

Education and the Problem of “The Future”

Peter Dawson Buckland

I want to ask you to consider “the future.” We all conceive the future in ways informed by our own experiences, our desires and dreams, our fears and nightmares, and perhaps our readings of utopia from *Ecotopia* or the Book of Revelations. In general, we might suppose that when we conceive “the future,” we consider our own futures in the language of individualism¹, our families’ futures, and the collective futures of our nation and world. I am here to ask you to start thinking about “the future” as it is defined by example in the dominant consumption-driven neoliberal discourse. “The future” is trouble.

In his book *Toward a History of Needs*, Ivan Illich argued that schools trap children within a compulsory bureaucracy of ever “more subtle and more pervasive social control,”² social control akin to an Orwellian dystopia than to those suited to genuine democracy and convivial life. Like Big Brother’s hands, Illich argues that school “forms men for something, for the future.”³ In what follows, I will begin to forward an argument that seeks to examine “the future.” The paper first examines “the future” as a concept at least nominally controlled by what Wendell Berry calls “the government’s economy and the economy’s government,”⁴ creating what I call the “state’s market’s schools.” Second, it examines how state’s market’s schools legitimate themselves and

¹ C.A. Bowers. *The Culture of Denial*. (Albany: SUNY Press, 1997), 145-154.

² Ivan Illich. *Toward a History of Needs* (Berkeley: Heyday Books, 1978), 77.

³ sic, 71.

⁴ Wendell Berry. *What Are People For?* (North Point Press, 1990), 164.

existing governmental practices and vice versa, attending particularly to existing educational policy, a publication by the National Center for Education and the Economy, President Barack Obama's and some industrial technocrats' description of the purposes of education, and finally research universities and their stated and unstated purposes. Third, I discuss the once future as the present by exploring human-induced ecocide. Fourth, the paper concludes with a call for convivial reconstruction of schools. Finally, I ask for contributors to a larger project that further explores the history of "the future" and engages in envisioning "our sustainable future(s)."

I. "The future?"

Illich argues that schools' *raison d'être* is as follows: "The rhetoric of all educational establishments is that they form men for something, for the future."⁵ The sentence's last eight words – "they form men for something, for the future" – need to be addressed closely.

What a future can be, neoliberal dominant discourse narrows through control of indefinite and definite articles from "any" or "some futures" to "a future" that is "its future" which through pervasive social control becomes "the future." C.A. Bowers notes that educational systems play part and parcel in this game by playing with futurism in a hope to break away from the past through technological and rational thought that is dominated by liberal (and now neo-liberal) "rational" thought and its supposed "rational" actions to follow⁶.

Said in another way, "the future" is for "*the* economy" (as if there were only one) artificially arranged by impersonal and imposing institutions armed with data, analysis,

⁵ Ivan Illich. *Toward a History of Needs* (Berkeley: Heyday Books, 1978), 77.

⁶ C.A. Bowers. *The Culture of Denial*. (Albany, NY: SUNY Press), 34.

and opinion prepared by highly schooled experts at the World Bank, the International Monetary Fund (IMF), and other dominant globalized institutions. Through homogenized institutional interfaces schools form students into dependents living under the auspices of a “pecuniary oligarchy.”⁷

Wendell Berry, like Illich, forwards the notion that schooled people are indoctrinated into “an obscure, cultish faith in ‘the future.’ We do as we do, we say, ‘for the sake of the future’ or ‘to make a better future for our children.’”⁸ In Berry’s writing in “The Work of Local Culture,” we confront “local schools [that] no longer server the local community; they serve the government’s economy and the economy’s government.” Berry argues the state and the market are at the center of a technocratic society. The state’s market, then, needs a subsidiary institution replicating its values for its own future. That future is defined by the technocrats as one of progress in the taken-for-granted version of technological, economic, and human progress. These versions of progress are to be understood as evolving and proliferating forms of more, faster, and more specialized forms of digital, electronic, mechanical, chemical, and biological technologies, economic growth, and increased access to increasing numbers of human rights. School is legitimated as a teleological institution that feeds “progress,” “a categorical imperative of world market competition” by and for consumption⁹ that moves us on “a unilinear way of social evolution”¹⁰ Schooling according to policy talk, as we

⁷ John Dewey. *Individualism Old & New* (New York: Capricorn Books, 1962), 54.

