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# 'The future we want'? – the ideal twenty-first century learner and education's neuro-affective turn

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## ABSTRACT

We examine the ideal twenty-first century learner as discursively produced in recent future-oriented documents published by the OECD and UNESCO. Drawing inspiration from Bacchi's question 'What is the problem represented to be?', we identify a constellation of interrelated discourses that together craft an image of a post-political, resilient, empathic, bio-perfected, transhuman learner. This learner is conditioned to endure, adapt and adjust to ongoing socio-political conditions and crises, rather than to contest, resist, or alter them. We argue that this portrayal is reflective of a deepening ideological alignment between the OECD and UNESCO – organisations that have traditionally held divergent views on the purpose and value of education. We conclude by advocating for the reinvigoration of subjectivities that prioritise political agency, defined as the capacity to act upon and transform the existing social order and power structures.

## KEYWORDS


Anthropogenic crises; discourse; education futures; neuro-affective turn; OECD; political agency and subjectivity; precision education governance; resilience; social-emotional learning; transhumanism; UNESCO

## Tomorrow's world: precarious presents; desirable futures

The need to 'reinvent', 'reimagine' and 'transform' education in response to emerging trends, challenges and crises is a major preoccupation of International Organisations (IOs) with an education remit (Mertanen and Brunila 2022; Niemann 2022). These IOs play a pivotal role in shaping educational policy and practice, influencing everything from policy direction to the very nature of education, including its objectives, methodologies, and values (Elfert and Ydesen 2023). IOs deploy anticipatory techniques (including strategic foresight methods, trend analysis, and scenario-based planning) to imagine possible futures and inform policy dialogue (Berten and Kranke 2022; Robertson and Beech 2023).

Whereas futures-thinking is not a novel feature of global educational governance, the scale and unprecedented nature of recent technological, political, and socio-ecological change has heightened the urgency for radical reimaginings of education. These ongoing challenges have increased IOs' authority by providing a justification for

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expanded regional and global governance (Dellmuth, Scholte, and Tallberg 2019). Future-focused ideas, frameworks, scenarios, data and other forms of 'evidence' boost IOs' legitimacy and afford them 'soft power' to influence educational policy and practice in sub/national settings (Robertson 2022).

The manner in which IOs perform and promote their vision of *desirable* futures and future citizens is significant in the sense that these imaginaries shape how education is understood, acted upon, and delivered *in the present* (Berten and Kranke 2022). That is, rather than merely reflecting material reality or a future that exists 'out there', future-focused discourses (i.e. socially produced forms of knowledge and beliefs about the future) structure and shape how we think about, and act upon, education in the here and now (Nelson, Geltzer, and Hilgartner 2008). We take as our starting point the notion that the anticipatory activities of IOs have 'looping effects' (Nelson, Geltzer, and Hilgartner 2008, 546) that 'produce a different world' (Loxley 2007, 2). We consider the world that is brought into existence – including the political possibilities that are variously opened up and foreclosed – by future-oriented policy discourses employing a vision of the ideal twenty-first century learner.

Focusing on two major education policy actors – The Organisation for Economic Co-operation and Development (OECD) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) – which have historically held very different ontological understandings of education, we critically consider the ideal twenty-first century learner as constructed in the future-oriented education policy discourses deployed by these IOs. Subjecting the OECD's 'resilient learner' and UNESCO's 'empathic learner' to critical scrutiny, we argue that the future-making activities undertaken by these IOs are suggestive of a deepening ideological convergence regarding the fundamental purposes of education.

Inserting a question mark into our title – 'the future we want?' – we seek to actively challenge the future envisioned by these IOs and advocate for a reinvigorated human subject that is attuned to the substantive causes of injustice and primed to resist – rather than merely endure – prevailing conditions, norms, practices and ideologies. Through an interrogation of the ideal twenty-first century learner – whom we identify as a post-political, resilient, empathic, bio-perfected, transhuman subject – we critique the type of world that is brought into existence through its discursive construction and highlight the necessity for alternative political subjectivities that privilege different ways of being and relating in the world (Evans and Reid 2014).

Inspired by Bacchi's analytical framework 'What is the problem represented to be?' (WPR) (Bacchi 2009), our paper addresses three broad questions: (1) What is the problem represented to be in future-oriented education policy discourses deployed by the OECD and UNESCO? (2) What wider social and institutional discourses, logics, forces, and assumptions about the human condition and conduct underpin these problem-representations, particularly as they relate to the construction of the ideal twenty-first century learner? (3) What are the implications of these discourses, logics, forces and assumptions for the type of world and political subjectivities they bring into existence?

## **Key concepts: education's neuro-affective turn in an era of precision education governance**

Two interrelated concepts – the 'neuro-affective turn' and 'precision education governance' (PEG) inform our analysis of how the OECD and UNESCO articulate their respective

visions of the ideal twenty-first century learner. Enabled by medical and technological advancements in *inter alia* genetics, brain imaging and the neurosciences, the 'big data' revolution, digital tools and artificial intelligence, the so-called 'learning sciences' and allied approaches have become increasingly salient in educational research, practice and policy in education (Williamson 2023). From the perspective of the learning sciences, education can be improved by influencing the brain and its psycho-affective dimensions, not least because it is perceived to be profoundly malleable and adaptive. Keen to incorporate expertise and knowledge from the learning sciences into their proposals for educational policy and practice, both the OECD and UNESCO have played a significant role in driving education's neuro-affective turn (Williamson 2023).

One of the clearest expressions of this neuro-affective turn is the emergence of social-emotional learning (hereafter SEL) as a 'zeitgeist' that has been capturing the imagination of academics, policymakers and practitioners alike since the new millennium (Humphrey 2013, 1). This neurologically-inflected approach to education seeks to cultivate a wide array of 'non-cognitive' skills, attributes, competencies, values and traits deemed necessary for adapting to the challenges and precarious conditions of the twenty-first century including 'wellbeing', 'empathy', 'emotional intelligence', 'responsiveness', 'adaptive attitudes', 'self-regulation', and 'resilience', defined as the capacity to rebound, 'bounce back' or forward in order to positively adapt in the face of adversity (Bryan 2022).

