

# INTRODUCTION

## THE CURRICULAR CRISIS OF TECHNOLOGY: COMPLEXITIES AND PRACTICALITIES

William F. Pinar, Guest Editor

Can technology – and specifically the Internet - save the world? Yes, there are those who still answer that question affirmatively. They point out that in some places it has helped curb corruption, in others it has encouraged more girls to go to school, while in yet others it has enabled citizens to monitor election fraud and record police violence. For those of who can only shrug cynically at such a question, evidence came from an unlikely source. According to a report issued by the World Bank on January 13, 2016, the vast changes brought by technology have “not expanded economic opportunities or improved access to basic public services” (Sengupta 2016, A11). The Bank warned that Internet innovations are widening inequalities and hastening the hollowing out of middle-class employment (Sengupta 2016, A11).

The Bank’s findings, Sengupta (2016, A11) points out, come at a time when the technology industry – which unsurprisingly sees itself as the solver of the world’s great problems – has been working to expand Internet access. Through its Project Loon, for instance, Google plans to launch balloons that will beam down wireless signals to those currently without connectivity. Facebook too wants to offer Internet access to those without it. These initiatives - and the utopian and self-profiting motives behind them - ignore that 20 percent of the world’s population is illiterate. Few among these are able to take advantage of – and be victimized by - the Internet. In the so-called developing economies, technology industries employ not quite 1 percent of the work force; in well-off countries, technology employs 3 to 5 percent of the work force, still a small fraction of total employment (Sengupta 2016, A11).

Governments collude with companies, colonizing the curriculum by establishing standardized tests that destroy its subjective presence. Politicians join the private sector in demanding curricular emphasis on subjects leading to employment while attacking subjects already sidelined by STEM. In January 2015, in the United States, the governor of the state of Kentucky - Matt Bevin – proclaimed that university students majoring in French literature should not receive state funding for their college education. Bevin was not alone in making such threats; Cohen (2016, B1) also quotes North Carolina governor Patrick McCrory who proclaimed that higher-education funding should not be ‘based on butts in seats, but on how many of those butts can get jobs.’ A “growing number of elected officials,” Cohen (2016, B1) continues, are determined to “nudge students away from the humanities and toward more job-friendly subjects like electrical engineering.” These “nudges” are not only rhetorical. According to the National Conference of State Legislatures, in “at least” 15 U.S. states now offer “some type of bonus or premium for certain high-demand degrees,” where politicians have dismissed liberal arts education as “expendable,” a “frivolous luxury” for which taxpayers should not pay (quoted passages in Cohen 2016, B1). Republican

presidential candidate and U.S. Senator Marco Rubio has called for more welders and fewer philosophers; his fellow Floridian - Governor Rick Scott - targeted anthropology specifically while North Carolina's McCrory "belittled" gender studies (Cohen 2016, B1, B3).

Everywhere, it seems, technology is the answer to the canonical curriculum question: what knowledge is of most worth? Its ethical, cultural, historical elements ignored, the curriculum question is now answered only, or least most loudly, by those dedicated to human life decoded one way only: well-paid, comfortable, connected. This leaves those who poor and unconnected uncomfortable. The U.S. federal government is "grappling" with the fact that an estimated five million families have no Internet access and, consequently, children are unable to complete school assignments that require it. Kang (2016, A1) reports that some students in Coachella, California, and Huntsville, Alabama, try to complete their homework assignments while riding the school bus, as school buses in those districts offer Wi-Fi. In other places school buses offering Internet access are sometimes parked overnight in poor residential neighborhoods so that children can complete their assignments. In cities such as Detroit, Miami, and New Orleans, where almost one-third of homes are without Internet access, children crowd libraries and fast-food restaurants in order to complete homework assignments (Kang 2016, A1).

Whatever its benefits – is doing homework online one of them? - bullying is not one of them. The Director of the Crimes Against Children Research Center at the University of New Hampshire - David Finkelhor - reports that social media has not caused an increase in violent crimes involving children, except in the category of pornography. Testifying to the sacrosanct status of technology, Professor Finkelhor was quick to caution readers against "technophobia," insisting that "character traits – not technology" – are to blame (Stolberg and Pérez-Peña 2016, A1). There are alternatives, however few and far-between.<sup>1</sup> Why?

Laura Elizabeth Pinto provides one answer, reminding us that the spectres of educational technology are rooted in a long history of the never-ending quest for the latest solution to enduring educational problems. These spectres are conjured up in educational discourse, in curriculum and teaching – haunted by ghosts that whisper "21<sup>st</sup> Century Learning" and "Digital Native." They are cloaked in smoke and mirrors, covering up ghosts in their insistence that everything be "new," preserving its presence by conjuring away its own hyped history. In mandated curriculum requiring "21<sup>st</sup> Century Skills," Pinto suggests, students might search for the spectral foundations upon which that curriculum is built, and interrogate the absence of evidence about educational technology's effectiveness.

