



International Commission on the Futures of Education
Progress Update

March 2021

This document presents a progress update from the International Commission on the Futures of Education to inform global consultation and public engagement processes taking place in March and April 2021, prior to the final drafting of the Commission’s Report.

The update begins with background information on the initiative and its ambitions. This includes an introduction to the co-construction and consultation features of the initiative and brief discussion of how the Commission is framing the report. The second section of the text presents the provisional outline of the report, followed by an explanation of the main points and arguments currently envisioned for each section and sub-section.

It would be of great use to the International Commission to receive comments and suggestions on this progress update—particularly around (a) the coherence of the arguments presented, (b) what elements need further attention, development or are missing, and (c) what is most novel and promising about the forthcoming Report as currently envisioned.

Responses to be received by the **end of April 2021** may be submitted online at <https://en.unesco.org/futuresofeducation/2021-consultations> or sent by email to futuresofeducation@unesco.org.

Background and Ambition

Mandate: The International Commission on the Futures of Education is an independent commission convened by the Director-General of UNESCO and chaired by H.E. Madame Sahle-Work Zewde, President of the Federal Democratic Republic of Ethiopia, to rethink education in a world of increasing complexity, uncertainty, inequalities, risks *and* possibilities. The Report of the Commission to be released in November 2021 aims to serve as an agenda for global debate, policy dialogue and action at multiple levels.

Urgency of changing course: The Commission intends its Report to build hope—especially in times of such profound health, governance, economic, and environmental crises—and show how education can be regenerative. At this moment of historical transition, we urgently need an education capable of valuing the public and common dimensions of the world and strengthening the ways we learn together. Certain approaches to education have run their course. Despite considerable efforts, our current strategies have failed to ensure equal educational opportunity for all. They are even less likely to address new challenges. Education must be regenerated as a public good and a collective global responsibility, with education as a human right the central axis. Only such radical reframing can strengthen our common humanity and ensure sustainable relationships with others, with nature, and with technology. We cannot continue just doing more of the same if we want to address ecological and technological disruptions and reach 2050 with a world where people live well together and with the planet.

Possibilities and limits of educational responses: We must not fall into the illusion of thinking that education can solve all the problems in the world. Much of international discourse fuels this illusion, which quickly translates into disillusionment and disbelief. Education can do a lot, but it cannot do everything. Just focusing on what education can do will already be making a tremendous contribution.

Broad public and expert engagement: The Report is supported by an extensive, global process of public and expert consultation. This includes a volume of think pieces from the global network of UNESCO Chairs, commissioned background papers, and over 400 focus groups to-date, held in all parts of the world with nearly 6,000 participants. Others have contributed their ideas through online platforms. This includes over 3,200 artwork and written submissions, and a survey that has 85,000 responses at present. When webinars and events are included, approximately a million people so far have engaged with the initiative and helped to co-construct the Commission’s Report.

Sparking public debate: The Commission is integrating the contributions from this wide range of diverse stakeholders into its work, both to harness collective engagement from across the globe and to create a movement of ideas whose impact will go far beyond the Report itself. The launch of the Report at the UNESCO General Conference in November 2021 will be a first step in catalyzing educational communities world-wide to rethink the purposes and role of education. The Commission does not intend to write a *definitive* blueprint document, but rather an *open* visioning document. The Report will be a platform that others can continue to build on.

Regenerative education for 2050: It is important to recall that the Commission was charged with using a horizon of 2050. As in previous UNESCO global reports on education (*Learning to be*, 1972; *Education: a treasure within*, 1996), the purpose is to think in the long term. The intention is not to build another “futuristic” exercise, or to present “future scenarios”, but rather to identify promising paths to build policies and strategies that will shape desirable futures and repair past injustices. A regenerative education that heals, repairs, repurposes, and renews has great potential to set the worlds on paths of more just and sustainable futures for all.

Plural futures: This initiative is about the “futures” of education, in the plural. It would be unreasonable to try to define a single future, unconscionable to impose a single future on the world, and unrealistic to think we can anticipate all aspects of the world in 2050. Instead, the Commission aims to open the imagination to a plurality of possible futures – futures that sustain diverse ways of knowing and being while enabling cooperation and collective action around common causes. The ambition is to complement important and ongoing efforts at developing coherent and consistent policies in the short-term such as we see in the 2030 Agenda for Sustainable Development and its education goals with longer-term reflection on what more might need to be done, beginning now.

