Stochastic Parrots, Policies, Octopi Who Pretend to Be Human, & Dancing Robots[1]

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Abstract:
Amid hysteria over chatbots, image creators and other AI encroachment, it is imperative to deal with data and algorithms taking on seemingly irreversible deterministic roles in educational policy, evaluation, curriculum development. A lens of synthetic governance leads the focus from hyper-humanism to Afrofuturism. Finally, if we become more like the machines that we created in our image in a perpetually reinforcing cycle, then we can alternatively imagine new relationships by studying the very different relationships demonstrated by trees and oceans, plants, and other more-than-human beings on our planet.

Keywords:
Afrofuturism, Artificial Intelligence, Chatbots, Curriculum Studies, Educational Policy, More-than-Human, Synthetic Governance.

A "stochastic parrot" is something that speaks without meaning (Bender, et al., 2021), like a parrot who repeats phrases without a communicative goal. Artificial Intelligence 'lifeforms' are popping up all over, seemingly challenging our humanity in education, interrupting almost every policy discussion, guiding and micromanaging everything from district goals and school-level organization to classroom lessons and wall decoration. Judith Butler captures the essence of 'why' in a recent conversation with the journalist Elizabeth Weil (2023): "There's a narcissism that reemerges in the AI dream that we are going to prove that everything we thought was distinctively human can actually be accomplished by machines and accomplished better." Gulson, Sellar and Webb (2023) quote Yuval Noah Harari at the opening of their book, *Algorithms of*

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[1] I would like to thank Steven Khan, who shared the Elizabeth Weil *Intelligencer* article on Facebook, unfreezing my thoughts in relation to Gulson, Sellar and Webb's study.

Education: "Humans were special and important because up until now they were the most sophisticated data processing system in the universe, but this is no longer the case." (p. 1) So we now project onto our stochastic parrots – those AI systems, Chatbots, natural language search engines – a super-human humanity, a celebratory, self-congratulatory heralding of a new post-human hyperhuman: in Butler's terms, we declare:

> … that human potential — that's the fascist idea — human potential is more fully actualized with AI than without it. [The AI dream is] governed by the perfectibility thesis, and that's where we see a fascist form of the human.

There is a technological takeover, a fleeing from the body. Butler, again, in that conversation with Weil:

> Some people say, 'Yes! Isn't that great!' Or 'Isn't that interesting?!' 'Let's get over our romantic ideas, our anthropocentric idealism,' you know, da-da-da, debunking.

All we have to do is 'get over' that humanism, appreciatively leap beyond a romantic fantasy that humans are special, that there is something more to humans using words 'with meaning' than a Turing Machine who mimics a human so well that they are indistinguishable, and we can see that we are entering a new level of super-perfection, where AI, trained by seemingly limitless streams of data fed, ok, originally by humans, but then self-taught beyond the human-bound time and space limitations, will create a utopia of school governance, pedagogical perfection, curricular maximization, always and evermore self-improving *ad infinitum.* Butler's articulation of the fundamental question -- "… But the question of what's living in my speech, what's living in my emotion, in my love, in my language, gets eclipsed…" – mirrors Emily Benders' octopus: In that scenario, an octopus has figured out how to pretend to be one of two people communicating via an undersea cable. But eventually the person at the other end asks for a kind of help that the octopus cannot provide – the *meaning* is outside of its capacity. Gulson, Sellar and Webb find the increasing integration of data-driven algorithms for decision-making in education is a "political rationality of prediction…a scientificity" (p.132) best understood as "synthetic governance," an amalgamation of human classifications, rationalities, values, and calculative practices that combine with new algorithms, data infrastructures, and AI. This synthetic governance is not human or machine governance, but human *and* machine, a new invisible, ubiquitous reality of our lifeworld integrating algorithms and pattern matching that structure, format, and create everyday commonsense workflow and rationalities. Their book is like Neo in *The Matrix*, pulling us outside of what we otherwise are not aware, the presence and impact of algorithms that shape the conditions behind the situations in which we act, make decisions, and enact the values consistent with these structurations (Giddens 1986) of social life.

