The Eye of the Storm: Educational Resets for the Jobless Society

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Abstract

There is an urgent, global and existential issue with regard to the "future of education". Our educational values and philosophies, strategies, practices and indeed, the very definitions of education are necessarily transformed in the economic and social context of the projected "jobless society". And the particularly complex and pressing question that needs to be addressed is: "How do we educate for a jobless society?" Projections of a near future "jobless society" have become a dominant and compelling narrative of emerging realities of a technologically-driven society of economic restructuring, labour redistributions, and profound social transformations. In economic trends with regard to the ongoing decoupling of job volumes and wages from the metrics of economic productivity and progress, educational purpose, strategy and direction have become ever more contested and critical.

What is commonly referred to as "the digital turn" is a turn of epochal magnitude, with an unfolding present tense of vast digital architectures and accelerated, coordinated, and proliferating global practices and infrastructures, from organizational forms of digital economies to new forms of everyday sociality. The future may be an AI/robotic-driven, Big Data-driven, comprehensively automated society of ongoing massive technological shifts, labour redistribution, broad social and cultural transformation, and recalibrated metrics to gauge economic advancement. In all, it is especially consequential to consider the most critical preparatory and anticipatory portal we have for the achievement of social cohesion and social advancement in the velocities and disruptions of societal change—education.

Keywords: *education for a jobless society; educational disruption; AI and Big Data-driven society;*

Introduction

The "jobless society" is a contested concept; residing between the speculative poles of optimism and anxiety, between the bright promise of new, technologically-enabled thresholds of human potential and darker scenarios of technologically-enabled surveillance and human alienation. Future scenarios may be characterized by comprehensive automation, massive technological shifts, the decoupling of economic advance from wage and employment, and broad social transformation. In the proverbial eye of this storm, in an unprecedented acceleration of social and economic shifts, trajectories, and transformations, is an urgent and critical educational reset.

Among the critical questions to be addressed: How do we define and understand "knowledge", "training" and education in a society driven by AI and Big Data? Can we understand that access to technology is not an educational strategy in itself? Can we acquire the skills to create what Cathy O'Neill calls "algorithmic accountability" (2018) [1], the skills to curate algorithmic bias and determination, and to activate against data abuse? Can we disrupt, re-imagine, and act upon current educational principles and practices to create the foundation for the societal futures we want and need?

Addressing these questions individually is beyond the scope of the current project. Instead, I will propose that education must be a critical intervenor in any significant social progress, and that bold disruptions in our current educational approaches are needed to allow us to anticipate and adapt to the probabilities and potentialities of a jobless society.

Robots and Their Discontents

An agenda for educational change does well to consider popular representations of what can be called robots and their discontents". Popular culture treatments of robots, androids, AI machines, and other futuristic technological imaginings are constructive in that they reveal our deepest aspirations and

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anxieties about the future; chief among them in the current context are our beliefs about what robots do well and what they can't do well, or at all.

From the "mechanical human being", *Maschinenmench*, of Fritz Lang's *Metropolis* (1927); to the sentient, autonomous, and emotionally fluent HAL 9000 in Stanley Kubrick's *2001: A Space Odyssey* (1968); to the supremely human and dangerously rebellious "replicants" in Ridley Scott's *Bladerunner* (1982) and Denis Villenueve's *Bladerunner 2049* (2017); to the purposefully sexualized, transparent cyborg Ava of Alex Garland's *Ex Machina* (2015), science or speculative fiction films are rich with suggestions of discontented robots seeking to become sublimely human.

Such discontented robots are collectively and respectively valuable to the current project because each provides an object lesson in the inherent deficiencies of robots, and it is those deficiencies—the qualities and abilities that are beyond the grasp of robots and, therefore, at the root of their discontents—that we need to prioritize as guides to our project of educating for a jobless society. The robots' deficits, and by extension, the priorities of a disruptive educational approach, include qualities and capacities such as creativity, empathy, communicative nuance, agency, and sociability.

Educational Frontlines

In prognostications of the digital reorganization of societies, education is foundational to social cohesion and stability. The question of how we educate then, is critical to our collective success in a "jobless" future. Do we focus on instrumental digital skills-based education; or do we focus on the values of liberal arts education including ethical and independent thinking? Do we educate students to be emancipated from the economic and social imperatives of work and jobs; or do we educate students to be sophisticated intervenors and inventors of new contexts for work, productive non-work, and societal values? The core question is can we think and act more assertively to create the changes we need as agents and architects of probable futures?

A microcosm of this debate can be found in the ongoing deliberations about the value of the university in modern society and the value of a university education to students in the digital age. Jon Steinberg, former president and COO of *Buzzfeed* and CEO of Cheddar Inc. famously questioned the usefulness of post-secondary education arguing that a college degree represents "a lot of debt and not necessarily a skill set". (Brown, 2013) [2] Steinberg's critique was countered by the author of the same article who exhorted the unique richness and productiveness of face-to-face educational experiences—typically, but inadequately termed "soft skills". These two perspectives must not be mutually exclusive and in fact, are equal and co-determinant narratives of the disruptions necessary to position us for whatever version of a jobless society we might actually encounter. This suggests an educational reset, an emphasis not on technical skills but on social skills as well as a need to prioritize and activate principles and practices that prepare students for work, leisure, and citizenship beyond the strict logic, ideologies, and determinants of technology. It is a revelation that the educational reset in a digital age moving toward conditions of joblessness involves emphasis of the creative social over technical.

