

CHAPTER



Beyond education – Contexts, end goals and limits

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Abstract:

This chapter introduces Working Group 2 (WG2) of the International Science and Evidence based Education Assessment. Building upon WG1, which highlights the importance of mobilizing education to support human flourishing, WG2 emphasizes the complex ways in which diverse contexts (ecological, political, cultural, social and economic) shape, and are shaped by, diverse understandings of what it means to lead a fulfilling life, and of education's role in this. We begin by explaining our approach, acknowledging both the challenges and importance of analysing context from a multidisciplinary perspective. After summarizing the overall content of WG2, we discuss themes that are especially urgent, in particular the role of politics and ideology in shaping (or distorting) educational priorities. We challenge the tendency in much contemporary discourse to hail education as a silver bullet for society's ills and argue that realizing an educational vision consistent with true human flourishing requires understanding the limitations of education to solve the problems that confront us. Recognition of the enormous transformative potential of education is at the heart of our vision, but rather than expecting education alone to transform our societies, we need to commit to action to alter our social and political contexts so as to enable education systems to refocus on the intrinsic value of learning.

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CHAPTER



1.1

Introduction

As we write these words, a devastating pandemic continues to rage around the world, disrupting or extinguishing lives. Scientists see this outbreak as one consequence of unrelenting human pressure on the natural environment, as we subject our

planet to unprecedented heating, and encroach upon and degrade the habitats of the species with which we share it (**WG2-ch2**). Thus, the overarching context in which educators operate today inescapably confronts them and their students with threats not



What do we talk about when we talk about context, and, given the interdisciplinary nature of this report, to what extent are we all talking about the same thing?

just to the quality of human life, but to life itself. As United Nations (UN) agencies have acknowledged, it is a context that requires us urgently to foster the determination and capacity to challenge an environmentally destructive, economically rapacious and politically fractious status quo (UNESCO, 2014). Citing the perils of climate crisis and poverty, in 2014 the UN called sweepingly, if vaguely, for ‘transformative’ change in social and economic policy, and ‘in our relationship with our one and only planet’ (UN, 2014). The same year, adumbrating its vision of Education for Sustainable Development, UNESCO emphasized that ‘to create a world that is more just, peaceful and sustainable, all individuals and societies must be equipped and empowered by knowledge, skills and values as well as be instilled with a heightened awareness to drive such change’ (UNESCO, 2014).

Of continued relevance, therefore, is a central question posed by UNESCO’s 1996 Delors Report: What kind of education is

needed for what kind of society in the future? Taking account of debates over fundamental aims of education and learning (e.g. as expressed in the ‘pillars of learning’ outlined in the Delors Report (International Commission on Education for the Twenty-first Century, 1996), the chapters in this section of the current report analyse how a range of contextual factors (political, social, cultural, institutional, environmental, technological, etc.) influence interpretation of the diverse goals of education, and the capacity of education systems to meet these goals. In this opening chapter, we begin by explaining the rationale for analysing context in a report on education. What do we talk about when we talk about context, and, given the interdisciplinary nature of this report, to what extent are we all talking about the same thing? Why must context be so central to our analysis? Following an attempt to answer these preliminary questions, we outline the logic behind the focus and sequencing of the subsequent chapters. This is followed by discussion of several key themes that run through these

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chapters, notably the interwoven roles of politics, ideology, science and technology in shaping educational debate.

The task of contextualization also involves locating the current report within a tradition of UNESCO publications on education, among them the 2015 Rethinking education report (UNESCO, 2015) and the Delors Report (*International Commission on Education for the Twenty-first Century, 1996*) in addition to earlier studies. Broadly speaking, UNESCO has stood for a humanistic vision of education, distinct from the more instrumentalist, human capital-oriented perspectives of the OECD or the World Bank. Where those institutions have focused primarily on education's contribution to economic growth, UNESCO has sought to articulate a more expansive vision of human flourishing. It has also increasingly acknowledged that a narrow focus on human welfare is not enough, when it is now abundantly clear that this cannot be considered in isolation from the broader fate of the planet (UNESCO, 2014). Our

analysis (especially in **WG2-ch2 and WG2-ch8**) endorses this planetary outlook, while highlighting the risks involved in burdening education with the role of panacea for our social or ecological problems.

We therefore conclude this introductory chapter by discussing both the potential and the limitations of education as a means of solving the many problems confronting our world. Indeed, education is by no means necessarily or intrinsically beneficial, but can exacerbate the dangers of nationalism, unsustainable consumption, injustice, exploitation and conflict (**WG2-ch5, ch8**). Striving for a humanistic vision of education is vital but is not, in and of itself, a magic formula for enacting a positive transformation of our world. Rather, our chances of realizing such a vision depend largely on the extent to which we are able to create socio-economic and political contexts in which education-as-human-flourishing can thrive.



1.2

Why Context?

Why is an analysis of ‘context’ – or ‘contexts’ – vital to a report concerned with the ways in which education can best contribute to human flourishing? While intuitively we can all endorse the goal of maximizing human flourishing through education, attention to context serves to remind readers that attempting to apply uniform blueprints is unwise and potentially dangerous. Policy-makers, educators and the public at large need to understand that

efforts to improve or transform education must give due regard to the diversity and complexity of human societies and cultures if they are to do more good than harm.

Our starting point is that the relationship between science, education and learning is more complicated than is often assumed. There is an inherent tension between the focus of **WG2** on context – complicating overly

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simplistic narratives of how and why we learn – and the aspiration to provide clear educational policy recommendations to a global audience. This tension is manifested in the transdisciplinary nature of the team compiling this report, with different members bringing varied understandings of 'context' to the table. None of this means (as some social scientists have contended) that everything is 'relative' or that claims to truth are intrinsically 'hegemonic' (**for more on this debate in relation to education, see Takayama, Sriprakash and Connell, 2017; Vickers, 2020b**). Rather, cultural and disciplinary differences throw important light on both the difficulties of transdisciplinary and international collaboration, and the reasons why it is vital to informed educational debate.

One set of challenges for such a transdisciplinary exercise involves the reluctance of many social scientists to acknowledge the value of insights from the biological sciences. Seeking to overcome the 'split' between biology and sociology, Youdell (2017, p. 1273)

argues that 'sociology of education should engage with bioscience to interrogate the folding together of the social, cultural, biographical, pedagogic, political, affective, neurological, and biological in the interactive production of students and learning'. This involves recognizing the potential of what she terms a 'biosocial approach' that takes our biology as a crucial element of the 'context' relevant for an analysis of education and learning. At the same time, there is a need to ensure that efforts at 'bridging' between science, cognitive psychology and education avoids embedding 'an assumed and enduring hierarchy across these disciplines' that privileges 'science' and positions educational technology or neuroscience as 'education's saviour and corrective' (Youdell et al., 2020, p. 884).

