demands of the labour market couples with increasing uncertainties in the job market and is challenged further by the fall-out of the Covid-19 pandemic (Mollis). This could see the decoupling of work from qualifications. However, the legacies of the old (current) model may persist for some time. Short-cycle training could become more closely linked to local-national labour market needs and first degree programmes, to the extent that they continue to operate, could become more closely linked to global-national perspectives, organizing themselves more around 'issues' and 'projects', with a component of remote learning through global platforms. It would be the responsibility of HEIs in each country to adapt these resources and not merely to 'receive' them, accompanying and evaluating the students in their learning (Brunner).

Automation and other aspects of socio-technological change may enhance the importance of lifelong learning in all sectors. Rapid advancements in technologies (e.g., online learning, AI, blockchain) alongside the changing demographic of students, and the changing nature of the world of work could lead to significant changes in credentials and pathways. This may lead to extensive use of "micro-credentials that could fast track entry in the world of work and allow for continuous just-in-time learning" (Nath Varma). This could be done in partnerships with those who benefit from higher education, such as employers, and with those who stand to benefit indirectly from a flourishing higher education system. Adapted models of governance would be needed as HEIs "adapt and rethink" (Makoe) how to accommodate these changes, especially to ensure that equitable access is provided to various disadvantaged groups of learners.

4. Creating and sharing knowledges

Just as learning and teaching will remain at the heart of higher education, so too will its role in creating and sharing knowledges, discussed in this section. The outputs and benefits of higher education should be for everyone, reviewed in the sub-section on producing knowledges for the common good (4a). An important way to incorporate multiple ways of knowing in higher education is by grounding contextually relevant knowledges (4b). Higher education's abilities and capacities to create and share knowledges are both supported and challenged by technology, as explored in the sub-section on bridging digital divides (4c). While not intended to be a mapping exercise, several of the experts put forward thoughtful and well-constructed ideas that help in imagining alternative models of the knowledge organization (4d).

4a. Producing knowledges for the common good

Knowledges should be recognized as an asset that must be directed for the common good (Almeida-Filho), challenging the current unequal distribution of knowledges across regions that is reinforced by hierarchical mechanisms such as rankings. The rapid sequencing and subsequent production of Covid-19 vaccines that was made possible by "the long roots of cross-disciplinary, cross-country public investments in science spanning back into time" (Naidoo) provides a contemporary example of knowledges produced for the common good. Yet, this positive development has simultaneously exposed the "existing global inequities in knowledge production, research and innovation" (Manuh) in terms of access to the vaccine as well as the role of indigenous knowledges on healing and wellbeing that are outside formal higher education structures. Furthermore, partnerships between higher education and private companies to produce the vaccines run the risk of commodification of knowledges. Rather than being exclusive, "more choices, in terms of multiple disciplinary development of knowledge creation and intellectual growth, would contribute to better mitigating the uncertainties of now and the imagined future of the world" (Assié-Lumumba).

Supporting knowledges for the common good should lead to diversification of the groups of people who manage knowledge production systems such as journal editors. Whereas today's norms are well suited to neoliberal economic models, future scholars and policymakers will collaboratively explore an increasing number of "production modes" (Brunner) and ways to do

research and share it openly. Alternative, more flexible forms of governance will be created as HEIs transform into more "agile and competitive" institutions (Beckles) and "novel means of knowledge governance and innovation assessment" (Rizk) are embedded. Researchers should work together across disciplines, committed to society and the common good as a goal. The sharing of knowledges would be facilitated by multilingual journals and more frequent translation of work into at least half a dozen or a dozen major language groups.

4b. Grounding contextually relevant knowledges

In 2050, HEIs should talk and engage more fruitfully with the wider world. Bodies of knowledge will retain importance but only "when set in contexts" (Barnett). Therefore, instead of creating knowledges that purely support the "unquenchable thirst" for economic gains (Sarango), HEIs will also create new knowledges that serve the needs of human beings themselves and nature. The acknowledgement of multiple forms of knowledge and greater use of non-English languages can support this ambition. Contextually relevant knowledges will also help in settings where there are disconnects between what students learn from books and articles and the real challenges they face in their communities and societies. All HEIs, and especially those in settings that have historically been marginalized from representation in the curriculum, will not only embrace but lead locally relevant technological and knowledge production.