Education's neuro-affective turn is closely aligned with a new, economically motivated, and highly influential mode of anticipatory regulation known as precision education governance (PEG), which governs aspects of behaviour previously viewed as insignificant, hard to reach or unknowable (Brunila and Nehring 2023; Mertanen, Vainio, and Brunila 2022; Mertanen and Brunila 2022). PEG is concerned with measurable efficiency that extends beyond the learning process itself, encompassing various emotional, behavioural, and psychological factors. This economically-driven focus ensures an understanding of education, recognising the intricate ways in which these diverse elements interact to shape desired and optimised educational outcomes.

PEG is facilitated by powerful partnerships and interactions between governments, international organisations, civil society organisations, and commercial interests, including global corporations and the education technology industry (Brunila and Nehring 2023; Bryan 2022; Mochizuki, Vickers, and Bryan 2022). It relies on the emergence of technologies and digitalisation as well as the latest insights in the behavioural and life sciences, for the 'precise' individualised and efficient shaping of human conduct. These enable recognition of the central role of behavioural, psychic, emotional, neurological, and affective responses such as individual learning or behaviour difficulties to be overcome. As a mode of governance, precision education fosters neoliberal economic values, caters to labour market demands, and encourages marketisation, privatisation and commodification of education, promotes digitalisation, and reinforces the influence of the behavioural and life sciences in education (Brunila and Nehring 2023). PEG is further animated by a *neuro*liberal imaginary (Whitehead et al. 2018). This ideological framework combines neoliberal market-oriented principles with new scientific and intellectual approaches to the human condition derived from the behavioural and life sciences. Its aim is to mobilise (non)cognitive and emotional regulation strategies in order to condition subjects to adapt to the prevailing socio-political order.

Our analysis suggests that the *neuroliberally*-inflected vision of the ideal twenty-first century learner espoused by two of the most significant policy actors in education – the OECD and UNESCO – is indicative of a deepening ideological alignment between them, despite having traditionally held very different worldviews, ontologies and visions. The next section presents a necessarily selective account of these IOs' struggle for epistemic authority and legitimacy as a preface to the analysis of the OECD's 'resilient learner' and UNESCO's 'empathic learner' which follows.

### **From ideological divergence to convergence? International organisations' evolving understandings of the purposes of education**

Education policy has been shaped by a familiar set of global institutions and transnational policy actors since the mid-twentieth century, including UNESCO, the World Bank and the OECD. UNESCO was established in the aftermath of the Second World War as the UN's intellectual agency and its principal authority on education (Toye and Toye 2010). The establishment around the same time, of the World Bank and the OECD's forerunner, the Organisation for European Economic Co-operation (OEEC), created the conditions for a culture of 'antagonistic competition' to evolve between IOs concerned with education (Niemann and Martens 2021, 182). The OEEC was formed in 1948 to administer the Marshall Plan and ensure close economic cooperation among European countries. Its transformation into the OECD in 1961 marked its transition from a European to an international organisation, enabling the US to assert greater influence in European affairs (Wolfe 2008). As an economic organisation whose overall goal is to advance the economies of its member states, much of the OECD's educational policy work is informed by theoretical frameworks supporting human capital formation and coherence between education and the labour market (Bürgi 2019).

In stark contrast, the right to education on moral grounds was a cornerstone of UNESCO's founding philosophy, influenced by the Enlightenment's belief in the intrinsic value/dignity of the human being. These humanistic principles have suffused each of UNESCO's landmark educational reports (Delors et al. 1996; Faure et al. 1972; ICFE 2021), while its celebrated role as the 'conscience of humanity' helped to provide it with a sense of coherence and enduring mission in a rapidly changing global governance landscape (Bryan 2022). UNESCO suffered a major blow to its reputation and credibility following the withdrawal of the UK, US and Singapore in the mid-1980s in response to accusations of politicisation, excessive expenditure and mismanagement (Elfert 2018). This crisis of legitimacy wasn't helped by the rise to prominence of neoliberalism as a 'world-making' project, which has significantly shaped the global economic and education governance landscape ever since (Bell 2013, 267). Furthermore, UNESCO's complex governance structure and its 'almost universal membership' make it challenging to find unified ground between member-states than is the case with the OECD, whose members are characterised by their like-mindedness in economic and political terms (Elfert and Ydesen 2023, 24).

Against the backdrop, the OECD has become a 'master of persuasion' (Elfert and Ydesen 2023, 25), not least because of its unrivalled capacity to articulate key policy concepts, produce 'policy-relevant' knowledge, and promote standards, and compliance via peer review and international assessments. In 2015, partly in response to 'PISA fatigue'

(Sorensen, Ydesen, and Robertson 2021), the OECD embarked upon a new phase of consolidation and transformation. Informed by a 'New Growth Narrative to examine how economic, social and environmental considerations could be integrated in a coherent approach', its recent activities place the 'wellbeing of people at the centre of [its] efforts' (OECD 2019a, 2; see also Robertson and Beech 2023 and Kim 2024). The adoption of a more expansive understanding of growth to incorporate a wider set of indicators has been accompanied by a scaling up of its contribution to social issues more traditionally associated with UNESCO, most notably in relation to climate change and the UN Sustainable Development Goals (SDGs).

The OECD's newfound economic growth-inflected humanitarianism has important implications for UNESCO – an organisation shaped by an idealist, unifying worldview, premised on principles of humanism, cosmopolitanism and universalism (Elfert and Ydesen 2023). Since the establishment of frameworks such as the UN Millennium Development Goals (MDGs) and the SDGs, IOs have begun to pursue a more 'integrative approach' to the ideational framing of education, cooperating more with one another and 'incorporating both utilitarian and humanistic leitmotifs' (Niemann 2022, 130). A 'technical turn' towards 'results-based' programming, evidence, and 'objectivity' within certain UNESCO organs, combined with a renegotiation of its humanistic agenda in response to various dilemmas faced by the organisation, has resulted in a narrowing of its intellectual foundations and closer ideological alignment with its multilateral competitors such as the OECD (Elfert 2018). On the one hand, UNESCO continues to advocate a rights-based approach that recognises the intrinsic value of education, unlike other IOs who view it primarily as a vehicle for economic growth (Elfert and Ydesen 2023). On the other hand, its humanistic identity is increasingly compromised by its advocacy of an economically driven and neurologically-inflected skillification agenda that privileges social-emotional skills and non-cognitive competencies such as empathy, resilience and self-regulation (Bryan 2022).

