

Background paper for the Futures of Education initiative

Education futures: conservation and change

by Patrick Howard¹, Michael Corbett², Andrea Burke-Saulnier³ and David Young⁴

¹Cape Breton University, ²Acadia University, ³Université Sainte-Anne, ⁴St. Francis Xavier University
Nova Scotia, Canada

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Introduction

This background paper will explore what it means to radically reconfigure education for 2050. In the call for radical reconfiguration, we propose another understanding of the word *radical* that includes an ecocentric, life-affirming understanding that roots education in a life code of value and in a living community of relations. We also invoke the label of conservatism to reclaim the word by looking forward to 2050 and asking the question, what do we want to conserve (Bowers, 2003)? In confronting the challenges we face as a species on this planet, thinking deeply about *conservation* and what we want to conserve takes on new meaning and may point a way forward.

In this paper, we propose an educational transformation guided by widely shared societal values that provide the resolve to shift education in more expansive and life-affirming directions. The goals of education are aligned with an ethos of life and living; it is generative and generational, and dedicated to conserving how humans as a species can continue to live well and sustainably on this planet. We look at the deeply entrenched theoretical assumptions, foundational metaphors and discourses that shape our understanding of education today. We examine the transformative power of inclusion, diversity and culturally relevant pedagogy (CRP) that supports the development of a positive sense of self, community, and belonging. Rapidly evolving global events provide space to question societal and economic structures that support unsustainable practices, inequity, disparity, and ecological destruction. Finally, we look to theories of change, and a vision of educational governance dedicated to reshaping education for a sustainable future, for de-centralization, enhancing local voice and agency, while enlarging democratic power.

In an essay in 1974, the economist E.F. Schumacher (1997) wrote, “The volume of education continues to increase, yet so do pollution, exhaustion of resources and the dangers of ecological catastrophe. If still more education is to save us, it will be education of a different kind: an education that takes us into the depths of things.” Education is often put forward as a panacea for the world’s problems. What is rarely asked is: “What kind of education?”

Education as a living project

Change is dynamic and often unpredictable, unsettling, risky and challenging for educators. Often framed as a problem, change calls for creativity and reflects how education is a living practice. Education has as its primary responsibility the development of the young as part of the intergenerational project to pass on the knowledge and skills required to thrive and flourish. In this sense it is inherently conservative. This too is a living project, for what is required to live well and sustainably into the future, must by necessity reflect the conditions of the time. In essence, what do we value most and want to conserve for future generations? This knowledge cannot be rigid or moribund but must be generative, vital and reflect a “future that is struggling to emerge” (Friesen & Jardine, n.d.: 22).

Global environmental and societal change projected by 2050 has been well-documented (IPCC, 2018). In these times our educational response must be no less than transformational. Despite promising reform in schooling and curriculum development, we argue that education is still responding to a world that no longer exists. The foundational underpinnings of education and approaches to schooling founded in response to emerging

industrialism of the late 19th and early 20th century no longer serve our contemporary knowledge society. They do not have the vitality to carry us forward. Yet, the factory model of education remains resilient. Decades of progressive reform in education policy, curriculum frameworks, classroom practice, and assessment have achieved varying degrees of success. Most are well-intended and designed to move education forward to meet emerging demands. However, the inevitable pendular swings and reactionary retrenchment of the old, the traditional, and the familiar have been the core story of educational reform.

Global efforts are underway to re-conceptualize K-12 education for what is commonly known as 21st century teaching and learning. The preparation of students to meet emerging 21st century realities is foundational to these efforts. The fundamental question of the purpose of education is largely absent in discussions of 21st century learning (Howard, 2018). Governments, corporations, and non-governmental organizations (NGOs) invest in global initiatives to re-shape education for the 21st century and prepare the next generation for the knowledge economy. The language is aspirational and provides sophisticated curricula and teacher training for new pedagogies, and deep learning enhanced by technological acceleration (Fullan & Langworthy, 2014).

Corporations are interested in developing future employees who display risk-taking, resilience, comfort with ambiguity, and who embrace innovation and an entrepreneurial spirit. As 19th and 20th century industries inserted themselves into school systems to train the workforce they required, Ehrcke (2013) argues, so do contemporary corporations, allied with not-for-profit groups and governments, have vested interests in what happens in classrooms today.