Research can help "prevent communities from sliding back into poverty, help countries meet current and anticipated workforce needs, find innovative solutions to pressing development problems and can pave the way for more equitable development paradigms" (Beckles). Greater contextual relevance would also stem from research being able to move away from the current pattern whereby scientific communities and networks are dominated by a small number of HEIs that have historically had the power to define scientific norms and influence the types of research that are conducted. Furthermore, the Covid-19 pandemic has "reminded institutions that their main constituents are in the backyard and that place-based ideas provide a rich context for learning and for the transfer of knowledge back to communities and society" (Smith).

4c. Bridging digital divides

With the expectation that "technologies will take over in a big way in all countries" (Mittal), an important message for higher education in 2050 is to "do our best to make technology work for us and for us to get the best out of technology" (Majdoubeh). Higher education needs to guide technology and remain at the forefront of exploration and discovery into its capacities and limitations, creatively imagining how it can be directed towards the common good. By 2050 we may even have reached a "post-digital age" (Rukspollmuang), one in which, more so than today, the HEI "will be but one of multiple venues for learning, existing alongside other sources of knowledge acquisition such as online social platforms, community interactive audio streaming and on demand courses offered independently by educators, practitioners and artists" (Rizk).

While high-level technologies have already achieved a level of sharing human feelings and with rapid yet disruptive innovation continuing to advance in the futures, it becomes ever more important to keep humanness and common good at the core of technology's applications to educational development. The implications of current technological innovations ranging from artificial intelligence to robotics, blockchain to quantum computing for learning, skills and future employment must continue to be studied.[9] HEIs need "to ensure that the integration of technologies into education is well supported" (Makoe) so that students and teachers know what it actually means to go online – if indeed they have access to the internet, the devices, or the space needed to participate.

The pandemic-inspired mega-shift to online teaching and learning has demonstrated the revolutionary effects of technology on higher education, effects that will continue to be important into the future. Yet, the promise of technology is not unlimited. The rapid uptake of information and communication technologies (ICT) during Covid-19 has demanded considerable effort from all HEI staff, marking the beginnings of further radical change. Such "quick advances in ICT take time for people to be able to employ effectively and meaningfully" (Majdoubeh). For each problem technology solves, "social isolation and disconnectedness exposes other problems for teachers and learners" (Smith).

[9] At the time of writing, a project on artificial intelligence and higher education is underway at IESALC.

The pandemic has also highlighted "the need to bridge the digital divide so that no one is left behind" (Beckles). Higher education should advocate for the right to connectivity, to a device, and to networking so that continued digitalization democratizes access and supports better higher education experiences. New models such as the "networked learning hub" could help to mitigate inequalities in access to the internet, simultaneously supporting access to knowledges for all (Rizk). Bridging digital divides will also require building systems and structures for resilience (Makoe). The transition to online modalities is already included in some regional development strategies (e.g., the Caribbean) and will see uptake in others.

In its key role as a generator and sharer of knowledges for the global common good, higher education should contribute to the "creativity, innovation, and fight-backs [that] are occurring, to ensure free and open software and internet re-decentralization, away from the control of Big Tech corporations" (Manuh). Collectively devised and openly accessible materials can help "bring about an inclusive world system of educational content where knowledge is built jointly" and make "open-source education freely available with no barrier to poorer countries a reality" (Makoe). Open knowledge not only improves access but "also empowers an individual to have the ability to create, modify and use information and knowledge in such a way that it is personalized to an individual" (Nath Varma).

4d. Imagining alternative models of the knowledge organization

While not designed as a mapping exercise, several experts put forward thoughtful and well-constructed models for what different types of knowledge organization might look like in 2050.[10] These examples are put forward here neither to promote them as the only models or the best-fit solutions for all regions nor to overlook the plentiful thinking on future models that is already well underway.[11] Instead, the intention is to stimulate thinking about how to deal concretely with current inequalities through higher education, how to begin to build alternative systems, and how this by both necessity and choice will be different across regions.

[10] Please refer to the concept notes (https://www.iesalc.unesco.org/en/futures-of-higher-education/expert-consultations/) and the experts' other publications for fuller descriptions of these models.
[11] For example, the broad framework put forward in *Africa 2063* (https://au.int/en/agenda2063/overview).

The “universal African university” is above all a value-driven institution that is integrated in society. In its “vision, mission, and goals as well as its insertion in society, [it] is geared by the values of humanism, social justice, academic integrity and social responsibility”. It critically engages with the world, is grounded in but not bound by its historical roots. It is both universal and African: it “affirms singularity through the mediation of the universal and affirms the universal through the mediation of singularities”, taking “cognisance of its African insertion in the globalising world” (Cross).

