

Layers of Data, Layers of Skills Measurement in the E-Government Reform

Gita Steiner-Khamsi

Teachers College, Columbia University

This conceptual article investigates the rationales for the fascination with soft skills (social-emotional skills, responsibility, engagement, etc.), propelled by a large and diverse group of proponents, including international organizations—such as the Organisation for Economic Co-operation and Development (OECD) and the World Bank—that have a long-standing history with promoting hard skills, such as literacy and numeracy. It (i) outlines several reasons why global actors promote the development of soft skills, agentic teaching and learning, and social accountability; (ii) traces the evolution of social accountability—the regulatory mechanism behind the current E-Government or New Public Governance reform—by sequencing the global public administration reforms of the past five decades; and finally, (iii) examines the challenges of social accountability in today’s divisive societies plagued by information pollution, anti-globalization sentiments, and distrust in government.

Keywords: soft-skills, agentic teaching and learning, social accountability, New Public Governance, education reform, citizen engagement, global governance, datafication

Toward Measurable Soft Skills

Known as hardliners who narrowly focus on building a human capital stock for the labor market (OECD) and enhancing economic productivity (World Bank), the two international organizations have become remarkably soft in their new approach to human capital.

Well-being and Prosperity for Future Generations

In 2011, the Ministries of Finance of OECD countries approved a new framework to expand the resources available today for the well-being of future generations (OECD, 2011, 2019). Thus, the OECD’s metaphor of capital—investing today for returns tomorrow—is also present in this framework. It outlines four types of capital, which the OECD considers invaluable resources that need to be nurtured now to be accessible in the future: natural capital, economic capital, human capital, and social capital. A few years later, in 2018, the Ministries of Finance endorsed the Better Life Initiative. As with previous OECD initiatives, the Ministries of Finance often lead, followed by line ministries. The OECD’s Economy of Well-Being emphasizes inclusive economic growth and advocates for measures of prosperity that extend beyond Gross Domestic Product (Nozal et al., 2019). This concept has been integrated into significant ministerial agreements, including the commitment from the Ministries of Education to align their school reforms with the OECD’s education strategy, the 2030 Learning Compass (OECD, 2018a).

The World Bank has similarly expanded its narrow focus on numeracy and literacy to embrace a broader definition associated with foundational learning. Notably, citizenship engagement is not only a key element of OECD's 2030 Learning Compass, but it also plays a central role in the World Bank's recent initiatives, as seen in the Foundational Learning Compact.¹

Growing evidence suggests that, under the right conditions, meaningful forms of citizen engagement and social accountability (CESA) can result in better governance, citizen empowerment, more positive and constructive citizen-state relations, strengthened public service delivery, and, ultimately, enhanced development effectiveness and well-being. (World Bank, 2025)

The soft-skill-turn concerns not only what is supposed to be taught (foundational learning) but also how the sector is supposed to be governed (citizen engagement and social accountability). What remains the same is the role of international organizations and their use of global governance tools: the OECD and the World Bank continue to use datafication—composed of international standard-setting, benchmarking, and performance evaluation—followed by data-driven knowledge brokerage as their preferred governance tools (Steiner-Khamsi et al., 2024). The two tools combined—datafication with knowledge brokerage, also known as “soft governance by hard fact” (Niemann & Martens, 2018) or “governance by numbers 2.0” (Steiner-Khamsi et al., 2024)—in effect authorize international organizations to exert policy influence in the absence of coercion. International organizations gain legitimacy and make themselves heard by carrying out activities that require a transnational perspective, such as international comparisons or comparisons against global benchmarks (such as the SDGs).

Explanations and Speculations about the Discursive Shifts

After decades of a narrow economic outlook on education, speculation is widespread about why the World Bank suddenly promotes Citizen Engagement and Social Accountability (CESA) and why the OECD embraces soft skills such as taking responsibility, reconciling tensions and dilemmas, being transformative, and creating new value (OECD, 2018a, 2018b). Can the “biological and neuro-affective turn” in education be trusted, considering its backing by economists? What's next: projections on the social-emotional, environmental, and societal rates of return from education? Taking a step back, what happened to the unspoken division of labor in which the United Nations Educational, Scientific and Cultural Organization (UNESCO) positioned itself as The Idealist, the OECD as the Master of Persuasion, and the World Bank as the Master of Coercion (Elfert & Ydesen, 2024)? One would be hard-pressed to believe that the OECD and the World Bank somehow experienced an idealist humanist turn, slowly converging, even if only rhetorically, towards UNESCO's stance on education as a human right. Similarly, it has raised eyebrows that UNESCO jumped on the bandwagon of social-emotional learning (SEL) and now embraces a “whole brain” approach (Bryan, 2022). Clearly, more plausible explanations are needed here.

¹ See <https://www.worldbank.org/en/topic/citizen-engagement#1>

Noticeably, most explanations reflect skepticism about the new course of action. The four most common explanations point to the changed historical context, the ever-expanding scope of datafication, the new funding networks and opportunities, and institutional legacies within the two international organizations.

