Critical Theory and the Transformation of Education in the New Millennium

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It is surely not difficult to see that our time is a time of birth and transition to a new period. The spirit has broken with what was hitherto the world of its existence and imagination and is about to submerge all this in the past; it is at work giving itself a new form. To be sure, the spirit is never at rest but always engaged in ever progressing motion.... the spirit that educates itself matures slowly and quietly toward the new form, dissolving one particle of the edifice of its previous world after the other,.... This gradual crumbling... is interrupted by the break of day that, like lightning, all at once reveals the edifice of the new world. Hegel, *The Phenomenology of Spirit*, 1807.

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As the second decade of the second millennium unfolds, against the backdrop of COVID-19, the human species is undergoing one of the most dramatic technological revolutions in history, one that is changing everything from the ways that people work to the ways that they communicate with each other and spend their leisure time. The technological revolution centers on a removal of time and space as the precedents for education and bears witness to online, blended, hybrid, virtual, AI, and even gamified synchronous and asynchronous options for teaching and learning, no longer occupying the periphery of education, but instead now holding steady as normalized educational options. This Great Transformation poses tremendous challenges to educators to rethink their basic tenets, to deploy the emergent technologies in creative and productive ways, and to restructure education to respond constructively and progressively to the technological and social changes now encompassing the globe.[1]

At the same time that technological revolution is underway, important demographic and socio-political changes are taking place throughout the world. COVID-19 has left no corner of the world untouched and has altered all forms of daily living on a global scale. The global explosion of COVID-19 provides a reminder of how earlier conceptualizations and critiques of globalization may not have gone far enough to note the true interconnectedness of all peoples on this globe. Early colonization by imperial European nations brought pandemic and death to large segments of the colonized world, as Europeans imported deadly diseases throughout the colonized world. Ironically, this time the pandemic came from a former colonized part of the globe, so that the COVID-19 pandemic can be seen as revenge of the colonized world, just as the pandemic can be seen as the revenge of nature for slaughtering animals in monstrous conditions of mass production and mechanized killing to feed hungry humans.[2]

In this context, as Gennaro noted in 2010, our definition of globalization needs to be expanded to account for "the movement, interaction, sharing, co-option, and even imposition of economic goods and services, cultures, ideas, ideologies, people's lives and lived experiences, food, plants, animals, labour, medicine, disease, learning, play, practices, and knowledge(s) across time and space(s) previously thought to be impossible or at the very least improbable."[3] Furthermore, the Black Lives Matter movement brought into perspective the very real challenge of providing equitable access to people from diverse races, classes, and backgrounds to the tools and competencies to succeed and participate in an ever more complex and changing digital world despite a structure that has institutionalized and normalized their very oppression.[4]

In this chapter, we propose developing a critical theory of education for democratizing and reconstructing education to meet the challenges of a global and technological society. This involves articulating a metatheory for the philosophy of education and providing a historical genealogy and grounding of key themes of a democratic reconstruction of education which indicates what traditional aspects of education should be overcome and what alternative

pedagogies and principles should reconstruct education in the present age. Education has always involved colonization of children, youth, the underclasses, immigrants, and members of the society at large into the values, behavior, labor skills, competitiveness, and submission to authority to serve the needs of white, patriarchal capitalism and to transmit the ideologies that Marx and Engels saw as the "ruling ideas of the ruling class" (1978), and which bell hooks (1994) reminds us also includes the ruling ideas of white men and colonization of the subjects of education into White, Patriarchal Capitalism.

The decolonization of education thus necessarily involves critique of dominant ideologies, pedagogies, and the current organization of education, to be replaced by what Freire calls "the pedagogy of the oppressed" (1970). We will argue that this project includes developing multiple critical literacies as a response to digital technologies and developing critical pedagogies to meet the challenges of globalization, multiculturalism, and institutionalized racism, classism, and sexism, while promoting radical democratization to counter the trend toward the imposition of a neo-liberal business model on education. We will also argue that a democratic and intersectional reconstruction of education needs to build on and synthesize perspectives of classical philosophy of education, Deweyean radical pragmatism, Freirean critical pedagogy, poststructuralism, and various critical theories of gender, race, class, sexuality, ethnicity, disability, indigeneity, and more, while criticizing obsolete idealist, elitist, and antidemocratic aspects of traditional concepts of education.

We are aware that in much of the world hunger, shelter, and basic literacy are necessary requirements for survival, but would argue that in a globalized world it is important to project normative visions for education and social transformation that could be used to criticize and reconstruct education and society in a variety of contexts. Great strides have been made toward basic global education since the introduction of the United Nations Convention on the Rights of the Child in 1989, where UNICEFs millennium goals of extending education to all witnessed a rise in global schooling by across the first 25 years of the UNCRC.[5]

The last decade has witnessed a push from UNCIEF to extend rights of the child to high school access globally, and more recently to push for global access to STEM (Science technology, engineering, and mathematics) programming and job opportunities for girls and girls of color.[6] Our project requires critical awareness that we are reflecting positions of theorists in the overdeveloped world, and that in different parts of the world education will be reconstructed in various ways depending on the exigencies of the system and possibilities for democratic transformation of education and society.[7] Nonetheless, now is the time to reflect on the philosophy of education, to consider what might be constructed as a critical theory of education and radical pedagogy, and to articulate a vision of how education could be reconstructed and democratized in the present age to serve as an instrument of democratic social transformation.

CRITICAL THEORY, CRITIQUE,
AND THE SEARCH FOR THE GOOD LIFE

In using the term "critical theory," we are building on the Frankfurt School (Kellner, 1989), but the critical theory that we are anticipating is broader than the version developed by the German-American exiles from World War II. In the context of theorizing and reconstructing education for the contemporary era, we would include the tradition of Freirean critical pedagogy, Deweyean pragmatism, British cultural studies, feminism, critical race theory, and other intersectional theories of oppression and resistance, as well as poststructuralism. Our appropriation of the latter would encompass both the critiques of the subject, reason, and liberal democracy in especially French versions of "post" theory (see Best & Kellner, 1991). Yet we would engage and emphasize the critical theories of gender, race, sexuality, and constructions of subjectivity that have developed from a broad range of theoretical formations over the past years. These themes can enrich critical theory and pedagogy and help with the Deweyean project of democratizing and reconstructing education so that aims of social justice and progressive transformation can inform pedagogy and practice.