Another very different set of challenges for transdisciplinary collaboration arises from the tendency for some laboratory-based scientists or quantitatively minded social scientists to adopt a very narrow interpretation of

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context: as a set of factors that either facilitate or obstruct a given process or phenomenon. For example, what explains Finnish students' excellent literacy? Could it be teachers' status and conditions? Or the distribution of educational resources? Or some combination of measurable genetic and environmental factors? Factor analysis of particular educational phenomena is crucially important, if extraordinarily difficult. But there is far more than this to an analysis of 'context' and its relationship with education and learning.

Related to differing conceptions of context are differences over what constitutes 'evidence'. Those assuming that all analysis should deal in quantifiable factors equate evidence with ostensibly 'objective', measurable data. As Andreas Schleicher of the OECD said, 'Without data, you're just another person with an opinion' (cited in Wilby, 2013). However, most qualitative social scientists and historians operate under a broader conception of evidence, since many vital aspects of our social, cultural and political

life are not readily quantifiable. What constitutes evidence in any situation depends upon the nature of the questions asked, and those questions in turn reflect our ethical presuppositions and vested interests. The nature or rules of evidence also vary significantly by discipline. Evidence in psychological research is different from evidence in linguistics, or literary analysis, or in a courtroom. All use valid forms of evidence by their own epistemological lights, but the evidence may not be equally valid when one crosses disciplinary or epistemological boundaries. Restricting ourselves to questions that can be answered quantitatively risks embedding a disciplinary hierarchy, undercutting transdisciplinary collaboration and reinforcing a narrow and distorted vision of education (WG2-ch9; WG4).

A broader understanding of context appreciates that education systems, and learning within and beyond them, are fundamentally social phenomena. We all know this, or think we do. We recognize

that education is not just a matter of acquiring ‘skills’ of literacy and numeracy (important though this is), it is also about helping young people become responsible, engaged and fulfilled members of society. As **WG1** has set out, education needs to be understood as a fundamentally relational activity – not simply a process for maximizing individual ‘outcomes’ measured against objectives derived from overly standardized, externally determined frameworks.

But while most of us will endorse this statement of education’s socializing function, we too seldom pause to consider what this actually means. How does society shape our education systems, and how does education in turn shape society? How do politics, culture or vested interests condition how we think about education and its purposes in the first place? Given its embeddedness in hugely diverse social contexts, how far can we expect education to transform society? Or should we be thinking more in terms of changing society in order to transform education?

While research may be able to provide evidence (of varying, diverse forms) that informs discussion and debate, answers at the level of policy and practice are likely to be highly complex and hotly contested. This is the nature of confronting complex, socially based issues that must of necessity play out over time in dynamically evolving environments.

Animated by its humanistic vision, UNESCO has traditionally been highly concerned with the social and cultural context for education. Despite its title, *Learning: the treasure within*, the Delors Report (**International Commission on Education for the Twenty-first Century, 1996**) placed considerable emphasis on the external, social dimension of learning. Delors asked ‘What kind of education is needed for what kind of society in the future?’ and affirmed that ‘choice of education means choice of society’. UNESCO’s Futures of Education Commission (FEC), whose report has been compiled alongside this one (**UNESCO, 2021b**), similarly acknowledges the complex relationship between education and context:

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When we ask what purposes education serves, we also need to consider whose interests it reflects. Who is in control, and how do their agendas shape (or warp) education?

Knowledge is linked inextricably to the cultural, social, environmental and institutional contexts in which it is created and reproduced. ... Learning is a multifaceted reality defined by the context. What knowledge is acquired and why, where and how it is used represent fundamental questions for the development of individuals and societies alike. (UNESCO, 2020, p. 16)

But when considering its relationship with our social, political or environmental context, we need to remember that education is not simply a toolbox of ‘solutions’, but also a Pandora’s Box of challenges. Too often, public debate reflects the naïve assumption that education is a store of remedies for social ills; that it is always intrinsically ‘a good thing’. But from the unsustainability of our economies, through the corrosive competitive intensity of our societies, to the fostering of intercommunal and international hatred, education is profoundly implicated in the dominant pathologies of our time – as **WG2-ch5** (on education and

conflict), **WG2-ch8** (on curriculum) and **WG2-ch9** (on assessment) emphasize.

That this is so should come as no surprise if we remind ourselves that education systems do not stand apart from or outside their social context, but embody and mirror it. As such, they reflect prevalent cultural and ethical assumptions regarding the ordering of society. More fundamentally, they are shaped by what Delors (**International Commission on Education for the Twenty-first Century, 1996**) called ‘the political factor’: the distribution of power amongst vested interests. When we ask what purposes education serves, we also need to consider whose interests it reflects. Who is in control, and how do their agendas shape (or warp) education?

For decades now, successive UNESCO reports have propounded an idealistic vision of education as a source of human liberation, fulfilment and empowerment (**Elfert, 2017**). But we seem as far away as ever from

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realizing this. The state of affairs in education and the world requires that we reflect upon and question our longstanding humanistic viewpoint: is it intrinsically unrealizable or impractical? Or is the current system perhaps too beholden to entrenched vested interests wedded to an alternative vision? And if so, can that alternative vision itself be reformed or transformed, or is it profoundly antithetical to these humanistic ideals?

In addressing these and related questions, authors from a wide range of backgrounds collaborate across our various chapters, ensuring a transdisciplinary conversation. This is important for those of all disciplinary backgrounds (and assumes no rigid dichotomy between ‘natural’ and ‘social’ scientists). At a time of rapid and, in many ways, unsettling technological change, it may be tempting for social scientists to resist calls to engage with new scientific developments that have their origins in somewhat distal, laboratory-based settings, rather

than emerging from educational settings. At the same time, there is a pressing need for laboratory-based scientists who study learning outside of typical educational settings like classrooms or schools to engage with research that looks at education as it occurs in these contexts. Many scientists are well aware of how their work can be misrepresented by boosters or naïve techno-optimists. However, most are less familiar with sociological or historical analyses that could inform strategies to counter the causes of this distortion. What is often lacking is sufficient awareness of how science itself is a social thing, conditioned, like any other human activity, by culture, politics and vested interests (Gould, 1981). There are signs of growing recognition within the ‘learning sciences’ (encompassing educational neuroscience (EN) and other disciplines) of this social dimension, with analysis of how the ‘learning brain’ interacts with the social context, yielding testable ideas about how to facilitate some aspects of learning (Farah, 2018).