The “networked learning hub” has universities at its core working in collaborative partnerships with online communities, libraries, businesses, civil society groups etc. The hubs can be funded both by governments and the private sector. A “freemium” system would see public/private funding ensuring free access to knowledge supplemented by optional payments from learners for specific or added services. The hubs use open educational resources “fulfilling the promise of knowledge as a non-rival public good whose value increases with sharing”, bridging digital divides and promoting inclusion. Content is streamlined online via multiple forms and is offered to recipients beyond the university “walls” (Rizk).

The “education paradigm of the Abya Yala” (Sarango) is not so much an organizational model as a world view or world experience that brings together diverse but coordinated paradigms. It “is not rooted in the individual theories of a single person.” Emerging from the Abya Yala (the American continent), the paradigm is “radically different from the Civilization Paradigm of the Western World, but shares certain common ground with the civilization paradigms of the Eastern and African worlds.” At the core is the notion that “human beings (both men and women) learn, in fulfilling themselves in community, from life, with life, and for life” (Sarango).

The “living lab for sustainability” (Otieno) brings higher education much closer to the needs of the communities and societies around it. It centres on sustainability and delivering the Sustainable Development Goals.[12] Climate change education is integrated into interdisciplinary teaching and learning. The living lab supports teachers with resources and training to enable a transition to a “green curriculum”. In turn, students are prepared for “green jobs” in a “green economy”. HEIs “serve as the engine of transformational sustainability toward delivering the sustainable development goals” (Otieno).

[12] https://sdgs.un.org/goals

The “ecological university” (Barnett) is “more connected, externally and internally, with the ecosystems with which it is entangled”. It purposively connects eight ecosystems, around which it builds its mission and finds its purpose: knowledge, social institutions, Nature, the economy, culture, persons, learning and the polity. The ecological university develops trans-disciplinarity in the organization of teaching and learning. The role of professors is to “set up pedagogical situations such that students come to take on wide perspectives and generate their own will to go on”; students should be supported to “spontaneously to form and pursue their own judgements, in thought and action” (Barnett).

5. Generating strength in diversity

This section considers how higher education could be organized based on the fundamental message from the experts that higher education’s strength lies in diversity. Not only is this forward-looking but it also addresses historical external domination as well as inherited legacies and current risks of global homogenization. Higher education should work on embracing plural ways of knowing and doing (5a). Diversity exists in multiple forms and consideration is given to responding to diverse learners (5b): how they can be supported and the barriers that may preclude access to higher education. Diversity can also be supported through valuing diverse institutional landscapes (5c) particularly if access to higher education continues to widen. The critical role for HEIs in creating spaces for dialogue (5d) – both physical and virtual – can reinforce higher education’s commitments to diversity.

5a. Embracing plural ways of knowing and doing

Plural ways of knowing and doing embrace “the diverse reality of the world we are living in… the natural diversity of the human species, the flora, and the fauna, and all the different logics ruling the alive world, and thus, all its different knowledge theories and forms” (Sarango). This means not simply acknowledging diversity but bringing different ways of looking at the world into better relationships with each other, engendering compassion and understanding. It means a role for everyone and every region. It means higher education in which people see themselves represented. It means celebrating forms of knowledge and know-how that have

traditionally been excluded, not "underestimating the cultural heterogeneities and social inequalities" that have been inherited (Mollis). Epistemological decolonization thus becomes a point of departure in redistributing power and rediscovering human identities and to understanding the roles and work of HEIs differently (Cross). Much will need to be done to dislodge the current dominance of certain knowledges on the journey to pluralizing higher education.

In higher education's ways of knowing and doing, this will be expressed through, among other actions: "pedagogical pluralism" (Sarango), multilingualism as default, diversifying journal editorships, and respecting the higher education provided by different types of HEI. There should be an end to the focus on practices (such as in internationalization) where a single model designed by the Global North has become a norm. Doing so would bring different forms of knowledges into better relationships with each other to work towards a broader dissemination of literacy and culture, science, and technology. By integrating different knowledges, groups, and cultures, "empathetic persons" who respect different knowledges and recognize their limits are formed. This will help to enhance inclusion and diversity, banish stereotypes, and, over time, discrimination (Ruiz Bravo López).

