Unmasking Global Education Industries and Their Capital Accumulation Strategies
On Materiality and Discourse

by

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Abstract

The notion of education as being part of the "commons," as a societal or public good, is slowly giving way to pressures of marketization, privatization, and commodification—and thus, reimagined, reconfigured, and re-appropriated as an object of trade, increasingly for sale, based on individual competition and consumerism. Globally, the education sector, including K-12 schooling, higher education, and lifelong learning, is estimated to be worth US$6-8 trillion-dollars (Hartnett, Leung, & Marcus, 2014)—a market that continues to grow as more and more of the education state is privatized and commercialized. It is within this context that transnational corporations represent increasingly influential actors in global education policy and governance. Yet, they oftentimes remain overlooked by educational researchers and scholars.

The aim of this research is to critically explore, describe, and explain how transnationally-configured corporations extract surplus value from systems of education through the commodities they produce, the devices they employ, and the discourse and ideas they construct as part of their capital accumulation strategies. In doing so, this research will assess three leading firms from the global education industry – Pearson plc, Bridge International Academies, Ltd., and Microsoft Corporation. Due to their significant position, scope, scale, and influence, these firms are purposefully sampled to develop empirical generalizations, interpretive understanding, and speculative hypotheses regarding the operations and impact of transnational corporations in education. Each firm is analyzed separately, constituting three distinct studies that examine different angles and dimensions of the global education industry. Methodologically, this study of education industries is operationalized through theory-based construct sampling and case study analysis that takes on the form of a paper-based dissertation. Critical discourse and critical semiotic methods are employed to examine the constitutive role of discourse and discursive practices and semiosis and semiotic practices in political-economic processes that continue to stabilize and expand the global education industry. Network ethnography is also incorporated into this multi-methodological approach to trace new global spatialities, influences, and

interconnections indicating corporate involvement in education policy processes. Together, these different elements of the research program formulate a critical cultural political economy account to interpret and explain the capital accumulation strategies and activities implemented by some of the most influential and powerful firms constituting the global education industry.

The general conclusions of this dissertation illustrate the ways in which global education industries are transforming how systems of education are organized, delivered, and consumed (and *for whom* and *what purposes*) through discursive techniques and their materiality (in the form of educational tools, technologies, devices, products, and programs). The activities and strategies of global education industries, in turn, represent the following dynamic shifts and interrelated processes: (1) learning is about the production *and consumption* of skills and knowledge; (2) education industries reflect *denationalization* processes involving new governance modalities; (3) the *financialization* of education has transformed the sector into an investable opportunity for commercial financiers, and; (4) information technology (IT) innovations are creating new ways of teaching and learning that align technology initiatives with business aims, referred to here as *techagogy*. These processes signal the broad changes related to capitalist restructuring in education that will be examined throughout this dissertation.

Preface

It was May 30, 2016. I was sitting in an airy café in the "Old" quarters of Kampala, the capital city of Uganda. Smells of smoldering charcoal and things burning in the distance wafted through the air under the hot African sun. I was conducting field research as an independent contractor for Education International (the global federation of teachers' unions). Sitting across the table from me was the National Director of Bridge International Academies (BIA) in Uganda – a US-based multinational company with plans "to be the global leader in providing education to families who live on $2 a day per person or less" – and his associate whom also worked for the company. We had agreed to meet at the café so that I could interview the business executives. We had not yet received the coffees we ordered before a man dressed in a smart-looking suit accompanied by two men in militarized uniforms carrying firearms approached our table. As I was recording this meeting with the Directors of BIA, as I would any other interview, I allowed my recorder to continue running. The man in the suit and the National Director of the company (an expat I will refer to as Mr. Snow) exchanged a few softly-spoken pleasantries, then the man in the suite turned to me and said:

"I work with the police – the Uganda police."

"Hi, my name is Curtis,' I replied.

"I'm going to be taking you now," he stated.

"Excuse me?"

"I need you on the case of trespassing."

"Trespassing where?" I asked.

"There's a school where you went too," he uttered. "So, can we move?"

"I'm not sure what this is regarding? I'm just having a meeting with some colleagues here," I tried to explain.

"You must come with me now."

"I'm sorry but could you explain why? Where did I trespass?" I asked incredulously.

“Bridge International schools,” the man said.

“Bridge International schools?” I retorted. “I’m speaking with these gentlemen right now, they come from Bridge International schools.”

“Those ones I’m not concerned with,” he said, gesturing to the two businessmen who sat across from me, “but you, you need to come with us.”

“Maybe we can speak to these men as well because they are the Directors of Bridge International,” I responded, looking for answers.

“We are moving to Kyengera police. The details you can know from there.”

“I’m afraid I can’t go with you,” I replied, “because you’re not giving me any information about why you would take me.”