This agenda – which highlights adaptation to the existing socio-political context – leaves very little room for a critique of prevailing political arrangements or the economic order. As for the OECD, its increasing interest in the assessment of the non-cognitive and global dimensions of learning affords the organisation greater 'moral legitimacy' than that provided by its more traditional emphasis on literacy, numeracy and education as a driver of economic growth (Auld and Morris 2019). Yet as our analysis shows, this new prioritisation of the non-cognitive and social-emotional aspects of learning ultimately serves economic, corporate and market-based, rather than human and public interests, such as equality, democracy, and the betterment of society and humanity. Our primary contribution, therefore, is to illuminate the hitherto under-explored risks of the growing ideological convergence amongst IOs in terms of qualities, capacities, and characteristics of the ideal twenty-first century learner. We highlight instead the need for a reinvigorated, agentic, twenty-first century political subject imbued with a sophisticated understanding of power and politics and primed to transform the existing social order and its structures.

## Theoretical and methodological approach

Inspired by Carol Bacchi's framework 'What is the problem represented to be?' (hereafter WPR) we interrogate the ways in which policy discourses constitute meaning to the

'problems' they address (Bacchi 2009). WPR is influenced by Michel Foucault's ideas about discourse, power, and governmentality (Bacchi and Eveline 2010). As a methodological framework, WPR illuminates how policies can marginalise alternative viewpoints and shape behaviours and subjectivities in specific ways. WPR interrogates how specific policy problems are represented, what assumptions and silences underpin this representation, and what political, material, and subjectifying effects it entails (Bacchi 2009). From this perspective, how a particular problem is represented has major implications for the types of political subjectivities – and hence the type of worlds – that are brought into existence.

WPR 'presumes that some problem representations benefit the members of some groups at the expense of others' and it seeks 'to intervene to challenge problem representations that have these deleterious effects' (Bacchi 2009, 44). As such, it is less concerned with the *intentions* of particular policy discourses or the individuals or entities which advance them, than it is with their *effects*. Our analysis was motivated by a concern with how the framing of educational problems within future-oriented policy discourses shape the learners and the kind of world that is brought into existence. More specifically, we interrogate how the positioning of education and the world itself as being 'in crisis' has a range of discursive, subjectifying, as well as material effects, which limit possibilities for re-imagining and re-constructing the world otherwise.

The WPR structure consists of a series of six questions. Drawing on Bacchi and Goodwin's (2016, 24) suggestion that 'it is possible to draw selectively upon the forms of questioning and analysis', we concentrated on four of questions in the framework: (WPRQ1): What is the problem represented to be?; (WPRQ2): What presuppositions or assumptions (conceptual logics) underlie this representation of the 'problem'? (WPRQ4): What is left unproblematic or silent in this representation? and (WPRQ5): What effects does this particular representation of the problem produce in terms of limiting what can be said about the issue or imagining the world otherwise?<sup>1</sup> We first identified education's perceived crisis of relevance in the face of anthropogenic crises as the core problem represented in future-oriented texts produced by both IOs (Research question (RQ1) – corresponding to WPRQ1). Critiquing this problem representation, we consider the wider social and institutional discourses, logics, forces, and assumptions about the human condition and conduct that underlie these problem representations, especially as they pertain to the construction of the ideal twenty-first century learner (RQ2 – corresponding to WPRQ2). Finally, we consider the implications of these discourses, logics, forces and assumptions for the type of world and political subjectivities they bring into existence (RQ3 – corresponding broadly to WPRQ4 and WPRQ5).

### **Document selection**

For manageability's sake, we analysed a select number of future-focused education-related texts (including position papers, concept notes, policy reports and outcome documents) produced by these institutions between 2018 and 2023. This timeframe was chosen to allow for a representative critique of several major, recent future-focused initiatives and activities embarked upon by each IO in a dynamic and rapidly evolving contemporary policy landscape. The initiatives examined were (1) the OECD's *Future of Education and Skills 2030* project, which was initiated in 2015



with aim of ‘helping countries prepare their education systems for the future’ (OECD 2019b, 5); (2) UNESCO’s *Futures of Education* initiative, which was embarked upon in 2019 to ‘reimagine how knowledge and learning can shape the future of humanity and the planet’ (ICFE 2021, n.p.); and (3) the International Science and Evidence Based Education Assessment (ISEEA) undertaken by UNESCO’s Mahatma Gandhi Institute of Education for Peace (MGIEP) as a contribution to the larger agency’s *Futures of Education* process.

Documents were chosen primarily on the basis of their salience and their thematic relevance to preparing students for the future. For example, as one of three seminal reports commissioned by UNESCO since its inception, *Reimagining our Futures Together: A New Social Contract for Education* (hereafter the *Futures Report*) – produced by the International Commission on the futures of Education (ICFE 2021) – can be seen to exemplify the agency’s current thinking about the futures of education.<sup>2</sup> The decision to include a second substantial UNESCO publication – *Reimagining Education: the International Science and Evidence based Education Assessment* (hereafter the *Reimagining Education*) (Duraiappah et al. 2022) was related to MGIEP’s status as UNESCO’s only Research Institute devoted to the issues encompassed by SDG 4.7 – the target focused on human rights, gender equality, global citizenship, cultural diversity, and the promotion of a culture of peace and non-violence.<sup>3</sup> Given their recency, it is too early to gauge what the impact of the reports analysed will be. However, to the extent that UNESCO has precedent as a norm-setting institution that spreads principles pertaining to human rights, peace and democracy within its member states (Elfert and Ydesen 2023), it is reasonable to assume that the vision of the ideal twenty-first century learner contained in the *Futures* and *Reimagining Education* reports will influence, to some degree at least, the global educational policy agenda.<sup>4</sup>