We thus use the metatheoretical concept of "critical theory" as a cover concept for this project to signify the critical dimension, the theoretical aspirations, and the political dynamics that will strive to link theory and practice. This conception of "critical" is synoptic and wide-ranging encompassing of "critical" in the Greek sense of the verb *krinein*, which signifies to discern, reflect, and judge, and "theory," in the sense of the Greek noun *theoria* which refers to a way of seeing and contemplation. Greek critique is rooted in everyday life and exemplified in the Socratic practice of examining social life, its institutions, values, and dominant ideas, as well as one's own thought and action.

Critique became central to the Enlightenment project of criticizing authority and legitimating one's intellectual and political positions. The Kantian sense of critique, for example, required putting in question all the ideas of reason, morality, religion, aesthetics, and other dominant ideas to see if they could be well grounded and legitimated. Kantian critique aims at autonomy from prejudice and ill-grounded ideas and requires rigorous reflection on one's presuppositions and basic positions and argumentation to support one's views.

Critical theory also builds on a Hegelian concept of critique (1965 [1807]), as well by criticizing one-sided positions (such as technophobia vs. technophilia) and developing more complex dialectical perspectives that reject and neglect oppressive or false features of a position, while appropriating positive and emancipatory aspects (see Kellner, forthcoming). Critical theory adopts a Hegelian concept of theory by developing holistic theories

that attempt to conceptualize the totality of a given field, but that importantly make connections and articulate contradictions, overcoming idealist or reductive theories of society, nature, humanity, or the world.

A critical theory of education also draws on Marxian critique, stressing the importance of critique of ideology and situating analysis of a topic like education within the dominant social relations and system of political economy and society (Marx & Engels, 1978). The Marxian project systematically criticized the assumptions of an established hegemonic discipline, as in Marx's critique of political economy, and constructed an alternative theory and practice to overcome the limitations and oppressive features of established institutions and systems of production. Marxian critique involves radical examination of existing ideologies and practices of education and the need for pedagogical and social transformation to free individuals from the fetters of consumer capitalism and to help make possible a free, more democratic, and human culture and society. Marxian theorists like Gramsci (1971) criticized the ways that Italian education and culture reproduced ideologies of the bourgeoisie and then fascism, and called for a counterhegemonic cultural project that would encompass alternative institutions from schooling to theater to journalism to help construct a socialist and democratic society. Further, as Charles Reitz has demonstrated (2000), Herbert Marcuse carried out sustained criticisms of the existing system of education as a mode of reproducing the existing system of domination and oppression and called for counter-institutions and pedagogies to promote democratic social transformation and the full development of individuals.[8]

Critical theory must also be intersectional, drawing on Patricia Hill Collins and Sirma Bilge (2016) who argue that intersectionality is not a theory, but is also an analytical tool that exposes and makes visible multiple domains of power and oppression and inequity. Hill Collins and Bilge argue that human rights, academia, and technology are sites where intersectionality of critical praxis and critical inquiry occurs. Intersectional approaches, like critical theory, are multilayered, multi-perspectival, and multidimensional and include not only what we see/touch/smell (what our senses reveal), but also what we don't see or cannot see (implicit ideological structures of power). Intersectional approaches require both critical inquiry and critical praxis to better understand power in our society and in our lives. Intersectionality is an approach to exploring social conditions across multiple lawyers and converging spaces, beginning with the unique experiences of the individual and expanding to include how social variables and markers of difference (such as race, class, gender, and age) multiply an individual's privilege or marginalization, and continuing to note how forms of oppression and discrimination (from racism, homophobia, transphobia, etc.) impact individual experiences as they exist inside larger structural forces of history, capitalism, colonialism, misogyny, and more. Hence, the concept indicates that the social conditions of each individual are not experienced equally.

Building on this tradition, we are arguing in a critical Hegelian spirit that classical philosophies of education can aid in the project of reconstructing and democratizing education and society, but that certain idealist, elitist, and oppressive elements of classical and contemporary pedagogy must be rejected and re-visited with an intersectional approach. A critical theory of education has a normative and even utopian dimension, attempting to theorize how education and life construct alternatives to what is. Developing a model of education that promotes the good life and the good society could be aided by normative reflection on classical philosophy of education from the Greeks through John Dewey and critics of classical Western education like Ivan Illich and Paulo Freire. For the Greeks, philosophy signified love of wisdom (*philo-sophia*) and the practice of philosophy involved *Paideia*, the shaping, formation, and development of human beings and citizens (Jaeger, 1965). For the Greeks, it was language and communication that created human beings and philosophical dialogue involved the search for wisdom and the good life. Using the light of reason, the philosopher was to discover concepts for human life and society that would enable the educator to create more fully developed human beings and citizens able to participate in their society.

Thus, for the classical Greek philosophy of education, proper education involved the search for the good life and the good society. Of course, Greek society was built on slavery so only the upper class, and mostly men, could dedicate themselves to education and becoming citizens. In later appropriations of Greek notions of *Paideia*, such as are evident in Werner Jaeger's classical study (1965), the Greek notion of education was idealized and essentialized, leading to idealist notions of culture from the Romantics, Matthew Arnold, to those of current conservative elitists who fetishize idealized aspects of culture, elevate the mind over the body, the superior individual over the masses, and thus undermine democracy, citizenship, and the project of developing a just society.[9]

While the Greeks developed a primarily aristocratic conception of education, for the Romans education was shaped to meet the needs of Empire and to expand a universalized conception of culture and citizenship grounded in Roman ideals that provided the basis for the Western conception of *Humanitas*. For Roman civilization, education involved transmission of basic skills and literacy training for the plebs, more advanced schooling for the administrative class of the imperial society, and a form of classically-oriented tutoring for the patrician class in the codes and manners of Roman aristocracy. Education, then, for the Romans involved *educatio* and *instructio*, in which the teacher was to train children much as the horticulturist cultivated plants and the animal trainer molded animals, even as it aspired to mimic Platonic notions of education within its highest ranks.

Following the Latin roots, the early English conceptions of education involved bringing up and rearing young people from childhood to teach them good manners and habits and to cultivate the qualities of personality and thought. Curiously, the Latin roots of the English terms *education* and *educate*

were used to signify the training and discipline of both animals and humans, connotations that lasted into the nineteenth century when more idealized notions of culture gained currency. By the late nineteenth century, both classicist educational conservatives and progressives like Dewey harked back to the Latin term *eductio*, to enrich and legitimate their pedagogical projects. However, as E.D. Hirsch (1988) and Ivan Illich (1981) have both noted, modern progressives made an unfortunate conflation of the term *eductio* (signifying a moving out, emigration, or stretching forth) with the Roman pedagogical term *educo*, which meant either nourishment or training. The result was an idealized version of Western education in which the teachers were to draw out or reduce innate human potentials, a tradition pointing back toward Plato and the Greeks.