5b. Responding to diverse learners

Access to higher education has dramatically expanded around the world. Looking ahead to 2050 and beyond, there is still ample scope for higher education to continue to spread, particularly in certain regions (e.g., Africa). It is expected that half of the global population will attend some form of higher education, and that it will be delivered in a mix of in-person, blended and online modalities. The flexibility of online teaching and learning can also "engage other members of the community – e.g., women at home, residents of remote areas and workers needing reskilling" (Rizk). As demand for higher education continues to grow and diversify, consideration should be given to "how these professionalization and employability demands should be responded to without overlooking the humanistic formation, the critical spirit, the ethics, and the pursuit of the common good" (Ruiz Bravo López). Attention should also be paid to the impact of more high participation systems as it is possible that "the

positional value of higher education credentials will be lower than currently expected as they will be widely available" (Kwiek).

The question also arises as to what higher education is really enrolling more learners to do and how to ensure that those without higher education are not excluded. Higher education needs to not only welcome but be responsive to diversity. This means HEIs and governments making purposive efforts to attract and retain learners who are indigenous, from ethnic minorities, refugees, and/or are from marginalized or under-served groups (e.g., rural areas, those with less economic means) in a way that does not require them to shed their cultures and experiences or give up their identity: this is "a kind of violence that must stop" (Ruiz Bravo López). It means addressing the "negative effects on enrolment of youth[13] who are poor, refugees, un-documented or are marginalized in another way" (Tibbitts) and the impact this has on inclusion and diversity that stems from the increasing cost of providing higher education being passed on to learners and their families.

Responsiveness to more diverse learners also widens the opportunities for those learners to shape their own experiences of higher education. They should "be given the wherewithal spontaneously to form and pursue their own judgements, in thought and action" (Barnett). Learners can express their desire for certain courses/qualifications and for change with content and skills within existing programmes (Otieno). They may be advocates for better connectivity, especially within countries where the digital divide is already marked. Diverse learners should have the confidence to be able to advocate for positive change not only for themselves but for the world.

5c. Valuing diverse institutional landscapes

"The major goal of providing higher education services will be to prepare the entire population for future life" (Liu). In a context of widespread access to higher education, HEIs can make their academic offer more comprehensive, more diverse, and more flexible in order to meet the demands of more people. Serving these diverse demands may require institutional variation with HEIs focusing on different goals. Institutional diversity may encompass high-level research universities, local-level HEIs focused on local economic and social development and HE-level

[13] Not only youth but learners of all ages

vocational colleges with close ties to the demands of the economy (Liu). UNESCO's definition of an HEI (see Glossary) is in alignment with experts' support for innovative institutions, whether they are called universities, technological institutes, colleges, or go by other names. Embracing this institutional diversity would also allow for greater flexibility and agility in the types of qualifications that higher education offers. While there is support among experts for diversity in higher education provision that would also accommodate larger student populations, continued institutional stratification risks greater exclusion of students and of HEIs and may also increase rather than bridge existing global hierarchies.

As institutions diversify their organization and offerings, the number of HEIs around the world may only increase moderately. Some projections point towards a gradual increase in vertical stratification of HEIs in the coming decades, which would be a continuation of existing trends (Kwiek). This paints a slightly different outlook for differentiation, both within states and internationally, between a minority of high-cost prestigious research-oriented institutions and a majority of teaching-oriented HEIs with the capacity to absorb the ongoing massification of higher education. This may have some positive effects, for example improving teaching quality with greater attention paid to teaching careers and ending the current proliferation of journals producing ever more specialized articles (Kwiek). Yet, this stratifying tendency may become self-reinforcing with a small number of elite HEIs able to produce more (in citations, publications, international collaboration, research funding, tenure opportunities, academic recognition, etc) and in turn to generate and then regenerate exclusivity. This would be at odds with higher education systems that genuinely value institutional diversity and may weaken rather than strengthen higher education.

5d. Creating spaces for dialogue

By focusing on creating spaces for critical analysis and dialogue, higher education can confront the trend in some regions where certain movements play on fear, hyper competition, and disinformation, and where there already exists predatory capitalism. These come together to increase divide and violence. This does not mean shutting down or universalizing what may be said but creating spaces "for an actual dialogue of knowledges with epistemic equity" (Sarango), deliberative spaces to reach those who are "cynical and disillusioned" (Naidoo).

These spaces will enable HEIs to talk to each other, as well as embed higher education in its surroundings. In turn this may support higher education to regain "the societal-community space to prioritize transformative public policies" (Almeida-Filho) and shift societal attitudes towards higher education. This deliberate focus also enables higher education to stand firm when it comes to advocating for the criticality of knowledge and expertise, not subject to the same political pressures as governments, and to help the wider world cope with unpredictability.