First, one may wonder whether the pandemic, climate crises, divisive politics, cyberbullying, worldwide refugee streams, and a long list of other calamities have made the two international organizations realize that education should be more than merely equipping the labor market with skilled workers or augmenting the countries' economic productivity. According to this first line of argumentation, building resilience and committing to an ethics of care have gained prominence during these turbulent times. Arguably, the generational change at the helm of international organizations must also be factored in when considering the historical context. Well-being, work-life balance, and mindfulness are values that the millennials hold and propagate more than their predecessors from older generations.

Second, another group of scholars is intrigued by the ever-expanding scope of datafication, breaking into areas such as social-emotional learning and other soft skills that were, until recently, exempt from measurement (Lupton & Williamson, 2017; Williamson, 2019). Starting in the late 1980s, the OECD and the World Bank erected an enormous data infrastructure, knowledge depositories, and professional expertise that need to be fed and, in a quest for survival, must conquer new terrains that await to be quantified, measured, and monitored (Addey, 2022; Zapp, 2017). For them, the most fascinating aspect of the 2030 Learning Compass (OECD) or the Foundational Learning Compact (World Bank) is the obsession with data gathering, which has also started to penetrate subjects beyond the narrowly defined basic skills of numeracy and literacy. In other words, what we are experiencing with the Foundational Learning Compact (World Bank) and the Learning Compass 2030 (OECD) is simply a panoptical version of "Seeing like PISA" (Gorur, 2016), which has now also brought into focus early childhood education and secondary education, and therefore covers a broader array of measurable skills. Concretely, social-emotional learning resonates with early childhood education advocates, whereas cross-curricular competencies are associated with the "employability" of secondary school graduates in today's rapidly changing labor market. The expansion is unsurprising given the greater coverage radius, from preprimary to lower secondary school, propelled by the educational goal of the Sustainable Development Goals (SDGs), that is in SDG 4. This line of argumentation is in concert with Bryan's (2022) poignant observation that social-emotional learning is a "capacious term" that denotes a hodgepodge of loosely related skills, including all that is "non-cognitive," "human-centric," or even "life-effective" (p. 772). Bryan traces the ever-expansive, inflationary use of the term. She examines how the Chicago-based company CASEL, the oldest business in the SEL industry, kept expanding the term semantically and, by implication, their revenues over the last thirty years. Strikingly, the learning and testing feature of SEL (SDG 4.1) has entered a union with the substance of the sustainable, holistic development feature of SDG 4.7.

Said differently, we may highlight the performative nature of data infrastructure, data mining, and platforms in the digital era. On the one hand, these technologies or devices are the offspring of knowledge-based regulation, and on the other, they reproduce themselves by continuously adapting and expanding into new arenas. As a result, we expect to see a rise in data-driven management and organization. The sophisticated study by Bromley et al. (2023) corroborates this observation unambiguously. Applying topic modeling of 9,268 policy documents from 215 countries, they found a significant increase in student assessment reforms and data for reporting, monitoring, and evaluation.

Third, the turn towards soft skills reflects the entry of new influential global actors, notably UNICEF and the private sector. The broad alliance of bilateral donors (Australia, Canada, Finland, Germany, the UK, and the USA), multilateral donors (GPE, UNESCO, UNICEF), and philanthropies (Bill and Melinda Gates Foundation, Echidna Giving, Hewlett Foundation, Hilton Foundation, Lego Foundation, and Rockefeller Philanthropy) participating in and financially contributing to the World Bank's Foundational Learning Compact (FLC) has raised several red flags. Some of these partners were previously assembled under the Early Learning Partnership (ELP) program. Since 2022, the World Bank has administered the ELP program and utilized the funds for the Foundational Learning Compact. The compact invests in young children's physical, cognitive, linguistic, and socio-emotional development and targets the pre-primary age group (World Bank, 2024). FLC's commitment to early learning, social-emotional learning, and play-based learning may primarily be driven by the Bank's partners. The origin of the FLC is essential: the Foundational Learning Compact is the successor initiative to the World Bank's SABER (Systems Approach for Better Education Results) and the Early Learning Partnership (ELP) program. SABER lasted from 2013 to 2018, and the ELP trust fund was transferred to the World Bank a few years later. The public-private partnership and the multi-donor feature of the FLC may explain why the activities under this program differ significantly from the reform priorities typically financed by a World Bank loan. Thus, this third type of explanation is as follows: Driven by opportunity, the World Bank advanced into promoting soft skills, typically emphasized in early childhood education, due to the new funding sources. One would expect that the World Bank's support for social-emotional learning dissipates as soon as the broader alliance is dismantled and the financial support currently provided by bilateral donors and philanthropies is dried up. Similarly, one may argue that the World Bank has, despite the objectives of the Foundational Learning Compact, continued to focus narrowly on numeracy and literacy skills in primary education in its core business: lending.