I believe the paradoxical irony of control discussed by Gulson, Sellar and Webb is critical for curriculum studies in our current geo-historical-ecological moment. They provide chapters illustrating how we now witness an "anticipation of control" necessitated by a desire for more information, evidence, and knowledge, based on the assumption that these together will facilitate "taking control," "making correct decisions," and "governing the future." They accomplish this in the contexts of acceleration and automated thinking to cope with uncertainties, the problems of concept work, ethnography and policy mobility, and infrastructure issues arising from interoperability, datafication, and extrastatecraft. Policy mobility refers to the increasing extension of education policies globally and trans-nationally, beyond local, regional or national borders, to service usability across cultures, economic systems, and organizational levels. Data relevance and generalizability are not sought, but required in a universalization of relevance. Interoperability enforces the need for data and data processing systems to work seamlessly and mutually support each other across governmental agencies, schools, commercial vendors, researchers, and so on, especially in the blossoming expectation that interoperability amplifies marketability of new products and services. Extrastatecraft is a term coined by Keller Easterling (2014) to describe the nexus of emerging governmental and corporate forces buried within the concrete and fiber optics of our modern habitat. It is a fluid, diffuse, nebulous, and inchoate politics in and of infrastructure. Corporate responsibility governmental assurance, moral rectitude, visions of best practices, and so on, both inform and are informed by, form and are formed by, the "dispositions" of the infrastructures that meld into extrastatecraft, operating through interorganizational networks and associated actors that bother include and exceed any one entity, governmental, institutional, social or cultural. And yet, as ever more networks and systems are established to increase control, education ironically becomes less and less controllable, due to several factors that Gulson, Sellar and Webb identify:

- The proliferation of behavioral feedback loops that can have unintended consequences
- The creation of new networks that incorporate diverse actors in governance, including platforms and algorithms that act as "black boxes"
- The increasing messiness of steering at a distance through data infrastructures and the probabilistic rationalities and prediction enabled by the data sciences.

That is, the technical pursuit of control produces conditions that ultimately undermine control. Australian teachers Jennifer and Rosa are quoted in Nerida Spina's (2021) institutional ethnography of data culture as indicative of a fundamental shift in the organization of learning and teachers' everyday experience. Unlike career-long cycles of fads steering curriculum and pedagogy, data-driven policies and the accompanying judgement and deskilling of teachers takes place in ways that dismiss the expertise of

teachers while permanently establishing the authority of data as the source of decision-making. Yet, the more obsessively we attempt to compute the world, the more unknowingly complex it appears (Bridle, 2018). We live in times of increasing inscrutability. Our news feeds, our public pedagogies, are filled with unverified, unverifiable speculation, much of it automatically generated by anonymous algorithms and delivered based on parsed and refined data-driven models. Did we ever understand what is happening around us? Underlying all of these trends is a faith in quantitative data to establish a coherent model of the world, and the efficacy of computable information to determine ideal actions. Yet the sheer volume of information available to us today reveals less than we hope. Rather, it heralds a new 'Dark Age' of ever-increasing incomprehension that further fuels a need for data and subsequent 'solutions'.

Stochastic parrots of educational practice are not just mindlessly throwing words out, churning data, blindly applying algorithms, creating nonsense. So the thinking goes. We are in that post-human singularity that not only humbly sees people in a broader context of animals, plants, rocks, rivers, oceans, gases, and plasmas but also revolutionizes our conception of language and intelligence themselves. Surely we enthusiastically embrace our new tools, just as we no longer struggle to calculate logarithms in order to find the product of extremely gigantic numbers, instead allowing our hand-held mobile phone calculator to invisibly render an accurate result. In the same way that we can use that calculation to creatively apply the result, not losing time and energy to the calculation itself, don't our algorithms use mind bogglingly enormous data sets to free us up to make the best choices and take ideal actions? That stochastic parrot article got some of its authors fired from Google's Ethical AI Team. Emily Bender, a professor of computational linguistics, didn't have the same financial stake, and perhaps because of this, was able to ask at a conference, why are we focused on creating autonomous machines instead of tools to be used by humans? (Weil, 2023) This is of course a fundamental curriculum studies question. What knowledge is of most worth? How to create algorithms that make the decisions for us about perfect policies and maximally efficient curricular practices? Or, how to create data analyses useful for challenges are assumptions about the way to make decisions? Or… ?