⁸ Wendell Berry. *What Are People For?* (Berkeley, CA: Counterpoint Books, 1990), 153-169.

⁹ Wolfgang Sachs. “Introduction” in *The Development Dictionary*, ed. Wolfgang Sachs (New York: Zed Books, 1992), 9.

¹⁰ Gustavo Esteva. “Development” in *The Development Dictionary*, ed. Wolfgang Sachs (New York: Zed Books, 1992), 9.

will see, is couched very much in technological and economic growth-oriented terms. Because the state's market (government's economy) needs schools to replicate these skills and values, I will refer to the educational system for the state's market as the "state's market's schools."

Schools for this globalized market competition conscript new believers into the cultish faith of the consuming future. Illich writes, "Education for a consumer society is equivalent to consumer training. The reform of the classroom, the dispersal of the classroom, and the diffusion of the classroom are different ways of shaping consumers of obsolescent commodities." Though overt instruction may skill people to earn income in the consumer society, the desire to consume and be consumed comes from the hidden curriculum.

Illich writes, "The imposition of this hidden curriculum within an educational program distinguishes schooling from other forms of planned education." The hidden curriculum makes education into a series of quantified marketable commodities, "programmed preparation *for* life in the future in the form of packaged, serial instructions produced by schools"¹¹ manned by people who function *de jure in loco parentis*, thereby protecting children from "bad" knowledge and imbuing them with "good" knowledge. The student, a commodity his or herself, is measured and sorted by grades, test scores, Carnegie Units, credit hours, independent studies, and so on. Then, as Illich notes, "Upon the receipt of a diploma the educational product" – i.e. the credentialed graduate – "acquires a market value"¹² and the status of a tradable commodity.

¹¹ Illich, (1973) 59.

¹² Illich, (1973), 125.

To get at the values in this pipeline, let us consider three things. First, we will look at the neoliberal logic of the No Child Left Behind act (NCLB), the most recent version of the Elementary and Secondary Education Act (ESEA). Second, I note the same logic at work in National Center of Education and the Economy's 2007 *Tough Choices for Tough Times* report. Third, I look at President Obama's first address to Congress, a speech whose logic remains intact in Arne Duncan's educational planning in the Race to the Top.

Larry Cuban writes that a "market-inspired definition of the educational problem"¹³ focused on increasing economic growth captivates U.S. school reforms. The logical solution has been to impose standards on schools, students, and teachers by using tests. This has been done in part to prepare students for the future of "the knowledge-based economy," a powerful idea that links knowledge – one of the "state's market's school's" commodities – to jobs which become the rationalization for schooling.

As an example, the National Center for Education and the Economy¹⁴ argues in its *Tough Choices for Tough Times: Executive Summary* that education's purpose is to feed the economy. It posits that "the best way to provide *a real future* for people who need jobs is to provide training that is related to *the economic future* of the region those people live in, for jobs in growth industries" [emphasis mine]. The commission also recommends that the federal government initiate legislation to encourage regional economic "development goals and strategies" that compel education to mold future

¹³ Larry Cuban, *US School Reform and Classroom Practice: 1980s-2005*. (2005). Accessed on January 20, 2011 from <http://academic.research.microsoft.com/Paper/10000771.aspx>

¹⁴ National Center for Education and the Economy. *Tough Choices for Tough Times: Executive Summary*. (2007), 19. Accessed on January 20, 2011 from <http://www.ncee.org/publications/tough-choices-or-tough-times-consortium-publications/>

workers for fierce competition in a globalized knowledge-based growth economy. It is clear that “the knowledge” on which this economy is based is a particular kind of knowledge. Recent political talk makes this all rather obvious.