The cornerstone of the OECD’s *Future of Education and Skills 2030* initiative – the *Learning Compass* – is designed to help students ‘navigate towards the future we want’ (OECD 2018, 12). Existing research suggests that this metaphorical compass advances a Western-centric vision of the future that forecloses powerful alternative ways of thinking about the self (e.g. Hughson and Wood 2022; Rappleye 2023). The present paper augments these earlier analyses with reference to another pillar of the OECD’s ongoing policy work, namely the cultivation of ‘responsive’ and ‘resilient’ systems and learners in the context of the problem of ‘emerging global megatrends’ and ‘short-term disruptions’ (OECD 2022a, 4).

In addition to key documents emerging from the OECD’s *Future of Education and Skills 2030* project, we also analysed texts from the OECD’s Directorate for Education and Skills ‘Education Policy Outlook’ (EPO) publication series as well as another publication from its ‘Trends Shaping Education’ series – a triennial report examining major economic, political, social and technological trends affecting education. The EPO series in particular has been identified in the literature as a key ‘knowledge brokering’ instrument produced by the OECD to steer educational policy in particular directions (Seitzer, Chanwoong, and Steiner-Khamsi 2023). Given our interest in global challenges, a number of texts concerned with the COVID-19 pandemic and the climate crisis were also included in the analysis. The complete list of the texts we analysed is presented in supplementary materials. Invoking Bacchi’s terminology, the next section presents our analysis of the problem representation contained in these texts.



## Analysis

### ***The problem representation: education's 'crisis of relevance' in the face of anthropogenic crises***

We are still faced with a future in which shocks and surprises – whether due to increasing numbers of extreme weather events, disruptive technology, or other sources, including new pandemics – are only expected to increase. Preparing for both expected and unexpected futures is no longer an optional 'nice to have'. It allows us to act now to future-proof our education systems, and stress test them against potential shocks (OECD 2022a, 3).

Widening social and economic inequality, climate change, biodiversity loss, resource use that exceeds planetary boundaries, democratic backsliding, disruptive technological automation, and violence are the hallmarks of our current historical juncture (ICFE 2021, 8).

As these introductory comments from the OECD's *Trends Shaping Education 2022 Report* and UNESCO *Futures Report* illustrate, documents produced by both agencies commonly begin by acknowledging the rapidly evolving and crisis-laden environment of the twenty-first century. These 'multiple, overlapping crises' (ICFE 2021, 8) – which are ecological, technological, social, geo-political, health-related and economic in nature – are explicitly referenced as part of the wider rationale for 'transforming', 'preparing' and 'future-proofing' education systems and learners for the future. Whereas these anthropogenic (human-induced) crises of various kinds serve an important justificatory function in these reports, the more immediate 'problem represented to be' is the dual *crisis of equity and relevance* confronting education against this backdrop of 'unpredictable' circumstances, 'disruptions' and 'megatrends' (OECD 2022a, 4). UNESCO identifies 'the dual global challenge of equity and relevance in education' as the premise for the 'new social contract' advocated for in its *Futures Report* 'to help redress educational exclusion and ensure sustainable futures' (ICFE 2021, 14). Elsewhere in the report, this 'challenge' is elevated to a full-blown 'crisis of relevance' (ICFE 2021, 10).

Lack of access is compounded by a *crisis of relevance*: far too often, formal learning does not meet the needs and aspirations of children and youth and their communities ... Increasingly, those accessing education are neither prepared for the challenges of the present nor those of the future. (ICFE 2021, 10–11; emphasis added)

Similarly, the OECD criticises the failure of education systems to 'evolve' in response to societal demands. Citing the OECD's Director for Education and Skills, Andreas Schleicher, the background paper to the OECD's *Future of Education and Skills 2030* initiative claims that 'most twenty-first-century students are still being taught by teachers using twentieth-century pedagogical practices in nineteenth-century school organisations' (Schleicher 2018, 9; see also OECD 2019b, 6). Schleicher, the chief architect of the *Future of Education and Skills 2030* project, defines education in the twenty-first century, as 'a key tool to help people, organisations, and systems to *persist*, perhaps even thrive, amid unforeseeable disruptions' (Schleicher 2018, 58; emphasis added). His repetition of the word 'persist' in the next sentence helps to bolster an ideology of endurance and resilience 'amid' these 'unforeseeable disruptions.' 'At the collective level, education can provide communities and institutions with the flexibility, intelligence, and responsiveness they need to *persist* in social and economic changes' (Schleicher 2018, 58; emphasis added).

We will revisit this imperative to persist in the next section, which comprises a critical analysis of the 'resilient learner' – the epitome of the OECD's ideal learner. Having

identified the primary problem representation to be an education system that is in crisis because it is outmoded, pedagogically impotent and ill-equipped to handle the complexity and intensity of the anthropogenic challenges the world faces, the next step in our analysis is to consider the presuppositions, assumptions or logics underpinning this representation of the ‘problem’.

One of the major presuppositions underlying this problem of the perceived crisis of relevance in education is the inevitability of anthropogenic challenges and crises. This aids in conditioning populations to accept that states cannot protect them from these threats. As such, the onus falls on individuals to develop the requisite resilience to cope with these challenges. Whereas the irreversibility of these problems is more obviously a feature of the OECD’s construction of the ideal resilient learner, UNESCO’s failure to present a substantive, robust analysis of the structural barriers that currently impede its hopeful, utopian vision of the future makes the perpetuation of the status quo *more* – rather than *less* – likely. A related assumption is that education is the primary means through which these anthropogenic crises are to be addressed. Writing about the UNESCO *Futures Report*, Elfert and Morris (2022, 4) argue that ‘[b]y focusing on education, it allows those in power to ignore the deep-rooted social and economic problems which are mirrored in education systems’. The remainder of the article explores the injurious effects of these various ideologies, assumptions and presuppositions about education and the human condition via an interrogation of the core neuro-affective qualities that the ideal twenty-first century learner inhabits.