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The importance of ensuring greater cross-fertilization of neuroscientific, psychological and sociological work on education is underlined when we consider how naïve endorsement of ‘brain-based’ approaches to understanding education can lead us astray. Writing in *The Lancet* in 2015, the eminent British neuroscientist Steven Rose alludes to the ‘billions’ that have been pumped into ‘solving the brain’ over recent decades. Asking ‘What has driven this vast expansion?’, he cites the wave of optimism stemming from mid-century biomedical advances (e.g. the discovery of DNA), but notes that inflated early hopes needed to be drastically dialled down: ‘the prospects for improved therapies for the worldwide wave of psychiatric distress seem as remote as ever’ (Rose, 2015). Unfortunately, in some countries, enhanced investment in neuroscientific and psychological research into education has come at the expense of investment in research examining its political, cultural and social dimensions – for reasons that are themselves more political than scientific

(Arai, 2016; Vickers, 2020a). If, as Youdell et al. (2020, p. 881) argue, ‘attending to social and biological entanglements has conceptual and practical potential’ in educational studies, then it is vital that respect for, and funding of, the social sciences and humanities (as applied to educational research and more broadly) is maintained alongside support for research of a more natural scientific bent.

If we are to transform education and society in a more sustainable and humane direction, scientists of multiple disciplines need to understand social, political and economic forces that may be antagonistic to such a transformation. This extends to greater awareness of the ways in which history, politics and culture shape our assumptions about what sort of transformation is desirable in the first place. Ambition and hope must be tempered by humility and caution – and an honest recognition of complexity.



1.3

Analysing education in context: the logic of our approach

Our assessment of the contemporary contexts for educational change proceeds through three stages. An initial group of four chapters considers macro-level social, political, economic and environmental forces operating at global and national levels. Beginning with a chapter that takes a planetary perspective, we examine the

educational implications of our current environmental crisis, and the state of the debate over ‘education for sustainable development’. We then move on to a consideration of the ‘political economy of education’, and to further chapters that deal with challenges posed by diversity (in various forms) and conflict. There follow chapters focusing,





in turn, on technological change and developments in EN, areas that have aroused much public attention in recent years, and in which considerable hopes for an educational ‘transformation’ have been invested. A final set of three chapters then brings the analysis closer to matters of immediate relevance for day-to-day teaching and learning, analysing how contexts shape, and are shaped by, key institutional features of our education systems: curriculum and pedagogy, assessment and the teaching profession.

1.3 .1

SOCIO-ECONOMIC, POLITICAL AND ENVIRONMENTAL CONTEXTS FOR EDUCATION

Chapter 2, following this introductory essay, examines key aspects of humanity’s relationship with the natural environment, the

challenges of sustainability, and their implications for education systems. Offering ‘a view from the sustainability–education nexus’, this chapter highlights the limitations of approaches to ‘education for sustainable development’ that remain wedded to a fundamentally human capital-oriented vision. Arguing instead for the urgency of a more thorough going reappraisal of education’s links to employment and to dominant economic models, it points to the need to temper an overwhelmingly instrumentalist vision of learning with greater emphasis on education’s intrinsic value in enabling us to live fulfilling lives. A particular focus of this chapter concerns the epistemological foundations of our unsustainable relationship with the planet, which the authors relate to legacies of Western colonialism and their role in the origins of industrial modernity. At the same time, the chapter reminds us that critique of ‘coloniality’ and the epistemic underpinnings of industrial modernity should itself avoid the pitfall of Eurocentrism;

authoritarianism, colonialism and ecological rapacity are blights that transcend cultural or civilizational boundaries, in some degree implicating us all.

That discussion of issues of sustainability leads to an analysis, in **Chapter 3**, of the political economy of education. This reviews the state of debate over education's economic significance and costs, considering the implications of trends towards privatization and marketization of educational provision in many societies; the interaction of states, private corporations and multinational bodies (e.g. OECD and UNESCO) in the policy-making arena; and influential cultural and ideological beliefs concerning education's economic role. Of particular significance here are the related ideologies of meritocracy, neoliberal competition and assumptions (already critiqued in **Chapter 2**) concerning education's role in generating 'human capital' to fuel economic growth. These ideologies serve as a reminder of the powerful role that education plays in

shaping dominant assumptions in the realms of politics and economics, just as political and economic contexts in turn constrain and warp the potential of education. The chapter argues that, if we are to create space for more humane and sustainable approaches to education, a far-reaching challenge to powerful shibboleths such as neoliberalism is required.

Intimately related to questions of political economy is the role of education systems in distributing wealth and opportunity within societies, or legitimating certain patterns of distribution. Chapter 4 therefore deals with issues of diversity and social justice as these pertain to education. These are issues that cannot be satisfactorily understood through quantitative methods alone: in all societies, cultural, religious, class and ethnic divisions (amongst others) influence the expectations different groups bring to education, and the ways in which they experience shared educational institutions. Therefore, the manner in which education systems

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accommodate diversity, or fail to do so, must in turn be understood as a factor of political, cultural and socio-economic context. The understanding of 'diversity' here encompasses, in addition to dimensions such as gender, culture and class, the more novel dimension of 'neurodiversity', covering autism, dyslexia and other conditions related to diverse patterns of cognition.

When societies fail to accommodate diversity or deliver a modicum of social justice, violent conflict can follow. Conflict is a daily reality in many societies around the world today, while others recovering from recent trauma still struggle to cope with its aftermath. **Chapter 5** therefore explores the various dimensions and ramifications of conflict and its implications for education, combining consideration of the socio-economic, political, institutional and cultural aspects of conflict and post-conflict societies with reflection on its psychological impact and the challenges this poses for education.

1.3 .2

SCIENCE AND TECHNOLOGY AS CONTEXT

The macroscopic analysis of context offered in **WG2-chs2–5** is followed by an examination of issues that have assumed heightened importance in contemporary educational debate: the implications of technological change and the rise of EN. Even before the COVID-19 crisis began, debate was raging over the potential and risks of digital technology as a tool for teaching and learning. The pandemic of 2020–2021 has accentuated the urgent need to assess potential uses and abuses of this technology, and examine how political, commercial and sociocultural contexts have influenced public discussions of technology's role in education.