"Everyone is face down," Brad Petitfils marvels, "thumbing through gadgetry, unaware of their surroundings." A curricular response is required, he suggests, but it is not the one policymakers promote: more technology in schools. Never mind that

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<sup>1</sup> Riley (2016, A9) reports on one, a charter school in Prescott, Arizona, established in 1999. In its curriculum, Mountain Oak encourages "exploration of the natural world and rejects the use of technology in the classroom and even in the home."

technology makes no significant difference to students' educational achievement; never mind that its omnipresence in many classrooms ensures that the young inhabit a virtual world wherein bullying knows few bounds. But removing technology from classrooms risks, Petitfils worries, alienating the young, for whom devices are extensions of themselves. He recommends turning "our attentions to how the academy might use the knowledge of the past to begin to shape the futures of our disciplines." What, he wonders, follows the posthuman?<sup>2</sup>

In China<sup>3</sup> the future is now, its democratic national curriculum reform subverted by technology, now directing teacher development. Teachers, Xuyang Qian tells us, are told they must be able to move curriculum online. The sheer scale of government investment in technologized learning and the Ministry's demands that teachers technologize everything reveal, Qian suggests, intense desires at work. Since cyberspace was conceived as an open space, free from constraints, policymakers imagined cyberspace as the passage way to an ideal educational realm. According to Chinese tradition, however, it is "teacher's Dao (*Shi Dao*)" - the teacher's humanity and embodied practice - that nurtures the students, that enables, Qian reminds, character building and self-realization. Does the technologizing of education portend the erasure of Chinese culture and tradition?

The answer would seem to be yes. Like a tsunami, technology washes everything out to (virtual) sea, into "constant connectivity and permanent accessibility," as Jung-Hoon Jung and Mikyeong Yang observe. Struggling to stay afloat amid the waves, the shore recedes, and slowly we sink. Moving from the metaphoric to the material, Jung and Yang review the digital textbook in South Korea, promoted - of course! - as increasing student achievement. Once again technology is hailed as the secular side of salvation. Never mind that its long-term effects on children - their capacities for embodied encounter with adults and other children - are unknown.<sup>4</sup> Opportunities for deep thought recede, replaced by mechanical "interaction" by machines. What, Jung and Yang ask, are we trading for technology?

Because technology requires us to operate its simplest mechanical operations, it shifts the curriculum from academic knowledge of the material, embodied world to the machines themselves, emphasizing "how" over "what," ensuring that education

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<sup>2</sup> For an elaboration, see Petitfils 2015. While Dr. Petitfils and I disagree regarding his response - I favor removing almost all technologies from schools - I share his critique of technology in education. Indeed, it is one of the finest I've read.

<sup>3</sup> The World Bank reports that China has the largest number of Internet users, followed by the United States and India (see Sengupta 2016, A11).

<sup>4</sup> The risks to children are sufficient and yet apparently unstoppable; Reddy (2015, D1) reports that under pressure the American Academy of Pediatrics is revising its "ironclad guidelines" for children and screens. For more than 15 years the academy has cautioned parents to avoid screen time completely for children under the age of 2, and to limit it to no more than two hours a day for children older than 2, but a 2013 survey by Common Sense Media, in San Francisco, said those recommendation were out-of-date. It found that 38% of children under the age of 2 had already used a mobile device; the chief executive of Common Sense Media, James Steyer, commented: "Some of the traditional recommendations [of the AAP], like discouraging all screen time before age 2, just don't fit with reality circa 2015-2106" (quoted in Reddy 2015, D1).

becomes, as Cameron Duncan and Mathew Kruger-Ross point out, “analogous to job training.” Staring at screens ensures that that “job” is not self-understanding through the study of history, culture, and politics. Indeed, those worldly subjects are curricular casualties in intensifying obsessions with profits and innovations achievable presumably through technology – the infamous acronym STEM - intertwined subjects in a theocracy of money. “Sadly,” Duncan and Kruger-Ross observe, “the embrace of technology has blurred the distinction between the needs of students and the needs of the market system it serves.” That system is abstract, split off from our lived experience of the concrete, our connection to that – in Duncan and Kruger-Ross’ phrase - “web of significance” that is the world.

That world-wide web – the actual not virtual one - includes one’s own part of the world. Nicholas Ng-A-Fook laments the loss of a nation wherein knowledge is no longer a passage to understanding but a set of skills devoted to entrepreneurship, computer coding, and financial literacy. The school curriculum becomes retrofitted for endless devices, to equip students for a 21<sup>st</sup> economy that promises to be more virtual than actual. Corporations not publics are served and Ng-A-Fook names the former. Like the great George Grant, Ng-A-Fook returns to the ancient Greeks to remember a time before Pandora’s box was ripped open. He turns to Dr. Seuss to manage a smile at the ruins amidst which we live, solidarity through separation from what we created but are not.

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## **Biography**

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