Teacher Accountability, Datafication and Evaluation: A Case for Reimagining Schooling[1]

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Abstract: The purpose of this commentary is to push the boundaries (real and perceived) of how we think about teacher accountability, education and the purpose of schooling in contemporary times. It takes as a starting point a view that recent changes to the Every Student Succeeds Act does little to shift the underpinning logics of high-stakes teacher accountability that ultimately threaten the stability and adaptability of public schools. Building from this presumption, it explores more universal features of contemporary schooling practices (e.g., standardization, datafication and evaluation) that undermine

teacher expertise, autonomy and professional discretion. The purpose is to provide a new lens for thinking about the role of education and to radically disrupt the 'norms' we have come to accept as necessary features of modern schooling. Ultimately, it serves as a thought experiment to provide some space for imagining new possibilities and thinking "outside of" the traditional accountability "box."
Keywords: accountability; datafication; teacher evaluation; Every Student Succeeds Act (ESSA)

Accountability de los maestros, *datification* y evaluación: Un caso para reinventar la escolarización

Resumen: El propósito de este comentario es ampliar los límites (reales y percibidos) de cómo pensamos acerca de la accountability de los maestros, la educación y el propósito de la educación en los tiempos contemporáneos. Toma como punto de partida una visión de que los cambios recientes a la Every Student Succeeds Act hacen poco para cambiar las lógicas subyacentes de la accountability de los maestros de alto riesgo que en última instancia amenazan la estabilidad y la adaptabilidad de las escuelas públicas. Partiendo de esta presunción, explora características más universales de las prácticas escolares contemporáneas (por ejemplo, estandarización, datos y evaluación) que socavan la experiencia docente, la autonomía y la discreción profesional. El propósito es proporcionar una nueva lente para pensar sobre el papel de la educación y perturbar radicalmente las "normas" que hemos llegado a aceptar como características necesarias de la escuela moderna. En última instancia, sirve como un experimento mental para proporcionar algo de espacio para imaginar nuevas posibilidades y pensar "fuera de" la "caja" de accountability tradicional.
Palabras-clave: Accountability; datification; evaluación docente; Every Child Succeeds Act (ESSA)

Accountability dos professores, datification, e avaliação: Um caso para reinventar a escolarização

Resumo: O objetivo deste comentário é expandir os limites (reais e percebidos) de como pensamos sobre a accountability dos professores, a educação e o objetivo da educação nos tempos contemporâneos. Ele assume como ponto de partida que mudanças recentes na Every Student Succeeds Act pouco contribuem para alterar as lógicas subjacentes da accountability dos professores de alto risco, que acabam ameaçando a estabilidade e a adaptabilidade das escolas. público. Com base nessa premissa, ele explora características mais universais das práticas escolares contemporâneas (por exemplo, padronização, dados e avaliação) que minam a experiência de ensino, a autonomia e a discrição profissional. O objetivo é fornecer uma nova lente para pensar sobre o papel da educação e perturbar radicalmente as "normas" que passamos a aceitar como características necessárias da escola moderna. Por fim, serve como um experimento mental para fornecer algum espaço para imaginar novas possibilidades e pensar "fora" da "caixa" da accountability tradicional.
Palavras-chave: Accountability; datification; avaliação docente; Every Child Succeeds Act (ESSA)

Teacher Accountability and Evaluation

Three years ago, I left my academic position in the US for one in Australia. While the geographic distance was obviously immense, it was the cultural and professional differences that I found most confronting. Studying teacher accountability in Australia – after many years of living and researching it in the US – was both eye-opening and productive for pushing my thinking around what *is*, and what *might be*, in education. Perhaps most importantly, I realized that what I had come to understand about education policy (particularly teacher accountability) had been shaped by American perspectives, conditions and research. It is no real secret that U.S. education research is notoriously insular, yet I still found myself amazed by the extent to which my ability to comprehend alternative versions of policy were constrained by my previous experiences.

The acceptance of my own naivety led me to question the assumptions I held about education more broadly. Furthermore, I began to consider how I could embrace the discomfort and de-center my understanding of "normal," in order to re-imagine what might else be possible. With this view in mind, I write the following commentary about the reauthorization of the Elementary and Secondary Education Act (i.e., Every Student Succeeds Act [ESSA]). As part of a special issue devoted to re-thinking teacher evaluation under ESSA, I aim to accomplish two things with this commentary.