Though President Obama may not be so obviously consumer- or corporately-oriented as former President George Bush, Jr. (Obama has not urged us to shop yet), his first public address on February 24, 2009 dealt with climate change, energy independence, health care, the U.S. schooling system, jobs, joblessness, continued economic power, and America’s centrality in the global market. All of the programs that he discussed from the general to the specific were hitched to the alleged need for a growth economy as the keystone to America’s greatness. Obama said,

Now is the time to jump-start job creation, re-start lending, in invest in areas like energy, health care, and education that will *grow our economy*, even as we make hard choices to bring our deficit down. That is what my economic agenda is designed to do, and that is what I’d like to talk to you about tonight.¹⁵

His logic for increased investment in schooling follows entirely from market considerations and global power.

This agenda aligns very well with the digital technology and business magnates who lobby the Department of Education. In the last few years Bill Gates spoke before congress as the representative of the Bill & Melinda Gates Foundation. He argued that the United States must create more science, technology, engineering, and math (STEM) programs to out-compete other economies and ensure that people can, as his foundation states, “live a healthy productive life.” On January 19, 2011, the Bill & Melinda Gates

¹⁵ Barack Obama. *First Address to Congress*. (Washington, D.C.: 2009).

Foundation joined the William & Flora Hewlett Foundation to offer approximately \$10 million in funding for the Next Generation Learning Challenges which will “provide investment capital to technologists, institutions, educators, and entrepreneurs to bring promising technology solutions to more students across the K-12 to postsecondary spectrum.”¹⁶

The Gates and Hewletts have joined the Next Generation Learning Challenges (NGLC). The NGLC created a multi-year initiative “to address the barriers to educational innovation and tap the potential of technology to dramatically improve college readiness and completion in the United States.”¹⁷ Combined they want to “support innovators who want to harness the power of technology to help more young people get into and through college, ready to succeed in the workplace. We must accelerate the use of learning tools that hold tremendous promise to help meet this challenge.”¹⁸ Like most educational reformers, these technological optimists do not question the underlying purpose of reforming education in an escalating race that plans technological and skill obsolescence.

This logic appears before the House Education and Workforce Committee. For example, on March 3, 2010, the committee convened a hearing titled “Building a Stronger Economy: Spurring Reform and Innovation in American Education.” Chairman George Miller (D – Ca.), in recognizing Secretary of Education Arne Duncan stated,

[T]oo many of our students are not reaching their full academic potential through

¹⁶ Bill & Melinda Gates Foundation. Next Generation Learning Challenges Seeks Promising Technology Tools That Can Help More U.S. Students Get Ready For College. Retrieved on January 21, 2011 from:

<http://www.gatesfoundation.org/press-releases/Pages/next-generation-learning-challenges-announcement-110119.aspx>

¹⁷ Next Generation Learning Challenge. About Next Generation. Retrieved on January 21, 2011 from <http://nextgenlearning.org/the-program>

¹⁸ Bill & Melinda Gates Foundation, 2011.

no fault of their own. They are not being taught to the same rigorous standards as their international peers. They also aren't getting a strong foundation in math, science and other innovative fields. College Presidents tell us that high school graduates aren't ready for college, and business leaders and CEOs tell us they can't find workers who are trained for the jobs for the future.¹⁹

The ensuing invective against schools follows the same logic as before with particular interest in the "stakeholders"²⁰ read as corporate and governmental interests. Secretary of Education Arne Duncan addressed multiple issues at the hearing. On one hand he addressed technological literacy for the purposes of citizenship, something that should not be overlooked²¹. However, the literacy of which he speaks, at least at this hearing, calls for no understanding of the ecological, social, or cultural impacts of computer technology.

In these hearings and others we can be assured, questioning whether or to what extent children should now use computers is beyond the pale. Education in the computer society has become education for computers. But as we should suspect, the more digitally technophilic Duncan, the Gates, the Hewletts, and President Obama want people to become, we see fewer questions about the cultural role of computers. How do computers shape or reshape human behavior? What are their effects on the people who must mine

¹⁹ House Education and the Workforce Committee. Opening Remarks by Chairman George Miller. *Building a Stronger Economy: Spurring Reform and Innovation in American Education*. (Washington, DC: March 3, 2011), 3. Retrieved on January 21, 2011 from <http://edworkforce.house.gov/Calendar/List.aspx?EventTypeID=189>

²⁰ Ibid, 4.