### ***The OECD’s ‘resilient learner’: ‘thriving in difficult circumstances’***

The proposed solution to these anthropogenic crises involves aiding education and learners to adapt and flourish in an ‘increasingly uncertain and rapidly changing’ world (Duraiappah et al. 2022, 5) by equipping them with essential non-cognitive skills, dispositions and capacities such as resilience and other forms of ‘adversity capital’ to ‘navigate through’ this ‘uncertainty’ (OECD 2018, 2). The OECD delineates education’s role as equipping learners with ‘skills for twenty-first century living’, thereby empowering them to inhabit ‘greener, more sustainable, technology savvy and democratically engaged futures’ (OECD 2022b, 13). Additionally, it emphasises enhancing learners’ ‘personal pathways’ to ‘make them more resilient’ (OECD 2022b, 10). This perspective implicitly suggests a deficit view of learners, portraying them as lacking the inherent ability to adapt, cope with, or navigate changes, without educational intervention. The ‘resilient learner’ – defined as someone who proactively seeks opportunities to ‘thrive in new or difficult circumstances’ – is pivotal to the OECD’s vision of the futures of education (OECD 2021, 26).

This resilience imperative is a core feature of neoliberal ideology in the sense that it calls people to constantly positively adapt in the face of socio-economic conditions and inequalities. The OECD’s resilient subject can be ‘nurtured’ by providing students with ‘personalised and flexible learning’ and ‘adaptive pedagogies’ that balance approaches based on their needs and interests so that they will be ‘on track to reach their potential regardless of ... challenges’ (OECD 2021, 26). These personalised learning trajectories are estimated and monitored with the help of EdTech, datafication and information from behavioural and life sciences (OECD 2022a; 2022b; see also Brunila and Nehring 2023; Mertanen, Vainio, and Brunila 2022). This ‘future-proofing’ of both

education and learners are considered essential in designing and implementing educational systems that are resilient and adaptable enough to prepare learners for the challenges and demands of the future especially in the face of rapid technological advancements, changing labour markets, and evolving social needs. However, future-proofing risks the prioritisation of market-driven and techno-centric skills at the expense of critical and political thinking, potentially reducing education to vocational training amidst unpredictable future demands.

Reaching one's potential is thought to be achievable by conditioning learners to 'capitalise' on opportunities and equipping them with social-emotional, non-cognitive and adaptive skills (such as emotional well-being, self-efficacy, self-regulation, and growth mindset) and agency that will help them to 'navigate through' any number of crises, traumas or shocks they may face (OECD 2021, 18, 28; OECD 2020a). 'Agency' is understood in terms of one's ability 'to adapt to different situations even when under stress or pressure' (OECD 2020a, 66; OECD 2022b) and is reductively framed in terms of empowering students to know themselves better and enabling them to understand their talents, aspirations, and potentials in relation to what is 'achievable', 'realistic', and 'relevant' to their career opportunities (OECD 2022b, 104, 96).

The specific processes by which personalised, self-optimised and flexible learning are intended to foster resilience remain largely unspecified, aside from claims of boosting students' motivation, interest, and their perceived control over their learning. Additionally, it advocates customised 'support' for 'vulnerable' learners, including those facing 'adverse circumstances' (OECD 2020c, n.p.). Ultimately, these strategies are presented as a means for learners to 're-engineer their own learning pathways', unlocking potentials, and opportunities amidst 'changing economic, environmental, social and political conditions' (OECD 2022b, 39). Echoing Schleicher's persistence imperative alluded to above, the main emphasis is on students' ability to 'respond to shocks' to withstand, 'adapt' and 'adjust' to 'new and difficult circumstances', and to 'move forward in the face of adversity'.

To navigate through ... uncertainty, students will need to develop curiosity, imagination, resilience and self-regulation; they will need to respect and appreciate the ideas, perspectives and values of others; and they will need to cope with failure and rejection, and to move forward in the face of adversity (OECD 2018, 2).

**Resilient learners** adjust positively to change, manage uncertainty, and respond to shocks. This starts with the student's internal world, including emotional well-being, self-efficacy, critical thinking and growth mind-set. [...] This is particularly important for those in adverse circumstances. (OECD 2020b, n.p.).

These skills can be allegedly harnessed by directing energy towards students' 'internal world' and increasing their 'metacognitive' awareness of their 'inner processes and subjective experiences' (OECD 2021, 30). Devoting primacy to students' internal worlds – rather than to material and economic conditions – diverts attention away from global problems by promoting individualism over collectivism and the systemic changes necessary to address and understand broad societal issues. Furthermore, framing well-being as the effect of certain abilities, such as being able to cope with adversity, renders certain forms of personhood more desirable and more valuable than others, which has major implications in terms of young people's willingness to express and practice solidarity with others. Meanwhile, those who 'fail to adapt' to changing and uncertain circumstances

are positioned as a problem and an implicit threat to ‘society as a whole’, by reducing the rate of return on investment in education and reducing economic productivity.

Failing to adapt in these ways can be costly, both to individuals – who may lose time and money dropping out of learning pathways, working under precarious contracts, or underutilizing their skills – and to society as a whole, for whom the collective returns to education and potential impact on economic growth and productivity are reduced (OECD 2022b, 39).