The classical ideals of education remain important insofar as they aim at the forming of more developed human beings and what Cicero conceived of as the citizen and "political philosopher." The latter embodied and disseminated humane values and tolerance, and whose wide-ranging knowledge was directed toward the regulation and construction of a public space that accorded with civic values and not toward the ivory tower of theoretical abstraction. To the degree that classical ideals of education articulated a vision of humanity as being that which is capable of transcending itself and reshaping itself and its world is a positive heritage, as is the emphasis on the cultivation of unrealized human potentials, a utopian dimension later brought out by the philosopher Ernst Bloch (1986).

The classical ideals also speak to the ethical duty that any citizen has toward its community and notions of political virtue that would later influence Rousseau and Enlightenment figures. Hence, to the extent that classical education develops pedagogic practices that allow for the greatest release of human potential and cultivation of citizens who will produce a just society, the project counters education contrived to fit students into the existing social system, which reduces schooling to an instrument of social reproduction.

Yet we should recall the elitist and idealist roots of classical education and that *Paideia* and *Humanitas* were used to legitimate slave societies and in the case of the Romans to promote Empire. Indeed, a study of the classical ideals also underlines for us the ways in which previous models of education have been produced within and as discourses of power and domination. Hence, a radically historicist approach to the philosophy of education does not superficially (or mistakenly) draw upon and reproduce theoretical positions that would otherwise prove problematical, but in the spirit of Ernst Bloch and Walter Benjamin's "redemptive criticism" appropriates and reconstructs ideas from the past to produce critical theories of the present and visions of a better future.

Public Education, Democracy,
and Pedagogies of the Oppressed

A similar dialectical approach is relevant for reflection on the idealist notion of education encoded in the German *Bildung* tradition, itself connected to an idealized version of Greek *Paideia*, which intended education to shape and form more fully to realize human beings. Both Hegel and Marx shared this tradition, with Hegel stressing the formation and development of spirit as a historical and educational process that properly formed students needed to work through and appropriate tradition as one's own, while criticizing and moving beyond it. Marx, however, was inspired by a vision of socialism as producing more realized many-sided human beings and envisaged in his early writings, a la Schiller, the education of all the senses as an important dimension of becoming a human being (Marx & Engels, 1978, pp. 88ff)—a theoretical position taken up by Marxists like Marcuse.

In their 1848 "Communist Manifesto," Marx and Engels made liberation of the working class from bourgeois education and expanded public education for the working class one of their major demands, offering as a key measure to constructing socialism: "Public education of all children free of charge. Elimination of children's factory labor in its present form. Combination of education with material production, etc. etc." (Marx & Engels, 1978, p. 490). Of course, the infamous "etc. etc." signals the Marxist philosophy of education that was never fully developed, but it is clear that free public education was a key demand of Marxian socialism. Crucially, Marx and Engels wanted to "rescue education from the influence of the ruling class" (1978, p. 487), arguing that education currently reproduces capitalist-bourgeois societies and must be completely reconfigured to produce alternative ones. In the famous "Theses on Feuerbach," the young Marx wrote: "The materialist doctrine that humans are products of circumstances and upbringing, and that, therefore changed humans are products of other circumstances and changed upbringing, forgets that it is humans who change circumstances and that it is essential to educate the educator" (1978, p. 144).

As the twentieth century unfolded, it was John Dewey who developed the most sustained reflections on progressive education, linking education and democracy. Dewey insisted that one could not have a democratic society without education, that everyone should have access to education for democracy to work, and that education was the key to democracy and thus to the good life and good society. Dewey was a proponent of strong democracy, of an egalitarian and participatory democracy, where everyone takes part in social and political life. For Dewey, education was the key to making democracy work since in order to intelligently participate in social and political life, one had to be informed and educated to be able to be a good citizen and competent actor in democratic life.

Dewey, like Rousseau, and even more so, was experimental and pragmatic and saw education as an evolving and experiential process in which one would

learn by doing. The term "pragmatism" is associated with Dewey and in one of its meanings signifies that theory should emerge from practice, that education should be practical, aimed at improving everyday life and society, and that by using the method of trial and error, one could learn important life skills and gradually improve democratic society and education.

From similar pedagogical perspectives yet from a different historical location of Brazil in the 1960s and following, often in exile, Paulo Freire argued that the oppressed, the underclasses, have not equally shared or received the benefits of education and they should not expect it as a gift from the ruling classes, but should educate themselves, developing a "pedagogy of the oppressed" (1970). For Freire, emancipatory education involves subverting the Hegelian master/slave dialectic, in which oppressed individuals undertake a transformation from object to subject and thus properly become a subject and more fully developed human beings. Responding to the situation of colonization and oppression, Freire's pedagogy of the oppressed involved a type of decolonization and a consciousness-raising (*conscientizacao*), and allowed the educated the right to thematize issues of study, to engage in dialogue with teachers, and to fully participate in the educational process.

Developing a "pedagogy of the oppressed" requires the creation of learning processes that will help individuals improve themselves and create a better life through social transformation and empowerment, rather than conforming to dominant views and values. Freire is famous for his critique of "banking" education and creation of a dialogical pedagogy. Freire perceived that education is often a form of indoctrination, of enforcing conformity to dominant values, and of social reproduction in which one is tutored into submission and acceptance of an oppressed and subordinate status. Therefore, pedagogy of the oppressed must oppose dominant conceptions of education and schooling and construct more critical and emancipatory pedagogies aiming at radical social transformation.

It is interesting that all the classical philosophers of education that we have discussed, as well as Marx and Freire, assume that education is of central importance to creating better and more fully-realized individuals, as well as a good society, and therefore that philosophy of education is a key aspect of social critique and transformation. Critical philosophies of education provide radical critique of the existing models of education in the so-called Western democracies and provide progressive alternative models, still relevant to our contemporary situation. Many of these philosophies of education, however, work with questionable conceptions of reason, subjectivity, and democracy and neglect the importance of the body, gender, race, sexuality, the natural environment, and other dimensions of human life that some modern theories failed to adequately address.[10] Consequently, the poststructuralist critique of modern theory provides important tools for a critical theory of education in the present age.