²¹ House Education and the Workforce Committee. Opening Remarks by Secretary of Education Arne Duncan. *Building a Stronger Economy: Spurring Reform and Innovation in American Education*. (Washington, DC: March 3, 2011), 12. Retrieved on January 21, 2011 from <http://edworkforce.house.gov/Calendar/List.aspx?EventTypeID=189>

the rare earths that we use to build them? How do they connect people and at what scales? How do they prevent connection? What is the cost, not in dollars and cents, but in soil, trees, water, and human suffering to create a fleet of iBooks for schools across the United States? What is the cost to home economies or local economies of scale?

I am not pretending that there is a full-proof answer to these questions or that a simple Marcusean refusal is necessary²². The idealists among us may find solace in Wendell Berry's refusal to buy a computer²³, but most of us are probably more like Andrew Lau who finds his laptop a conundrum in no small part because of how much it pervades his living and the hidden processes that brought the machine to his life. Illich would argue the aforementioned people seek to mold people as tools for industry instead of molding tools for people.²⁴

Obama's address of the achievement gap, the high school dropout rate, and the "need" for more post-secondary schooling flow from the same mission. He said, "[D]ropping out of high school is no longer an option. It's not just quitting on yourself; it's quitting on your country. And this country needs and values the talents of every American." Given the context of the speech, the country is a dominant economic superorganism trying to grow and extend its power that uses "talents" instrumentally for national economic values.

Not surprisingly, Obama hopes that parents carry these values into homes. "I speak to you not just as president, but as a father when I say that responsibility for our

²² Richard Kahn. (2006). The Educative Potential of Ecological Militancy in an Age of Big Oil: Towards a Marcusean Ecopedagogy. *Policy Futures in Education* 4(1), 31-44.

²³ Wendell Berry. *What Are People For?* (Berkeley, CA: Counterpoint Books, 1990), 170-177.

²⁴ Ivan Illich. *Deschooling Society*. (New York: Harrow Books, 1970), 76-77.

children's education must begin at home. That is not a Democratic issue or a Republican issue. That's an American issue." The state's market's needs must permeate the home and it needs parents to read to children, turn off televisions or video games, and help with homework not so that parents and children have more secure families, so that children and parents enjoy time together, or so that children can grow up to be happy capable of sustaining themselves or their communities. Obama asks parents to do these things for global knowledge-based competition that is best fueled by post-secondary education. I will assume that Obama wants these future graduates to attend and excel at the best post-secondary institutions, research universities.

Before going further, I need to address two objections. First, that I am somehow opposed to gainful employment and second that I am sniping. On the first count, gainful employment should be part of convivial life insofar as employment equates to meaningful work in shared purposes that can be sustained. Perhaps sociopaths and nihilists oppose work that brings meaning to one's life. This is no nihilistic creed and I hope that no one could label me sociopathic in any reasonable sense of the word. However, the work available in our schooled society is work meant for some other place that disconnects one from one's human-scale local community²⁵ and extracts resources through industrial instead of human and humane processes. This is not an attack on jobs or employment, and certainly not work. This critique calls into question the purposes of education for jobs because they work against conviviality.

²⁵ I note that the term "community" is highly contested. For simplicity, I follow Wilkinson who intends "community" to mean "a locality, a local society, and a process of locally oriented collective activities." See: K. P. Wilkinson. *The Community in Rural America*. (New York: Greenwood Press: 1991), 2.

On the second point, there are those like Robert Fiala²⁶ who argue that the expressed ideological purpose of the state's market's schools has never been to create a global all-consuming cancer of neoliberal humans. He argues, and I suspect that many others agree, that the major expressed aims of education in the development discourse and among developing nations have emphasized personal and emotional development, national identity, equality, employability, and democracy in that order. I do not argue that those are the expressed aims nor that many of the people expressing those aims are well-intentioned. These expressed aims are subservient to a globalized hidden curriculum.