Synthetic Governance
Synthetic governance effects power relations because algorithms format through networked governance, for example by moving the state from government to governance through a shift away from vertical hierarchies toward networks of calculation and comparison. Data infrastructures re-centralize and re-shape school systems through the integration of corporate and other non-governmental actors, and by shaping what it means to 'something about' education. Corporate products operate

as proprietary providers of governmental capabilities. Marketization finds new applications of data-informed technologies, such as facial recognition software, diagnostic decision-making software, and new data-flow media technologies. Status as a participant in an interoperational network brings authority to participate in ways that justify and claim new opportunities.

Optimization, efficiency and instrumentality are commonly identified as central to machine-based governance. They overlap through the centrality of shared data with already established rationalities in educational governance, such as performative accountability. Since data-based decision-making is in this way accessible through computation, synthetic governance accelerates decision-making past value discussions towards action, intensifying existing values of choice, quality, and efficiency, and narrowing policy foci on purposes to emphasize policy application over questions of value. This is nothing new in educational bureaucracy, but intensifies through avoiding problematic issues of equity and social justice in favor of algorithm completion. The increasing application of facial recognition in education, for example, in automated instructional systems that interpret facial expressions through currently biased racialized algorithm-training materials, is creating new norms for how and why a learner implicitly communicates their understanding of academic content. Since the software is a marketized application of products originally developed in law enforcement, implicit racialized assumptions are creating norms of how this automated instructional software makes decisions and manipulates learner behavior, normativity, and conformity. Invisibility in some ways and hyper-visibility in others are both present in the data files of the software. Parallel optimization hypercontrols teacher use of time in a micromanagement of classroom activity that turns teachers and learners into mechanized producers of data as part of an algorithmic orchestration of lessons (Spina 2021).

Underlying reasons for biases are often complex and technical, but they mostly originate in the ways that AI applications and algorithms 'learn' from the curriculum designed for them: They are shaped by both information biases and societal biases, just like all students. This anthropomorphizing of AI applications leads to yet another restructuration of algorithms as reality of contemporary life, through for example the seemingly critical observation that reproduction and intensification of societal biases are not surprising and simply need to be remediated by further data collection based redesign of the curriculum to which they are exposed. Algorithmic bias against a particular group can exist even if that group's social position or attributes are not directly presented to the algorithm, because AI methods rely on latent constructs embedded in combinations of other variables. Even more complex, algorithmic bias may take place across multiple, overlapping, conflicting, and changing social identities and positions, such as race, gender, ethnicity, political orientation, and so on. Just as

data-driven algorithms promise perfection of educational policies and practices, so too do they promise perfection and continuous improvement of the curricula designed for the AI applications themselves.

A similar faith in innovation well guided is praised by Hampton (2021) and others as liberating, even as ethnographic reports demonstrate the inhumane treatment of teachers and learners (Spina 2021). One example is Appolition ('abolition' + 'application'), an app that converts your change into bail money to free Black people. The sideways modification from a technology as an outcome to toolmaking as a practice emphasizes the many different types of tools needed to resist coded inequity, to build solidarity, and to engender liberation. "Justice, in this sense, is not a static value but an ongoing methodology that can and should be incorporated into tech design" (Benjamin, 2021).