Finally, the emphasis on soft skills arguably has existed all along. However, it has been buried and now resurfaces in a different shape and context due to saturation from international scale student assessments or PISA fatigue. The OECD's INES (Indicators of Education Systems Programme) has entertained proposals for measuring cross-curricular competencies (CCC), such as creative thinking, problem-solving, and mutual aid, since the early 1990s. Some CCCs, first formulated by Trier (1995), were adopted in the OECD's Definition and Selection of Key

Competencies project and later renamed 21st-century skills (Schleicher, 2017). Years later, several scholars have debunked the direct correlation between educational attainment and economic growth. Furthermore, public awareness is rising regarding the growing gap in wealth distribution. As mentioned, the call for moving “beyond GDP” (Gross Domestic Product) is increasingly heard, including at the OECD (OECD, 2019). The European Union, particularly Nordic countries, has been quite vocal in efforts to redefine well-being. Similarly, the Programme for International Student Assessment (PISA) may have lost momentum with its narrow focus on math, literacy, and science, and in recent rounds, it has included softer domains as minor assessments (creative thinking, financial literacy, global competence) to maintain the participation of countries that, for the past 25 years, have participated every three years in the evaluation and have seen little impact on their overall ranking. The four strands of argumentation are widespread and not mutually exclusive.

The Reactive Sequences of Public Administration Reforms

In this paper, I propose a fifth strand of argumentation that reflects a shift in the object of comparison and, consequently, the frame of reference. I suggest we stop comparing the rise of soft skills development with earlier policies of the OECD and the World Bank, notably, the well-documented structural adjustment policies and neoliberal education agendas of the past and instead examine what these two international organizations are actively promoting in the current public administration reform. The point made here is that education reform needs to be placed in the broader context of public administration reforms. We should not view education reform in isolation but rather acknowledge that key features of a reform represent broader reform agendas and are merely “translated” in ways that match the structures, idiosyncrasies, and language of the education sector. Said differently, the World Bank’s emphasis on “citizenship engagement and social accountability” (CESA) and the OECD’s focus on soft skills, as outlined in the 2030 Learning Compass, are only surprising if we use a narrow educational frame of reference. As I will demonstrate in this paper, social accountability and agentic learning align with e-government public administration reform, also known as New Public Governance (NPG). Both intergovernmental organizations (IGOs) adhere to NPG and support governments with policy advice and, in the case of the World Bank, funding to implement the reform. Like all public administration reforms, a specific role of the state is implied, signaling a departure from the Interventionist State—one that establishes and monitors standards and targets—to the Engaged State, which is intended to make data widely available and encourage civic participation. As will be shown later, there is a fine line between an engaged and hollow state that deregulates, promotes private sector takeover, and delegates regulation to citizens, or more specifically, to users and customers, in the form of social accountability.

The public administration reforms of recent decades, led by the Ministries of Finance, have influenced all sectors, including education. Furthermore, the policy sequence, or the chronological order in which these reforms occurred, impacted their substance: each reform emerged as a solution to problems that the previous one supposedly

could not resolve or, even worse, created. The term “reactive sequence” (Zürn, 2018, p. 89) aptly captures the causal chain of reforms that becomes evident when we closely examine the temporal order in which they occurred. There is a tendency to overstate the shortcomings of the latest reform solely to secure political support and mobilize financial resources for change. Viewing sequence as an analytical lens allows us to grasp how fundamental changes were justified at the time and how each reform distanced and differentiated itself from the goals of its predecessor. Investigations into the temporal order of events, or in our case, reforms, are closely linked to the scholarship in historical institutionalism (e.g., Abbott, 1983; Pierson, 2004).

There are different approaches to identifying reform waves in public administration (Wegrich, 2023). Given the political nature of reforms, this section is organized regarding the state's role in each reform. As Table 1 shows, the role of the state changed several times since the 1960s: from a strong state that managed social welfare (1960s/1970s) to a weak state that, in the wake of continuous deregulation, went dormant (1980s/1990s), to a reawakened evaluative state that encouraged private sector involvement under certain conditions (2000s), to a collaborative state that, voluntarily or involuntarily, engages with the public (2010s/2020s).

Table 1

The Sequence of Public Administration and Education Sector Reforms, 1960s - 2020s

Time period	Public administration reform			Education sector reform			All sectors		
	Name	Problems of Previous Reform	Solution/Promise	Reform goal	Problems of Previous Reform	Solution/Promise	Type of Regulation	Type of Accountability	Role of the State
1960s/70s	Traditional bureaucracy	Coupling of politics and administration	Rationalization Procedures Hierarchies	Equal opportunity	Reproduction of inequality Elite capture	Compensatory education	Inputs	State accountability	Welfare State
1980s/90s	New Public Management	Rigidity Inertia Monopoly	Privatization Customer orientation	Autonomy	High public expenditures	Autonomy and choice leading to efficiency and achievement gains	Outputs	Market accountability	Entrepreneurial State
2000s	Network Governance	Power dispersion	Public-private partnerships, whole-government approach	Quality	Inequity Unequal quality	Autonomy-with-accountability (SAWA)	Outcomes	Standards accountability	Interventionist State
2010s/20s	E-Governance (also known as New Public Governance)	Citizens reduced to customers Fragmentation	Collaboration Data sharing Re-governmentalization	Transparency	Datafication Focus on numeracy & literacy	Transparency Focus on foundational learning (including wellbeing)	Public opinion	Public accountability	Engaged State

Source: Adapted from Steiner-Khamsi (2025)

The ends and means of reform distinguish each from its predecessors. In other words, the reform goals (column 5) and types of regulation (column 8) vary with each reform. I have provided a more detailed explanation of the table elsewhere (Steiner-Khamsi, 2025). Therefore, I will only briefly comment on the type of accountability (column 9) pursued in the last four public administration reforms.