Covid-19 has shown the importance of personal and social connections, for which higher education can make both physical and virtual space. While online learning has shown how the potential of technology can be harnessed so that higher education can reach more people in more places, the physical spaces inhabited by HEIs are unlikely to disappear, especially if the current digital divides persist into the future. Further, physically being on campus opens opportunities for planned and unplanned social interactions that HEIs can develop by making space for networking experiences, for students and between institutions. Alternative ways of using the spaces of higher education may emerge, for example in who uses the space (learners, businesses, civil society etc), and in how and when learners use the HEI's physical space compared to its virtual presence.

6. Engaging with soul and in solidarity

The ways in which higher education engages and fulfils its commitments are laid out in this section. The concept of taking academic responsibility (6a) encompasses several principles for stewarding higher education into the years ahead. These are values-oriented ways in which higher education could work towards its missions. Higher education at system and institutional levels should be organized around particular values, or, as one expert put it, providing "education with a soul" (Dzulkifli) (6b). Driven by these 'soulful' values, higher education can stand and act together in collectively responding to global challenges (6c); shape the worlds around it by raising its voice in the global arena (6d) and reconsider its engagement across regions by pursuing mutually inclusive internationalization (6e).

6a. Taking academic responsibility

The concept of academic responsibility encompasses several principles for stewarding higher education "within a new horizon of possibilities informed by greater epistemological, political and moral responsibility" (Cross). It expands some existing concepts, for example adding to established notions of academic freedom with epistemic freedom. This acknowledges multiple forms of knowledges and de-centres the Eurocentrism inherent in discussions on academic freedom. HEIs should nevertheless remain alert against "threats to academic freedom and the autonomy of academics and public institutions, which will continue to exist" (Manuh). HEIs should "fully take up their civic duty to contribute to more peaceful and just societies" (Tibbitts), demonstrating "intellectual honesty, integrity, humility, and hard work" in the service of humanizing education (Rizk).

Academic responsibility also includes the standards to which higher education should hold itself through values such as academic integrity. It is also about respecting knowledges from different perspectives, particularly among actors that currently dominate knowledge production. Academic responsibility is about stemming the displacement of HEIs from their mission and setting that has been prompted by the drive to be included in global rankings. By 2050, higher education should have overcome the current ranking frenzy which has imposed a number of distortions in the way research is conducted and funded, leading to hyper-specialization, individualism in research, and methodological constraints. Instead, higher education should "rethink the contribution of the university to society through different areas, such as teaching and social responsibility, going beyond ratings and publications in peer-reviewed journals" (Ruiz Bravo López).

Academically responsible HEIs would be valued by their responsiveness to global grand challenges and by cooperation, integration, inclusion, caring and civic mindedness. They would also be valued by how they address the impact of these globally cross-cutting issues at local levels and adapt their offerings to "suit locally specific needs and contexts" (Tibbitts). Focusing on academic responsibility is an institutional and collective endeavour that can move higher education from the current path of competition to one that has genuine potential for equalizing, which could also "create new spaces of freedom for scholars, civil society organizations, and others to reflect on and transform their surroundings" (Mollis). It therefore

works on multiple levels: responsibility as an integral part of the local and national communities, and responsibility as part of a global compact.

6b. Providing education with a soul

Values such as respect, empathy, equality, and solidarity should be at the core of future HEIs and their missions. In other words, "education with a soul" that "prepares learners not only for livelihood but for life" (Dzulkifli), supporting them "to be better citizens, more aware of their civic and environmental responsibilities" (Gacel-Ávila). Learners should be tolerant regardless of gender identities, sexual preference, class, language, ethnicity, and other markers that often describe or define people and are also divisive. Critical thinkers are needed to counter prejudices and fake news (Ruiz Bravo López). In these kinds of value-driven higher education, there is no distinction between what happens inside and outside the classroom. Education that encompasses these types of values goes beyond the confines of the lecture theatres and virtual rooms, is ever evolving in terms of its content, and empowers the individual to be better. It supports learners to take forward a strong value system that balances internal and external values, in turn enabling them to change their environments and work towards a common humanity. "In one word, it will be about uBuntu", the realization that the notion of collective existence and wellbeing as embedded in the African affirmation of collective ethos in "I am because we are" must be taken seriously and in a consistent manner (Assié-Lumumba).