Popkewitz (2023, 1), writing about the pernicious effects of the PISA, suggests that calculations, statistics and other ways of describing student performance and characteristics are not merely descriptive. Rather ‘[t]hey embody desires as normative inscriptions of who students are, should be, and the dangerous populations threatening the imagined future’ (see also Feng and Popkewitz 2024). These ‘normative inscriptions’ are embedded within OECD’s PISA 2025 Science Framework, a central feature of which is the construct of ‘Agency in the Anthropocene’ (OECD 2023, 49). Despite its progressive rhetoric, this document is replete with the familiar imperative to ‘exhibit resilience, hope, and efficacy’ in the face of socio-ecological crises (OECD 2023, 48). The responsabilising effects of this discourse becomes more apparent when we look at the ‘Agency in the Anthropocene Competencies in Action’ (OECD 2023, 50), which task 15-year-olds with ‘evaluat[ing] and design[ing] potential solutions to socio-ecological issues using creative and systems thinking, taking into account implications for current and future generations’ and ‘set [ting] goals, collaborate with other young people and adults across generations, and act[ing] for regenerative and enduring socio-ecological change at a range of scales’.

Applying Popkewitz’s rhetoric above, those who make the ‘wrong’ choices or fail to exhibit the ‘right’ kind of affective responses or dispositions i.e. those who do not or cannot exhibit sufficient levels of resilience, hope, efficacy are ‘dangerous’ in the sense that they ‘threaten the imagined (“greener”) future’ (2023, 1). Moreover, the emphasis on resilience, hope, and efficacy denies the reality of the *already-existing* catastrophe that is unfolding for a majority of the world’s population living ‘within the collapse of civilization’ (Swyngedouw 2013, 11). Rather than directing the ecological gaze towards those who are barely surviving and engaging with this reality as the basis for a new politics, affect regulation becomes the premise of a post-political agenda which displaces ‘radical dissent, critique and fundamental conflict’ from the political arena (Swyngedouw 2010, 227). As outlined below, UNESCO’s vision of the ideal 21st learner is equally premised on the neuro-affective and non-cognitive dimensions of learning. Whereas resilience is one of the qualities possessed by the ideal learner envisioned by UNESCO, its capacity for empathy and compassion are its defining characteristics.

### ***UNESCO’s empathic learner: ‘transforming the world with empathy and compassion’***

UNESCO’s *Futures Report* (ICFE 2021) is unique in the sense that it foregrounds a rights-based approach to education, providing a welcome alternative to the ‘digital-reductionist visions of the future’ advanced by other agencies such as the OECD (e.g. OECD 2020b) (Elfert and Morris 2022, n.p.). UNESCO explicitly identifies human rights as one of the ‘key roles of education’.

In turn, one of the key roles of education is to educate citizens who advance human rights. This entails building the capabilities that make students autonomous and ethical thinkers and

doers. It means equipping them to collaborate with others and developing their agency, responsibility, empathy, critical and creative thinking, alongside a full range of social and emotional skills (ICFE 2021, 47).

Yet the blueprint for transforming education laid out by both IOs is heavily reliant on SEL which is directly invoked several times in the *Futures Report*, as fulfilling the ‘greater purposes’ of education (ICFE 2021, 65) and as a central feature of curricula and schools of the future (ICFE 2021, 47).

As we look to 2050, we cannot afford to short-change investments in social and emotional learning – it is fundamental to human creativity, morality, judgement, and action to address future challenges (ICFE 2021, 68).

‘Empathy’ and ‘compassion’ – two of the most prized social-emotional skills in the twenty-first century – are referenced 27 times between them in the *Futures Report* and are identified as foundational to the ‘pedagogies of cooperation and solidarity’ advocated for therein (ICFE 2021, 48). These capacities are repeatedly invoked as the means through which both the self and the world can be transformed.

Pedagogy must foster empathy and compassion and must build the capacities of individuals to work together to transform themselves and the world. (ICFE 2021, 147)

Educational work can focus on an expansive solidarity through sympathy, empathy, and compassion to create possibilities for healing. Empathy, as the ability to attend to another and feel with them, together with ethics, is integral to justice. (ICFE 2021, 55)

As UNESCO’s most vocal proponent of SEL, MGIEP’s *Reimagining Education Report* advocates the re-orientation of curricula, pedagogies and assessment towards a neurologically-inflected ‘whole-brain, learner centric’ ‘education for human flourishing’ premised on the ‘interconnectedness between ‘cognition, metacognition and social-emotional learning’ (Duraiappah et al. 2022, 99). Social-emotional skills including ‘mindfulness,’ ‘compassion,’ ‘empathy’ and ‘resilience’ are deemed to be of particular significance.

Human flourishing can be enhanced by the explicit training (teaching and learning) of social-emotional skills (WG3-ch4) such as empathy, mindful awareness, and compassion in conjunction (with emphasis on conjunction) with cognitive skills such as numeracy and literacy (WG1-ch3). (Duraiappah et al. 2022)

While solidarity and justice are laudable goals of transformative education, the prioritisation of empathy and associated qualities such as ‘sympathy’ and ‘compassion’ as the primary means through which they can be achieved is questionable. The idea that enduring injustices can be overcome, simply by putting oneself in the shoes of another, ‘attend [ing]’ to them and ‘feeling with them’ seems radically insufficient as a route to social transformation (ICFE 2021, 55). The privileging of empathy and related ‘social-emotional’ competencies, which position learners as compassionate and benevolent, precludes more nuanced understandings of the complex ways that human beings are, to varying degrees, implicated in perpetuating, rather than alleviating, injustice, acknowledgement of which is an important basis for solidarity (Rothberg 2019). It also minimises the role that more politically-oriented emotions – such as anger and moral outrage – can play in the pursuit of social justice, the focus of which is those who bear responsibility for – rather than the victims of – injustice (Henderson 2008).

Ultimately, it is hard to see how UNESCO's vision for a more just, equitable and sustainable world can be realised via the ideal twenty-first century learner outlined in these major reports pertaining to the futures of education. The privileging of acts of compassion and empathy at the expense of more robust analyses of power and politics advances a post-political agenda that detracts attention from the wider structural forces responsible for socio-ecological injustices. Furthermore, the emphasis on positive emotions has the (unintentional) effect of de-legitimising more politically-oriented emotions – such as outrage and anger – against those most responsible for ecological harms and injustices (Bryan and Mochizuki 2024; Mochizuki and Bryan 2024).