The Welfare State of the 1960s and 1970s

The research literature labels the type of state regulation during the era of the Welfare State as “traditional” (Goldfinch, 2023, p. 3), “bureaucratic-professional” (Maroy, 2012), or the “Weberian” model of public administration (Goldfinch, 2023, p. 3). Viewed sequentially, the ideal-type bureaucracy was trapped in an Iron Cage of Rationality, characterized by efficiency, rational calculation, and control intended to suspend the influence of interpersonal networks (Weber, 2019). “Good bureaucracies” separated these two spheres, insisted that administrative decisions must be rational and predictable, required civil servants to regard their work as a profession and undergo professional training, and established procedures to shield government officials from political interference or social pressure.

In the education sector, the 1960s and 1970s marked a pivotal era for compensatory education in advanced economies, during which the state allocated additional funds to help children from low socio-economic backgrounds enroll in and excel in school. In the US, the War on Poverty (1964) and the subsequent Head Start program, aimed at preschool children from low-income families, are key examples of these initiatives. Sensitivity to social inequality was also evident in the multicultural, anti-racist, and decolonization movements that gained momentum globally toward the end of this period. The social welfare state required a substantial apparatus to manage redistribution programs and ensure equal inputs and opportunities. Accountability was measured by compliance with the rules and regulations established by the state.

The Entrepreneurial State of the 1980s and 1990s

The frequently cited New Public Management (NPM) mantra—that the government should steer and not row—aimed to end the state monopoly over public services. The entrepreneurial state is designed to provide direction while stepping back from being the sole provider, encouraging business involvement in the public sector. Citizens should be treated like customers who, through their freedom of choice, help improve the quality of public services. They vote with their feet by simply switching providers if they are dissatisfied with a product or service; they “exit” (Hirschman, 1972). In the early years of managerial reform, before standards and accountability measures were established, choice, per capita financing, and vouchers were seen as means to reduce public expenditures while enhancing the quality of education. Milton Friedman’s argument for cost savings through efficiency gains generated by market regulation was prominent. In the early, market-driven Miltonian vision of NPM, there was neither a need nor a role for government because the pressure to perform arose from supply and demand. Low-performing schools would lose customers, and due to per-capita financing, they would lose funding and ultimately close as parents enrolled their children in better-performing schools.

The Interventionist State in the 2000s

The early adopters of New Public Management reform (Australia, New Zealand, UK, US, Canada) overhauled the traditional hierarchical government structure, which consisted of a large central administration that directed the lower levels of government at the province and district levels. In education, the reform entailed shifting decision-making authority from the central to lower levels of government and establishing numerous semi-autonomous state-affiliated agencies. Dunleavy et al. (2005) show convincingly how the NPM reform wrecked the public administration in the pioneer country of NPM: New Zealand. By 1999, the country of 3.5 million people was left with over three hundred separate central agencies and forty-nine tiny ministries. Other repercussions were rampant privatization and an erosion of the quality of public services due to autonomous sub-national administrative units.

Strikingly, standardized testing to assess the quality of education was an afterthought of NPM and only emerged as the primary instrument of quality assurance in the 2000s. Acknowledging the sequence and the time lag between the two reform waves—the neoliberal push for market accountability in the 1980s and 1990s and the politically centrist (Third Way) belief in standards accountability in 2000—helps us to contextualize the rise of outcomes-based accountability, target-setting, and standardized testing around the millennium.

The Engaged State of the 2010s and 2020s

The concept of an Engaged State (Mattei, 2023) that listens to its constituents evokes numerous positive associations. As observed in a sequence, the state is only “engaging” if compared to the earlier roles of the state, particularly the interventionist, entrepreneurial, and welfare states. Years ago, during the entrepreneurial state's New Public Management era, the nation-state's power diminished significantly as it rescaled upwards, downwards, and outwards to transnational institutions, subnational entities, and non-state actors, respectively (Jessop, 2002). In many countries, the 21st-century state has a substantially reduced apparatus compared to half a century ago.

The New Public Governance reform (see Krogh & Triantafillou, 2024; Osborne, 2010) during this period closely relates to advancements in information and communications technology (ICT), the political influence of social media, and new forms of production, assetization, and capital accumulation within the digital economy (see Birch, 2020). A common thread among these ongoing public administration reforms is the expectation that data producers (citizens) should also act as data users and engage more than ever in the political process. The state is expected to connect with and listen to its citizens. This shift from an interventionist state to an engaged one signifies a transformation in its role, as it now perceives itself as transparent, socially accountable, and responsive to its citizens.

In today's era of the Engaged State, citizens are supposed to supervise the provision of public goods and services rather than relying on bureaucrats (as in the Welfare State) or the market (promoted during the Entrepreneurial State).