First, I argue that, while measured critiques of ESSA-related policies and outcomes are critically important (see, for example, Close, Amrein-Beardsley & Collins, 2018), it is equally important to offer alternative critiques that more radically disrupt the accepted norms and logics that we have come to accept as necessary features of modern schooling. To this point, I start by re-situating the teacher evaluation critique within an international landscape. I do this to highlight how focusing narrowly on technical changes to policy and practice (e.g., shifting authority back to the states; minimizing the use of student test scores to measure teacher quality, etc.) limits our capacity to imagine *fundamentally* different versions of schooling. I draw on the growing subfield of "datification" (Kitchin, 2014; Lupton, 2018; Selwyn, 2015; Williamson, 2017a) to illustrate how evolving and emerging data-related techniques and technologies are dramatically undermining teacher expertise and authority, regardless of changes under ESSA.

Then, I attempt to make a case for why urgent re-articulations of schooling are necessary in present times. I follow calls from scholars who see current trends in education, such as the hyper-focus on standardization, evaluation and datification of schooling, as contributing to a number of global crises (Hursh, Henderson & Greenwood, 2015; Silova, Komatsu & Rappleye, 2018). Thus, I argue that the present time urgently demands a radical re-thinking of education, not only because of the dangers associated with excessive datification (described below), but also because of pressing social and political challenges that require collective action.

Datification of Education

Contemporary teacher accountability systems globally have become rooted in testing, evaluation and dis/incentivization as means for shaping teacher practice and defining teacher 'quality' (Berliner 2018; Lingard, 2010; Smith 2016). In the name of equity, student protection, and global competitiveness, high-stakes accountability practices have steadily weakened teacher expertise, authority and professionalism by constraining the capacity for teachers to exercise professional discretion (Bradbury & Roberts-Holmes, 2017; Hardy, 2018; Perryman, 2009). In the US, for example, teachers are not only responsible for complying with multiple strands of standards, including content (e.g., Common Core State Standards), teaching (e.g., InTASC standards), and discipline-specific standards (e.g., National Council of Teachers of Mathematics/English), but they

must also fulfill requirements for evaluation frameworks and rubrics (e.g., Danielson Framework for Teaching) associated with state- and/or federal-level policies (Garver, 2018; Taubman, 2009).

New policy changes, such as those associated with ESSA, minimize some federal controls over teacher evaluation. However, despite these technical changes to accountability, there is a burgeoning market of new digital technologies (e.g., data dashboards, observation apps, etc.) that subject teachers to unprecedented levels of surveillance and control (Buchanan & McPherson, 2019; Lupton & Williamson, 2017). While these technologies are not technically associated with federal policies, they do operate synchronously with such policies because of their data-orientation. One example of such interaction is how digital technologies have provided a platform for schools to engage in the "data-driven" practices that many accountability policies require. Steadily, data-based technologies have become a ubiquitous presence in education (Selwyn, 2015).

A growing subfield of education researchers are calling this the "datafication" of education, where every aspect of schooling, students, teachers, etc., is rendered as data to be collected, analyzed, surveilled, and controlled (Bradbury 2019; Bradbury & Guy-Holmes, 2018; Buchanan & McPherson, 2019; Selwyn, 2015; Williamson, 2017a). The "datafied teacher," in particular, faces increased pressures to rely on numerical data (e.g., standardized achievement tests, value-added model output) and evaluative tools (e.g., observation rubrics) to guide their pedagogical decisions and classroom practices (Holloway, 2019; Bradbury & Roberts-Holmes, 2017; Hardy, 2018). In these data environments, the "quality" of the teacher is narrowly defined by numbers, while "improvement" is defined as increasing these numbers, rather than improving practice and fostering collaboration (Perryman, 2009; Taubman, 2009).

Similar negative consequences have been extensively studied and attributed to high-stakes testing systems for decades (see Amrein-Beardsley & Berliner, 2011; Hursh, 2008; Taubman, 2009). However, the "datafication" turn marks a distinct impact on the "professional teacher," as digital data techniques proliferate our reliance on, access to, and ability to capture more data about teachers and their practice than ever before. Datafication scholars suggest that our fundamental understanding of individual people (in this case, teachers) becomes entangled with these data pictures (Lupton & Williamson, 2017; Selwyn, 2015) insofar as a teacher's data profile begins to supersede the actual teacher as the main site of surveillance and control (Thompson & Cook, 2014).