Chapter 6, on educational technology, reviews the implications for education of

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recent technological change, while arguing that the extent to which we see the potential of technology as ‘transformative’ for education depends on what we think education is for in the first place. Much of the ‘buzz’ around the educational potential of technology, and specifically of artificial intelligence, relates to hopes for the emergence of more individually ‘bespoke’ aids to learning. But while some of this potential may be real, the social effects of an ever more individuated approach to learning should give us pause for serious reflection. The chapter explores the tensions inherent in views of technology as a solution to educational problems identified by dominant actors, showing how such discourse often overlooks or suppresses technology’s potential to transform or disrupt the established order. In doing so, it critically examines issues of: access and equity; face-to-face (human, social, place-based) versus technology-mediated learning environments; teachers and teaching; and ethics. The authors conclude that the disseminators

of educational technologies, by and large, passively accept the educational status quo; are indifferent to the well-being and flourishing of learners and teachers (beyond securing the socio-emotional stability necessary to improve narrowly defined learning ‘outcomes’); and are generally blind to the political and economic forces that shape our educational institutions.

Another area of science that has garnered increasing attention in public discussions of education over recent years is neuroscience. **Chapter 7**, on EN in context, assesses neuroscience-based advances in our understanding of learning, and the extent to which these alter the terms in which key stakeholders ought to discuss education – issues discussed in greater depth in **WG 3** of this report (on ‘The learning experience’). The authors argue that the appeal of EN lies less in any revolutionary improvements to education it has so far yielded than in the future promise of such improvements. Methodological advances, notably in fMRI



(functional magnetic resonance imaging), raise interesting questions and enhance the popular appeal of neuroscience, although this is a technique that remains ‘in its infancy’ (Cobb, 2020, p.320). The chapter further notes the attraction to many stakeholders of a widespread belief (disputed by many neuroscientists themselves) that education is all about adapting individual learners to a given social, political and economic context (see also Arai, 2016). In other words, claims relating to the educational potential of neuroscience have proven appealing to powerful constituencies in part because they seem profoundly unthreatening to the socio-political status quo. The authors conclude that EN has a potentially valuable role to play in informing educational practice and policy-making, but it is important to improve understanding of the nature and extent of that role, and its limitations. This must extend to an awareness of how the aura of scientific objectivity can be manipulated by those keen to avoid critical discussion

of complex and intractable contextual factors (relating to politics and culture, for example), in favour of a focus on effective delivery of a particular body of knowledge and skills regarded more or less as ‘given’.

1.3 .3

INSTITUTIONAL CONTEXT, PERSONNEL AND THE PARAMETERS OF EDUCATIONAL PRACTICE

The content of education is, however, far from ‘given’. While a field such as EN seeks to elucidate how we learn, of crucial importance are prior decisions regarding what we learn. In other words, what is the curriculum, who defines it, and what are the key contextual influences that shape curricular debate? These are fundamentally political and cultural questions, reflecting dominant ethical assumptions

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that in turn derive authority from, or confer legitimacy upon, the distribution of power within particular societies. **Chapter 8**, on curriculum and pedagogy, thus foregrounds the crucial role of politics in shaping curriculum. The analysis here reminds us that education is by no means always or necessarily a 'good thing': where curricular control rests with forces intent simply on maintaining and legitimating their own power, irrespective of the consequences for ordinary citizens or the planet, then talk of sustainable or humane approaches to education is of little significance. This chapter adumbrates a vision of curriculum as a 'complicated conversation' that empowers diverse voices to challenge an authoritarian approach to the construction of knowledge through education. However, it also acknowledges that the potential to realize this vision depends largely on political conditions beyond the ambit of the education system itself.

Assessment is at once a key factor in shaping curriculum, and a key tool in the armoury of states

intent on extending surveillance and control over education systems. **Chapter 9**, on assessment in context, recognizes that assessment is a necessary feature of the learning process, but one that also carries the potential to narrow and distort radically the meaning of education. Assessment operates at various levels of education systems; it is directed at students, but also at teachers, schools and (increasingly) entire systems themselves. This chapter critically considers recent trends in international and national debates over assessment, and also reviews claims concerning the contribution of neuroscience or the 'learning sciences' to the refinement of assessment techniques. Of central concern for an analysis of assessment in context, however, are questions concerning what is assessed, why and how. Who controls decisions over assessment, which actors have sought to shape this debate, and with what ends in view? Amongst the issues considered here is the influence of transnational testing regimes (e.g. the OECD's PISA tests) on global



education policy debate. Rather than focusing simply on ways of refining or improving assessment techniques, this chapter analyses factors influencing the choice of assessment methods, and what these tell us about the assumptions and objectives driving education systems.

Finally, as a bridge to **WG3** on the ‘learning experience’, **Chapter 10** deals with the key mediators or facilitators of student learning: teachers. But while **WG3** deals more extensively with technical aspects of the teacher’s role, here the focus falls primarily on the contextual influences shaping the teaching profession in the contemporary world. Indeed, the question arises as to how far we can talk of teaching as a ‘profession’ at all, when governments, corporate interests and other actors have in recent years

sought more intrusive oversight of the operation of schools and classrooms. How much autonomy and status do teachers enjoy in different societies, and what are the implications for teacher recruitment and retention, and for teaching itself? To what extent, and in what ways, has teaching become a ‘gendered’ profession (i.e. overwhelmingly female), why and with what implications? And with intensifying pressures for the deployment of educational technology within the classroom and beyond, what is the future of the human teacher in a traditional classroom? These are just some of the questions that this final chapter considers, as it examines the contextual factors that influence the capacity of teachers to enact a vision of education that enhances human flourishing, rather than reinforcing an unsustainable and repressive socio-economic order.



1.4

Education and human flourishing: ideals, ideology and politics

The role that education should play in promoting ‘human flourishing’ is discussed in **WG1**, which integrates ethical or philosophical considerations with insights from the natural sciences. However, understanding the aims that animate education globally, and the difficulties of realizing a more humanistic approach,

also requires analysis of diverse contexts – historical, political, cultural, socio-economic and so forth. These dimensions of context receive varying emphasis across the **WG2** chapters: socio-economic issues, for example, come to the fore especially in **Chapter 3** on the political economy of education, while cultural considerations



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are more prominent in **Chapter 4** (on diversity) and **Chapter 8** (on curriculum and pedagogy). But central to our analysis is awareness of an aspect of context sometimes downplayed in international reports: the importance of politics and ideology in shaping education systems and debates surrounding them.