While it is possible to change educational policy, curriculum frameworks and teaching practice without affecting the intent of that change, the radical educational transformation we need by 2050 requires a new vision. Many good things happening in education that point to the emerging future must align with a coherent theory for living well and sustainably in our places. The radical change proposed by promoters of 21st century skills is radical imagining, defined as “thorough or extreme change to traditional forms.” However, the word radical relates to “roots and rooting” which is a condition inherent in all plants and animals and a necessary element of life. The word radical connotes something fundamental, primary, and essential that may help us respond to our question: “radical change in education, but for what intent?” When the goals of education are aligned with an ethos of life and living, the fundamental question of what we are reforming education for creates a counterpoint to the functional, future-oriented, technology-enhanced belief in education for its predominantly neoliberal, economic, and narrow problem-solving purposes.

Education for 2050 requires a deep engagement with the question of the larger purposes of education. One of most pressing existential questions for education that is generative and generational concerns how humans as a species will continue to live well and sustainably on this planet. Education must be reinvented just as dramatically as it was 150 years ago when universal schooling was conceived. The fragmentation, standardization, linearity, and competitiveness of the factory model must be replaced with a new language, a new understanding of interdependencies, systems thinking, and living fields of knowledge. As Schumacher (1997) said, if education is to save us it must be education of a different kind.

Education in the service of life

When education is conceived in the service of life and based on a life code of value (McMurtry, 2011), it speaks to larger purposes that touch all we do in teaching the next generation. Twenty-first century learning takes on new meaning and vitality allied with a life-affirming ethos and purpose. Twenty-first century education is inherently experiential and working experientially offers ways to formulate alternative interpretations of reality based on our felt contact with the world which can challenge taken-for-granted historical and cultural beliefs.

Building an experiential sense and involvement in the larger community of life develops awareness of how we are interdependent, and intertwined, undoing an individualistic, competitive, fragmented feel for the world. The experiential pedagogies of 21st century learning when aligned with a larger purpose as reflected in the life process, give authority to our experience. Student emotional and physical well-being can be supported through the open sharing of experience and moving forward toward actions that *support the life process, rather than act against it*. To embrace transformational change, we must critique deeply held cultural assumptions, metaphors, values, and theories upon which our education systems have been founded. These largely Western liberal values and patterns of thinking are revealed as particularly unsuited for reconceptualizing a different kind of education.

The logic of marketization: human capital and neoliberalism

How education is understood and enacted is always driven by the way it is theorized. There is no neutral position from which we might evaluate “what works” in education (Biesta, 2007; Biesta, 2010). All conceptions of what constitutes a good education or how to reform education rest on theoretical assumptions. Historically, education has served religious, industrial, colonial, military, nationalist, and other socialization functions.

We offer here an analysis of two dominant theoretical positions in educational discourse today. Each of these assumes as its starting point the power of markets to produce the best quality social outcomes. They also imply the primacy of the rational, calculating individual often described by the term “economic man.” What we mean by discourse is the general logic applied to frame problems and to delineate the terms in which they are discussed. For instance, the rise of feminist discourse created a framework for thinking about and acting upon both entrenched linguistic habits (i.e. economic man), as well as critiquing entrenched structural/systemic forms of unequal access to resources and power in society. We believe that these two discursive frameworks must be understood to make sense of, and critique how we understand education today.

Human capital: education and the market

A considerable amount of work in education is currently framed in terms of human capital theory (Becker, 2009). The central idea is that education is essential to creating a workforce for a contemporary economy and that levels of education can be measured in a way that is similar to any other commodity. Human capital theory and its core assumptions and foundational values have been adopted by most education systems around the world. The result is a ubiquitous comparison of educational performance across jurisdictions as measured by standardized instruments which have become proxies for educational “production” and by extension, educational quality. Most contemporary national and many sub-national educational jurisdictions in decentralized systems both measure educational production through standardized testing regimens. Globally, the Organisation for Economic Co-operation and Development’s *Programme for International Student Assessment* produces quantitative comparative measures of mathematical, literacy and science skill levels around the world. The results of this kind of testing and skills assessment is heavily reported in the media and have entered policy and public discourse in a powerful way.

Human capital theory posits and stimulates a clear link between education and labour market needs. The call which is heard in reports on education around the world is for systems to be articulated to the needs of industry and the economic machinery, principally through enhanced STEM (science, technology, engineering and mathematics) education and 21st teaching and learning. More recently, this idea has expanded to STEAM, gesturally adding the Arts to the equation. We would characterize this way of thinking about the broad purposes

of education as a kind of convergence theory which argues that markets provide a broad metaphor for thinking about public services, including education. This view assumes that all people, regardless of their social, cultural, or economic positions, are essentially drawn into a common, competitive engagement with the acquisition of capital (economic, cultural, social, etc.). The globalized market model of education, dedicated to sustaining status quo competition, individualism, consumerism, and standardization is incapable of providing the transformative vision of education required.