The Global Drivers of the New Public Governance Reform

As with the previous public administration reforms, the OECD and the World Bank have promoted and implemented the new version of “good governance” through policy papers, handbooks, checklists, and best practices. The OECD Good Practice Principles for Service Design and Delivery in the Digital Age (OECD, 2022) consist of nine principles arranged under the following three pillars:

“Build accessible, ethical and equitable public services that prioritise user needs, rather than government needs”; “Deliver with impact, at scale, and with pace”; and “Be accountable and transparent in the design and delivery of public services to reinforce and strengthen the public trust” (OECD, 2022).

Similarly, in 2014, the World Bank Group presented its strategic framework for citizenship engagement on enhancing the demand-side accountability of public services (World Bank Group, 2014). A good case in point is the World Bank’s GovTech Maturity Index (GTMI). It is a composite index that consists of four components (World Bank, 2022):

- **CGSI:** The Core Government Systems Index (17 indicators) captures the key aspects of a whole-of-government approach, including government cloud, interoperability framework, and other platforms.
- **PSDI:** The Public Service Delivery Index (9 indicators) measures the maturity of online public service portals, focusing on citizen-centric design and universal accessibility.
- **DCEI:** The Digital Citizen Engagement Index (6 indicators) measures aspects of public participation platforms, citizen feedback mechanisms, open data, and open government portals.
- **GTEI:** The GovTech Enablers Index (16 indicators) captures strategy, institutions, laws, and regulations, as well as digital skills and innovation policies and programs, to foster GovTech.

The OECD’s 2030 Learning Compass has become an object of intense academic inquiry (Elfert & Ydesen, 2024; Karseth et al., 2022; Xiaomin & Auld, 2020; Yliniva et al., 2024) and does not need to be reiterated here. The compass metaphor is central to its conceptualization of teaching and learning. Schleicher (2019) presents the 2030 Learning Compass as “[a] new tool for navigating through a complex world”. In the visualization of the compass, “student agency” and “co-agency with peers, teachers, parents, and communities” are recognized as crucial for moving the compass’s needle in the right direction.

Layers of Data

Having advocated for studying “governance trajectories” (Capano et al. 2022), one may reflect on how the evolving public administration ecosystem has shaped norms, structures, and values within its immediate environment. These changes have directly influenced the policy goals and instruments used across all public

administration sectors, including education. Furthermore, I suggest stepping back to position these changes within the broader policy process. Building on Hood's (1983) inquiry into how policymakers determine which actions are necessary ("detectors") and what instruments they have available to implement them ("effectors"), we observe significant transformations in one of the key detectors: data and information. The shift towards social accountability has impacted the types of data and information employed for managing and financing the system.

In another publication (Steiner-Khamsi, 2025), I employed the same sequential analysis of public administration reforms, presented in Table 1, to trace how the objectives and objects of data-for-accountability purposes have evolved over time. I am broadly reiterating the main points at the risk of oversimplifying the findings. During the Welfare State period, inspectors collected data to evaluate compliance with input-related norms (such as student-teacher ratios and teacher qualification requirements) established by the state. The Entrepreneurial State drove decentralization, privatization, and the liberalization of service providers. New Public Management coincided with new procurement laws mandating that governments open the provision of public goods and services to the private sector. This necessitated the calculation and datafication of expected outcomes or deliverables. Contract management in the education sector involved detailing what constitutes good "pedagogical services" and developing indicators that allow the state to assess whether the outsourced provision of goods and services adhered to the contract. The Interventionist State, in turn, gained a reputation for "governance by numbers" by using data for performance measurement, target setting, and quality assurance accreditation. This era is characterized by results-based management, which translates into outcomes-based school reform in the education sector, manifested through the proliferation of standardized tests and other evaluation instruments. Finally, the most recent public administration reform encourages the use of data to foster collaboration across sectors, within sectors, and between the government and citizens. Pestoff (2021) correctly points out that the provision of public services (in contrast to the provision of public goods) requires user input and feedback. To some extent, co-production tends to occur by default, regardless. End users in the public sector (the citizens) or in education (parents and students) are expected to have access to various types of data, including performance data (such as student test scores), to hold public servants and, ultimately, the state apparatus accountable for public services.

It is important to remember that the objectives and uses of data have evolved over time. Policy designs have resulted in changes occurring in a layered manner (Capano, 2018); one form of data usage has not necessarily replaced previous forms. Depending on the political system and culture, data is still used to varying degrees for compliance, steering at a distance, or citizen engagement.

The role of technology in facilitating and accelerating New Public Governance and, with it, social accountability and agentic teaching and learning is not to be underestimated. As shown by Stark and Vanden Broeck (2024), algorithmic management makes it possible to count, classify, and reward/punish the very soul of

the students, transcending the previous, narrow focus on numeracy and literacy. Similarly, e-governance or digital governance is, by default, "predictive governance," as masterfully described by Hartong et al. (2024).

Throughout the four public administration reforms summarized above, data was no longer collected for direct compliance checks but rather for distant steering and, more recently, for inverting, at least rhetorically, the power relations between the government and citizens. Over time, the distance for steering increased significantly to the point where the new, data-driven social accountability measures challenged the state's authority to regulate the provision of public goods and services effectively. In sum, social accountability does for governance what agentic learning does for education: it shifts the responsibility of regulation from the government to the citizen or from the teacher to the learner. In its extreme form and projected into the distant future, it renders the government or the teacher superfluous. A dystopian scenario of governance without government (Rosenau, 1992) and learning without a teacher is worth deliberating.