Poststructuralist theories emphasize the importance of difference, marginality, heterogeneity, and multiculturalism, calling attention to dimensions of experiences, groups, and voices that have been suppressed in the modern tradition. They develop new critical theories of multicultural otherness and difference, which includes engagement with class, gender, race, sexuality, and other important components of identity and life that many modern pedagogies neglect or ignore. Poststructuralists also call for situated reason and knowledges, stressing the importance of context and the social construction of reality that allows constant reconstruction. A critical poststructuralism also radicalizes the reflexive turn found in some critical modern thinkers, requiring individuals involved in education and politics to reflect upon their own subject-position and biases, privileges, and limitations, forcing theorists to constantly criticize and rethink their own assumptions, positions, subject-positions, and practices, in a constant process of reflection and self-criticism (Best & Kellner, 1991, 1997).

Poststructuralist theories have empowered women, people of color, people identifying as GLBTQ, and others excluded from modern theory and educational institutions. Yet feminist theories of education can also draw upon classical feminism, as well as poststructuralist critique. Mary Wollstonecraft (1988), for example, rethought education after the French revolution as a way to realize the program of the Enlightenment and to make individual freedom, equality, and democracy a reality for men and women. Education in Wollstonecraft's conception involved the restructuring of society, enabling women to participate in business, politics, and cultural life, extending the privileges of education to women (although she tended to neglect the need to educate and uplift working-class men and women). Radicalizing Enlightenment positions, Wollstonecraft argued that women, like men, are human beings who have reason and are thus capable of education. Moreover, she argued that education is the only way for women to better themselves and that if women do not pursue education, they cannot be emancipated, they cannot be participants in society, they cannot be equal to men, and thus, the Enlightenment project cannot be realized.

More recent feminists, influenced by poststructuralism and multiculturalism, like bell hooks (1994), have stressed the importance of gaining agency and voice for oppressed groups and individuals who have traditionally been marginalized in educational practice and social life. Giving a voice within education and society to individuals in oppressed groups marked by race and ethnicity, sexuality, or class articulates well with the perspectives of Paulo Freire, although he himself did not bring in these domains until his later work. Freire's eventual turn toward more inclusive and articulated gender and multicultural perspectives was in part a response to critique from feminists, critical race theory, people identifying as GLBTQ, and other oppressed groups, and in part, the evolution of Freire's thinking marked a development of his theory as he interacted with more groups and individuals.

Reflecting on the term "intersectionality" in a 2020 *Time Magazine* Feature, scholar and activist Kimberlé Crenshaw, who is credited with introducing the term into our collective lexicon three decades ago, defined intersectionality as "a lens, a prism, for seeing the way in which various forms of inequality often operate together and exacerbate each other. We tend to talk about race inequality as separate from inequality based on gender, class, sexuality or immigrant status. What's often missing is how some people are subject to all of these, and the experience is not just the sum of its parts."[11] Crenshaw noted how the main argument inside of academia and in mainstream media positions intersectionality as identity politics. However, for Patricia Hill Collins and Sirma Bilge (2016), limiting intersectionality to a theory of identity is reductionist and largely used to discredit and devalue the components of intersectionality that are most pressing, namely the component of critical praxis in the need to make social inequality visible for all. There is more than just one "intersectionality," as there are multiple politicized localities which individuals occupy—that is they sit in, they rest in, they lay in, they live in, they stay inside of. These localities are occupied, however, in unequal terms and with unequal access which creates the possibilities for alliances of the oppressed across different fields, spaces, identities, and social groupings. Some individuals and groups have more power than others in educational, cultural, and political spaces, and so, an intersectional alliance of the oppressed can fight for equality and justice across racial, gender, class, and regional lines.

Indeed, the issue of privilege and the life-and-death necessity for access to the fundamentals of health, welfare, education, and housing have come to the forefront of discussions in light of the COVID-19 pandemic and Black Lives Matter and other social movements that have created new awareness of oppression and inequality which should inform our struggles for equality, social justice, and the reconstruction of education for the future.

Thus, intersectionality provides a language for inhabitants of multiple localities of oppression and struggle to make visible the politicization of space and the real, lived, and material conditions of the moment. To use intersectionality to explore identity without reducing it, a theory of identity requires locating intersectional dynamics and struggles inside larger philosophical dichotomies of objectivity and subjectivity. Paulo Freire in *Pedagogy of the Oppressed* (1970) argued that one cannot conceive of objectivity without a subjectivity, and that when we talk about oppression, we are speaking about marginalization and the ways in which a society works to provide access to some and deny access to others to basic necessities of life like education and health care. Some of us, like the authors of this piece, based on our privilege, get to be subjects, while others, because of a lack of access and privilege, are subjected to being objectified.

It is indeed this unjust world that we seek to change and that drives education to be an instrument of social transformation and justice. Returning to Freire, an objectified person cannot see the oppression they're living in until they see themselves first as an individual who is living inside of oppression.

Once an individual sees themselves as a subject, that they embody subjectivity and the possibility of resistance and struggle, an individual can perceive him or herself as a person of worth and value and seek to actualize their potentialities for a better life. Only then can they actually see the structures around them, which are actively oppressing them, to which they were previously oblivious. So, one should not conceive of objectivity without first acknowledging their own individual subjectivity and the possibilities of collective subjectivities that provide the possibilities for radical action, and that can bring about social justice and democratic and emancipatory social change.

Building on these perspectives enables a philosophy of education to develop more inclusive philosophical vision and to connect education directly to democratization and the changing of social relations in the direction of equality and social justice. Since social conditions and life are constantly changing, a critical theory of education must be radically historicist, attempting to reconstruct education as social conditions evolve and to create pedagogical alternatives in terms of the needs, problems, and possibilities of specific groups of people in concrete situations. Yet philosophical and normative insight and critique are also needed, driving efforts at reconstructing education and society by visions of what education and human life could be and what are their specific limitations in existing societies.

Hence, a critical theory of education involves conceiving a vision of the democratic transformation of education, and in how radicalizing education could help democratize and create a more just and inclusive society. In this section, we have proposed a comprehensive metatheory that draws on both classical and contemporary philosophies of education to comprehend and reconstruct education. The classical critical theory of the Frankfurt School while rigorously engaging in the critique of ideology always drew on the more progressive elements of the most advanced theories of the day, developing dialectical appropriations, for instance, of Nietzsche, Freud, and Weber (Kellner, 1989). Many other Marxian theorists or groups, by contrast, would just be dismissive and rejecting of these "bourgeois ideologies." In the same spirit, we would argue that a critical theory of education should draw on the radical democratic tradition of John Dewey's pragmatism, Freirean critical pedagogy, and intersectional contemporary critical theories of race, gender, class, and sexuality.