### ***The bio-perfected transhuman subject***

A *techno-scientific* discourse, which portrays technological and scientific advancements in biotech industry, pharmacology, genetics, and AI, for example, as solutions to anthropogenic crises co-articulates with the resilience discourse alluded to above. Despite the fact that the embrace of all things techno-scientific seems to be at odds with the more sustainable futures anticipated by these IOs, both the OECD and MGIEP are hopeful that better ('sustainable' and 'peaceful') futures can be achieved through technology, digitalisation, AI, and human/machine enhancement, for example, aided by information from the behavioural and life sciences (e.g. OECD 2022a, 24). While not dismissive of ethical concerns about an increasingly virtual, technological and hybrid world in which traditional boundaries between human-machine, nature-technology, physical-virtual, and health-illness, are being blurred, there is a taken-for-grantedness to the imminence, desirability, necessity, and efficacy of these advancements, particularly for those who are characterised as being in some way 'vulnerable.'

(...) advanced human-machine interfaces, implants, drugs, and genetic modification all increasingly enable humans to enhance their physical, cognitive, and emotional selves. A growing number of biotech companies are even trying to cure ageing, further pushing boundaries in the search for the elusive elixir of the fountain of youth. However, while opening up tremendous possibilities, human enhancement is also raising important ethical challenges and questions about what it means to be human. (OECD 2022a, 96)

While neither the terms 'transhumanism' or 'transhumanist' are explicitly invoked in MGIEP's *Reimagining Education* report, its recommendations and cover illustrations clearly point in this direction. For example, cover illustrations of individual sections of the main report feature technologically-enhanced humanoid creatures in other-worldly locations – complete with winged crania and guru-like long hair, seemingly denoting mystical contact with spiritual forces.<sup>5</sup> Combined with MGIEP's *Reimagining Education* report's embrace of 'the revolution in digital education' (62), 'Intelligent Personalised Adaptive Tutoring Systems' (64) 'social robots' (53) and so forth, this imagery is suggestive of a vision of human flourishing rooted in a technologically-mediated transhumanist fantasy. Our analysis echoes Elfert's review of the *Reimagining Education report* which claims that 'the emphasis on brain science, social and emotional learning and personalised learning' therein ... 'uncritically supports highly contested approaches to education' and 'promotes a 'techno-solutionist' worldview 'as yet another 'magic bullet' to save education, thereby obviating the need to address underlying inequalities and injustices within the system via political means (Elfert 2024, 1–2).

Transhumanists advocate the use of human enhancement technologies (e.g. bio/neuro technologies, AI, genetic engineering) to enhance the human condition and use the discourse of human enhancement to lay out a vision of future societies ('the enhancement society'), shaped by transhumanist ideology (Coenen 2014). Transhumanism has major implications for the moral, political, or socially transformative purposes of education in the longer term, not least because the notion of self-enhancement via techno-scientific adaptation obviates any need for moral, educational, or cultural effort (Giesen 2018) and population enhancement has significant historical baggage related to eugenics and biopolitics (Reid 2024). Focusing on material technology and the techno-scientific adaptation of humanity, transhumanism propounds a depoliticised conception of 'human perfectibility', largely oblivious to questions of social and political emancipation. As Le Dévédec (2018, 490) elaborates: 'For transhumanism, politically changing the world is no longer the question; rather, the focus is on biomedically conforming to the world and, in so doing, completely overturning the modern democratic project of autonomy ...'.

Certain sections of the UNESCO (ICFE 2021, 8, 74, 112-116) *Futures Report* attempt to challenge this techno-scientific discourse as well as construction of 'an idealized cosmopolitan' 'twenty-first century learner' 'that typically focuses only on human development' by promoting 'a consciousness of the planetary' (ICFE 2021, 113). This *posthumanist* perspective seeks to take learning 'beyond human-centred spaces and institutions' so that learners can 'relearn' their 'interdependencies' and 'reimagine' their human place and agency' in relation to 'more-than-human' life, such as nature and 'biosphere' (ICFE 2021, 112-113). Similarly, PISA's 2025 Science Framework positions students as part of, rather than separate from, ecosystems and highlights the interdependence of all life (OECD 2023, 7). Yet this posthuman subject is arguably also similarly conditioned to ultimately adapt to, rather than agitate, challenge or resist unjust structures (Yliniva and Brunila 2023). This is because political subjectivity and agency are perceived to be problematic because they position humans as capable and powerful actors in the world (Yliniva and Brunila 2023) and still presuppose 'a division between human beings and their environment' (ICFE 2021, 113). Furthermore, posthumanism, as with transhumanism, blurs traditional boundaries between humans and machines, physical and virtual.

In the concluding section, we expand on the nature of the subjectivities that emerge from our analysis, providing critical insights into the influence of these prominent organisations on educational discourse. We consolidate our critique of these different elements that make up the ideal twenty-first century learner in an attempt to 'revalorize an idea of the human subject as capable of acting on and transforming the world rather than being cast in a permanent condition of enslavement' (Chandler and Reid 2016, 2).

## Concluding discussion

The foregoing analysis has traced the discursive constitution of a *post-political, resilient, empathic, bio-perfected, transhuman* subject as the embodiment of the ideal twenty-first century learner in futures-oriented texts produced by two of the most influential IOs shaping global educational policy dialogue. Inspired by Bacchi's WPR framework, we documented the discursive, subjectification, material and lived effects of a discourse that frames education as a crisis of relevance in the face of a multitude of anthropogenic



crises, purportedly remedied by neuro-affective 'solutions' in the guise of social-emotional skills and precision education governance. These solutions equip individuals with the psychological tools to merely tolerate the world as it is, as opposed to cultivating their political subjectivity and agency to reimagine and reconstruct it. In other words, this particular representation of the problem limits what can be said and hence our ability to imagine the world otherwise. The post-political, resilient, empathic, bio-perfected, trans-human figure that emerges as the solution to this problem of educational relevance, obscures more uncomfortable realities about those who are *already* barely surviving in the context of socio-ecological collapse and reinscribes 'business as usual (but greener)' (BAU-G) politics rather than the system change that is so desperately required (Mochizuki and Bryan 2024). Therefore, highlighting resilience and adaptability in the face of crises denies the reality of the already-existing anthropogenic crises that are unfolding for a majority of the world's population and other life forms.