Higher education driven by the values discussed in this report is not only for learners but will be integrated across all functions of higher education institutions (HEIs) because "there is room for a higher education system that is built on the value of love for the earth, for humanity and other entities and it should work to produce happiness and well-being" (Smith). System-wide emphasis should be placed on defending human rights and fundamental freedoms, preventing human violence and abuses, protecting ethnic minorities and the most vulnerable groups, as well as conserving the environment. Following this line of thought, higher education could contribute to tolerance, less conflict and global peace. HEIs should be spaces that support and create civil and democratic societies. While technologies such as artificial intelligence and learner analytics will play a role in future higher education systems, attention should be paid to ethical issues in their design and deployment. Technological advancements in higher

education should be subject to the same values and used in the service of human purpose and the common good.

6c. Collectively responding to global challenges

Covid-19 is emblematic of the global challenges that will continue to be relevant for the 2050 horizon. The pandemic is teaching us in unprecedented ways: "like no other time, humanity has learned the meaning of a shared destiny – in sickness and in health" (Rizk). In the misery and disruptions, the pandemic has "created temporary solidarities" (Manuh), not only globally but at local levels. The Covid-19 pandemic has shown both the lack of, and the enhanced need for, global cooperation in research, innovation and enhancing scientific capacities. Responses to global challenges such as this will be at the heart of international cooperation underpinned by values of integrity and equitable access that should also be reflected in how HEIs are led and governed.

There can be a key role for higher education (and science) in "building cultural awareness and global competence, and in maintaining the 'thick' global communications necessary to building a new and stable world society" (Marginson). As the "present state structures and multilateral machinery cannot cope with this" (Marginson), higher education should continue cooperation to move forward with grand challenges beyond that which is solvable by research alone. Collective responses will involve higher education actors, policymakers, practitioners, businesspeople, environmentalists, technologists, farmers, and civil rights advocates, among others. The "collective ethos must be affirmed as relevant or as a sign of civilization for the future" (Assié-Lumumba); collective wellbeing should be embraced as "contingent to inter-dependence and open[ing] the doors for a new institutional framework toward the development of human capabilities in the future" (Assié-Lumumba).

HEIs should be at the forefront of tackling the climate crisis, both in their role of knowledge production and technology incubation and transfer, as well as in the integration of climate change education into learning, both in terms of technical skills and in promoting global consciousness and responsibilities. Campuses can become more adaptive and "environmentally conscious" (Mittal). Higher education should give more emphasis to multiple dimensions of sustainability: not only environmental but economic and social and can integrate

"new learning modes such as project-based, community-based, and service-learning" (Rukspollmuang). As an expert noted, UNESCO's Education for Sustainable Development[14] offers a framework around which higher education can build capacity for "green growth and sustainability skills" (Otieno) into the futures. HEIs can develop advanced skills training to "decarbonize the world and protect other sustainability goals" (Naidoo). The cross-cutting nature of climate issues will require more interdisciplinary collaboration within and between HEIs and new synergies with industry. Reorienting education and training towards climate change and broader sustainability issues will support the shift to a more sustainable and inclusive economy as well as providing and creating meaningful work.

6d. Raising its voice in the global arena

Years of intensive globalizing processes will continue to make their mark on higher education in 2050: despite the rise of populist neo-nativist movements in some regions, the world is intermeshed, and higher education is at the heart of cross-boundary thinking and activity. Attention should be paid to the ways that higher education can be emancipatory in an uneven globalized world, how it can "heal the growing fractures dividing humanity" (Naidoo) and develop collective responses. Higher education's power to shape global discourse has been compellingly displayed in movements like Rhodes Must Fall. A powerful student movement that came to life through and from higher education, it has been pivotal to advocating for change in institutional cultures and curricula as well as in bringing up "the global dynamics of outcry against the entrenched systems of oppression and legitimized exclusion of individuals and groups" (Assié-Lumumba). Higher education has a voice in the global arena and, as a social institution, a responsibility to use it for positive change.

The convening power of higher education – through acts of international solidarity as well as formal alliances and partnerships – has untapped potential, not to replace existing forms of multilateralism but to strengthen them. The UNESCO-supported World Higher Education Database[15] has registered almost 20,000 HEIs in 196 countries; other estimates place this global figure at nearer 30,000. Albeit unevenly distributed and resourced, this vast global reach

[14] https://en.unesco.org/themes/education-sustainable-development
[15] https://www.whed.net/home.php

in itself could be a force supporting education as a global common good, providing governance structures beyond the nation state, and "recognizing knowledge as an economic and geopolitical asset that must be directed for the common good" (Almeida-Filho). On this global scene, higher education can work with and also hold the UN accountable for the Sustainable Development Goals, while also supporting more challenging targets for higher education in the post-2030 agenda. To fulfil this role, higher education needs to have the capacity and willingness to take a stand and raise its voice.