The Wide Spectrum of Social Accountability Practices

Data and information play a key role in all policy process theories, as explained in greater detail elsewhere (see Steiner-Khamsi, 2025; Steiner-Khamsi et al., 2026). Just think how Internet technologies facilitate collective action, which, in turn, impacts what is perceived by whom as a problem, which universe of solutions is made publicly available and propelled, and how effortlessly individuals and groups may be mobilized for or against political coalitions. Margetts and Hood (2016) contend that governments are being challenged "by groups of citizens who have as their main weapon an ability to communicate and coordinate the resources of large numbers of people" (p. 1). The Internet technologies they refer to are mobile or web-based and include blogs or micro-blogs (Twitter, or X), social networking sites, content-sharing sites, social bookmarking sites, projects to produce online goods (e.g., Wikipedia), and virtual worlds for gaming or socializing.

Punctuated equilibrium theories identify periods of relative stability interrupted by bursts of reform activity. The necessity for policy action is not inherent but rather politically constructed: exogenous factors and changes must first be made meaningful and politically actionable by policy entrepreneurs and other intermediaries. The Multiple Streams Framework is a good case to illustrate how data and information permeate all three streams, notably for generating problem awareness, proposing policy solutions, and electing, voting, and keeping governments in power. Perl et al. (2018) convincingly show how the use of information is central in the Multiple Streams Framework:

Each stream contains components of policy deliberations that originate independently from one another, but which can combine to transform policymaking at particular junctures. Within the problem stream, one finds the ideas and information that can focus public attention on and characterize

a specific problem as being worthy of government's attention. The policy stream contains the expertise of specialists, scientists, and pundits who present remedies and recommendations for addressing one or more public problems. And the political stream carries within it the claims of, and expectations about, governing authority that are generated by public opinion, the party organizations, and interest group efforts to gain or retain power in government. (p. 593)

As a result of the conjuncture of the three streams: "the resulting accumulation of ideas, interests, and information can either open or close a 'policy window' which moves problems onto or off of the formal agenda, and thus influences whether government will attend to them in policymaking" (Perl et al., 2018, p. 593).

The reliance on data and information is cause for concern in an era of "information pollution" (Malin & Lubienski, 2022), "post-truthiness" (Perl et al., 2018, p. 581) and democratic backsliding (Morais de Sá e Silva & Ávila Gomide, 2024). There is a need to adjust the multiple streams and factor in truthiness and the surplus of information when relying on information for policymaking. Internet technologies are not the only devices that turn the three streams into raging rivers. A host of other sources exist that governments or interest groups may activate at will to accelerate problem awareness and policy solutions and, somewhat more complexly, generate political support. The multiplicity of resources that nowadays flow into each of the three streams is noticeable to all with a keen attentiveness to global and transnational aspects of the policy process. For example, OECD's PISA couples the problem and policy streams and thus functions very much like a policy broker *par excellence* (Steiner-Khamsi et al., 2024), creates awareness about the below or above-average performance of 15-year-olds on international large-scale assessment and, at the same time provides policy advice on how to fix the system, if necessary.

Intergovernmental organizations are more than the sum of their member states. As Zürn (2018) convincingly shows, IOs have built their legitimacy over the last few decades on three normative principles: (i) a reference to common problems and goods, (ii) the individual rights and entitlements of non-state actors, and (iii) an international authority to enforce the implementation of the first two normative principles. More concretely, this authority aims to "identify, substantiate, and monitor norms and rules that foster the common good and entitlements of actors other than states" (Zürn, 2018, p. 9ff). However, current anti-globalization movements challenge the role of IOs as "teachers of [universal] norms" (Finnamore, 1993), oppose international cooperation, and foster distrust in government. Consequently, the ability of governments and international organizations to define common problems and safeguard public goods is severely curtailed.

The community participation or citizenship engagement that leftist scholars and politicians have advocated since the 1960s is opposed to how social accountability plays out in practice in the realm of the digital economy. Both Elon Musk's social media platform X and Mark Zuckerberg's technology conglomerate their fact-checking departments with a special version of social accountability: they

established rules on how users may contest or correct assertions made by others. Users are encouraged to produce “Community Notes.” Supposedly, monitoring content becomes superfluous if users are given free access to produce and use knowledge.

As a testament to its popularity and relevance in understanding new social phenomena, policy transfer research has consistently broadened its units of analysis. It began with the examination of country-to-country transfers, global-to-local transfers (or vice versa), transfers between different levels of administration, early to late adopters (or vice versa), inter-ministerial transfers, and transfers from one domain (e.g., economics) to others (e.g., education). In contrast, investigating how, when, and why governments engage the tech sector and businesses to disrupt, innovate, or internationalize the public sector is still in its early stages (see Steiner-Khamsi, 2025, Chapter 3.1). This type of policy transfer—from the private to the public sector- will likely gain prominence. It remains to be seen and explored whether the X or Meta-type social accountability measure will be adopted in the public sector.