This shift in focus has significant implications for teacher expertise, authority and accountability. In a broad sense, the datafication of education is increasingly dependent on large datasets and the same logics that "big data" analytics, such as "algorithmic governance" (Beer, 2017; Kitchin, 2014). While not all forms of datafication require large datasets per se, quantifiable measures of performance and predictive analytics are the prevailing features of datafied schools. As such, the types of knowledge that are increasingly accepted as "true" measures of student and teacher performance are constructed not between a teacher and student, but by data engineers sitting at computers, miles away from the classroom. Not only does this third-party involvement undermine teacher professional discretion, it also raises serious questions about (1) how vendors can be held accountability, (2) what sorts of financial and other private interests might conflict with the interests of the public, and (3) how teacher and student data privacy can be ensured.

Despite these potential dangers, datafication is, arguably, an inevitable part of our lives. In fact, most of our social existence is datafied, to some extent, which is only possible because of the data that we ourselves regularly submit to various programs (Lupton, 2018; van Dijck, 2014). In schools, datafication is only made possible because years of ripe conditions have normalized surveillance and the quantification of schooling matters. For example, previous policy infrastructures in the US, such as standardized testing systems and performance monitoring of No Child Left Behind (NCLB, 2003), or value-added models and frequent observations of Race to the Top (2009), have put in place material and symbolic conditions that make data collection and monitoring a part

of our everyday practice in schools (Taubman, 2009). Even while specific policies, like NCLB and ESSA, bend and morph over time,[2] the logics that underpin them, and the infrastructures built to sustain them, enable new techniques and technologies to emerge. What this means is that once ideas and practices become normalized, then new, perhaps more invasive, varieties become possible.

For now, seemingly innocuous technologies, like online data dashboards or popular classroom communication platforms that connect teachers and parents (e.g., ClassDojo; Williamson, 2017b) may not seem that bad. However, recent technologies present additional questions about where the limits of datafication should be drawn. These include, for example, Pakistan experimenting with biometrics to track and reduce teacher absenteeism and China using cameras to allow parents to monitor their child's classroom (UNESCO, 2017). Others include wearable technologies that track student/teacher location, eye-tracking devices that measure engagement, artificial intelligence (AI) that assesses students' work, and so on. While such technologies might seem rather extreme right now, it is important to recognize that these intrusions are only possible because of previous conditions that have normalized surveillance and control.

Simultaneously, imagining alternative versions of our constructed and accepted "reality" becomes very difficult. This presents interesting questions about the degree to which "datafication" might transform education. While fears about constant data surveillance and tracking might be easily dismissed as dystopian, it is worth considering how ideas and technologies adapt from known and accepted norms.

Re-imagining Education

The prevalence of numbers, metrics and data within education is consistent with modern, Westernized views of "what counts" as knowledge more broadly (Silova, 2019; Sterling et al., 2018). There is an epistemological and ontological view that our problems and solutions of the world can be understood through statistical calculations (see Gorur, 2014). Criticizing this view, Silova, Komatsu, and Rappleye (2018) boldly asserted that:

> As we prepare to face the climate change catastrophe, we need to radically rethink our starting assumptions about modern mass schooling – ones rooted in the 'modernist Western paradigm' (Sterling et al., 2018) – and consider whether education is in fact a solution or a cause of the trouble we now face (2018, n.p.).

They, like many critical scholars, have argued that we are in a moment of crisis that demands urgent, collective action (Hursh, et al., 2015; Komatsu, Rappleye & Silova, 2019; Subedi & Daza, 2008). Issues like climate change, the rise of populism, far-right extremism, white supremacy, and so on, require collective efforts that are thoroughly incompatible with values like individualism, competition, standardization, and rapid, endless growth, which currently characterize education. Schools might seem like an unlikely site to address these problems, but, historically, schools are where values-based debates have been fought (see, for example, Au, 2008; Carlson & Apple, 1999; Giroux, 1992).