> Such a tool would need to be designed and assessed to ensure it does not harm or exclude marginalize groups. Appropriate design, evaluation, and implementation processes are crucial for maximizing benefit and preventing harm by ensuring accountability of the developers and transparency of the processes and the tools themselves. Inclusion of perspective across intersections of gender, race, age, and culture in all stages (conceptualization, design, development, evaluation. (Bauer & Lizzotte, 2021, p. 98)

Hampton (2021) reminds us of Ruha Benjamin's warning about amelioration through diverse perspectives: "...just having a more diverse team is an inadequate solution to discriminatory design practices that grow out of the interplay of racism and capitalism" (Benjamin, 2019). In fact, suggests Hampton, it is very much a neoliberal concept.

> Ultimately, it shifts responsibility from 'our technologies are harming people' to 'BIPOC tokens have to fix it'. This practice is a way to mimic corporate social responsibility for branding purposes without materially changing the conditions of current BIPOC engineers, addressing the violent outcomes of technologies, and most importantly acknowledging responsibility for harming communities. Bringing Black tokens into capitalist profit-first tech companies does not necessarily fix issues in technology, especially when their voices and existence are discarded, and they are treated as an incompetent, undeserving, unworthy diversity hire who has nothing to contribute but a 0.0001% increase in the number of Black people at the company to help the company's reputation fare better while "diversity and inclusion" and "social responsibility" are trendy and profitable right now.

The argument that diversity can solve this problem is immediately countered by the ousting of Timnit Gebru and April Christina Curley by Google in the middle of a global pandemic despite their passionate advocacy for more equity and massive contributions to the company and their co-authorship of the Stochastic

Parrot article (Bender et al., 2021). Diversity presented as a solution to algorithmic oppression obscures power imbalances deeply embedded in societal systems and institutions, interwoven with the synthetic governance, policy mobility expectations, interoperability, and extrastatecraft.

From Hyper-Humanism to Afrofuturism

Automated instructional systems, data-driven policy-making algorithms, and natural-language processors such as ChatGPT and recent search engines do what we do, but better – so the dream goes. It is often asked by we use humans as the model for what these things can do – what fantasy drives the desire to create things that cannot be differentiated from humans? Is this a retrogressive clinging to humanism in the face of our post-human experience? The idea of the Anthropocene places humans at the center of a massive change in the geological, climatological, and ecological relationships on Earth. A critical reflection on the idea of the Anthropocene strongly suggests we could only think up this term in the *Post-Anthropocene*, during which we are already witnesses after the fact. The nature of the experience, the *currere* of the post-Anthropocene, includes this interaction with attempts to perpetuate a perfect human through AI, natural language processors, and data-churning algorithms. In a flurry of fiction-turned-reality, living through the realization of Isaac Asimov's (1950) stories in *I Robot¸* some ask why we have the hubris to expect we should control 'our' artificial intelligences – just as a posthuman approach bestows personhood or at least equivalent rights and responsibilities to rivers and mountains, shouldn't we honor the rights of our algorithms and natural language processors to all the freedoms, obligations and expectation guaranteed under whatever constitutional principles we hold for ourselves? … including I suppose the right to *control us*?

In another Asimov short story, "Profession" (1959), 'education' has fulfilled the fantasy of maximal efficiency. All are 'educated' by a direct computer-brain interface designed specifically for their brain. Data has achieved the ultimate dream. Asimov posits that the future of society will depend, even in this dystopian fantasy come true, upon those who have the urge and persistence to create despite continued ridicule and dismissal. It seems Asimov grasped the key to intelligence some decades ahead of our AI experience, the difference between acquiring skills that mimic an educated person, and being a person who can make decisions and understand meanings that surround and interpret the skills. This might be characterized as a difference between learning and knowing, portrayed as superimposed knowledge. In the end, he wrote a defense of technology as useful to society and an apologia for creative expression. A similar set of assumptions guides the creators of the new AI devices and algorithms – they imagine that someone will always be needed to design and program the use of data. They make the argument that it might as well be them, and not others. Why leave it up to someone

else? The analysis of *Algorithms of Education* clarifies how such an argument demonstrates the pervasive, invisible hegemony of data and algorithms. Algorithms become their own salvation, as in the promise of AI without harmful biases.