While it is important for educational governance to track system progress, it can also be the case that the assessment instruments can operate counter-productively, producing a distracting focus on raising scores and competition in what has been described as “league tables” of educational testing results. One such perverse effect of a heavy focus on standardized testing and the data it produces is that a notion of children’s “capacity” can be predicted which leads to specific self-definitions and career paths. Thus, what we find missing from human capital theory is a strong understanding of the social sciences, humanities and cultural analysis, which is also missing from the STEAM formulation. We need a more intelligent, nuanced view of education and schooling that builds on systems and complexity theories and humanistic educational approaches.

Neoliberal theories: choice and individualization

Neoliberal educational discourse builds on the human capital framework. The focus on choice as a central feature of educational service provision has emerged, particularly in the United Kingdom, the United States and in Australia. This follows broader economic and aligned social policy that followed the neo-conservatism of Thatcher and Reagan and evolved into frameworks like Blair’s *Third Way*. Going beyond human capital theory, neoliberalism advances the claim that social and cultural factors are irrelevant to policy. Margaret Thatcher quipped, “society is a fiction, there are only individuals and families” and this was followed more recently by former Canadian Prime Minister Harper’s caution against “committing sociology” when we think about crime and other collective problems. Neoliberalism generally argues that all human problems can only be solved by individuals. Individual neoliberal subjects are “responsibilized” to take the blame/credit for their own situation.

Neoliberal discourse has supported educational privatization, quasi-privatization of public schools, school choice, mass testing, standardized educational outcome targets and comparison as methods of changing the conversation from values, interests, democratic deliberation, and universal public service, to questions of quantitative comparison, consumer choice, and markets. In privatized and quasi-privatized systems, the measurement of productivity effectively commodifies education throwing schools into competition for students. Around the world schools are compared and ranked like sports teams in “league tables” which are alleged to provide educational consumers (rather than citizens) with information to choose the “best” product.

With its focus on educational choice, neoliberal thinking raises the spectre of educational segregation or at least separation. A signal form of this fragmentation is school privatization, but it is also evident in public systems that are also pressured to both “produce” and offer more choice. In higher education, steadily increasing tuition fees creates an increasingly privatized system funded by individuals.

These instrumental theories, while hegemonic, are clearly inadequate to provide equitable and sustainable education. These neoliberal values, which are ironically identified as conservative, are unsustainable, and increased individualism, consumerism, and competition based on the domination of Western market ideology is ecologically and socially untenable. A new vision for education in 2050 gives primacy to interdependence, relationship, to thinking that is systemic and connected rather than fragmented and linear. The theories underscore as Sterling reminds us: “We are educated by and large to compete and consume rather than to care and conserve (2001: 21).

Culture and diversity in education

At its inception during the early 19th century, education's primary purpose was to create a qualified, competent working class. The implementation of public education mirrored the structure and objective of the Industrial Revolution. Schools were designed in the spirit of factories—from the layouts of separate departments for separate subject areas to the use of bells to summon students and divide the school day into periods. Students were organized into age groups, or classes and knowledge and aptitudes in different areas of interest or ability were not considered educationally important. The implementation of public education—free to all and subsidized by tax monies—was forward-thinking for the time; however, the primary elements of this model remain and no longer represent progress.

Cultural and societal challenges of the past have now emerged at the forefront of national education policy discussions. *Black Lives Matter (BLM)*, the *Truth and Reconciliation Commission in Canada (TRC)*, and the *#MeToo* movement illustrate how racist, assimilative, and misogynistic systems have detrimentally impacted millions of youth for generations.

At the dawn of its implementation in North America, school was used as a tool of assimilation. In Canada, with the *Indian Act* of 1876, First Nations children and adolescents were subjected to decades of physical, mental, emotional and sexual abuse in the residential school system. The residential school system has been equated to cultural genocide and the *Indian Act* has been compared to the implementation of the Apartheid system in South Africa.

The *BLM* movement is shaking society. It has been identified as the largest movement in history since the Civil Rights Movement of the mid-twentieth century. The creation of this movement was sparked by police brutality towards members of the Black community and the global dissemination of George Floyd's murder through social media has ignited the *BLM* movement throughout the world. This movement illustrates that despite the abolition of slavery and the Civil Rights Movement, communities of colour remain marginalized and their right to equality in all areas (including education) continue to be unequal to that of their white counterparts.