Building on existing seeds of hope: There is great reason for hope. Around the world teachers, communities, organizations and governments are embarked on many promising educational initiatives. These seeds of hope and the new possibilities they unleash need to be nurtured. The Commission hopes the Report will be a tool to connect and support the millions of educators and coalitions who share the ideals laid out here.

Reframing humanism: The Commission’s Report builds on a humanistic tradition defined by an emancipatory vision of education at the individual and collective level and which affirms education as a public good and a fundamental human right. Today, we need a new understanding of humanism that recognizes we cannot separate humanity from the planet and all other living beings. For sustainable futures we need to address inequality and improve the quality of human life without compromising future generations and the eco-systems of which we are a part. We also need to consider what it means to be human in the age of rapid technological transformation. Education is one of the crucial ways we rework our relationships with a more-than-human world. The possibility of an interdependent, caring, common future depends, to a great extent, on education. Education enables and strengthens paths towards a humanity that values diversity to build the common together.

Provisional Report Outline

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Introduction – Regenerative Education for a Common Future

The years 2020 and 2021 have been a reminder of how crucial high quality public education is in societies, communities, and in individual lives. We have all been reminded that education is both a bulwark against inequality and a key means for advancing our collective capacity. But it has also strengthened the sense that **radical change is needed in the design of education systems, the organization of schools and other educational institutions, and curriculum and pedagogical approaches**. There is a growing consensus that things must be done differently. The Commission seeks to give voice to this desire for transformation—which must preserve the historical legacy of public education, being fully aware that we are at a turning point. The COVID pandemic brutally revealed what we all already knew: we need a different education and a different school.

The survival of humanity and the planet is at risk

Widening social and economic inequality, climate change, biodiversity loss, resource use that exceeds planetary boundaries, democratic backsliding and disruptive technological automation are the hallmarks of our current historical juncture. **We are in the midst of a global human development crisis marked by paradoxical trends**. Over the past three decades global poverty levels have fallen, but global inequalities have grown. Educational expansion has created opportunities for many but left vast numbers with low-quality learning and cast out. Economic growth has lifted more people out of poverty than ever before, yet climate change and environmental degradation have accelerated in unprecedented ways threatening biodiversity and in fact the survival of humanity. Human creativity has been unleashed and more and more people are actively engaged in their communities and in public life; nonetheless civic life and democracy is fraying in many places around globe. We are more closely connected than ever, yet social tensions and mistrust are only increasing.

We face an existential choice: continue on an unsustainable path or radically change course. To continue on the current path is to accept unconscionable inequalities and exploitation among human beings. To continue on as we are is to permit continued environmental destruction and biodiversity loss on a massive scale. To continue the current course is to be awed by the promises of technology and to fail to address the risks accompanying the transformations of which we are a part. Multiple overlapping crises characterize the present world and constrain our individual and collective human rights and stress the natural environment. Irresponsible human actions and social, political and economic systems of our creation have brought about these crises.

As we look ahead it is all too easy to paint an even darker picture. For example, we can envision an exhausted planet Earth with fewer spaces of habitation for any forms of life. Extreme future scenarios also include a world with vast groups of people in misery because they lack access to essential goods. There could be future worlds where most human work has been automated and instead of reaping the benefits of this abundance, billions of “unemployed” are reduced to a life of basic survival. There could be future worlds where humans are overwhelmed by a distorting virtuality that undermines our freedom, autonomy, and capacity for wise collective decision-making. Will we lose our humanity before we lose human beings?

The Commission strongly believes we can collectively transform the future into a space of positive change, peace, and sustainability for individuals, societies and the planet. The inter-generational conversation that is education is a vital resource for this. During consultations carried out by the Commission, the concept of “regenerative education” appeared several times as a way of rethinking and reimagining education. It implies the idea of renewal and elevates the regenerative potential of education. But it also underlines the need for healing and for reparative justice, namely through the valorization of cultures and epistemologies that are so often marginalized. Finally, it reflects the desire to build the future of education from what already exists, in so many places and initiatives around the world. After all, education itself is about how new generations are brought into existence, in a way that is intergenerational and generative.