Yet a critical theory of education must be rooted in a critical theory of society that conceptualizes the specific features of actually existing capitalist societies, and their relations of domination and subordination, contradictions and openings for progressive social change, and transformative practices that will create what the theory projects as a better life and society. A critical theory signifies a way of seeing and conceptualizing, a constructing of categories, making connections, mapping, and engaging in the practice of theory-construction, and relating theory to practice.

In the next section, we will accordingly deploy a critical theory framework to suggest some transformations in the situation of youth today and the need

to reconstruct education and promote multiple critical literacies appropriate to the novel material conditions, transformations, and subjectivities emerging in the contemporary era. Theorizing important changes in the contemporary moment requires, we would argue, broad-ranging and robust reconstructive theories in order to grasp the changing social and psychological conditions of life in a globalized, high-tech, digitized, multicultural, and highly conflicted world with its intense challenges, problems, and potential. We argue that in this situation of dramatic change, radical transformations of education are necessary to create subjects and practices appropriate to an expanding global society, digitized culture, and world of novel identities, social relations, cultural forms, and social movements and struggles.

Changing Life Conditions, Subjectivities, and Identities

Allan and Carmen Luke have argued (2002) that current educational systems, curricula, and pedagogies were designed for the production of a laboring subject who has become an "endangered species" in the postindustrial economic, social, and cultural system. Modern education was constructed to develop a compliant work force which would gain skills of print literacy and discipline that would enable them to function in modern corporations and a corporate economy based on rational accounting, commercial organization, and discursive communicative practices, supported by manual labor and service jobs. The life trajectory for a laboring modern subject was assumed to be stable and mappable, progressing through K-12 schooling, to universities and perhaps onto professional schools or higher degrees, to well-paying jobs that would themselves offer life-time employment, a stable career, and solid identities.

All of this has changed in a global economy marked by constant restructuring, flux and rapid change, and novel material conditions and subjectivities. Students coming into schools have been shaped by years of television, a variety of music technologies and forms, computer and video games, social networking, and new spheres of multimedia and interactive cyberculture. The university graduating class of 2021 were born in 1999, at the turn of the millennium.[12] They were 5 years old when Mark Zuckerberg launched Facebook, and eight years old when Steve Jobs introduced the world to the iPhone.[13] Moreover, the steady jobs that were waiting for well-disciplined and performing students of the previous generation are disappearing, while new jobs are appearing in the high-tech sector, itself subject to frenzied booms, busts, and restructuring. And this does not even account for what Harry Braverman (1974), following Marx and Engels (1978), called the deskilling effects of technology on the workforce through the division of labor found in the factory system, reducing individuals to the status of machines and objects and providing another example of the alienating effects of the capitalist of labor on the modern individual resulting from expansive transformations in

technology and methods of producing.[14] And as COVID-19 has demonstrated, life in a high-tech and global society is much more complicated, fragile, and subject to dramatic disruptions and transformations than was previously perceived.

There is thus a fundamental misfit between youth life-experience and schooling, the expectations of an older generation concerning labor and new work conditions, and the previous print-based and organizational economy and culture in contrast to the new digital culture and global economy. Postmodern theorists have amassed cultural capital theorizing such breaks and ruptures, but have had few positive recommendations on how to restructure institutions like schooling (although there are stacks of books, generally of little worth, on how to succeed in the new economy dating back to the previous millennium). Indeed, in the current conjuncture, advocates of neoliberal business models for education have used the obviously transformative technological revolution to legitimate technology as the panacea and magic cure for problems of education today and to sell corporate technologies and business models as the solution to educational problems.

One of the major challenges for democratizing education is that it requires acknowledging decolonizing the institutional practices of an education system designed through what Maori scholar Linda Tuhiwai Smith (1999) calls "Imperial Eyes." This requires acknowledging many of the overlapping questions posed by critical theorists of the 1960s and indigenous activists at the time. As Smith (1999, p. 165) notes: "such questions were based on a sense of outrage and injustice about the failure of education, democracy and research to deliver social change for people who were oppressed. These questions related to the relationship between knowledge and power, between research and emancipation, and between lived reality and imposed ideals about the Other."

These questions remain today so that any process of democratizing education needs to draw the consequences for restructuring education and democratizing society from reflection on changing life conditions, experiences, and subjectivities. We need to decolonize and reconstruct education and society in the context of technological revolution and globalization that envisages using technology to democratically promote progressive social and political change without promoting neo-liberal and capitalist agendas. This task is advanced, we believe, by drawing on the radical critique of schooling and proposals for transforming education and learning found in the work of the late Ivan Illich, who was one of the chief educational gurus of the 1970s and a major radical critic of schooling whose work has fallen from view but is still important and should be re-engaged in the present situation.[15]

Ivan Illich's postindustrial model of education contains a radical critique of existing schooling and alternative notions like webs of learning, tools for conviviality, and radically reconstructing education to promote learning, democracy, and social and communal life, thus providing salient alternatives to modern systems (1971, 1973). Illich analyzes in detail how modern schooling

prepares students for the modern industrial system and how its "hidden curriculum" promotes conformity, bureaucracy, instrumental rationality, hierarchy, competition, and other features of existing social organization. For Illich, modern systems of schooling are no longer appropriate for postindustrial conditions and require radical restructuring of education and rethinking pedagogy. But unlike many of his contemporaries, Illich had a powerful, explicit, and prescient analysis of the limits and possibilities of technologies and those strange institutions called "schools."

Illich's "learning webs" (1971) and "tools for conviviality" (1973) anticipated the Internet and how it might provide resources, interactivity, and communities that could help revolutionize education. For Illich, science and technology can either serve as instruments of domination or progressive ends. Hence, whereas big systems of computers promote modern bureaucracy and industry, personalized computers made accessible to the public might be constructed to provide tools that can be used to enhance learning. Thus, Illich was aware of how technologies like computers could either enhance or distort education depending on how they were fit into a well-balanced ecology of learning.