In ideological terms, UNESCO has always pinned its colours to the mast of ‘humanism’ (Elfert, 2017). Humanism can be defined in part through juxtaposition with its opposite: approaches that treat students or citizens merely as instruments for the fulfilment of external ends. Nationalism, capitalism, communism or religious fundamentalism have all been invoked to persuade ordinary citizens to sacrifice their autonomy and dignity in the pursuit of some imposed vision of ‘the greater good’ (WG2-ch8). The laws of the market, the destiny of the nation and even (chillingly) the supposed dictates of evolutionary biology have all been used to legitimate visions of education that prioritize the generation of productive ‘skills’

and unquestioning loyalty to the political status quo. The Chinese dissident Wei Jingsheng was rejecting such instrumentalism when he declared, ‘We want to be the masters of our own destiny. We do not want to serve as mere tools of dictators with personal ambitions for carrying out modernisation’ (cited in Pantsov, 2015, p. 340).

History reminds us of how states bent on pursuing ‘modernization’ or industrialization at the expense of more humane goals have frequently idolized science. In the politically fraught 1930s, the American sociologist Lewis Mumford (1934, p. 367) warned that ‘to perfect and extend the range of machines without perfecting and giving humane direction to the organs of social action and social control is to create dangerous tensions in the structure of society’. In other words, politics was vital to ensuring that technology was put to benign use. A terrifying alternative was sketched by Arendt (2017, p. 453), who portrays totalitarianism as ‘the last stage in a process during

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which “science has become an idol that will magically cure the evils of existence and transform the nature of man”. The advance of mechanized production threatened, she writes, to transform ‘all human activities ... into labouring’ (p. 624) with profoundly alienating and socially atomizing effects. Totalitarian movements have been able to exploit this alienation and isolation by channelling popular resentment through a strategy of ‘organised loneliness’ (p. 628).

None of this is to deny education’s important instrumental dimension, or the benign potential of science. The skills education imparts play a crucial role in preparing students for the labour market and for exercising the rights and duties of citizenship. Education is thus a means to various crucial ends, including the pursuit of economic prosperity as well as the ability to participate fully in the cultural, political and associational life of any modern society. If, as Sen (1999) argues, development is to be conceived as the enhancement of ‘freedom’,

then education is instrumental to the enjoyment of all other ‘freedoms’ or ‘capabilities’ we have reason to value.

However, in contemporary global debates over education, a narrow instrumentalism, often expressed in terms of ‘human capital’ or ‘human resources’, has predominated at the expense of attention to the intrinsic value of learning. This trend was accentuated following the collapse of communist regimes at the end of the Cold War, which was interpreted as confirming the deleterious consequences of generous public welfare and the virtues of unimpeded market forces. With economic globalization promising vast new investment opportunities, formerly socialist societies were thrown open to unregulated capitalism (Krastev and Holmes, 2020). East Asian societies, meanwhile, were touted as exemplars of a low-tax, small-state formula for equitable capitalism, underpinned by education’s role in securing a skilled and disciplined workforce (World Bank, 1990; Green et al.,

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status quo.

2007; Vickers and Zeng, 2017). But neoliberal capitalism shares with the state socialism it has displaced a fundamentally instrumentalist vision of the citizen, focused overwhelmingly on the individual as a unit of productive capacity.

With organizations such as the World Bank and the OECD preaching the virtues of public spending restraint, and globalization pressuring governments to enhance 'tax competitiveness', education has been widely hailed as a painless panacea for all manner of social ills. 'Education, education, education!', enthused former British Prime Minister Tony Blair, as he sought to wean his Labour Party away from its tax-and-spend habits. China's post-socialist communist rulers, who depict 'welfarism' as a pathology of decadent Europeans (Vickers, 2022), have portrayed Chinese PISA results as evidence of their success in harnessing economic growth to educational efficiency, in a context of minimal welfare and intense competitiveness (Tucker, 2011).

More recently, mounting environmental anxiety has prompted the OECD to modify its emphasis on human capital generation. It now stresses the need to make students 'future-ready' by fostering their 'agency' (OECD, 2018, p. 4), so that they can 'reconcile tensions and dilemmas' and 'take responsibility' (p. 5). 'Students who are best prepared for the future are change agents' (OECD, 2018, p. 5). But how much of a shift does this represent? Ultimate 'responsibility' for achieving a sustainable and liveable future is implicitly transferred to the next generation (and their teachers), even though meaningful agency will be denied them unless action is taken now to transform our socio-economic and political status quo. Rhetoric of 'future-readiness' shores up the old 'human capital' model by placing it on an ideologically more defensible basis. The same is largely true of the global 'happiness industry' that promotes 'mindfulness', 'social-emotional' competencies and 'resilience' (Davies, 2016). By placing responsibility for change

Chronic socio-economic insecurity combined with an ideology of meritocracy transform life into what Markovits (2019), writing of America, calls a 'massive, multistage meritocratic tournament'.

and adaptation squarely on the shoulders of individual learners, such discourses deflect attention from the urgent political and institutional changes needed to stave off catastrophe (WG2-ch8).

Education's panacea status meanwhile justifies efforts to subject all aspects of the learning process to increasingly intense quantification and measurement. While appropriate assessment is crucial to supporting learning (WG2-ch9), demands for ever more elaborate 'accountability', reflecting the burden of expectation education now bears, tend to cramp and distort the curriculum (WG2-ch8). The 'tyranny of metrics' in turn imposes huge strains not only on learners, but also on teachers (WG2-ch10), whose autonomy, professionalism and morale are thus widely undermined. While autocratic states intent on mass surveillance lead the way (Wan and Vickers, 2021), the impetus for control through metrics is also strong under 'high-stakes' neoliberal regimes (Bjork, 2015). In both cases, access to 'quality education', minutely

calibrated and monitored, is represented as a sufficient guarantee of social justice.

But expecting education on its own to usher in utopia, while leaving structural inequities untouched, actually perpetuates inequality and injustice. Chronic socio-economic insecurity combined with an ideology of meritocracy transform life into what Markovits (2019), writing of America, calls a 'massive, multistage meritocratic tournament'. Across East Asia, societies grapple with declining birth rates, largely because of the crippling burdens imposed by an even more extreme version of the same 'tournament'. South Asian elites spurn public schooling, promoting a reliance on the private sector that minimizes their tax liabilities and maintains their privilege. In India, China, the United States (USA) and elsewhere, access to elite higher education reproduces extreme inequality, gilding it with a patina of meritocratic legitimacy (Subramanian, 2021). In the process, children themselves are

commodified and reduced to entrepreneurs of their own ‘human capital’ (WG2-ch3). Transmitting their ‘meritocratic inheritance’ transforms elite families into centres of production, subordinating children to ‘excessive and ruthless training’ that ‘crushes’ the ‘human spirit’ (Markovits, 2019, p. 116). Meanwhile, society is fragmented, with the vast majority not only excluded from the opportunity to compete, but also denied moral grounds for challenging a yawning wealth gap justified by ‘merit’ (see also Sandel, 2020). One consequence of such fragmentation is the heightened risk of domestic and international conflict (WG2-ch5).