Gita Steiner-Khamsi is the William H. Kilpatrick Professor of Comparative Education at Teachers College, Columbia University, New York. She also holds the honorary UNESCO Chair in Comparative Education Policy at the Geneva Graduate Institute in Switzerland. She is the author of numerous books and publications, including most recently the open-access book *Time in Education Policy Transfer: The Seven Temporalities of Global School Reform*.
ORCID: 0000-0001-9986-2150

References

- Abbott, A. (1983). Sequences of social events: Concepts and methods for the analysis of order in social processes. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 16(4), 129–147.
<https://doi.org/10.1080/01615440.1983.10594107>
- Addey, C. (2022). Invisible struggles, encoded fantasies and ritualised incantations: A critical infrastructure studies analysis of PISA. In A. Teodoro, ed. *Critical perspectives on PISA as a means of global governance: Risks, limitations and humanistic alternatives* (pp. 11–24). Routledge.
<https://doi.org/10.4324/9781003255215-2>
- Birch, K. (2020) Technoscience rent: Toward a theory of rentiership for technoscientific capitalism. *Science, Technology and Human Values*, 45(1): 3–33.
<https://doi-org.ezproxy.cul.columbia.edu/10.1177/0162243919829567>
- Bromley, P., Furuta, J., Kijima, R., Overbey, L., Choi, M. & Santos, H. (2023). Global determinants of education reform, 1960 to 2017. *Sociology of Education*, 96(2), 149–167. <https://doi.org/10.1177/00380407221146773>

- Bryan, A. (2022). From 'the conscience of humanity' to the conscious human brain: UNESCO's embrace of social-emotional learning as a flag of convenience. *Compare: A Journal of Comparative and International Education*, 54(5), 770–784. <https://doi.org/10.1080/03057925.2022.2129956>
- Capano, G. (2018). Reconceptualizing layering—From mode of institutional change to mode of institutional design: Types and outputs. *Public Administration*, 97(3), 590-604. <https://doi.org/10.1111/padm.12583>
- Capano, G., Zito, A. R., Toth, F., Rayner, J. (2022). *Trajectories of governance: How states shaped policy sectors in the Neoliberal Age*. Palgrave.
- Dunleavy, P., Margetts, H., Bastow, S. & Tinkler, J. (2005). New Public Management is dead – Long live digital-era governance. *Journal of Public Administration Research and Theory* 16(3) 467–494. <https://doi.org/10.1093/jopart/mui057>
- Elfert, M., & Ydesen, C. (2024). Global governance and the promissory visions of education: Challenges and agendas. *Comparative Education*, 60(3), 361–376. <https://doi.org/10.1080/03050068.2024.2371701>
- Finnemore, M. (1993). International organizations as teachers of norms: UNESCO and science policy. *International Organization*, 47(4), 565–597. <https://doi.org/10.1017/s0020818300028101>
- Goldfinch, S. F. (2023). The challenge of public administration reform: Introduction. In S. F. Goldfinch (Ed.), *Handbook of public administration reform* (pp. 1-26). Edward Elgar Publishing.
- Gorur, R. (2016). Seeing like PISA: A cautionary tale about the performativity of international assessments. *European Educational Research Journal*, 15(5), 598-616. <https://doi.org/10.1177/1474904116658299>
- Hartong, S., Decuyper, M., & Lewis, S. (2024). Disentangling the temporalities of digital and predictive governance: Rhythmanalysis as a methodological framework. *Time & Society*, 0(0). <https://doi.org/10.1177/0961463X241267338>
- Hirschman, A. (1972). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Harvard University Press.
- Hood, C. (1983). *The tools of government*. Macmillan. Jessop, B. (2002). *The future of the Capitalist State*. Polity.

- Karseth, B., Sivesind, K., & Steiner-Khamsi, G. (Eds.). (2022). *Evidence and expertise in Nordic education policy: A comparative network analysis*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-91959-7>
- Krogh, A. H. & Triantafillou, P. (2024). Developing New Public Governance as a public management reform model. *Public Management Review*, 26(10), 3040-3056.
- 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>
- Malin, J., & Lubienski, C. (2022). Information pollution in an age of populist politics. *Education Policy Analysis Archives*, 30(94), 1–23. <https://doi.org/10.14507/epaa.30.6144>
- Margetts, H. & Hood, C. (2016). Tools approaches. In: B. G. Peters & P. Zittoun (Eds.), *Contemporary approaches to public policy: Theories, controversies and perspectives* (pp. 133-154). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-50494-4_8
- Maroy, C. (2012). Towards post-bureaucratic modes of governance: A European perspective. In G. Steiner-Khamsi & F. Waldow (Eds.), *World yearbook of education 2012: Policy borrowing and lending* (pp. 63–79). Routledge.
- Mattei, P. (2023). *Democraticizing science: The political roots of public engagement agenda*. Bristol University Press.
- Morais de Sá e Silva, M. & Ávila Gomide, A. (2024). *Public policy in democratic backsliding*. Palgrave Macmillan.
- Nozal, A., Martin, N., & Murtin, F. (2019). *The economy of well-being: Creating opportunities for people's well-being and economic growth* (SDD Working Paper No. 102). OECD. <https://doi.org/10.1787/498e9bc7-en>
- Niemann, D., & Martens, K. (2018). Soft governance by hard fact? The OECD as a knowledge broker in education policy. *Global Social Policy*, 18(3), 267-283. <https://doi.org/10.1177/1468018118794076>
- OECD. (2011). *Well-being framework*. OECD Publications.
- OECD. (2018a). *The future of education and skills: Education 2030*. OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2018/06/the-future-of-education-and-skills_5424dd26/54ac7020-en.pdf