Education has a vast regenerative potential and can help set the world on paths towards more just and sustainable futures for all. The concept of regenerative education has obvious consequences for the organization of educational institutions, curricula and pedagogical practices. **But at present, the ways we organize education and structure opportunity** across the world **do not do enough to ensure peaceful societies, a livable planet, and shared progress that benefits all.**

Strengthening education as a global common good

The most coherent way to give form to this vision of regenerative education is to adopt the principle of **education as a global common good** as UNESCO’s 2015 [Rethinking Education](#) report began to sketch out. In this respect, the Commission draws its inspiration from the hundreds of thousands of students, teachers, educators, parents, activists and policymakers who have expressed their support for a robust vision of education as a common good that benefits all. Education and knowledge are among the most important global common goods, on the order of water, atmosphere and biodiversity, in their importance for thriving futures.

By using the concept of “global common good”, the Commission intends to underscore the **publicness of education** as well as the **collective global responsibility** for education. In support of this the Commission wishes to highlight **what we build in common and how we govern it** (“the common” as a noun), as well as **the ways in which we build and co-construct** (“commoning” as an action).

The idea of “**the common**” as a noun points to collective access and stewardship, to a common goal defined through and sustaining a diversity of cultural traditions. The Commission considers that one of the most important aspects of the futures of education is to break with uniform, homogenizing and colonialist traditions, and to open education to advancing a diversity of cultures and epistemologies, and making good use of concepts such as *care*, *ubuntu*, *teraanga*, *sumak kawsay*, *ayni y minka*, among many others.

A world where education is a common good is a place where bottom-up, local initiatives blossom and self-organized governance can also succeed on a large scale. When framed in this manner, educational projects and institutions need to be governed collectively in a public manner and supported by governments to ensure that they are not captured by powerful interests or diverted to the benefit of only some.

Despite the promise of commons-centered education, **barriers and “enclosures”** are too easily constructed which constrain educational opportunities. Educational enclosures can take many forms, including structural discrimination and exclusion, privatization of information, knowledge and education, forced reliance on proprietary digital technologies, abusive use of intellectual property rights, and the commercialization of educational data.

The action of **“commoning”** refers to building together—the acts of negotiation, communication, mutual support, and cooperation that further common interests and common projects. In education, commoning can be thought of in terms of the co-construction of knowledge and pedagogical modes that foreground the relational and collective aspects of teaching and learning. What is achieved through commoning is provisional, fragile and contains disagreement and difference. But we achieve more together than we can apart.

Forming and caring for education as a global common good is how we ensure a regenerative education that responds to the unforeseen, takes humanity and the planet in new directions, and leads to a continual renewal of the world.

Reframing humanism for shared futures

The Commission reiterates the need to fulfill the promise of the right to “quality education for all”, the promise that education can repair past injustices, and can be a route to livable collective futures. Building on the 2030 Agenda for Sustainable Development, the Commission lays out a vision for accomplishing what more needs to occur as we look to a horizon of 2050, calling for a renewed commitment to human rights. Such a commitment to humanity and to a humanistic, sustainable, just and peaceful world requires **rethinking how we approach our interdependencies with one another, but also with the planet and with technology.**

1. The Worlds of Education – Today and Tomorrow

The international community has long regarded education as a key factor in social and economic development. Families, communities, and governments around the world know well that, despite shortcomings, contemporary education systems create opportunities and provide routes for individual and collective advancement. It is widely recognized by governments and civil society that formal education is important for making progress towards gender equity, health and wellbeing outcomes, preparation for the world of work, and supporting engaged and democratic citizenship—though education is not the sole factor at play in any of these areas.

Nevertheless, efforts to expand access to education and to improve the quality of learning are far from the objectives set. Even before the COVID pandemic, more than 250 million children and young people were out of school, and more than 50% of those who are in school are not achieving even minimum levels of literacy and numeracy – affecting most disadvantaged learners and their communities on the basis of income, gender, residence, minority and disability status. All evidence

suggests that the pandemic is dramatically worsening what has been called the “global learning crisis”.

This section outlines historical educational trends and continued challenges regarding: expansion of access to educational opportunity, inclusion of historically marginalized populations, literacy, numeracy, quality of education, relevance of learning, creation of lifelong learning systems and enabling environments. Mapping the situation of education in the world and progress towards the global 2030 Agenda commitments and targets, helps to frame the Commission’s call for new and urgent responses.

Based on this diagnosis, the Commission analyzes the two major transitions that will profoundly change education: a planet transformed by human activity; and digital, biotechnology and neuroscience developments.