The neoliberal assumptions in the hidden curriculum, held by core nations, are expressed through the World Trade Organization's (WTO) mission²⁷:

Over the past 60 years, the WTO, which was established in 1995, and its predecessor organization the GATT have helped to create a strong and prosperous international trading system, *thereby contributing to unprecedented global economic growth.*" [emphasis mine]

This "unprecedented economic growth" is the near-universal justification. Notice that Obama said nothing about personal and emotional development, national identity separate from market considerations, equality, much less citizenship in a democratic society. Duncan recognized literacy for citizenship but that was a secondary consideration.

²⁶ Robert Fiala. Educational Ideology and the School Curriculum. A. Benavot and C. Braslavsky (eds.), *School Knowledge in Comparative and Historical Perspective*, (Dordrecht and London : Springer, 2007) 32.

²⁷ World Trade Organization. Mission. Retrieved on February 10, 2011 from: http://www.wto.org/english/thewto_e/whatis_e/wto_dg_stat_e.htm

Derek Bok, former president of Harvard, said, “The modern university is...the central institution in post-industrial society”²⁸. Essentially, Bok believes that the modern research university or “super university” has become a primary institution, meaning it is no longer a mere replicator but a driver that generates values and interests, controls, constructs, and disseminates knowledge in and for the globalized system. It is an equal partner to government and corporations. Some might suspect that Bok is engaging in some form of self-aggrandizement when they really are workers in and representatives of secondary institutions who merely replicate the values of the state’s market. Primary or secondary, the research university has educated scores of millions people into some form of thinking about reality and has often acted in tandem with the interests and motives of other driving institutions, namely corporate governments.

The number of university-trained people has skyrocketed. The National Center for Education Statistics reports that from 1970 to 2007 Bachelor’s degrees earned went from 839,730 to 1,524,092, Master’s degrees jumped from 230,509 to 604,607, and Ph.D’s from 32,107 to 60,616²⁹. Computer science and engineering, business, and “Other fields” that include:

Agriculture and natural resources; Architecture and related services;
Communication, journalism, and related programs; Communications
technologies; Family and consumer sciences/human sciences; Health professions
and related clinical sciences; Legal professions and studies; Library science;

²⁸ Hechinger Institute. *Gathering Momentum: Building the Learning Connection Between Schools and Colleges* (Kansas City, KS; 2002) 21.

²⁹ National Center for Education Statistics. *Bachelor's, master's, and doctor's degrees conferred by degree-granting institutions, by field of study and year: Selected years, 1970–71 through 2006–07*. Retrieved on February 10, 2011 from: http://nces.ed.gov/programs/digest/d08/tables/dt08_274.asp

Military technologies; Parks, recreation, leisure, and fitness studies; Precision production; Public administration and social services; Security and protective services; Transportation and materials moving; and Not classified by field of study.³⁰

National Science Teachers Association states that in 2003, the United States, China, and India churned out over 1,000,000 sub-baccalaureate, baccalaureate, or graduate degrees in engineering, computer science, or information science and technology 222,235 of these were the United States, a fact that we should note greatly alleviated the authors' fears about declining American competitiveness in the global technocracy. In 2005, 27,974 science and engineering doctorates were awarded, breaking the 1998 record of 27,273³¹. The effect of this massive credentialing, schooling, and re-skilling on people's psyches and on the environment has been enormous.

Regarding our psyche, Marianne Gronemeyer noted about the development discourse in general, but applicable to this schooling for "the future," that "[e]verything backward, everything that has not yet been drawn into the whirlpool of the 'general mobilization' of modernity represents resistance to it and must therefore be brought into the present in order to become fit for *the future*."³² [emphasis mine] These words hearken to Illich's³³ remarks that schooling has become "the sacred cow" whose legitimacy and good is beyond question: It brings progress in its aim to the future. It seems quite obvious

³⁰ Ibid.

³¹ National Science Teachers Association. Report Seeks Reality Behind Number of Engineering Graduates. Retrieved on February 3, 2011 from: <http://www.nsta.org/publications/news/story.aspx?id=52016>

³² Marianne Gronemeyer. "Helping" in *The Development Dictionary*, ed. Wolfgang Sachs (New York: Zed Books, 1992), 60.