Illich provides concrete analyses and a critique of how schooling reproduces the existing social order and is flawed and debased by the defects and horrors of the industrial system. Illich also recognizes that postindustrial society requires certain competencies and that a major challenge is to construct convivial technologies that will improve both education and social life. While he resolutely opposed neo-liberal agendas and was critical of encroaching corporate domination of the Internet and information technologies, Illich's notion of "webs of learning" and "tools of conviviality" can be appropriated for projects of the radical reconstruction of education and learning in the contemporary era.[16] Within this framework, let us consider how the expanding social roles of information and communication technologies require multiple critical literacies and how focusing on the current technological revolution can lead us to rethink learning and reconstruct educational theory and practice.

Expanding Technologies/Multiple Critical Literacies

Prior to COVID-19, schooling in the modern era has been largely organized around the transmission of print literacies and segregated academic knowledges based on a modern division of disciplines into such things as social science, literature, or physical education. The immediate change from classroom learning or school (as a physical entity) to digital spaces around the globe to enforce social distancing and to help combat the spread of COVID-19 in the spring of 2020 though until the writing of this article in spring 2021 has dramatically exposed how the rapidly expanding technologies of information and communication, mutating subjectivities and cultural forms, and the demands of a networked society culture indeed require multiple literacies, more flexible subjects, and inventive skills and capabilities. Theorists such as

the Lukes and Kellner suggested solutions to these emerging issues almost two decades ago. For the Luke (2002) and for Kellner (2000, 2002b), the solution was to cultivate in the sphere of education multiple literacies, such as media, computer, and information literacies that will respond to emergent technologies and cultural conditions and empower students to participate in the expanding high-tech culture and networked society.[17]

Hence, the constant development and mutation of information and communication technologies and new forms of culture, economy, and everyday life require a careful rethinking of education and literacy in response to novel challenges that will involve an era of Deweyean experimental education, trial and error, and research and discovery. Yet a critical theory of education will reject pedagogies and literacies that merely aim at the reproduction of existing capitalist societies and creating capabilities aimed primarily at providing cultural capital put in the service of the reproduction of global capitalism. A critical theory of education with a critical intersectional approach could draw on the reconstruction of neo-Marxian, Deweyean, Freirean, and intersectional critical pedagogies of race, gender, and class to attempt to develop Illichian tools and communities of conviviality and genuine learning that would promote democracy, social justice, and cultivate conceptions of the good life and society for all.

This requires teaching traditional literacies as well as multiple forms of computer, information, and communication literacies that will empower students to develop their potentials, create communities of learning, and work toward democratizing society. As Gennaro argued in 2015, in the same fashion that we teach reading, writing, and arithmetic to our kindergarten aged students, we must actively seek to introduce coding with the same importance, enshrined in curriculum, to children as soon as they enter the school system.[18] If young people are to write themselves into existence, they must be literate in the language of the digital culture, which presides over modern subjectivity in current moment. To be sure, digital literacies are necessary, but they need to be articulated with print literacy, in which multiple literacies enable students and citizens to negotiate word, image, graphics, video, and multimedia digitized culture.

In the Hegelian concept of *Geist*, the subject develops through mediations of culture and society in specific historical ways, but encounters contradictions and blockages which are overcome by sublation or Aufhebung, i.e., overcoming obsolete or oppressive conditions that are transcended. In a contemporary version of the Hegelian dialectic, the emergent technologies and conditions of postmodern life are producing novel experiences and subjectivities that come into conflict with schooling, itself based on earlier historical subjectivities and congealed institutions, discourses, and practices, modeled on the industrial factory system (i.e., time-parceled segments, staying immobile at a specific site to perform labor, submitting to the discipline of bosses).

The optimistic Hegelian scenario is that this conflict can be overcome through an Aufhebung that sublates (i.e., negates, preserves, takes to higher

stage) the positivities in the conflict and negates the obsolete aspects. Put more concretely: when there are contradictions between, say, a print-based curriculum and evolving subjectivities mediated by multimedia, then resolving the contradiction requires going to a higher level—e.g., restructuring schooling to preserve, for instance, the importance of print-based culture and literacy, while developing new multiple digital literacies.

Hence, restructuring schooling to meet challenges of expanding technologies and emergent social and cultural conditions requires cultivation of multiple literacies, tools, and pedagogies to respond to, mediate, and develop in pedagogically progressive ways the technologies and global conditions that help make possible democratized transformative modes of education and culture. Further, following the calls of some neo-McLuhanites and the digerati, education must be transformed to meet the challenges of technological revolution, yet we must also recognize that a globalized world is fraught with growing inequalities, conflicts, and dangers, so to make education relevant to the contemporary situation it must address these problems.

Indeed, globalization has been creating growing divisions between haves and have nots, and to economic inequality, there now emerge growing information inequalities and gaps in cultural and social capital as well as a growing divide between rich and poor. A transformed democratic education must address these challenges and make education for social justice part of a radical pedagogy, as envisaged by theorists like Marcuse, Illich, and Freire, as well as developing eco-pedagogy to address the environmental crisis raging across the Western United States in a deep freeze as we write in February 2021. Further, to decolonizing education requires constantly questioning biases of class, race, gender, region, and social positioning to create education appropriate for all individuals in one's society.

A radical and decolonizing pedagogy must also engage the difficult issue of overcoming differences, understanding cultures very dissimilar from one's own, and developing a more inconclusive democracy that will incorporate marginalized groups and resolve conflicts between diverse groups and cultures. This requires the three dimensionality of intersectionality articulating the differences between a radical pedagogy that employs an intersectional approach and one that does not in terms of depth, with a multilayered and multi-perspective mode of seeing that grasps alternatives for emancipation and democratization beyond what is immediately visible to us.

This problem of democratizing and decolonizing education is also part of the issue we're having right now in trying to have social discussions around race relations, white privilege, and the structural inequality that exists in the current social moment. A lack of multiple perspectives serves as a significant roadblock to those with privilege acknowledging the systemic injustice experienced by marginalized individuals and groups. When someone is living in a flat, two-dimensional world of privilege, they lack the vision to see a three-dimensional world of inequality and injustice; they can't fathom it because they

can't see the complexity and the depth of life experiences that many individuals face as a result of marginalization.

Life is experienced simultaneously in multiple dimensions, and within multiple relationships of power simultaneously that involve economic, politics, culture, and society, all of which are experienced simultaneously in socially constructing our identities that are constantly reconstructed in our social interactions and experiences. This is to say that we are simultaneously gendered, racialized, sexualized, abilitized, culturized, and class-positioned in all of our social interactions and experience. Further, this process is intensified by new technologies, like iPhones, multiple digital devices, and social media, at a pace faster than any moment previous in human history. So how do we engage with this? How do we take this on?