Winston Churchill stated, "History is written by the victors." The evolution of the world's nations is most often told from the colonizers' perspective and this is how information is typically presented in classrooms. Students receive a one-sided, diluted version of history, culture and language. Marginalized populations are often under or misrepresented in textbooks and resources leading critics to ask: "When students are learning, do they see themselves?" This lack of representation is not limited to culture, ethnicity and race. Other marginalized groups that are under or misrepresented in the educational environment of public school include: women, LGBTQ+, people who live with mental health challenges and people who are disabled. All students want to see or to recognize themselves in what they are learning.

Researchers have described the importance of relatedness for student success (Deci & Ryan, 1985, 2000). For students to feel a sense of relatedness, they have to see themselves when they read, do math, explore science, and read the history of their community and their country. If course content is only presented from the perspective of the non-marginalized, it will be impossible for students of marginalized populations to develop a sense of belonging in their classroom.

Researchers in the fields of cultural inclusion and CRP emphasize the importance of effective and authentic representation of students' cultures in their learning environments (Gay, 2018; Hammond, 2015). Hammond

explains that, “the classroom is a crucial container for empowering marginalized students. It serves as a space that reflects the values of trust, partnership, and academic mindset that are at its core” (2015: 143). Contrary to the belief that schools should be an allegedly inoffensive “neutral” or “sterile” environment, schools must explicitly recognize and celebrate the diversity of their community members. Otherwise, school becomes that place where students go to do standardized work, and where everyone is treated the same to become docile, uncritical labour and conform to the culture of the majority.

The positive impacts of inclusion and CRP in the classroom is not limited to supporting students developing a positive sense of self, community and belonging. CRP also supports the acquisition of knowledge and skills because it supports cognitive learning. Hammond (2015) explores the impacts of CRP on the brain, and specifically, on how students process information and reinvest it in future experiences. Humans need to feel safe and make connections with others. These needs correspond directly to the reptilian and limbic areas of the brain. Learners must feel safe and connected with others in order to be neurologically, emotionally and cognitively engaged in their learning.

Transforming schools, curricula, and pedagogy to reflect cultural diversity and multiple ways of being, doing, and knowing the world requires that we value and sustain people *and* ecosystems and that we recognize our essential interdependence. Foregrounding justice, equity, and human dignity reflects life values that connect sustainable ecosystems with cultural beliefs and practices that embrace the diversity of cultural knowledge and link social equity and biospheric climate change. Compartmentalizing people, learners, races, communities, cultures, categories of human/nature, local/global, present/future, social/economic, and/or environmental/health betrays a socially constructed reality not reflected in natural life process, and in our own best experience. The educational transformation we suggest here works for the life process, rather than against it.

Theories of change

Contemporary education is faced with the reality of incessant change on an exponential scale. We are obviously in a place and time where information, communication and mobile technologies are radically changing nearly everything we do. Education is caught up in these transformations as are other sectors of society, yet, it has been argued that schools remain substantially unchanged in their core structures and processes.

Through the 20th century, there has been a growing commitment to shift the nature of schooling to a more engaging process of citizen formation. Until very recently, educational provision has not been inclusive, and large segments of the population were more or less systematically denied access to full opportunity. Many argue that this remains the case today. Nevertheless, theories of schooling as a preparation for work are challenged by theories that see the central purpose of education as preparation for democratic participation and citizenship. The spread of social media echo-chambers which are easily manipulated by powerful interests, as illustrated by the Cambridge Analytica scandal (Hern, 2019) which influenced both the Brexit vote and the 2016 United States presidential election, highlights the crucial need for a citizenry educated for more than obedience, jobs and consumption.

Today we face ubiquitous and continuous upheaval, and schools struggle to keep up with relentless social change. The key here is not producing a worker for existing industrial arrangements, but rather, developing citizens who expect and participate in deliberation and change, and who are flexible lifelong learners. More

critical forms of transformative educational theorizing focus on developing in students a critical consciousness and a commitment to creating a more just world and to debating solutions to complex problems. This kind of thinking requires a form of education that includes, at its centre, authentic and active participation in deliberation, discussion and action. The language of the global economy, the information society, the knowledge economy and the preparation to compete and participate successfully, glosses over questioning what sorts of knowledge, controlled by whom, for whom and for whose benefit. The challenge of information overload, misinformation, disinformation, and distraction ask: 'what is worth knowing?' and 'what knowledge do we want to conserve to pass on the future generations?' Looking ahead to 2050, a transformative vision of education must begin with these questions.