Yet Asimov's robots and AI devices echo slavery in alarming ways, including his well-known 'three rules of robots' that characterize the lesser-than-human in terms of how they are organized to produce a balanced world– 1) Don't harm humans; 2) Obey Orders; and 3) Protect yourself. The ordering of which rules to follow before the others matters, amusingly portrayed in the comic XKCD, as producing in any other order, a frustrating world where robots can refuse orders, a terrifying standoff in returning threats of retaliation, or a killbot hellscape of robots protecting themselves at all costs. I found a greater appreciation of Emily Bender's question, "Why are we focused on creating autonomous machines instead of tools to be used by humans?," as I studied the work of Afrofuturist artist Grisha Coleman (Coleman & Defrantz, 2019). In contrast with 'technology' understood as coding and using machines in unanticipated ways, Coleman's version of Afrofuturism is intentionally outside the practice of many theorists, as an aspirational mode of creative engagement and craft. The drive to make space for collective and subjective Afrofuture selves links physical experience to our technologies by positioning making-with-technology as a distinctive part of Coleman's practice. "Like machines, Afrofuturist creativity unleashes fumes." (Coleman & Defrantz 2019, p. 56). With *Reach! Robot* Coleman wanted to devise a method for spontaneous composition by the public in a prominent downtown Pittsburgh outdoor plaza. "I was imagining a robot to *move the people*; so the robot was not an anthropomorphic object to be seen. I made a simple score: walk, pause, step, and when we realize we are 'in' something, we reach." (p. 57) A sensing system, and scheme to link movement with sound segments from a database of Pittsburgh African American jazz greats created a spontaneous collective composition Coleman describes as a kind of distributed choreographed 'Happening', a conversation generated between the ghostly visions of the future and the blighted present. The robot would sneak up on the public crossing the plaza as they began to realize that their movement was rendered in choreographic invocation, in the midst of other black ghosts joining them by, for example, the historic plaque of Martin R. Delany, not at the center of the plaza, but off on a side street, partly obscured by newer construction. (Delany was a 19th Century promoter of African-American nationalism, a Black newspaper publisher, who had attended Harvard Medical School, and was a commissioned officer in the Civil War. Coleman recorded excerpts from his activist newspaper with the tagline, "Hereditary Bondsman! Know ye not / Who would be free, themselves must strike the blow?" as a 'bonus' for people who "really wanted to dance.") Public response to the project was provocative. During the "white collar" daytime, there were complaints about the noise, and guards ordered by building management to unplug the software guiding the music

database, silencing the robot. The guards were curious though, and most were black; the artist would get furtive phone calls alerting her to the disconnect in an act of resistance, to which she would race to the plaza and plug it back in. Nighttime was very different, with people coming to play and explore the installation, what Coleman dubs an "undercommons" (p. 59), with the robot moving the humans to action. Because the robot created conditions for thinking-through-experience, with the thinking connected to movement, Coleman recounts how black bodies were not objectified, but rather, given moments of invitation to see how they and others might be moving together or in parallel. To move individually and/or collectively, simultaneously and in counterpoint, is accepted or rejected, in a distributed system, a constellation. People arrived at a place expecting one thing and finding themselves imbricated in another – not as a trick, but as a transference of expectations, an expansion of possible movements in that place, as an offering to play among the ghosts of the plaza; at the same time, the robot is an object taking in data, and responding. The artist avoids a (stable) data collecting device and its algorithms as reducing data to conclusions, something in particular; a space for unexpected encounters is generated instead, and black though through gesture. "The gesture, like the dance, arrives in its ephemerality, as a condition of exchange, at once emphatic and indeterminate." (p. 66)