6e. Pursuing mutually inclusive internationalization

The Covid-19 pandemic has been a "turning point with important effects for the future of internationalization; becoming an opportunity to re-examine its values, objectives, strategies, and priorities" (Gacel-Ávila). Current forms of internationalization should be challenged and questioned with a view to upsetting the elitism of student mobility, the economically driven rationales, the inequalities caused by brain drain, and the homogenizing models that are currently dominant. The values and principles of internationalization should be affirmed as promoting intercultural learning, inter-institutional cooperation based on mutual benefit, solidarity, mutual respect, and fair partnership. Further internationalization can support "strong international engagement" (Majdoubeh) but "access to its benefits must be drastically increased" (Gacel-Ávila). As plurality in ways of knowing and doing becomes more widespread, knowledges from different cultures and experiences should become more valued and partnerships between HEIs and countries should become more genuinely mutual.

During the journey towards greater mutuality, "big renowned universities should offer networking with universities in less developed countries as a compulsory requirement so that the students in less developed regions are not left behind and for the world to benefit from the skills and knowledge of a wider network of learners" (Nath Varma). This may extend to global curricula, designed to be universal in scope while encompassing perspectives from various parts of the world. The continued development of technology enhanced communication can also enhance diversity in terms of the students and methods of credit and course accumulation. Future international students should be able to pick courses from different HEIs around the world and thus experience intellectually challenging experiences

through new forms of student mobility "including movement between campus-based education and online mode, movement between skill-based programmes and formal degree programmes and movement between [national] and foreign universities" (Mittal).

For such internationalization initiatives to be a success and not come at the cost of quality, "cross-border standards should be developed" (Marginson). Regional initiatives can also help in supporting local knowledges and organizational structures, building on the experiences of programmes already underway[16] that are working on "the harmonization of education standards and mutual recognition of academic and professional qualifications… expanding student and academic mobility… [elevating] global research, technology development and transfer, innovation and knowledge production" (Manuh).

7. Thinking higher and beyond: Opportunities and challenges on the paths to 2050

The aim of this report has been to learn from, share, and synthesize the wide-ranging wisdoms and often divergent views put forward by 25 global higher education experts, captured at a particular moment of time in early 2021.

This report is UNESCO-IESALC's submission to the International Commission on the Futures of Education and, as such, the key messages to be conveyed to the International Commission are reiterated in this concluding section. The report is also designed to be read as a standalone report on the findings of the first phase of IESALC's multi-phase Futures of Higher Education project. Subsequent phases of the Futures of Higher Education will draw from and connect to the findings from this phase.

The synthesis presented in this report is not a blueprint for higher education in 2050. It does not capture all the possibilities, risks, and challenges that might lie ahead. And, although global in scope, the report cannot purport to be encompassing of all world perspectives and contexts.

[16] For example, UNESCO has six regional conventions for African States, Arab States, Asia and the Pacific, European Region, Latin America and the Caribbean, and Mediterranean Region and in 2019, launched the first Global Convention on Recognition of Qualifications concerning Higher Education. https://en.unesco.org/themes/higher-education/recognition-qualifications/conventions-recommendations

Instead, the report has put forward multiple ideas, possibilities, and proposals for the futures of higher education. Focus was given to the future shaping of the purposes of higher education, the functions of higher education in being designed for all and creating and sharing knowledges, and the ways in which it can achieve its missions by finding strength in diversity and engaging with soul and in solidarity.

The key messages from this group of experts to the International Commission on the Futures of Education were presented in four broad statements on the futures of higher education. In this collective vision, higher education:

Takes active responsibility for our common humanity

- Opens up and develops the potential of all humans
- Grapples with risks and bridges divides across time, people, and places
- Advocates for knowledges and ways of knowing as a global common good

Promotes wellbeing and sustainability

- Orients towards justice, solidarity, and human rights
- Supports a life project that strengthens individuals, their families, communities, and humanity
- Acts and is organized ethically, sustainably, and responsively

Draws strength from intercultural and epistemic diversity

- Respects cultures and identities, whether collective, institutional, or personal
- Creates spaces for reflection and dialogue
- Makes comparisons in good faith, without imposing or implying homogeneity