As it contributes to escalating social inequality, alienation and discontent, spiralling meritocratic competition is also implicated in the global rise of populist nationalism. Immigrants, minorities and external foes are useful foils for elites seeking to distract from the structural and political causes of socio-economic dysfunction. By ramping up ‘patriotic education’,

and portraying depression, stress and alienation as problems of individual maladaptation rather than societal failure, vested interests seek to shore up an unjust and unsustainable status quo.

Education’s capacity to promote social mobility, thereby helping to heal social division and resentment, is crucial, but limited. On their own, pedagogical tinkering, or more sophisticated metrics, cannot solve these problems; if they come with intensified pressure for ‘accountability’, de-professionalizing and demoralizing teachers, they may even make the situation worse (WG2-ch9, ch10). Reducing educational debate to a discussion of ‘what works’, while ignoring the political, social and economic context, risks legitimating a narrow, depoliticized vision of learning that exacerbates injustice. Promoting the idea that education can painlessly solve our societal malaise has become a tactic for preventing, or deferring, critical debate over vital but politically intractable problems, involving

...society is fragmented, with the vast majority not only excluded from the opportunity to compete, but also denied moral grounds for challenging a yawning wealth gap justified by ‘merit’.

This dilemma discussed in The Economist on social mobility (2021), cites cross-national comparative data demonstrating a strong correlation between high inequality and low social mobility.

taxation, welfare, labour rights and the impact of technological change.

This dilemma discussed in The Economist on social mobility (2021), cites cross-national comparative data demonstrating a strong correlation between high inequality and low social mobility (Corak, 2013). The most equal societies are also the most mobile, on a spectrum ranging from expansive European welfare states at one end (Denmark, Sweden, Norway and Finland) to the USA at the other (only 'developed' societies were sampled). The contrast is especially stark with respect to child poverty, with the American rate almost triple that of Poland; the USA spends 0.6 per cent of GDP on family and child benefits, against an OCED average of 2.1 per cent and concludes is that the 'American Dream' needs salvaging through a major revamp of child support, and some wider enhancement of taxpayer-funded welfare spending. This arguably underestimates the challenges to a socio-economic model assuming a strong linkage between education,

employability and merit-based social mobility. Recent work on the implications of technological change for labour and work suggests a more fundamental rethink may be called for (Susskind, 2020).

By analysing the complex ways in which educational ideas, systems and practices are embedded in diverse contexts, the chapters in **WG2** thus lead us to ask whether we should actually be talking less about education transforming society, and more about society transforming education. To appreciate the importance of context is not to despair of the prospects for educational improvement. But it is to appreciate the limits of education's capacity, on its own, to bring about desirable social transformation. If we truly believe in the intrinsic value of learning, we should first seek to create social conditions for experiencing education not just as a tool for securing material wealth or positional advantage, but as a central component of a fulfilling life.

TEXT BOX: EDUCATION, TECHNOLOGY AND SOCIAL JUSTICE: LESSONS FROM THE COVID-19 PANDEMIC

The COVID-19 pandemic has starkly dramatized some of the opportunities and challenges posed by technology for education. The benefits afforded by technology have been considerable. Online platforms such as Zoom have enabled classes to continue, in some form and for some learners, in hygienic safety. The ready availability of information and various learning tools via the internet has also enabled many to continue both learning and entertaining themselves in their own homes. These are benefits that few would seek to deny.

At the same time, they come with a social price we are only beginning to acknowledge. Along with the potential for more individually tailored learning comes a diminution of the social dimension. Japan, noted for its emphasis on equality, uniformity and inculcation of a group-oriented ethos, was among the countries that lost the fewest days of face-to-face teaching to COVID-19 (24 days lost)¹ (Bjork, 2015; Tsuneyoshi et al., 2019). By contrast, England (61 days lost on average)², where governments have promoted ‘school choice’, differentiated learning and a more narrowly ‘skills’-oriented discourse, resorted to lengthy school closures, apparently on the assumption that core curricular content could satisfactorily be

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¹ See, for example, data on school closures gathered by the World Bank: <https://www.worldbank.org/en/data/interactive/2020/03/24/world-bank-education-and-covid-19>. On Japan see <https://www.tes.com/news/school-reopening-pandemic-plans-nations-compare-uk-france-germany-italy-japan-usa>

² <https://blogs.lse.ac.uk/politicsandpolicy/learning-during-covid19/>

The longer the period of school closure, the more severe the impact of a 'digital divide'. This widens to a digital gulf between privileged learners and the impoverished masses in societies...

delivered online. The longer the period of school closure, the more severe the impact of a 'digital divide'. This widens to a digital gulf between privileged learners and the impoverished masses in societies such as the Philippines, where schools remained closed for more than eighteen months (UNICEF, 2021).

One natural response to such a divide is to attempt to close it, and this is where many multilateral bodies have focused attention during the pandemic. For example, UNICEF teamed up with Microsoft in the Spring of 2020 to launch a digital learning platform³, while UNESCO established a Global Education Coalition with support from various Big Tech sponsors. Many of these corporations profited hugely from the pandemic, even while their 'tax-efficient' strategies depleted resources for funding state schools

(Neate, 2021)⁴. Along with any learning benefits then, there are significant risks in partnering with corporations with a huge vested interest in digital learning 'solutions'. Such partnerships may implicate multilateral bodies and governments in legitimating a technology-driven overhaul of schooling with potentially serious effects both for equity (by rendering learners increasingly dependent on home or familial resources) and control (including the power to shape conceptions of its purposes) over education. The term 'pandemic pedagogy' has been used to describe the 'prototype of education as a private service and an opportunity to recentralize decentralized systems through platforms' (Williamson, Eynon and Potter, 2020).