Critical pedagogy is not just about theory or critical inquiry, but it is also about the real lived experiences of the people. Critical pedagogy must examine the material conditions, as informed by theory and as reflected upon by individuals as it actually happens, across many different venues. Crucially, a critical theory seeks to reconstruct education not to fulfill the agenda of capital and the high-tech industries, but to radically democratize education in order to advance the goals of progressive educators like Dewey, Marcuse, Freire, and Illich in cultivating learning that will promote the development of individuality, citizenship and community, social justice, and the strengthening of democratic participation in all modes of life.

Over the past decades, there has been sustained efforts to impose a neo-liberal agenda on education, reorganizing schools on a business model, imposing standardized curriculum, and making testing the goal of pedagogy. This agenda is disastrously wrong and a critical theory of education needs to both critique the neo-liberal restructuring of education and propose alternative conceptions and practices. Globalization and technological revolution have been used to legitimate a radical restructuring of schooling and provide radical educators with openings to propose their own models of pedagogy and reconstruction of education to serve democracy and progressive social change. There is no question but that technological revolution is destabilizing traditional education and creating openings for change. Although one needs to fiercely criticize the neo-liberal model, it is also important to propose alternatives. Thus, one needs to accompany demands for new literacies and a restructuring of education with a program of the democratization of education, as we suggest in our concluding remarks.

Toward a Radical Reconstruction and Democratization of Education

In calling for the democratic reconstruction of education to promote multiple literacies as a response to emergent technologies and globalization, one encounters the problem of the "digital divide." It has been well documented that some communities, or individuals in privileged groups, are exposed to

more advanced technologies and given access to more high-tech skills and cultural capital than those in less privileged communities. One way to overcome the divide, and thus a whole new set of inequalities that mirror or supplement modern divides of class, gender, race, and education, is to restructure education so that all students have access to evolving technologies which they can engage with multiple critical literacies, so that education is democratized, and the very learning process and relation between student and teacher are rethought.

The Hegelian Master/Slave dialectic can help characterize relations between students and teachers today in which teachers force their curricula and agendas onto students in a situation in which there may be a mismatch between generational cultural and social experiences and even subjectivities. Educators, students, and citizens must recognize this generational divide and work to overcome conflicts and make differences more productive. That is, many students may be more technologically skilled than teachers and can themselves be important pedagogical resources. We acknowledge know that much of what we've learned about how to use computers we've absorbed from students, and continue to draw upon them both in and out of class to help navigate the new high-tech culture and to devise productive pedagogies and practices for the contemporary era.[19] Democratizing education can be enhanced by more interactive and participatory forms of education and the move to Google Classroom, Microsoft Teams, Zoom, and other technologies in diverse parts of the world for schooling during lockdown and isolation periods in response to the COVID-19 pandemic has illuminated the opportunities for co-constructed learning spaces that technology makes possible—although it also creates problems of access and meeting multiple technological challenges with diverse students and different environments who have differential access to technology, often creating new "digital divides." Building on previous examples such as developing convivial listserves, the collective building of Web-sites, online discussion, and collaborative computer-based research projects; in the current environment, we can use Wikis and shared documents, like Google Docs, to co-create in real time. Blogs and YouTube videos can allow for asynchronous engagement that transcends time and space barriers but still allows for communities of practice. And the aforementioned video conferencing technology has presented the world of online, text-based discussions, with a synchronous alternative where "breakout rooms" can place individuals around the globe into small groups for dialogue instantaneously—providing new opportunities for intercultural communication and for global networks of activism—although different forms of technology and models of pedagogy will be used in different parts of the world.

In addition, a critical theory of education would envisage merging classroom-based Socratic discussion with computer research and projects that would combine oral, written, and multimedia cultural forms in the process of education without privileging one or the other. Some educators still insist that

face-to-face dialogue in the classroom is the alpha and omega of good education and while there are times that classroom dialogue is extremely productive, it is a mistake to fetishize face-to-face conversation, books and print media, or new multimedia. We must be careful not to view the educational process through the same lens of nostalgia with which we often view childhood and youth, since nostalgia as a process of memory can act to depoliticize the inhabitants of memory more than it does to liberate the self of future oppression. Rather, the challenge is to draw upon in an experimental and supplemental way all of the dimensions of the traditional educational process into a dialectical conversations with emerging technologies to restructure and democratize education.

Finally, we would suggest that since concrete reconstructions of education will take place in specific local and national contexts, the mix between classroom pedagogy, books and reading print-material, and multimedia and Internet-based education will vary according to locale, age, access to digital technologies, and the needs and interests of students and teachers. The idea behind multiple critical literacies is that diverse and multimodal forms of culture blend in lived experience to form new subjectivities, and the challenge for radical pedagogy is to cultivate subjectivities that seek justice, more harmonious social relations, and transformed relations with the natural world. Ivan Illich called for education to take ecological problems into account (1971, 1973), and as Richard Kahn argues (2010), the extent of current ecological crisis is such that environmental collapse and disaster faces the current generation if ecological issues are not addressed. These ecological issues ring true to heart of the UN sustainable development goals.[20]

A glaring problem with contemporary educational institutions is that they become fixed in monomodal instruction with homogenized lesson plans, curricula, and pedagogy and neglect to address challenging political, cultural, or ecological problems. As Paulo Freire notes: "One cannot expect positive results from an educational or political action program which fails to respect the particular view of the world held by the people. Such a program constitutes cultural invasion…The starting point for organizing the program content of education or political action must be the present, existential, concrete situation, reflecting the aspirations of the people" (1970, p. 85). A *Pedagogy of the Oppressed* is about simultaneous individual and social awakening through action and reflection to seeing the structural domination in our lives, and then working through theory and reflection toward action and praxis, to overcome oppression, and to change the structure and the structural powers at play in our everyday lives.

The development of tools of conviviality and radical pedagogies thus enables teachers and students to break with colonizing and limited models and to engage in Deweyean experimental education. A reconstruction of education could help create subjects better able to negotiate the complexities of emergent forms of everyday life, labor, and culture, as contemporary life becomes more multifaceted and dangerous. More supportive, dialogical, and interactive

social relations in learning situations can promote cooperation, democracy, and positive social values, as well as fulfill needs for communication, esteem, and learning.