Upholds and creates interconnectedness at multiple levels

- Forges collaborations between people, groups, local and global communities
- Sustains bonds between HEIs, levels of education, formal and informal learning
- Relates humans with other humans, non-humans, the Earth, and the universe

Achieving these ideals will not be easy, and nor will or should they be reached in any singular way. Embedded in these statements and the content put forward in this synthesis report are a series of tensions and barriers that may hinder the pathways to the better futures for higher education that are envisaged. Some of these challenges were touched on in the report:

- The currently dominant factor of inter-institutional/systemic competition and stratification clashes with future notions of higher education as a public good that is accessible for all and which values diverse institutional landscapes.
- The identification that flexibility and personalization of learning could expand access to higher education contrasts with the standardization in programmes and pathways that would facilitate greater mobility and support quality assurance.
- Despite advances in opening up access higher education and diversifying who it is for and when and how it can be experienced, "knowledge has not set most of the world's population free" (Smith), affecting the future prospects for alleviating significant inequalities and hierarchies.
- Technology could democratize access to knowledge and make higher education available well beyond the campus, but digital divides between and within states and the negative effects on wellbeing of removing all in-person interaction show that there are at least as many threats and constraints in further integrating technology into higher education.
- The need for HEIs to come together to take up a voice in the global arena and to collectively respond to global challenges run the risk of overlooking the vital roles of higher education in local issues and as part of local communities.

Navigating the paths to 2050 should incorporate further study and planning to deal with issues that are already known as well as those that may emerge in future phases of the Futures of Higher Education project or in the routes that lie ahead. In addition, as experts reinforced, it is impossible to imagine the future unless the experiences of the present(s) are also understood and problematized. Equally, there must be adequate reckoning with the past(s) and higher education's historical legacies (Mollis). The futures of higher education must therefore be set not only against what has come before but within contemporary contexts because of the "dynamic inter-relationship between the past and the present" (Naidoo).

The present contexts are varied and intersecting, playing out differently across regions. Contextual factors include conflict, material poverty, economic crisis, climate change, food security, political stress, corruption, geopolitical shifts, the movement of people, urbanization, demographic shifts, gender violence, and the need for racial and social justice. As Covid-19 also demonstrates, current events are proving to be unpredictable, not the linear trajectory once believed to bring about development and progress. The pandemic is teaching us about human vulnerability. It is exposing the "systemic racialized and economic inequalities" (Smith) that have been persistent but not yet adequately addressed. It is demonstrating the necessity of reimagining all forms of education in non-linear ways while at the same time exposing the need for higher education to be better equipped to respond to crises, whether pandemics, migration, conflict, or others. It is showing that higher education could be more value explicit in promoting the "importance of wellbeing and quality life" (Dzulkifli).

Reckoning with the past requires studying and teaching what has happened before "for learning, unlearning, or re-learning deeply in framing our imaginations about [the] future" (Cross). It means critically engaging with and interrupting the harmful legacies that are still present in today's systems, most urgently those stemming from colonial trauma, but also resulting from other inheritances. This is particularly relevant in formerly colonized contexts where the weight of colonialism and other forms of structural violence such as apartheid and military colonization hang heavily. This should also be taken equally seriously in formerly colonial centres where there needs to be more recognition of the power that has been stored away, and where the humility to learn and to accept other knowledges has been sorely lacking.

The deliberate imposition and institutionalization of organizational structures, in particular the university model, has been such that this colonial trauma will for the most part need to be interrupted from within. HEIs themselves are not immutable: what needs to change are the "values embedded in the broader university and the self-proclaimed right to dominate and shape the rest of the world" (Assié-Lumumba) that still shape higher education today. This will require (re)discovering and critically engaging with scholarship, institutions, and people whose influence on higher education has been overlooked or deliberately suppressed and reversing the "neglect of local knowledge and contextualized learning by the native peoples, the peasants, the less favoured sectors, the women, among other groups" (Sarango).

While the extent to which higher education in 2050 will be different from today is not known, both disruptions and incremental change at global, regional, and local levels can be anticipated. HEIs should expect to develop deeper capacities for resilience and coping, not only within higher education but in helping the world to cope with unpredictability. By embracing the key messages and striving towards the ideals for the purposes, functions, and missions for higher education laid out in this report and doing so while critically assessing and acting on the tensions and barriers that could stand in the way, higher education's multiple paths to 2050 could indeed contribute to better futures for all.