Today, educational problems are often framed in terms of increasing engagement. Typically, this assumes an exclusive focus on students, but we feel that the emphasis should be on the engagement of all system actors. A fundamental component of transformational change is the creation and maintenance of a positive working, learning and collaborative environment. It is nearly impossible to create significant, meaningful, lasting change if the system actors feel detached, unrecognized or unappreciated. Positive and lasting system change requires an active stance throughout the development and implementation on the part of educational policy and system leaders at all levels engaging horizontal collaboration rather than vertical hierarchies. The management paradigms of yesterday based on predictability, control and positivism must give way to new thinking based on emergence and systems theory that envisions and enacts a participative world that is unpredictable, and fundamentally creative.

Change for 2050

Realizing the vision required to rethink and re-shape schooling calls for a shift in how we value education. It brings into question what is learned, how it is learned, where and when it is learned, and ultimately, why it is learned. Above all, this type of re-visioning requires, new theory, a culture of courageous leadership and a transformative governance model that will support and facilitate sustainable change. Many traditional understandings view the school as an institution charged with warehousing and preparing the next generation, largely separate from the everyday, economic life of the community. In the new vision for education in 2050, schools are important partners in community economic development and new governance structures provide for explicit linkages between schools, and community, political, higher education, and business leaders (Kay, 2020).

We see the education of the young as a community common good which supports positive, proactive change in a dynamic environment. Good governance, then, redistributes authority and integrates excluded groups, empowers various actors, and increases political power. An expanded vision of governance to reshape education for new realities, and a sustainable future, calls for de-centralization, enhancing local voice and agency, and enlarging democratic power.

Governance frameworks set the tone for the way that diverse communities are engaged. When communities are understood as interconnected systems, schools become part of the social and economic life of the community. Teachers, students, administrators and parents move learning out into the community and the community comes into the school. Schools are no longer isolated but are included, and in turn, they include community and political leaders, post-secondary institutions, business leaders and entrepreneurs. Particularly in the higher grades, there are opportunities for meaningfully connecting authentic, project-based learning in technology, arts, science, skilled trades, and entrepreneurial classes with business and manufacturing. This can result in young people forging relationships with local enterprises while developing important knowledge, skills and attributes that contribute to the economy and the future sustainability of the community. An added advantage

here is that this kind of programming can provide a greater degree of choice for the emerging generation linking emerging employment-based knowledge with curriculum. One way to frame this reimagining is to consider schools as sites of creativity, construction/making, and improvisation rather than as sites of control and the transmission of official knowledge (Corbett et al., 2016). Such an approach makes it possible to give young people the tools required to stay in their communities and create growth while developing skills that will allow neighborhood, communities and rural areas to flourish, sustainably.

Fostering school and community economic development relationships requires a governance philosophy that is inherently local, flexible, open, trust-based, and democratic and committed to embedding schools within the fabric of the local communities. It requires a leadership culture that values systems thinking, a holistic approach to reform and seeks to amplify teacher, student, and community voice and agency. Finally, a genuine commitment to recognizing and respecting diversity and addressing gaps in access and outcomes must be a governance and leadership priority.

There are promising developments and innovative approaches to teaching and learning throughout the world. They reflect the forward thinking, future-oriented pedagogical practices we require to shift education for 2050. However, scalable educational transformation requires a movement on multiple fronts; a shared vision for teaching and learning based on sustainable, flourishing communities and well-being for all; real public input on how to meet this vision in meaningful ways that build community and connect schools through pedagogy; and a framework for professional development for educators based on the vision and supported by policy-makers, politicians, communities, and teacher education institutions.

Conclusion

Education in 2050 must represent a paradigm shift from its original inception as a tool of the Industrial Revolution. Neoliberalism encompasses much of the economic and social framework of Western civilization from the late 20th century, and, as such, influences its education systems. As a driving force, neoliberalism has fostered educational systems that reflect fragmentation and individualism that have inspired the privatization of schools, the creation of academic and financial competition, and, ultimately, increased educational inequality masquerading as efficiency and virtue. This approach has demonstrably not supported learners' acquiring competencies for a sustainable economy and environment.

Education is mobilized as the solution to which government, business, and community leaders appeal when they deem an issue to be change-worthy. Educational bodies can inform or implement a new policy or develop a curricular resource to address the identified issue. This approach puts an exorbitant amount of pressure on educational leaders and their learners to solve complex problems that are not of their making. If education is to be the vehicle that fosters the creation and innovation of a sustainable economy, its system and its purpose must be redefined to better represent all learners as well as the economy and the environment in which these individuals will work and live. With this, governance and leadership must be reviewed and reshaped to better correspond to the new realities of the 21st century and to facilitate the collaboration amongst the different stakeholders in a less hierarchical manner.

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