Informing the rush to embrace technological 'solutions' is often an impoverished, instrumental vision of education focusing

³ <https://news.microsoft.com/2020/04/19/unicef-and-microsoft-launch-global-learning-platform-to-help-address-covid-19-education-crisis/>

⁴ <https://en.unesco.org/news/global-education-coalition-explores-digital-learning-turn-africa>

Along with any learning benefits then, there are significant risks in partnering with corporations with a huge vested interest in digital learning 'solutions'.

overwhelmingly on the competitive acquisition of human capital (see MGIEP, 2017). Nuancing the OECD's position on skills generation, Andreas Schleicher recently declared:

... if we want to stay ahead of technological developments, we have to find and refine the qualities that are unique to our humanity, and that complement, not compete with, capacities we have created in our computers, schools need to develop first class humans, not second-class robots. (cited in Watson, 2021)

But even while alluding to 'qualities unique to our humanity' and the dangers of excessive competition, Schleicher underlines the imperative of staying 'ahead of technological developments'. Technology is portrayed as an objective fact of life shaping our reality, compelling us to become 'first-class humans' in order to out-compete 'robots'. Hardly a

liberating or humanizing vision, this is effectively a call to gird ourselves for an intensified drive to reconfigure our 'human capital', exacerbating the blight of meritocratic competition⁵.

China exhibits the meritocratic pathology in its extreme form, and there the state has recently signalled a determination to tame technology and curb educational competitiveness. In 2021, the government introduced stringent new controls on private tutorial schools (online and offline), sought to restrict children's use of video games and took various measures to rein in over-mighty technology firms (Kynge and Sun, 2021). However, an intensification of monitoring and surveillance – also associated with the COVID-19 pandemic – reflects the underlying imperative of strengthening Communist Party control over society⁶. Nor will such measures diminish the competitive pressures learners face, rooted as they are in socio-

⁵ We are grateful to Paul Morris for drawing our attention to Schleicher's pronouncements on 'first-class humans'.

In other words, thanks largely to technological advances, we command sufficient resources today to feed, clothe and house all humans without submitting them to lives of exhausting, degrading drudgery.

economic insecurity and massive inequality (Vickers and Zeng, 2017).

But just as science and technology can pose threats to human flourishing, and to visions of learning capable of sustaining it, they also offer great promise. The economist J.M. Keynes, writing at the onset of another wrenching global crisis (the Great Depression), dreamt of a world where technology would liberate us from the need to work – ushering in the ‘15-hour week’ (Keynes, 1930). Keynes arguably underestimated the centrality of work to our sense of self or of our own dignity and purpose.

However, as Susskind (2020) argues, he was broadly correct in his calculations of the productive potential of technology by around the year 2000. In other words, thanks largely to technological advances, we command sufficient resources today to feed, clothe and house all humans without submitting them to lives of exhausting, degrading drudgery. The fundamental problem we face is therefore not one of producing ‘first-class humans’ capable of outpacing our robot progeny, but of reforming our societies so that first-class opportunities to learn and flourish are available to all.

⁶ Measures mooted include requiring gaming firms to use facial recognition technology to gauge the age of individuals playing their games online.



1.5

Towards a new agenda for education – and politics

The analysis of ‘context’ here and in subsequent chapters challenges us to question the terms in which debate over education’s relationship to ‘human

flourishing’ is conducted around the world today. Despite a recent shift in language on the part of some multilateral organizations, encompassing talk of ‘twenty-

Maximizing public discourse on education remains overwhelmingly focused on the maximization of human capital for economic growth.

first-century competencies’ or the importance of ‘social and emotional learning’, maximizing public discourse on education remains overwhelmingly focused on the maximization of human capital for economic growth (UNESCO MGIEP, 2017; OECD, 2019). Meanwhile, in many societies, this instrumental focus on human capital is combined with increasingly chauvinistic, intolerant messages concerning the intrinsic superiority of ‘our nation’, and the malignity or inferiority of ethnic or foreign ‘others’ (WG2-ch8; see also Konzcal and Moses, 2021). Across much of the world, education systems embody a narrowly instrumental vision of learners as potential units of productive capacity – as patriotic worker ants loyally devoted to the cause of enhancing national prosperity and state power – and not as autonomous agents entitled to challenge established state agendas and participate in shaping new ones.

To challenge the human capital orientation is not entirely to deny its validity. The instrumental

functions of education – for example in imparting skills that enhance employability and productivity – are crucial for individuals and societies, as Sen (1999) emphasizes. The instrumental utility of the skills education imparts will always be inextricably bound with the intrinsic value of learning as a basis for human flourishing. But the overwhelming focus on economic utility, employability and – in many societies – subordination to an overarching goal of national aggrandizement, implies a chronically impoverished vision of education. It is a vision whose unsustainability is also more and more obvious, in a world already ravaged by climate change, and where technology increasingly complicates the task of preparing learners for the workforce, undermining the promise of security through employment.

Other voices have sought to articulate more sustainable and humane visions. As this report was being finalized, UNESCO’s FEC published its final report,

...the overwhelming focus on economic utility, employability and – in many societies – subordination to an overarching goal of national aggrandizement, implies a chronically impoverished vision of education.

calling for a new ‘social contract for education’(UNESCO, 2021b). This affirms the transformative and empowering potential of education: ‘to shape peaceful, just and sustainable futures, education itself must be transformed’ (UNESCO, 2021b, p. 1). Invoking ‘a shared vision of the public purposes of education’, the FEC stresses that the new ‘social contract’ must ‘unite us around collective endeavours and provide the knowledge and innovation needed to shape sustainable and peaceful futures for all anchored in social, economic and environmental justice’ (p. 2). It argues, as we do in **WG2-ch10**, for the need to ‘champion the role played by teachers’ (p. 2), and offers recommendations for changes to ‘pedagogy’, ‘curricula’, ‘teaching’, ‘schools’ and various ‘social and cultural spaces’ for education (p. 4), with a view to ‘[allowing] us to think differently’ (p. 3). In short, there is much in the FEC report that all should find easy to endorse.

At the same time, in emphasizing the potential of education to

transform consciousness, and thereby transform the world, the FEC report implicitly assumes as its starting point a global ethical and political consensus for which there is little evidence. When it condemns reprehensible ‘democratic backsliding’ in many societies, it invokes values to which many key stakeholders simply do not subscribe. Enacting the new ‘social contract for education’ would require, first and foremost, a sweeping transformation of the political and ethical context: in effect, a global cultural revolution. Reducing competitive intensity, promoting teacher agency and other goals the FEC promotes are impossible to achieve through changes to educational institutions and practices alone. Educational change, to be effective, must be pursued in tandem with reforms to labour markets, welfare arrangements and the entire structure of social, economic and political institutions within which education is embedded. In other words, we must challenge the inside-out assumption that change necessarily proceeds from

Rampant credentialism, and the meritocratic ideology that legitimizes it, diminishes our capacity to realize a vision of education as an inherent component of the fulfilling life.

education outwards to society, and adopt a more outside-in perspective, recognizing how far education's potential is shaped and constrained by context.