³³ Illich. (1970), 121.

to the *homo educandus* that more highly schooled people create more progress and more prosperity. Progress and prosperity viewed in the magnanimous light of development blinds us from seeing an incontrovertible truth, that unquestioned and unprecedented economic growth led by beliefs, skills, and actions of college graduates severely disrupts the Earth's physical systems and damages the biosphere on which humans depend. As James Gustav Speth has noted, the "ever-growing world economy...is undermining the planet's ability to sustain life."³⁴ The chorus in which he sings is too many to list. However, the chord it now sings represents a cacophonous ecological mess.

It is possible that the American college graduate is the most parasitic organism in Earth's history? It is an empirical question but the point should be clear: the state's market's schools have undermined the planet's ecosystems. If we can accept that schools, especially research universities, are as powerful or nearly as powerful as Bok argues, then schooling must be questioned. Even leading educationists have done so without going so far as to question whether it should exist. *The Talloires Declaration* states:

Universities have a major role in the education, research, policy formation, and information exchange necessary to make these goals possible. Thus, university leaders must initiate and support mobilization of internal and external resources so that their institutions respond to this urgent challenge [to curb the degradation of the natural environment].³⁵

The Talloires Declaration, initially signed by nineteen college and university presidents, has been signed by more than 600 college and university leaders. Other signing groups or

³⁴ James Gustav Speth. *The Bridge at the Edge of the World*. (New Haven and London: Yale University Press, 2009), 8.

³⁵ University Leaders for a Sustainable Future. *The Talloires Declaration*. (Talloires, France: 1992), 1.

statements like *Talloires* include the Bologna Charter, The Halifax Declaration, the Copernicus Charter for Sustainable Development, Second Nature, Association for the Advancement of Sustainability in Higher Education (AASHE), the American College and University Presidents Climate Commitment (ACUPCC), and regional groups like the Pennsylvania Environmental Resource Consortium (PERC) are in essential agreement. Universities are powerful institutions. It is unlikely that people will jump from the Good Ship University, though the rest of the biosphere might want us to do this as I show below.

III. “The future” now

At this point, I must take stock of where we are regarding what was once “the future.” Illich’s *Tools for Conviviality* recognized that people’s focus on growth market values necessarily frustrates them because they are severed them from their evolved natural history, prevents them from convivial work, chokes imagination through overeducation, hinders meaningful political participation, and educates them into perpetual obsolescence³⁶. It is on the first of these that I will focus. Following Paul Ehrlich, Illich notes that “overpopulation, excessive affluence, and faulty technology” all play into “the degradation of the environment [which] is dramatic and highly visible.”³⁷ Today we find that this degradation, engineered by credentialed graduates, more terrifying. Earth’s human population in 1975, was 4 billion. Today it is 6.8 billion people. Current estimates project global human population at 9 billion by 2050. Projected population times unprecedented growth has already caused tens of thousands of square

³⁶ Illich, (1973) 47-48.

³⁷ Illich (1973) 51.

miles of topsoil to run into seas and oceans each year³⁸, 75,000 additional square miles of soil are covered by urban sprawl every year³⁹, an oil industry so unregulated that the cost of the nearly 206 million gallons of oil and 1.84 million gallons of highly toxic chemical dispersants poured into the Gulf of Mexico by the British Petroleum – Halliburton – Deepwater Horizon blowout in 2010⁴⁰ could be seen as the cost of doing business, that global temperatures could rise 5.2 degrees Celsius by 2100⁴¹ under this business as usual model, that sea levels have been rising on average of 3.1 mm a year since 1993, up from 1.8 mm a year from 1968 to 1993. These rising levels are threatening the livelihoods of people in the Maldives and Bangladesh⁴², and that every day between 32 and 160 species go extinct according to Conservation International (2008) a rate some biologists estimate to be 10,000% of the background rate.