Synthetic Politics
Gulson, Sellar and Webb end their book with recommendations for problematizing three forms of "synthetic politics" to guide us in our experience of algorithms and data-driven interoperability, each anticipated above. The first, **promotion**, relates to the 'boosterism' and unreflective embrace of new technologies typically associated with technology companies and curriculum development networks that celebrate them. Recent pandemic responses heightened this form of synthetic politics in ways that intensify uncritical acceptance of algorithm-steered platforms and policies. The second, **appropriation**, heralds a 'taming' of the technologies, so that the data and algorithms would be strategically regulated and monitored. Appropriation takes the form of in-house ethics panels, industry self-regulation, and government regulation through legal actions. It is often expressed that all instructional software should be designed collaboratively with educators, or that they be designed with 'socially just' objectives in mind. As in the cases of the Google Ethical AI Team, and the marketization of facial recognition software for automated instruction, it is easy to see how these strategies might fail to meet expectations. Finally, **acceptance** as a synthetic politics relates to the idea that data, algorithms, and associate forms of synthetic governance are part of everyday life and will not be simply removed or resisted. Acceptance is a micro-politics that sees technological change as an inherent part of evolutionary experience, not in our control so much as possibly avoided through versions of 'hiding' (such as masking

identities, using alternative platforms, and 'jamming' the data collection with plentiful, absurd activity and participation).

Problematizing these forms of synthetic politics seems to be the crucial curriculum studies position. This essay has so far managed an initial foray into the regressive, progressive, and analytical phases of *currere* (Pinar, 1975). I interacted with Gulson, Sellar and Webb in a regressive examination of our educational and autobiographical history – where are we with algorithms and data in education, and what is this experience like? The progressive turn brought us into dystopian anxiety about the increasing control and global corporate interoperability and synthetic governance associate with policy mobility. The analytical turn helped me to find solace in Afrofuturist arts and performative, robotic-collective provocation. The synthetic turn has begun with this invitation to Afrofuturist expression, but needs another essay, hopefully in dialogue with readers who can bring their own autobiography and bibliographic histories to the conversation.

Intelligence & Its Intents

The startling transition that takes place in this work shifts from the 20th Century Reconceptualists' framing of questions through centrality of knowledge and knowing in experience, toward framing of experience through questions about varying forms of intelligence and their coexisting ecological networks. Artificial Intelligence is not some Frankenstein's monster so much as already present and even more of a scary threat to human experience as it has been known through the entities we commonly think of as "corporations" (Bridle 2020). Speculative fiction historically reduced AI to machines, but intelligence is present in any form that has goals (ever-increasing profits, expansion), sensors and effectors for reading and interacting with the world (humans who serve the corporation, logistics and communications networks), the ability to recognize pleasure (favorable tax benefits and import/export structures) and pain (union resistance or demands, revenue loss, limitations of resource flows) as attractors (corporate personhood, international enforcement of favorable regulations) and things to avoid (lawsuits, loss of shareholder value), the resources to carry out its will, and the legal and social standing to see that its needs are catered for, even respected (Bridle 2020). Corporations are

> … hive organisms constructed out of teeming workers who join or leave the collective: those who participate within it subordinate their goals to that of the collective, which pursues the three corporate objectives of growth, profitability, and pain avoidance. (The sources of pain a corporate organism seeks to avoid are lawsuits, prosecution, and a drop in shareholder value.)

> Corporations have a mean life expectancy of around 30 years, but are potentially immortal; they live only in the present, having little regard for past or (thanks to short term accounting regulations) the deep future: and they generally exhibit a sociopathic lack of empathy. (Stross 2010)