Necessary alterations to that context could begin with the practices, institutions and beliefs that promote intense educational competitiveness. Distinct from both the intrinsic value of learning, and its utility in imparting economically useful 'skills', is its role in marking and sorting individuals. The corrosive effects of meritocratic competition constitute a recurrent theme of our analysis here (**especially in WG2-ch3 and WG2-ch9**). Rampant credentialism, and the meritocratic ideology that legitimizes it, diminishes our capacity to realize a vision of education as an inherent component of the fulfilling life. Meanwhile, the promise held out by meritocracy's naïve cheerleaders – that education can equalize opportunity and legitimate social inequality – has proven blatantly hollow in societies where mobility declines and the intergenerational transmission

of privilege escalates (**Vickers and Zeng, 2017; Markovits, 2019; Sandel, 2020**). Faith in meritocracy and in the power of education, almost alone, to transform societies for the better reinforces a focus on 'equality of opportunity' (as distinct from actual equality) and legitimates low-tax, low-welfare public policies. It thus underpins a neoliberal 'promissory' regime that derives legitimacy from the credibility of promises that education can painlessly transform livelihoods and usher in a future of greater prosperity and fulfilment for all (**Beckert, 2020**). However, as inequality worsens, as the climate crisis intensifies, and as the promise of a 'better tomorrow' rings false for millions across the world, social anomie, disenchantment and resentment spread. The outcome is to provide increasingly fertile ground for populism, nationalism and varieties of religious and ideological fundamentalism.

Just as education's transformative potential is real, yet limited and double-edged, so too is that of science and technology.



Scientific advances, technological innovation and related refinements to assessment methods (for example), have potentially important roles to play in enhancing learning and pedagogy,

but, if put to inappropriate use, they also carry risks – as the COVID-19 pandemic has illustrated dramatically (Williamson, Eynon and Potter, 2020). The risks include undermining

During the pandemic, disinvestment in (or restriction of academic freedom affecting) social sciences and humanities, alongside greater privileging of STEM fields, has intensified in many societies.

or devaluing the crucial human relationships between teachers and students, and amongst students themselves, as well as new dimensions of inequality (due to differential access to technology). Exaggerated faith in the capacity of technical adjustments to the delivery of learning to achieve social transformation is part and parcel of the neoliberal/meritocratic outlook, and of all ideological creeds that take a fundamentally instrumentalist, human capital-oriented approach to education. Moreover, many of the claims made for the transformative potential of science and technology are, like those advanced on behalf of neoliberalism, 'promissory'; these fields derive much of their legitimacy from credible promises of future achievement, rather than a substantial record of transformative change.

A serious reassessment of the idolatry surrounding science, technology and the prevailing meritocratic and neoliberal orthodoxies is therefore urgently

needed. This will require critical, mutually respectful and open-ended collaboration between natural scientists and researchers with expertise in the historical, political, social and cultural context of our education systems. However, in public policy today, a widespread and profound imbalance persists between support for the social sciences and humanities and for so-called STEM (science, technology, engineering and mathematics) fields. During the pandemic, disinvestment in (or restriction of academic freedom affecting) social sciences and humanities, alongside greater privileging of STEM fields, has intensified in many societies (Kakuchi, 2020; Sears and Clark, 2020; Trivedi, 2020). This typifies the persistence of an impoverished, instrumentalist vision of the purpose of education, even in the face of crises that urgently demand social analysis, ethical reflection and political action. Natural science alone cannot supply a blueprint of the ideal society or the perfect education system, and the delusion that it can (or should) has accompanied some of the most

..missing from most contemporary debate is the promise of technology – if deployed on behalf of all, rather than to enrich a few – to enhance economic security, curb soulless drudgery, and free us to enact a more expansive and humane vision of education.

disastrous political experiments of the past century (Arendt, 2017).

Meanwhile, missing from most contemporary debate is the promise of technology – if deployed on behalf of all, rather than to enrich a few – to enhance economic security, curb soulless drudgery, and free us to enact a more expansive and humane vision of education. Yet another unrealized ‘promissory future’, this was the vision of J.M. Keynes when he predicted that technology would liberate future generations to devote more time and energy to cultural pursuits (Keynes, 1930; Susskind, 2020). It is perhaps this kind of vision towards which UNESCO’s FEC sought to point when, in its interim report, it talked of the need for ‘regenerative education’ (UNESCO, 2021a).

However, there remains the danger that concepts such as ‘regenerative education’, or ‘a social contract for education’, like ‘lifelong learning’ before them, may be hijacked by vested interests determined to shore up an unsustainable status quo (Elfert, 2017). ‘Lifelong

learning’, originally promoted by UNESCO as intrinsic to a vision of education that liberates and expands human potential, came – in the hands of the OECD, the European Union, national policy-makers and corporate actors – to be interpreted primarily as a requirement that workers constantly update and renew skills rendered obsolete by technological change. This requirement to adapt ourselves ceaselessly to technology subordinates humans to machines, confining rather than expanding our capacity to flourish. It is all too easy to imagine ‘regenerative education’, for example, being interpreted in precisely the same way, if it is tied to a prime imperative to ‘regenerate’ human capital in the face of technology-induced obsolescence. What our world requires is a radical reversal of this equation, so that citizens, policy-makers and educators ask first what needs to change in our politics, societies and education systems if we are to put technology and science to the service of humanity, rather than the other way around.



CHAPTER



1.6

Key Messages

The following does not represent a summary of the findings of **WG2**, but highlights some of the core themes that emerge from this introductory chapter, and that have informed analysis of the ‘contexts of education’ in

subsequent chapters.

- *The pursuit of learning is both intrinsic to the flourishing of human life*, and instrumental in creating the conditions that enable us to flourish.





- *Appreciation of education's intrinsic and instrumental value*

takes us beyond a narrow 'human capital' paradigm, underlining the importance of seeing learners as ends in themselves, not as means (to the pursuit of economic growth, corporate profit, national aggrandizement or other external purposes).

- *Analysis of the contexts of education* – encompassing history, politics, ethics, culture, economics, science, technology and more – is crucial to understanding the conditions conducive to realizing education's potential contribution to human flourishing.

- *Awareness of education's enormous benign potential must be balanced* by appreciation of

the ways in which it can be turned to deeply malign purposes, and of the role that contextual factors play in making benign or malign outcomes more or less likely.

- *Transdisciplinary collaboration has a crucial role to play in such research*, but must eschew notions of disciplinary hierarchy, and proceed in a spirit of mutual respect and openness.

- *Contextual analysis teaches us the limitations as well as the potential of education*, compelling us to ask not just how education can transform society, but how social transformation can foster the conditions necessary to realizing a more humanistic vision of education.

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