The particular ways in which crisis and futures-oriented narratives are deployed by these IOs has profound implications for how the twenty-first century learner reflects on the nature of their world and their political subjectivity, including their understanding of themselves and their role in society, their relationships with others and their environment and capacity to influence and act change in the world. Our analysis reveals that the ideal twenty-first century learner is, at its core, devoid of a political vision of the world or an appreciation of the political, material, and economic determinants of social and global problems. Failing to portray these conditions as alterable through political action creates the necessity for an inward-looking subject which presupposes constant crisis conditions and 're-engineers' itself emotionally so that it is conditioned to withstand, adapt and adjust to prevailing socio-political conditions, rather than actively challenge, resist or transform them. Paradoxically, then, this figure of the ideal twenty-first century learner may perpetuate the very crises which future-oriented policy discourses purport to remedy.

These depoliticisation processes are happening against a mode of PEG facilitated by a complex convergence of mobilising discourses and ideologies emanating from, *inter alia*, the behavioural and life sciences (e.g. positive psychology's focus on resilience, human flourishing; SEL; neurobiology), techno-science and transhumanism (e.g. digital transformation; biomedical enhancement; dissolving human-nonhuman boundaries) and neo-liberalism (e.g. market based economics as a driving force for these changes, offering platforms to the biotech industry and EdTech companies).

This depoliticisation runs the risk of making individuals responsible for broader political and structural problems, which in turn lays the groundwork for the expansion and strengthening of existing power structures and regimes, including those of IOs. It creates conditions where individuals and communities must fend for themselves. Furthermore, the emphasis placed on 'vulnerable people' reinforces a problematic dichotomy between 'desirable' and 'undesirable' populations, biopolitical distinctions that are often based on social class, race, disability, gender, age, and nationality, for example. Against the backdrop of a logic which presupposes that all learners can acquire the requisite social-emotional skills needed to 'thrive in difficult circumstances', certain people are implicitly positioned as deserving of care, rights, or justice, while others are framed as undeserving of the same treatment. This framing pre-empts the very relations that lie at the heart of global justice.

UNESCO's long-standing advocacy of a rights-based approach to education has helped to bolster its status as the moral and intellectual 'conscience of humanity' and to secure its distinctiveness in a global governance context. But the competitive multilateral landscape of educational policy making has turned increasingly hostile to UNESCO's humanistic outlook and relatively nuanced approach to ethical and political complexity. Against this backdrop, the agency is susceptible to 'contestation and appropriation by conflicting agendas' (Elfert 2018, 235). Moreover, UNESCO's organisational culture is recognised as a major impediment to the realisation of its educational agenda, not least because of its failure to foster critical reflection, debate and ongoing dialogue internally and its tendency to 'water down' or bury reports that are 'too political' (Benavot 2011, 4).

Whether the emergent trend towards ideological convergence between the OECD and UNESCO observed in this article becomes a more pervasive feature of the global educational governance landscape going forward remains to be seen. Whereas UNESCO may package its ideal learner somewhat differently to give it a more humanistic complexion, the underlying discourse bears a striking resemblance to the OECD. This vision of 'the future we want' distorts and undermines UNESCO's status as the 'conscience of humanity' by diverting political energy away from the pursuit of global justice, democracy, and equality and redirecting it towards bio-technological, digital, social-emotional, and neuropsychological explanations for complex global problems.

We ignore this trend towards ideological convergence at our peril: failure to critically engage and intervene may inadvertently cement these oppressive frameworks, leading to far-reaching and possibly irreversible consequences globally for the environment, society, and democracy. In order to avert the perpetuation of profoundly unjust, ecologically devastating, socially corrosive, and politically destructive neoliberal and biopolitical power structures, pressure should be brought to bear on powerful IOs in order to reinvigorate political subjectivities which foreground agency defined in terms of the human capacity to act on the world in order to alter and change it.

## Notes

1. The questions not addressed in detail were (WPRQ3): How has this representation of the 'problem' come about? and (WPRQ6): How and where has this representation of the 'problem' been produced, disseminated and defended? How has it been and/or how can it be disrupted and replaced? (Bacchi and Eveline 2010).
2. ICFE was convened in 2019 by the Director-General of UNESCO. Comprised of 18 members, and led by the President of Ethiopia, Her Excellency President Sahle-Work Zewde, it was tasked with reflecting on the 'collective intelligence' expressed by millions of contributors (See <https://www.unesco.org/en/futures-education>).

Given that the full *Reimagining Education Report* consists of four major sections encompassing 25 chapters and totalling 1800 pages, the analysis below focuses solely on the Summary for Decision Makers (SDM) (Duraiappah et al. 2022).

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4. Space considerations do not permit a more detailed discussion of the conditions of production of the documents analysed. Suffice it to say to the extent that the documents selected are either 1) landmark reports (e.g. UNESCO's Futures Report) or were the outcome of processes designed to to inform broader landmark initiatives (e.g. MGIEP's

*Reimagining Education Report* 2) published as part of an ongoing series of publications produced by these IOs (e.g. OECD's 'Education Policy Outlook' (EPO) and 'Trends Shaping Education' publication series) or 3) documents constituting major and/or long-standing initiatives (e.g. OECD's Future of Education and Skills 2030 and PISA initiatives), it can reasonably be assumed that these documents reflect the organisational ethos of their respective IOs.

5. See cover pages of the four volumes of the UNESCO MGIEP 'Reimagining education' report: WG one (human flourishing) <https://unesdoc.unesco.org/ark:/48223/pf0000380981>; WG Two (context) <https://unesdoc.unesco.org/ark:/48223/pf0000380982>; WG Three (learning experience) <https://unesdoc.unesco.org/ark:/48223/pf0000380983>; WG Four (data and evidence) <https://unesdoc.unesco.org/ark:/48223/pf0000380984>.

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