The proposal here is one that addresses the creation of change rather than the reaction to change, and such a proposal necessarily draws on some exceptionally resonant and consequential antecedents of educational theory and practices. Enduring principles of experiential learning, agency and action, collaborative problem-solving, and citizenship must be the building blocks of any educational reset. Among the most prominent of these antecedents are Freire's forceful advocacy for pedagogy as a creation of the possibilities to produce and construct knowledge" (1998) [3], and Dewey's compelling arguments for "unscholastic" pedagogies that defined educational futures presciently as a consonance between pedagogical practices and the social and cultural lives of students outside of the educational context; that is, "empirical", or applied approaches to pedagogy. (1916; 2001) [4]

Yet somehow the academy still debates students' use of digital devices in the classroom. Calls to ban digital devices from the classroom are rationalized by arguments about the detriments to intellectual engagement that are regarded as a necessary consequence of the use of digital devices. (Lombrozo, 2016 [5]; Senior, 2015 [6]). Students are disinclined to shut down their devices for a monologue in the

confines of a lecture hall, and of course, these students are socialized in a digital culture of extraordinary celerity and immediacy. But, while banning technology is antithetical to the creative and collaborative approaches that must be foundational to any educational disruption, the deification of technology in higher learning is equally problematic. Efforts to retrofit infrastructure and practices and adopt any and all new technological opportunities are no substitute for the type of reset we need in our education principles, designs and institutions.

The Educational Reset

We must understand that the future of education for a jobless society is not a question of either educating students who will be emancipated from the economic and social imperatives of work; or educating students who will be redefining the context of work, productive non-work, and societal values. The educational reset I am proposing must start from the assertion of "also/and" such that we must commit to educating students to be the agents and architects of our future societies.

In his observations on digital culture as an instigator and enabler of social change, Clay Shirky argued that social capital, and not technical capital, was the defining value and characteristic of new and emerging media and communication (2009) [7] He identified the transformative power of digital technology as the shift from "information" to "coordination", from communication technologies as tools of transmission to communication as a supremely social activity and technology as its fundamental enabling force. We must similarly eschew "transmission/information" models of education and turn towards coordination and participation as signatures of future educational approaches. The sociality that defines and motivates digital media culture must also define and motivate our educational principles.

The relatively brief history of the digital age demonstrates that our inclinations in the realm of technology are eminently and strikingly human—to create, share, collaborate, and communicate socially. The future of education must assert precisely those inclinations. In concrete terms, educational principles, practices, curricula, partnerships, and resources all need to be deployed strategically with a focus on three conceptual and practical educational "implements":

Creativity. To anticipate societal reorganization and transformation, we must educate students to identify and resolve "real world" problems or theoretical problems with real world applications and implications. This means educating for creativity through applied problem-solving and personalized learning with an emphasis above all, on the interests of students where interests lead to abilities.

Sociality. To fully leverage the social capital of technology and participatory digital culture we must educate students to be collaborators and co-creators. This means prioritizing the acquisition of social competencies including conflict resolution, negotiation, and communicative resourcefulness.

Agency. To understand the value of technology in terms of the social affordances of coordination and participation rather than simply information transmission we must educate students to achieve informed and ethical agency and to be protagonists in their own lives and societies. Education must inspire sustained public engagement through mission-driven learning that offers projects with compelling purpose and action-focussed learning; that is, projects with immediacy and consequence.

And now to revisit the robots. Science writer Chelsea Gohd asked, "How do we teach something as nebulous as common sense to artificial intelligence (AI)?" (2018) [8]. Oren Etzioni, CEO of AI2 has noted, "No AI system currently deployed can reliably answer a broad range of simple questions, such as 'If I put my socks in a drawer, will they still be in there tomorrow?" Etzioni further points out, when AlphaGo prevailed over the number one-ranked Go player in the world, AlphaGo did not know that Go was a board game.

Common sense is but one of our human advantages as we move forward to educate students for encounters with a jobless society. The constellation of educational principles are human advantages that will need development and elaboration in an educational reset that encompasses content, curriculum, policy, institutional design, and especially pedagogical inventions. As we move wholly or even in part

toward the the jobless society, we will need polymaths more than technologists—creative, social agents fueled by common sense.

References

[1] O'Neill, Cathy. "The Ivory Tower Can't Keep Ignoring Tech", *New York Times*, November 14, 2017. Accessed March 23, 2018 at https://www.nytimes.com/2017/11/14/opinion/academia-tech-algorithms.html

[2] Brown, Stacia L. (2013). "'I Don't Want My Children to Go to College'," *The Atlantic* (September 18). Accessed on March 15, 2018 at https://www.theatlantic.com/education/archive/2013/09/i-dont-want-my-children-to-go-to-college/279776/

[3] Freire, Paulo (1998). Pedagogy of Freedom: Ethics, Democracy, and Civic Courage. Lanham, Maryland: Rowan & Littlefield.

[4] Dewey, John (1916; 2001). Democracy and Education. New York: Macmillan; A Penn State Electronic Series Publication http://library.um.ac.id/images/stories/ebooks/Juni10/democracy%20and%20education%20-%20john%20dewey.pdf

[5] Lombrozo, Tania. "Is It Time to Ban Computers From Classrooms", *13.7: cosmos & culture*, NPR, July 11, 2016. Accessed March 10, 2018 at https://www.npr.org/sections/13.7/2016/07/11/485490818/is-it-time-to-ban-computers-from-classrooms.

[6] Senior, Jennifer. "The Case Against Laptops in the Classroom", *The Cut*, July 9, 2015. Accessed March 12, 2018 at https://www.thecut.com/2015/07/case-against-laptops-in-the-classroom.html

[7] Shirky, Clay (2009). "How Social Media Can Make History". Accessed on March 14, 2018 at www.ted.com/talks/clay_shirky_how_cellphones_twitter_facebook_can_make_history/transcript?language=en

[8] Gohd, Chelsea (2018), "It's Really Hard to Give AI Common Sense", Futurism (March 11). Accessed on March 28, 2018 at https://futurism.com/teaching-ai-common-sense/