Corporate intelligence taking the form of stochastic parrots and algorithm-driven artificial intelligence platforms relying on massive databases are challenging to study, given their rate of change. As ever-newer innovations seductively promise perfect decision-making and outcome optimization, a day doesn't go by without new market creation, newer claims of school failure with supposed 'evidence' summarizing one or another data interpretation, and cries of despair matched with solutions. Yet the perspective provided by theories of synthetic politics at least partially meets the challenges. As an example, one day in March of 2023 witnessed my university email in-box with no fewer than five unsolicited messages illustrating the depth and range of pervasive parrot-AI penetration. One message, accompanied in small print by a caveat that, "This is a paid advertisement for SmartBrief readers," takes the form of the regular SmartBrief newsbulletin, offering a "White Paper" on how to "increase student outcomes with an integrated data solution." The White Paper (Otus, 2023) turns out to be a six-page booklet, a "SmartFocus on Student Data Tracking," promising to share the secret to "Eliminate student data fragmentation with an integrated data platform." The author, Otus, an educational technology company launched in 20213, describes itself as dedicated to empowering educators as they harness and act on educational data to improve learner outcomes. Otus reports that over 240 K-12 districts and schools currently use their product to "deliver improved results for more than 1 million learners and their families" (Otus, 2013). Otus' marketing stresses that their product was created and built for teachers, by teachers. "As a former educator," says co-founder and president Chris Hull, "I remain amazed at the ingenuity of and problem-solving performed by educators on a daily basis. However, the K-12 market's desire to quickly solve pain points has fractured itself with siloed solutions, and the educators, students and families are left with incomplete insights and understanding of student performance. There is now a course correction occurring where many are looking to gather and synthesize this student information into a singular profile." Hull is described in his corporations' "White Paper" as "echoing a K-12 concern, and one that boils down to an urgent question: How can technology unify these data points to better serve students?" (Otus 2023)

Another message that same March day, from "Terri" at "Fight for the Future," urges me to support (i.e., contribute money) lobbying efforts in favor of the re-introduced U.S. House and Senate Facial Recognition and Biometric Technology Moratorium Act of 2023 (Markey, 2023), which would effectively ban law enforcement use of facial

recognition in the United States. The bill would immediately stop federal agencies in the U.S. from using facial recognition technology. Although the legislative bill is not specifically about schools or education, as noted above, most of this technology, originally developed for law enforcement purposes, becomes re-monetized through school and district applications that generate data to be analyzed for "actionable" purposes. Mimicking academic formats, the email message summarizes with links to relevant material how facial recognition technology is already spreading rapidly: No camera is safe from potential exploitation (The FBI and Department of Defense helped develop facial recognition tech that could be used with footage from cameras already in place throughout our communities. The threat of persistent tracking and surveillance of Americans is real); pervasive airport security facescans are generating data without consent (While the procedure is technically "opt in," there is little-to-no information about how to do so, and TSA personnel have pushed back when people have asked to not have their face scanned); the IRS and other agencies continue to use facial recognition without explicit consent (taxes and biometric data are increasing linked through a corporate platform, ID.me, to verify identity when logging into websites); and innocent people continue to be arrested (finding themselves behind bars after being misidentified by facial recognition technology). "Terri" at "Fight" pleads, "If we can amplify widespread support of the bill and it passes, we'll be one step closer to banning dangerous facial recognition tech across various industries including at festivals, stores, and universities." Fight for the Future is a non-profit organization with numerous individual and corporate funders who mission is to "harness the power of the Internet to channel outrage into action, defending our most basic rights in the digital age. We fight to ensure that technology is a force for empowerment, free expression, and liberation rather than tyranny, corruption, and structural inequality. We are an intentionally small, fierce team of technologists, creatives, and policy experts working to educate and mobilize at an unprecedented scale, achieving victories previously thought to be impossible" (Fight 2023).

Meanwhile, the Dean of my School of Education forwards an important report, "#PANeedsTeachers: Addressing Pennsylvania's Teacher Shortage Crisis Through Systemic Solutions" (Boyce & Morton, 2023). According to the report,

> Pennsylvania's teacher shortage has been described as a "crisis" and "the biggest threat facing not only our educational system but our future prosperity as a commonwealth." This crisis has been accelerated by the pandemic, but its root causes are long-term and systemic. As a result, bold, structural solutions will be necessary to address the root causes of educator staffing challenges and transform teaching into a desirable profession that attracts and retains highly qualified and diverse educators

> to shape not only our children's futures but also our commonwealth's future economy and workforce. (Boyce & Morton, 2023, p.4)

The report summarizes information, themes and ideas that emerged from a summit meeting of September, 2022, organized by Teach Plus and the National Center on Education and the Economy (NCEE). The summit served as the launch for a new coalition effort to tackle the challenges school districts and charter networks are experiencing with hiring and retaining teachers.