Relevant here are modes of datafication that threaten to not only dismantle education as a public good, but exacerbate the crises that democracies face on a global scale (see Zuboff, 2018 on the effects of datafication on the global economy). Thus, I urge readers who are interested in understanding the implications of ESSA (or any policy) to not automatically accept that we must remain within a data-thinking bubble (see also Hursh et al., 2015). For example, there is a growing number of educators who call for not only teaching about the environment, but to use the ethos of

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[2] Even in the US, some states are beginning to reduce their reliance on rigid, test-based accountability to measure teacher performance (see Ross & Walsh, 2019).

sustainability to re-imagine what schools might look like. Borrowing from Holt's (2002) original call for "slow schools" (based on the "slow food" movement), some educators are rejecting the idea that education should only be about economic utility at the expense of working collectively to solve environmental and other social problems (Mortlock, 2018; Tanti, n.d.; Wilby, 2019). From "Forest Schools" in Scandinavia, to "Enviroschools" in New Zealand and "Bush Kinders" in Australia, we have numerous examples of how education can privilege natural surroundings and resources over standardized classroom materials and environments (Alcock & Ritchie, 2018; Sandseter & Lysklett 2017).

To do this, we can, and should, look to paradigms (e.g., Indigenous knowledges, de-colonizing theories, spiritual traditions, etc.) that offer alternative, socially-just, and democratically-oriented imaginaries of schooling. Rather than romanticize the past or assume that we ever truly had socially just schools, I ask that we look forward to imagine what schools might look like if we were to *completely abandon* our fixation on the standardization, datafication and evaluation. Admittedly, this is not pragmatic, nor is it intended to offer a simple solution. Rather, it is meant as an invitation to consider how might education be reimagined if we saw the "datafied" onto-epistemic paradigm (see Lupton, 2018) for what it is—a single framework that has, in many ways, trapped our way of thinking about what school *is*, and what it *can be*.

References

Alcock, S., & Ritchie, J. (2018). Early childhood education in the outdoors in Aotearoa New Zealand. *Journal of Outdoor and Environmental Education*, *21*(1), 77-88. https://doi.org/10.1007/s42322-017-0009-y

Au, W. (2008). Between education and the economy: High-stakes testing and the contradictory location of the new middle class. *Journal of Education Policy*, 23(5), 501-513. https://doi.org/10.1080/02680930802148941

Beer, D. (2017). The social power of algorithms. *Information, Communication & Society,* *20*(1), 1-13. https://doi.org/10.1080/1369118X.2016.1216147

Bradbury, A. (2019). Datafied at four: the role of data in the 'schoolification' of early childhood education in England. *Learning, Media and Technology*, *44*(1), 7-21. https://doi.org/10.1080/17439884.2018.1511577

Bradbury, A., & Roberts-Holmes, G. (2017). *The Datafication of Primary and Early Years Education: Playing with Numbers*. Routledge. https://doi.org/10.4324/9781315279053

Buchanan, R., & McPherson, A. (2019). Teachers and learners in a time of big data. *Journal of Philosophy in Schools*, *6*(1).

Carlson, D., & Apple, M. (1999). *Power/knowledge/pedagogy: The meaning of democratic education in unsettling times*. Westview Press.

Close, K., Amrein-Beardsley, A., & Collins, C. (2018). State-level assessments and teacher evaluation systems after the passage of the Every Student Succeeds Act: Some steps in the right direction. Nation Education Policy Center (NEPC). Retrieved from http://nepc.colorado.edu/publication/state-assessment

Foucault, Michel. (2003). *The Essential Foucault: Selections from Essential works of Foucault, 1954-1984*. The New Press.

Garver, R. (2019). Evaluative relationships: teacher accountability and professional culture. *Journal of Education Policy*, 1-25. https://doi.org/10.1080/02680939.2019.1566972

Giroux, H. A. (1992). Educational leadership and the crisis of democratic government. *Educational Researcher, 21*(4), 4-11. https://doi.org/10.3102/0013189X021004004

Gorur, R. (2014). Towards a sociology of measurement in education policy. *European Educational Research Journal*, *13*(1), 58-72. https://doi.org/10.2304/eerj.2014.13.1.58

Hardy, I. (2018). Governing teacher learning: understanding teachers' compliance with and   critique of standardization. *Journal of Education Policy*, 33(1), 1-22. https://doi.org/10.1080/02680939.2017.1325517

Holloway, J. (2019). Teacher evaluation as an onto-epistemic framework. *British Journal of Sociology of Education*, *40*(2), 174-189. https://doi.org/10.1080/01425692.2018.1514291

Hursh, D. (2008). *High-stakes testing and the decline of teaching and learning*. Rowman & Littlefield.