Whereas modern mass education tended to see life in a linear fashion based on print models and developed pedagogies which broke experience into discrete moments and behavioral bits, critical pedagogies could produce skills that enable individuals to better navigate the multiple realms and challenges of contemporary life. Deweyean education focused on problem solving, goal-seeking projects, and the courage to be experimental, while Freire developed alternative pedagogies and Marcuse and Illich produced oppositional conceptions of education and learning and critiques of schooling. It is this sort of critical spirit and vision to reconstruct education and society that can help produce new pedagogies, tools for learning, and social justice for the present age.

Notes

1. Karl Polanyi saw a "Great Transformation" (1944/2001; 2nd edition) taking place in Europe with the rise of market economies and modern states which create a change in social conditions and relations and all forms of economy, culture, politics, and society; we see another "great transformation" evolving out of revolutions in digital technologies and culture.

2. On the COVID-19 pandemic as the revenge of nature a la the Frankfurt School, see Douglas Kellner, "Trump, Authoritarian Populism, and Covid-19 From a U.S. Perspective," in press and forthcoming from *Cultural Politics*. On the background for the COVID-19 pandemic, see "Wildlife Markets and COVID-19," *Humane Society International*, April 19, 2020 at https://www.hsi.org/wp-content/uploads/2020/04/Wildlife-Markets-and-COVID-19-White-Chapter.pdf (accessed on August 11, 2020). For background on pandemics, viruses and human animal markets, see Quammen (2013).

3. Gennaro, Stephen "Globalization, History, Theory, and Writing" *Society for the History of Childhood and Youth Newsletter*. Winter 2010, No. 16 at http://www.history.vt.edu/Jones/SHCY/Newsletter16/Pedagogy-GennaroArticle.html (accessed November 8, 2016).

4. On youth resistance, Black Lives Matter, and other forces of the Trump resistance who have emerged in recent years, see Kellner and Satchel (2020).

5. A 2020 report from UNICEF, Plan International, and UN Women noted "that the number of out-of-school girls has dropped by 79 million in the last two decades" and that "girls became more likely to be in secondary school than boys in just the last decade." https://www.unicef.org/press-releases/25-years-uneven-progress-despite-gains-education-world-still-violent-highly (accessed February 23, 2021).

6. "Towards an equal future: Reimagining girls' education through STEM" UNICEF, October 6, 2020. https://www.unicef.org/media/84046/file/Reimagining-girls-education-through-stem-2020.pdf (accessed February 23, 2021).

7. Studies reveal that women, minorities, and immigrants now constitute roughly 85% of the growth in the labor force, while these groups represent about 60% of all workers; see Duderstadt (1999–2000, p. 38). In the past decade, the number of Hispanics in the United States increased by 35% and Asians by more than 40%. Since 1991, California has had no single ethnic or racial minority and almost half of the high school students in the state are African-American or Latino. Meanwhile, a "tidal wave" of children of baby boomers are about to enter college; see Atkinson (1999–2000, pp. 49–50). Obviously, we are writing this study from a North American perspective, but would suggest that our arguments have broader reference in an increasingly globalized society marked by a networked economy, increasing migration and multiculturalism, and a proliferating Internet-based cyberculture.

8. On Marcuse and education, see Kellner et al. (2008) and Kellner et al. (2009).

9. Yet Herbert Marcuse radicalized the Greek concept of *Paedeia* and German concept of *Bildung* to reconstruct education as a form of self-development and social transformation; see the sources on Marcuse and education and analyses in note 8 above and in Reitz (2000).

10. For a critique of modern theories of the subject and reason from postmodern perspectives, see Best and Kellner (1991, 1997); for a critique of modern pedagogy neglecting the body, environment, and cosmos, see Kahn (2010).

11. Katy Steinmetz "She Coined the Term 'Intersectionality' Over 30 Years Ago. Here's What It Means to Her Today," *Time Magazine* at https://time.com/5786710/kimberle-crenshaw-intersectionality/ (accessed February 19, 2021). Kimberlé Crenshaw's (2022) key chapters will be collected in *On Intersectionality: Essential Writings* (forthcoming).

12. "12 Fascinating Facts about the Class of 2021. Back when these freshmen were born, Brady wasn't the G.O.A.T." *Boston University Today* http://www.bu.edu/articles/2017/class-of-2021-facts/ (accessed February 23, 2021).

13. "At last—the full story of how Facebook was founded." *Business Insider*, Nicholas Carlson, March 5, 2010 https://www.businessinsider.com/how-facebook-was-founded-2010-3 (accessed February 23, 2021), and April Montgomery and Ken Mingis, "The evolution of Apple's iPhone. As the iPhone ages, it's important to look at how the now-iconic device has matured since its arrival in 2007." *Computer World*, October 15, 2020 at https://www.computerworld.com/art

icle/2604020/the-evolution-of-apples-iphone.html (accessed February 23, 2021).

14. Shoshana Zuboff (1988, 2020) describes further deskilling and alienation of labor under high-tech capitalism in the contemporary epoch.

15. While reviewing Illich's work for a memorial for him sponsored by the UCLA Paulo Freire Institute, Kellner discovered that much of Illich's work, including his major books, has been preserved on websites; see, for example, http://www.preservenet.com/theory/Illich.html (accessed February 19, 2021).

16. We should note that while we find Illich's work immensely important as a critique and tools for a reconstruction, of education, but reject his notion of "deschooling" and agree with Marcuse that more and better "reschooling" is necessary; on the latter, see Kellner et al. (2008).

17. Kellner and Share (2019) introduced the term "critical media literacy" (CML) to distinguish a form of media literacy that engages the problematic of power and domination and that critically engaged the dimensions of gender, race, class, sexuality, and other domains of oppression and struggle.

18. This was the topic of Gennaro's TEDxYork Proposal; see: "Teach Kids to Code" https://youtu.be/SKLgl58GrqY (accessed February 19, 2021).

19. For examples of how new technology can be used to enhance education, see our Web-sites; Kellner's philosophy of education, technology and society, and cultural studies seminars at UCLA, are accessible at http://www.gseis.ucla.edu/faculty/kellner/Kellner.html), and Gennaro's work on York University's Faculty of Liberal Arts and Professional Studies Arts faculty Professional Development webpage, which he co-authored at https://going-digital.laps.yorku.ca/faculty-resources/ (accessed February 24, 2021).

20. "The 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries—developed and developing—in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth—all while tackling climate change and working to preserve our oceans and forests." United Nations Department of Economic and Social Affairs at https://sdgs.un.org/goals (accessed February 23, 2021).

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