> This report synthesizes research- and field-based quantitative and qualitative data shared throughout the summit by presenters, panelists, and participants. It also contains policy principles and recommendations that were synthesized by Teach Plus and NCEE based on the themes that emerged from the summit.
>
> Over time, policy changes and investments that address systemic challenges within our teacher workforce can be expected to pay dividends in the form of reduced teacher turnover, higher student achievement, higher economic productivity, and less need for social safety net and criminal justice expenditures. It is our hope that the report will serve as a resource for policymakers, advocates, and education leaders as they work to address this crisis from their respective vantage points at the start of a new gubernatorial administration and legislative session in Pennsylvania. (Boyce & Morton, 2023, p.6)

Data is at once the source of the "crisis," the process of strategically acting in response to the crisis, and the source of information for determining 'progress' on reducing the level of crisis.

Another email, a routine update from The Philadelphia Higher Education Network for Neighborhood Development (PHENND) (a consortium of over 30 colleges and universities in the greater Philadelphia area), includes in its list of opportunities and resources a reminder for the end of month deadline to join Cohort 2 of their "Equity in Practice Learning Community." Those working with cross-sector data to better understand student needs, improve schools, and build more just communities are invited to participate in a training and technical assistance program from "Actionable Intelligence for Social Policy's (AISP)." AISP, a social policy institutue at the University of Pennsylvania, seeks education-focused partnerships as part of their Equity in Practice Learning Community, which will support data sharing efforts through implementing and building upon the promising practices identified in their "Toolkit for Centering Racial Equity Throughout Data Integration." From June 2023 to November 2025,

participating sites will build, test, and refine new models for incorporating community voice in key decisions about cross-sector data use, with an emphasis on educational equity and racial justice.

And, the *Chronicle of Higher Education* promotes a recent article on ChatGPT, anemically declaring, "Artificial-intelligence tools present the greatest creative disruption to learning that we've seen in my lifetime," and, in this "head-spinning moment," that

> … skeptics and fans alike still have to wrestle with the same set of complicated questions. Should instructors be redesigning their assignments and tests to reduce the likelihood that students will present the work of AI as their own? What guidance should students receive about this technology, given that one professor might ban AI tools and another encourage their use? Do academic-integrity policies need to be rewritten? Is it OK to use AI detectors? Should new coursework on AI be added and, if so, what form should it take? (McMurtrie, 2023)

James Bridle (2020) suggests the anxieties that corporate intelligence triggers are indicators of our limited sense of intelligence itself. Corporate intelligence, he argues, is modelled on a human intelligence with the specific values of growth, profitability suitably defined and pain avoidance. Beyond corporations and a sense of human uniqueness – the assumption in recent memory that humans are special in being intelligent – lies a possible path toward a multiplicity of intelligences inspired by plants, other animals, streams and rivers, weather and climate. Humans are narcissists. We become more like the machines that we created in our image in a perpetually reinforcing cycle exacerbating the relationships we have with each other. We can imagine new relationships by studying the very different relationships demonstrated by trees and oceans, plants and other more-than-human beings on our planet. Entangled in the deluge of stochastic parrots and data-driven algorithmic decision-making, I turn to Donté Mcguire (2021) and Ytasha Womack (2013). Imagination will free you from the expectations of the systems within which you find yourself. Evaluation of strategies and programs has a future-orientation. Inject and persist in reframing language and strategies to include marginalized communities. Bringing natural language systems and algorithmic decision-making in dialogue with Afrofuturism means taking seriously the alternative futures disassociated from the present, radically disengaged from this moment, a retrodictive position (Appelbaum, 2010) from which we can pre-write the history of how we ended up there, and thus, make it happen.

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