A planet transformed by human activity

The ways that the planet has been transformed by human activity have profound implications for the purposes of education and organization of learning in the future. For too long, education has been based on a growth-focused modernist development paradigm. Moving towards a new ecologically oriented understanding of humanity that integrates our ways of relating to Earth, requires an urgent rethinking of education in the 2050 horizon. Certain kinds of climate change adaptation, for example to extreme weather events, have already become necessary. And, even if efforts to put the world on a sustainable path are fully successful, changes to Earth’s ecosystems are likely to still have many ramifications for the provision of educational opportunity through 2050 and beyond. The need to respond to climate change, biodiversity loss, environmental destruction, and ways of living that far exceed the carrying capacity of the planet is a key inspiration for regenerative forms of education.

Digital, biotechnology and neuroscience developments

The specific qualities that digital knowledge takes on can pose significant threats to knowledge diversity, cultural inclusion, transparency and intellectual freedom. Algorithmic recommendations, platform imperialism, and current patterns of governance of digital infrastructures present great challenges to sustaining education as a global common good. Developments in biotechnology and neuroscience have the potential to unleash an engineering of human beings previously inconceivable. Proper ethical governance and a new understanding of humanism, are necessary to steer these technological developments in the direction of supporting sustainable, just and peaceful futures. Such futures will depend on open data, open science and an expanded understanding of the right to education to include the right to data, to information and to the protection of privacy.

These two transitions will profoundly change the educational scenarios that will unfold over the next 30 years. They invite radical changes in how we think and practice education. The issues they raise are at the center of all current debates on education, in particular on the digitalization of education and the emergence of the "hybrid" school, a topic the Commission will discuss in depth. These transitions are joined by two other emerging trajectories that are decisive for how we define the

purposes and spaces-times of education: shifting demographics and human mobility; and the uncertain future of work.

Shifting demographics and human mobility

Demographic shifts underway and projections for 2050 also have considerable implications for the organization of education. Extended human longevity could mean that in some areas four generations will be co-living in the same space-time in a way not ever seen in history. Aging populations will be common in some regions; a massive youth bulge will be the defining characteristic of others, namely in Africa. Growing human mobility, together with forced migration—especially climate migration—have many potential implications for how education is organized, who learns, when, where, what, and in what languages. Adult education, for instance, may need to be entirely rethought; lifelong learning will be reshaped when traditional human life-stages take on new and varied contours across cultures.

The uncertain future of the world of work

Transformative disruptions are emerging in the world of work that will have massive, yet-unknown effects. Technological advancements, particularly around artificial intelligence and automation, will create new jobs and will complement and augment the capabilities of workers in existing jobs. Some jobs will be lost, with uneven impact across sectors and areas of the world. Increasing pressure to green economies, close gender gaps, and address global inequalities are critical emerging labor market issues. Already the rise of “gig” economies is changing the relationships between education and employment by altering traditional credentialing structures. What the economic world of 2050 will look like is a very open question in terms of what will happen with underemployment and precarious employment and whether the informal economy will assume even greater significance for billions around the world. A reexamination of the importance of care work and discussions of enhanced welfare provisions or universal basic incomes could be transformative disruptions. Traditional pathways connecting education to work may have to be reinvented. A broader reconsideration of what is meant by economic well-being and how education can support it may be necessary.

The demographic shifts deserve very special attention, as they will inevitably reconfigure the landscape of education and the communities and publics that need to be taken into account. Issues related to the future of work, are at the heart of school to work transition and will need to be deeply rethought in the light of realities of work that are likely to be radically different in 2050. Finally, to close Part 1, the Commission focuses its attention on two issues of the greatest importance and which directly affect education: radical uncertainty about governance and democratic participation; and the need for intellectual decolonization and epistemic diversity.

Radical uncertainty about governance and democratic participation

Governance crises and the democratic backsliding currently seen in many parts of the world create radical uncertainty in the political domain. The acceleration of prejudice and discrimination, authoritarianism, and infringements on the freedom of expression all have great consequence for an

education rooted in human rights, citizenship and civic participation at local, national and global levels. At the same time, there is, in many areas, increasingly active citizen mobilization and activism. The unknown trajectories of these political transformations will be with us at least for several decades—with many implications for education, both because these disruptions will shape educational agendas and because what occurs both in regard to educational access and in curriculum and pedagogy will, in turn, shape political transformations around the globe.