- OECD. (2018b). *Opportunities for all: A framework for policy action on inclusive growth*. OECD Publishing. <https://dx.doi.org/10.1787/9789264301665-en>
- OECD. (2019). *Well-being initiative*. OECD Publications.
- OECD. (2022). *The OECD good practice principles for public service design and delivery in the digital age* (OECD Public Governance Policy Papers, No. 23). OECD. <https://doi.org/10.1787/2ade500b-en>
- Osborne, S. P. (2010). *The new public governance? Emerging perspectives on the theory and practice of public governance*. Routledge.
- Perl, A., Howlett, M. & Ramesh, M. (2018). Policy-making and truthiness: Can existing policy models cope with politicized evidence and willful ignorance in a “post-fact” world? *Policy Science*, 51, 581–600. <https://doi.org/10.1007/s11077-018-9334-4>
- Pestoff, V.A. (2021). Can co-production promote participatory public governance? In E. Loeffler & T. Bouvaird, eds., *The Palgrave handbook of co-production of public services and outcomes*. Palgrave. https://doi.org/10.1007/978-3-030-53705-0_29.
- Pierson, P. (2004). *Politics in time: History, institutions, and social analysis*. Princeton University Press.
- Rosenau, J. N. (1992). Governance, order, and change in world politics. In J. N. Rosenau & E. O. Czempiel (Eds.), *Governance without government: Order and change in world politics* (pp. 1-29). Cambridge University Press.
- Schleicher, A. (2017). The future of PISA. *Tertium Comparationis*, 23(1), 113–125.
- Schleicher, A. (2019, May 22). *A new tool for navigating through a complex world*. OECD Education and Skills Today. <https://oecdeditoday.com/education-skills-learning-compass-2030/>
- Stark, D., & Broeck, P. V. (2024). Principles of Algorithmic Management. *Organization Theory*, 5(2). <https://doi.org/10.1177/26317877241257213>
- Steiner-Khamsi, G. (2025). *Time in education policy transfer: The seven temporalities of global school reform* (G. Steiner-Khamsi, Ed.). Springer Nature Palgrave Macmillan [Imprint].
- Steiner-Khamsi, G., Bromley, P., Kijima, R., Martens, K., & Verger, A. (2026). *Data for accountability in education: The trajectories and translations of a global script*. Edward Elgar Publishing. (forthcoming)

- Steiner-Khamsi, G., Martens, K., & Ydesen, C. (2024). Governance by numbers 2.0: Policy brokerage as an instrument of global governance in the era of information overload. *Comparative Education*, 60(4), 537–554. <https://doi.org/10.1080/03050068.2024.2308348>
- Trier, U. P. (1995). Cross curricular competencies: Rationale and strategy for a new educational indicator. In J. L. Peschar, G. Phillips, A. Grisay, & M. Granheim (Eds.), *Measuring what students learn* (pp. 97 - 108). OECD.
- Weber, M. (2019). *Economy and society*. Harvard University Press.
- Wegrich, K. (2023). Public sector innovation: Which season of public sector reform? In S. F. Goldfinch (Ed.), *Handbook of public administration reform* (pp. 131-145). <https://doi.org/10.4337/9781800376748.00012>
- Williamson, B. (2019). Psychodata: Disassembling the psychological, economic, and statistical infrastructure of 'social-emotional learning.' *Journal of Education Policy*, 36(1), 129–154. <https://doi.org/10.1080/02680939.2019.1672895>
- World Bank. (2022). *GovTech: Putting people first*. The World Bank. <https://www.worldbank.org/en/programs/govtech/gtmi>
- World Bank. (2024). *Early childhood development: Context*. World Bank. <https://www.worldbank.org/en/topic/earlychildhooddevelopment>
- World Bank. (2025). *Civic and citizen engagement*. <https://www.worldbank.org/en/topic/citizen-engagement#1>
- World Bank Group. (2014). *Strategic framework for mainstreaming citizen engagement in World Bank operations*. World Bank Group.
- Xiaomin, L., & Auld, E. (2020). A historical perspective on the OECD's 'humanitarian turn': PISA for development and the learning framework 2030. *Comparative Education*, 56(4), 503–521. <https://doi.org/10.1080/03050068.2020.1781397>
- Yliniva, K., Bryan, A., & Brunila, K. (2024). 'The future we want'? – The ideal twenty-first century learner and education's neuro-affective turn. *Comparative Education*, 60(3), 498–518. <https://doi.org/10.1080/03050068.2024.2363096>
- Zapp, M. (2017). The World Bank and education: Governing (through) knowledge. *International Journal of Educational Development*, 53, 1-11. <http://dx.doi.org/10.1016/j.ijedudev.2016.11.007>
- Zürn, M. (2018). *A theory of global governance: Authority, legitimacy, and contestation*. Oxford University Press.