If we follow Richard Leakey's argument, humans have initiated and perpetuate the "sixth extinction" on Earth, the fifth being the event that eclipsed the dinosaurs 65 million years ago⁴³. I am most certainly not the first person to make this observation: but *homo economicus* and *homo educandus* and the tools for which they live are a slow asteroid hitting the Earth. *Homo educandus*, simply stated, is an antibiotic: literally

³⁸ Stephen Leahy. *Peak Soil: The Silent Global Crisis*. (Spring 2008). Retrieved on February 3, 2011 from:

http://www.earthisland.org/journal/index.php/eij/article/peak_soil/

³⁹ Paul Ehrlich and Ann Ehrlich. *The Dominant Animal: Human Evolution and the Environment*. (Washington, D.C.: First Island Press, 2009).

⁴⁰ Los Angeles Times. "Gulf Oil Spill by the Numbers." *Los Angeles Times*. Retrieved on February 3, 2011 from: <http://articles.latimes.com/2010/sep/18/nation/la-na-oil-spill-numbers-20100919>

⁴¹ David Chandler. "Revised MIT climate model sounds alarm," *TechTalk*, 53 (26) (2009), <http://web.mit.edu/newsoffice/2009/techtalk53-26.pdf>

⁴² IPCC, 2007.

⁴³ Richard Leakey and Richard Lewin. *The Sixth Extinction: Patterns of Life and the Future of Humankind*. (New York: Anchor Books, 1995).

beings that are “anti” – in opposition to – “biota” – life, including their own. I think that we can no longer label ecocide a “side effect” of education or an “externality” of economics. They are *collateral damage*. I think that these conditions necessitate, if possible, radical schooling reconstruction and recalibration for “our sustainable futures.”

IV. If any future, then our sustainable future(s)

Tools for Conviviality weaves a portent akin to E.M. Forester’s short story, “The Machine Stops” or *The Matrix*. He writes that we need to re-establish a balance between humans and their natural environments.

Otherwise man will find himself totally enclosed within his artificial creation, with no exit. Enveloped in a physical, social, and psychological milieu of his own making, he will make a prisoner in the shell of technology, unable to find again the ancient milieu to which he has adapted for hundreds of thousands of years. The ecological balance cannot be re-established unless we recognize again that only persons have ends and that only persons can work toward them. Machines only operate ruthlessly to reduce people to the role of impotent allies in their destructive progress.⁴⁴

The university machine is here to stay. I think that we have to recalibrate them or, as Illich called it, “invert” them.

First, there are the masses of the “two-thirds world” now living without the alleged benefits of the university or the need of development (Esteva, 1992; Esteva and Prakash, 1998). Many of these people have maintained their commons or resisted development’s and schooling’s degradation. I do not mean to invoke some Arcadia nor

⁴⁴ Illich. (1973), 51.

some idea that community – however loosely or tightly defined – can be a real panacea or palliative on the crises of modernity. But we must accept people’s and communities’ futures as their own and cease inflicting upon them the categorical imperative of the “universal human right” for *access to* education through state market schooling. I think we have to honestly wonder if there is an inverted categorical imperative that people have a universal human right for *exemption from* education through the state market schooling.

Second, we could actually redirect this machine by making it our tool instead of us being its tool, a probiotic instead of an antibiotic. In this vein I call on us to invest in and expand Richard Kahn’s (2006; 2010) notion of “ecopedagogy.” He wrote (2006),

Now, simply, we must strive to challenge our old assumptions as educators – even as critical educators – and to build our solidarities and organize a common language and ways of being together more than ever before. This plan for action as I can name it is for a radical ecopedagogy – a term delineating both educational and ethical literacies.

I put forward the possibility that we invest in the development of “educational and ethical literacies” for sustainability as John Ehrenfield describes it: “[T]he possibility that humans and other life will flourish on Earth forever.” The logic of this program would be to enable meaningful participation in sustainable future. That means learning to reduce human population, reducing and transforming polluting technologies, and scaling down the scope of our economies to the local and regional. This is higher education for what James Lovelock calls a “sustainable retraction” and not “sustainable development.” Formal and informal education, perhaps even schools, freed from the cancerous consumer logic could center itself around what Wendell Berry calls “the work of local

culture” – the cultures of nature in soil, water, and sun, the work of human culture, and the bioregions in which we live – that can develop real ecological literacy that is coupled with practical and theoretical knowledge of place so far described by Greenwood need a citation here, or some discussion of his work. The project must be ongoing and eclectic.