Intellectual decolonization and epistemic diversity

How cultural diversity and knowledge epistemologies will encounter one another in the future remains a dynamic, open question. The Commission can identify a set of key principles intended to provide guidance (for example, an imperative to sustain diversity, not merely include it). However, the Commission also recognizes that it is not possible to know precisely how this will all unfold. Will social justice and anti-racist movements force societies to profoundly rethink the ways they organize themselves? Will the dominant languages of instruction shift and the languages used in students' homes become more favored in education? These questions have great bearing on the possible reimagining of curricula and teaching based in non-majoritarian points of view, alternative traditions and indigenous ways of being and knowing. The longstanding grounding of UNESCO's humanistic approach in commitments to pluralism, cultural heritage, and indigenous languages is a reminder that these are not entirely new concerns. Nonetheless, the Commission perceives ongoing conversations about decolonization, reparative futures, and how to settle truth vs "fake news" claims as a critical, open, and transforming category of disruption that has many implications for human development and will fundamentally influence—and be influenced by—what occurs in the domain of education over the next decades.

These two aspects will be central to the writing of the report and its recommendations. The worlds of education in the future must be able to respond to all these emergent transformations—and must seek to shape them. **These trends and disruptions underline the urgency of rethinking the ways in which we understand and organize education.** Education cannot do it alone. But, to understand the limits of education is, at the same time, to recognize all its potential. Each of these issues needs an appropriate educational response, a task the Commission will explicitly address in Part 2 of the Report. It is in this section that the Commission defines its visions for the futures of education and advances concrete proposals to translate them into policy and practice.

2. Rethinking Education towards 2050

Education across the globe today falls well short of our aspirations for ways that schools and learning broadly can support wellbeing and equity for all, and a healthy relationship with the planet. Thus, we must ask: **have our current education systems reached the limit of their possibilities? Do our difficulties lie in the very ways education itself is organized? Do some of our challenges in fact stem from what and how we educate?**

The Commission presents concrete proposals in response to these questions in this central and most extensive part of the Report. While the Commission gives the highest priority to maintaining and

fulfilling the international commitments in education called for by the 2030 Agenda, it also considers that we need courage, boldness and creativity to imagine new paths for regenerative education as a global public and common good.

The starting point of the Commission’s proposals is the realization that **we have reached the end of a historical cycle and new educational patterns have begun to form.**

Over the past two centuries, a relatively homogeneous vision of schooling prevailed, which was based on a kind of “social contract for education”, through which society and families delegated a large part of their educational responsibilities to schools—which, worldwide, were organized in remarkably similar ways. This “contract” has been under stress for some time. It began to be seriously challenged several decades ago, due to many factors including the expansion of possibilities opened up by information communication technology; an end of the monopoly of teachers and schools as sources of knowledge; an expansion of interest in education across the lifespan; and an ongoing crisis of relevance and systemic failures to ensure that children and youth acquire basic competencies. During the COVID pandemic of 2020 and 2021 this contract was radically called into question.

The proposals contained in Part 2 of the Report are an effort to address the **need for a new “contract” with a different vision and purpose for education**, one that inspires hope and imagination.

In the last decades, a set of trends and interests have supported the idea that the “death of the school” is upon us. Some have argued that the school will be replaced by an infinity of devices and approaches—strongly supported by digital technology and artificial intelligence—all of which point in the direction of a “hyper-personalization” of learning. In such scenarios, schools are seen as obsolete institutions. Teachers become expendable professionals, who could easily be replaced by other forms of monitoring and supervision. While not grounded in experience or evidence, the premises underlying this vision, fueled by the unprecedented expansion of the global education market in which the EdTech industry leads the way, has been leading us down a dangerous path. It destroys social institutions without providing proven alternatives. And it must be resisted in the name of a regenerative education.

The Commission considers that **a new “social contract for education” must be based on the defense of education as a public and common good.** The Commission proposes commons-centered education to ensure overarching coherence to efforts at improvement and change. The transformation of education must be built on defending and expanding the inherited legacy of public education and the teaching profession. To innovate is not only to discover “new things”. The new can be a renewal of heritage that is tried and true. In many areas it is urgent to resist changes that jeopardize human dignity and rights, democracy, equal opportunities and equity. In other cases, regeneration calls for us to resume old battles, for a public and democratic education, and for a school of cooperation and creation that is capable of welcoming and developing all human beings, in their diversity, regardless of who they are and where they come from.

The proposals made by the Commission focus on three areas: (a) the place of education in wider society, (b) the organization and governance of education, and (c) the content and methods of teaching and learning.