Hursh, D., Henderson, J., & Greenwood, D. (2015). Environmental education in a neoliberal climate. *Environmental Education Research*, *21*(3), 299-318. https://doi.org/10.1080/13504622.2015.1018141

Kitchin, R. (2014). Big Data, new epistemologies and paradigm shifts. *Big Data & Society*, *1*(1). https://doi.org/10.1177/2053951714528481

Komatsu, H., Rappleye, J., & Silova, I. (2019). Culture and the Independent Self: Obstacles to environmental sustainability? *Anthropocene*, *26*: 1-13. 100198. https://doi.org/10.1016/j.ancene.2019.100198

Lingard, B. (2010). Policy borrowing, policy learning: Testing times in Australian schooling. *Critical Studies in Education*, *51*(2), 129-147. https://doi.org/10.1080/17508481003731026

Lupton, D. (2018). How do data come to matter? Living and becoming with personal data. *Big Data & Society*, *5*(2). https://doi.org/10.1177/2053951718786314

Lupton, D., & Williamson, B. (2017). The datafied child: The dataveillance of children and implications for their rights. *New Media & Society*, *19*(5), 780-794. https://doi.org/10.1177/1461444816686328

No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115 Stat. 1425. (2002). Retrieved from http://www.ed.gov/legislation/ESEA02 /

Perryman, J. (2009). Inspection and the fabrication of professional and performative processes. *Journal of Education Policy*, *24*(5), 611-631. https://doi.org/10.1080/02680930903125129

Ross, E., & Walsh, K. (2019). *State of the States 2019: Teacher and Principal Evaluation Policy*. National Council on Teacher Quality.

Sandseter, E. B. H., & Lysklett, O. B. (2017). Outdoor education in the Nordic region. In C. Ringsmose & G. Kragh-Müller (Eds.), *Nordic social pedagogical approach to early years* (pp. 115–132). Springer International Publishing. https://doi.org/10.1007/978-3-319-42557-3_7

Silova, I., Komatsu, H., & Rappleye, J. (2018). Facing the climate change catastrophe: Education as solution or cause? [Blog post]. *Network for International Policies and Cooperation in Education and Training (NORRAG)*. Available at: https://www.norrag.org/facing-the-climate-change-catastrophe-education-as-solution-or-cause-by-iveta-silova-hikaru-komatsu-and-jeremy-rappleye/

Subedi, B., & Daza, S. L. (2008). The possibilities of postcolonial praxis in education. *Race Ethnicity and Education*, *11*(1), 1-10. https://doi.org/10.1080/13613320701845731

Takayama, K., Sriprakash, A., & Connell, R. (2017). Toward a postcolonial comparative and international education. *Comparative Education Review, 61*(S1), S1-S24. https://doi.org/10.1086/690455

Taubman, P. M. (2010). *Teaching by numbers: Deconstructing the discourse of standards and accountability in education*. Routledge. https://doi.org/10.4324/9780203879511

Thompson, G., & Cook, I. (2014). Manipulating the data: Teaching and NAPLAN in the control society. *Discourse: Studies in the Cultural Politics of Education, 35*(1), 129-142. https://doi.org/10.1080/01596306.2012.739472

Van Dijck, J. (2014). Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology. Surveillance & Society, 12(2), 197-208. https://doi.org/10.24908/ss.v12i2.4776

Wilby, P. (2019). Eton master who wants pupils to learn very slowly. *The Guardian*. Retrieved from: https://www.theguardian.com/education/2019/aug/13/eton-master-wants-pupils-learn-slow-education-mike-grenier

Williamson, B. (2017a). *Big data in education: The digital future of learning, policy and practice*. Sage. https://doi.org/10.4135/9781529714920

Williamson, B. (2017b). Learning in the 'platform society': Disassembling an educational data assemblage. *Research in Education, 98*(1), 59-82. https://doi.org/10.1177/0034523717723389

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