We need, as Moacir Gaodotti (2008) writes, “a political revolution, one that sees the future as a problem to be solved and not as something determined by the ‘invisible hand’ of the market.” This shift must assume limits.

This is all to say that we must ask these three questions. Like Berry (1992), we must ask, “What are people for?” The answer must be, in some humble and manageable way, that people are for themselves in convivial relationship to their cultural, biotic, and geographic places. This should prompt us to ask “What is the planet for?” Is it ours to take for what we want, to mine from shore to shore? Maybe there is a longer view beneath the sun and clouds that we’re just one of millions of species and life can abound. Finally, we need to ask, “What is a teacher for?” Currently, I work with teachers for “the future” and think that those teachers are not servants of love for children, families, and communities so much as they are low-grade commodities. Like the narrator in Pink Floyd’s “Welcome to the Machine,” the state’s market’s schools have known where they’ve been and now they will know where their students have been. We have to replace the mechanical metaphors with biotic metaphors and dominating language with cooperative language.

V. A request for shared sustainable future(s)

In conclusion, I want to note the tentativeness of this thinking and writing because it is quite young even if grounded in the work of Illich and the branching tree of education

for sustainability, resilience, and conviviality. I hope that some others might be interested in such an enterprise in counterfoil research. This research should “dramatize the relationship of people to their tools” – including schools – in ways that focus the public on available resources and the consequences of their use(s) including ‘the existence of any trend that threatens one of the major balances on which life depends.’⁴⁵ The scope of such a project is well beyond an essay and this author’s ken. I am inclined to believe it needs to be fleshed out as sets of writing by several authors interested in critically engaging the cancerous effects of the “state’s market’s schools,” most especially from an Illichian perspective for conviviality, an ecopedagogical framework, and/or other critical dialectical perspectives.

I propose at least four things for those of us working in schools of some kind:

1. For those who teach now, invite students to explore learning as it relates to our personal conceptions about “the future” and what that future or those futures can be. These explorations should be led in light of conviviality, possibly addressed through the parameters Illich explores in “The Multiple Balance” in *Tools for Conviviality*. The simple and regular invitation to “know thyself” might be our greatest asset.
2. Perhaps some of us can explore past and current conceptions of “the future” for a special topic in the *International Journal of Ivan Illich Studies*. If any are interested in such an endeavor, it could serve as a seed for the growth of a larger project (see below). It seems that sustainable education or convivialist education must be futurist in some sense.

⁴⁵ Illich (1973), 83.

3. A larger project could emerge about “the future” that could be something like *The Development Dictionary* that piece of counterfoil research into the underlying assumptions of the development discourse. An archaeology of “the future” and its utopian/dystopian ramifications, the plurality of its current convivial and anti-convivial representations and instantiations, and our convivial reconstructions of the term could bring some insight worth pursuing as formal and informal educators.
4. As a parallel project, I wonder what sorts of art for our “futures” we might make. People in solidarity need positive vision for the future. I don’t intend this in the least to be akin to proscriptive or dogmatic visions such as the Soviet aesthetic and epistemological doctrine of “socialist realism” or the current American “intelligent design” creationist ontological and epistemological doctrine of “theistic realism;” there is no “convivialist realism” or “ecopedagogical realism.” Rather, it is an invitation to an artistic exploration of “futures” that we can share with one another here, our families, and our friends.

To close, I hope that each of us can act in word and deed as people seeking joyful solidarity with one another. In the wake of the current ecological crisis I have been working with people who learn and do in the face of desperate social, cultural, economic, spiritual, and ecological crises before us. However, if we conceive of and enact revolutions for true convivial life in our selves with others in the places where we are being, we will have enacted the revolution that makes the future *ours* in solidarity.

Author's Bio

Peter Buckland loves to run and bicycle in Pennsylvania's forests. Since boyhood he has loved the woods, people, music, and words. Today he is the Director of Sustainability for the Kiskiminetas Springs School, a boy's boarding high school in southwest Pennsylvania. There, he works to bring conviviality to life through good stewardship of the land and the plants and animals – including the boys, faculty, and staff – to fruition.