The place of education in wider society: strengthening a common public education

This first area of focus is dedicated to the new landscapes of education. For two centuries, educational policies and approaches focused on the organization and management of education systems comprised of institutions. We now need to think about education in a much broader perspective, within the framework of a wide range of connections, spaces and times. It is this idea of an education that goes beyond institutional dimensions that defines this first area. In this context by public education the Commission does not refer solely to state-sponsored schooling. Public education must be seen, above all, as a way of reinforcing our common belonging to the same humanity while valuing differences and diversity. Learning and studying together with others is the best way to promote a life in common, a convivial society. For that, we need a public education that brings us into dialogue with the unknown.

To build a common public education is to call for a broad public sphere of discussion, engagement, and action around education. A coherent sense of purpose in education only comes when something common arises in a public space. This common public education will only exist with strong social participation and a robust capacity for deliberation. It is not just a matter of consulting “stakeholders” but of publicly organizing collective decision-making processes on education. This requires the presence and involvement of all who are concerned with education.

The Commission warns against a view that is becoming increasingly popular, especially in the context of responses to COVID: that education happens “naturally” at all times and in all spaces. In this respect it is useful to consider that the pandemic’s disruption of schooling has also shown us the intense difficulty of transferring education into the home. While learning may occur widely, there is nothing spontaneous about education. Especially as we explore the vast possibilities of the digital, it is important to recall that there are architectures and architects behind all educational materials. Recognizing the relevance of the rich diversity of educational processes and practices that take place in a variety of environments, it needs to be stressed that **as open and uncertain as it necessarily is, education nonetheless requires intentionality, planning, and systematization because it does not happen naturally or spontaneously.**

Education is too important to be left to chance. The compartmentalization of education into private spheres is not a solution. The diversification of actors in the education sector should be welcomed as long as it enhances the capacities of public authorities and communities to harness the regenerative power of education to address the severe challenges facing humanity. Education is an individual practice and a collective endeavor. Public education does not merely consist of instruction for children and young people. Public education educates publics.

As many are aware, a broad understanding of public education considers learners of all ages and learning in all areas of life and, for example, encompasses museums, libraries and community facilities, sports, theatre, science centers and cultural productions. Education that brings together

diverse human beings in a public space is one of the best tools available for forming and realizing common purposes. For example, when thinking about the place of education in wider society with a horizon of 2050, it is necessary to devote attention to new policies and practices for “adult education”, as we consider projections that human lifespans will regularly exceed 100 years. What radical educational challenges will result when people experience relationships with work and political landscapes that are dramatically different from what was known and foreseen during the schooling of childhood and adolescence that prevails today?

The “social contract for education” from the 19th century was intended to free up adult time and enable a new organization of work in the context of the industrial revolution. COVID-19 reminded us how much family and economic life is regulated by the pace of the school. **A new social contract between education and society will require us to build new relationships between family, social and work times and spaces.**

The Commission calls for a fundamental change in thinking about the practice of education and education policies. Instead of beginning from the perspective of education systems we should think about building common public spaces for education. This should be led by teachers, working in conjunction with families, communities, local and national authorities, universities, public and private entities. While we have great cultural heritage and wisdom to build upon, there are no ready-made solutions. Solutions must be built, collaboratively and taking into account the diversity of contexts and cultures in the world.

The organization and governance of education: building inclusive educational ecosystems

The Commission then focuses on organizational changes in schools and other educational institutions, including those result from digitalization. The Commission bases its perspective on the need to renew and rebuild new educational ecosystems in which it is possible to study, work and learn together. Education is the place we come together to share knowledge, to think together, to learn together, to encounter difference.

The Commission sees a vital need for many kinds of educational institutions including schools and universities to be sure, but also libraries, museums, community radio, public access television, spaces of the digital commons—as well as institutions not even dreamed of yet. In this institutional diversity, which extends to informal and nonformal education, we must find answers to old and new problems. Given all that is known about learning in the first years of life, special attention should be paid to early childhood education. It is also essential to understand the new terrains of adult education which are quite different from those that marked the 20th century—like education at every level, the focus must not be on building human capital, but on building human beings.

The school, with all its defects and limitations, is still one of the few institutions that can protect the poorest and most vulnerable. Indeed, the global pandemic has reminded us of the importance of schools for learning, but also as centers of social services. As community centers, schools can offer powerful supports for self-reliance and for cultivating ecologically sustainable relationships with nature. Most important is that the school environments foster social relationships. Education and learning are about human interactions, dialogue and exchange. Schools are forms of collective living

that cannot be fully replaced by distance or remote learning. Schools also provide children and youth with safe conditions in which to take risks, be confronted with challenges, and experiment with possibilities.

But to keep its promises, the school needs profound changes. It is necessary to build new cooperative and inclusive educational ecosystems. The most important thing is that they are conducive to studying and working together. Learning is not an individual act, it needs others. Self-education is important, but it is not enough. What we know depends, in large part, on what others know. It is in these relationships and interdependencies that education occurs. **Human beings learn, but human beings are also capable of being taught**—this beautiful dynamic, which connects us to one another and also intergenerationally, must never be forgotten.

Imagining new educational ecosystems implies reinventing architecture, curriculum and pedagogy. School buildings should be designed or remodeled with the same boldness and creativity with which they were first invented in the 19th century. New educational ecosystems must allow students to have experiences that they would otherwise not be presented with. It is for this that schools exist. It is this that distinguishes schools from home learning or learning in digital spaces. In offering this defense of schools, and the specificity of the work that is done within them, the Commission does not ignore the importance of links between schools and other social spaces and other educational institutions. Educational work will need to be increasingly carried out through these connections and articulations.

New inclusive educational eco-systems will not appear spontaneously. Teachers, with their professional knowledge and experience, have an essential role to play in creating them. With the same determination that built the school model in the 19th century, we now have to invent new educational institutions and environments. And we need to examine the governance systems and structures of education, respecting the importance of democratic participation. Fortunately, all over the world, tens if not hundreds of thousands of teachers have advanced in these directions. Their work needs to become better known and better supported. Inclusion is to be found through this diversity, and should be a guiding design principle.

The content and methods of teaching and learning: fostering knowledge co-construction and pedagogical commoning

We need to welcome different ways of thinking and being in the world, particularly those that have been historically marginalized. In this sense, thinking to the future must involve some repair of the past, a decolonization of the curriculum, and the unlearning of any number of things that have contributed to our current challenges. In this regard too, the Commission puts forwards a view of education as regenerative.

In addition to traditional disciplines, the curriculum has to encompass the major themes and problems of the world and develop itself through research and learner-driven projects. In addition to traditional skills, the curriculum must also integrate critical thinking and all that is needed to support citizenship and democratic participation on local and global scales. The principle of reciprocity is

central. Empathy, as the ability to put ourselves in another’s place with full affective openness, is a fundamental element of education.

A curriculum is never organized with “completed knowledge”, but rather with knowledge that is always under review and being updated. This awareness should lead us to teach all subjects as if they were heritage and part of an intergenerational conversation—knowing that students will contextualize and give new meaning to their learning, and this way further the continual renewal of the world that education allows.

The Commission sees a curricular and pedagogical future that will both shape and be shaped by digital technology. These radical transformations have to be considered in relation to all their potential, threats, and risks. Working towards a digital commons, and avoiding the enclosures that we currently see, is central to the futures of education. The idea of the common cannot be lost, nor can human needs—even if what it means to be human is constantly evolving. Commoning, as a process, must be valued in all of our approaches and decisions whether related to the digital or not.

Examples of pedagogical commoning include transforming the “lesson” into common inquiry; adapting education to student-driven learning over teacher-delivered content; and promoting problem-based and project-based activities that require collaboration. Teacher collaboration both exemplifies and furthers pedagogical commoning. The Commission sees individuals collaborating for collective action as one of the most vital learning needs of the present for enabling people to create the futures they want to create. A wide range of competencies feed into this, including interpersonal, communicative, team-work cooperation, coordination, empathy, perspective-taking, trust, service orientation, conflict resolution, negotiation. Again, we do not need to completely invent afresh. Excellent examples of all educational work in these directions are readily at hand and needs to be encouraged. Fundamental changes in curriculum and pedagogy are necessary if we are to build a regenerative education for a common humanity.

The Commission sees these three dimensions proposed above as all needing extensive attention, and as all encouraging of a regenerative education and furthering the principle of education as a public and common good. Each will developed in more detail and illustrated by examples of promising practices in the final Report. Issues related to teachers and higher education will be necessarily examined in each; however, as powerful enablers of the proposals formulated, the Commission believes that teachers and higher education institutions also merit dedicated discussion. Part 2 then closes with a reflection on global solidarity and international cooperation as we look to the future.

New times for teachers

The work of teachers will be essential to realizing what is proposed by the Commission. Education does not happen by chance and people, associations and coalitions are needed to build common public education, new shared educational ecosystems, and pedagogical commoning.

The COVID pandemic has accentuated the illusion that everything can be done through digital means and, even worse, that “tutors” or “coaches” will be enough to ensure education. The Commission considers this approach wrong and harmful, and emphasizes its conviction that the work of teaching requires qualified professionals with a high level of training and support.

Teachers from early childhood through adult education will face new roles and challenges—and will need to engage in much collaborative work, both within the profession and in relationship with other groups and institutions. Effective teaching needs to be understood as the result of collaboration, rather than the sole production of the individual educator. Needless to say, this implies a reinforcement of the importance of the teaching profession and increased attention to teacher education and professional development.

Key roles for higher education

Higher education has a key role to play in strengthening the knowledge and educational common. Universities house much of the world’s potential for knowledge and research production. Higher education institutions currently serve an estimated 200 million students, a not insignificant portion of the world’s population. All projections point to a continuous growth in the coming decades. Universities have a noble tradition of supporting the common. Academia has treated its scholarly productions as shareable goods for centuries. Open science and open access find a ready ally in higher education institutions. Inter-university cooperation and internationalization efforts are examples of openness with great promise for contributing to the global common. But universities are also places where many enclosures are produced, especially in recent decades through cost barriers and intellectual property claims. Despite many efforts to the contrary, higher education systems still remain places that exclude and marginalize.

Much has been done elsewhere to analyze possible developments in the higher education field and the Commission will not present specific recommendations on how higher education might need to be transformed—even as much of what is discussed here has implications for the sector.. Instead, the Commission contents itself to call for the strong participation of the university in the “city” and the “civitas”, which is to say in a wider social space than academic precincts themselves.

Higher education has a key role to play in building education as a global common good. One level of this is through all that universities do—and could do more—to support other educational institutions, from pre-schools through secondary education, but also adult education, museums, libraries and arts organizations. In this regard, the role of universities in teacher education, both in initial training and in ongoing professional development, cannot be overlooked. A final point is the decisive significance of universities in producing research and enabling the circulation of knowledge, which both supports educational policymaking and strengthens the school and pedagogical innovation.

The urgency of global solidarity and international cooperation

Bearing in mind the objectives of the UNESCO Futures of Education Initiative, it is natural that the Commission’s reflections end with a focus on global solidarity and international cooperation. The principle of education as a global common good immediately draws attention to global responsibility. In 2020 and 2021, in response to COVID, there has been an unprecedented mobilization of scientific communities around the world, supported by governments and public and private entities. This has been an extraordinary example of what global solidarity can do when fundamental issues for the

future of humanity are at stake. The fact that this open and collaborative scientific movement suffered enclosures after the discovery of vaccines does not diminish the initial dynamic and only alerts us to misappropriations that occur when we shift away from a focus on the global common good.

In education as in health, one individual's wellbeing is tied to all others. There is much that education can learn from international cooperation in the field of health. Like the coronavirus, ignorance, misinformation and lack of education are "contagious". It is not possible to build a just, sustainable and peaceful world if all human beings, regardless of their origins, cultures and conditions, do not have access to quality education. We depend on all of us. This awareness must be the foundation for strengthening international cooperation in education and for strengthening the public funding of education, both domestic and international.

3. A Manifesto for Public Action

This part of the Report will consolidate the main messages, presenting a summary of the key recommendations. The section is designed to be able to be autonomous, echoing elements from the introduction to provide the starting point, rationale and framing of the Report, so that it can be published and circulated as an overview of the Report. In essence it constitutes **a manifesto for public action** and regenerative education, written from the viewpoint of an extended humanism that captures a necessary rethinking of human relationships with the planet, one another and technology, and presents a case and strategy for building education as a public and common good.

4. Epilogue and continuation

Finally, the last part, rather than being styled as a "conclusion", will instead be framed as an "invitation to continue". It will call for **ongoing intergenerational debate and action on the futures of education**—making recommendations on social dialogue, futures literacy, and collective "thinking together to act together" work. It will include reflection on what was accomplished in the process of preparing this Report (together with self-acknowledged shortcomings) and the multiple activities that might come next. This invitation is consistent with UNESCO's entire initiative on the futures of education, which aims to catalyze ongoing debate and action on the futures of education that will help us all collectively, in current and future generations and in dialogue with our past, shape the future of humanity and the planet.