“I’m telling you. You trespassed at their school.”

“I had permission to be there,” I insisted. “These are the Directors of the schools, so maybe we could have a conversation here.”

Mr. Snow finally spoke up. “I, umm, this has nothing to do with me. You have your issue here. As for me, I’m out of this,” he shrugged.

“He’s saying he’s out of it,” the commanding officer affirmed. “So, can we go?”

“Did you make a complaint to them?” I asked Mr. Snow. When he didn’t respond I repeated the question more pointedly. “Did you make a complaint to them?”

“I don’t know what you mean. This has nothing to do with me, personally. I don’t know what it is.” Mr. Snow protested, taking a sip of his coffee.

Trying to reassure me, the man in the suit intoned, “Let’s move to Kyengera police. Let’s go. He’s there. He will come with us.”

“Are you going to come with us to figure this out?” I asked Mr. Snow.

“Yes, no problem. We will follow you there,” he responded.

“I feel very uneasy about this. I should make a call before I go anywhere.”

"Let's go. Let us go to the police and we can talk there," the man in the suit demanded.

"I don't want any problems," I conceded. "I mean, I can comply with whatever you want."

"Ok then let's go."

"We will follow you," Mr. Snow said.

I turned to Mr. Snow and asked, "Can I ride with you? Because I have a few questions."

"You can go with them. We'll follow you guys."

"This seems fishy," I said.

"Yeah well, we'll follow you," Mr. Snow repeated.

"Okay, so what are we going to do when we get there?" I asked, turning to the officer.

"We will see."

"Okay, I'm just going to send a quick email to my family in Canada so they know if anything happens."

Growing more impatient with my stall tactics, the arresting officer ordered, "Let's go now."

"Please, it will just take a moment. I just want to notify my family." I opened my laptop—hoping the Wi-Fi wouldn't let me down in my time of need.

"You can inform them when we get there. Let's go."

"I just want everything to be right," I pleaded, "so I should contact them now while I have a connection."

"We go now," he ordered.

"That's fine, we can go. But I don't know you. Can I see your police badge?" I asked. No response. As I began to write an email to my fiancé, I turned to Mr. Snow and asked: "So, my friend, what is going on here?"

"All I know is what I'm seeing in front of me" he replied. "The police have come and they're asking you to go and answer questions about the charges that have been raised against you."

"And that's all you know?"

"What I'm seeing is what I know," he insisted.

"So, you haven't had any contact with the police?"

"Do I know these three people? No, I don't these people."

"No, that's not what I asked."

"It's my first time seeing them" he maintained.

"That's not what I asked," I repeated. Unresponsive, Mr. Snow sat in silence. I rephrased my question: "So, it was just a coincidence that we meet here and then just a few minutes after the police are here too?"

"Can we go now," the officer interjected.

"Ok, just give me a moment to send this email."

Standing up from the table to leave, Mr. Snow commented to me, "I guess we'll have to finish our conversation another time."

"I thought you were coming with us?" I asked.

"We'll see," he shrugged.

"Something shady is happening," I uttered under my breath. I then quickly sent the following email to my fiancé:

> …being escorted by police for something related to my research, not sure what is happening. Think its an inside job. Dont freak out. everything will be fine. but just wanted to let u know. If you dont hear from me within 24 hrs than take action. BUT PLEASE I WILL BE FINE!! PROMISE!! LOVE U

As I began to collect my things to leave with the men carrying assault-style firearms who wouldn't identify themselves, I made one final plea to Mr. Snow: "Please, I don't know if these are real police. I mean, I don't want my life to be in jeopardy. So, if you feel like you really need to protect yourself and Bridge to this extent, I think it is a mistake. Let's not make this more of an issue. You are the Director of Bridge so obviously we can sort this out another way." Mr. Snow said nothing.

"Can we get moving," the commanding officer ordered.

"Sure, well it was nice to meet you and I think we will see each other again very soon," I said to Mr. Snow and his colleague.

I then turned off my audio recorder and slipped it back in my bag. The officer and two heavily-armed men (who bore a striking resemblance to the private security guards hired by the bourgeoisie in Uganda to protect their private property and wealth) escorted me to an unmarked car outside the café. We drove away. My final destination unknown.

Inside the car we were accompanied by another man wearing a suit whom I later discovered was a lawyer working for BIA. We drove for more than an hour and a half; passing other police stations along the way including the Kampala Central Police Station. As we arrived at the Kyengera police outpost – an old building with a dilapidated roof consisting of two rooms: a front office and a holding cell in the back – we were greeted by four different media outlets. They pulled out their video cameras to capture my transfer into police custody. The police were equally as puzzled as I was by the media presence. *How did they get here before we did? How did they even know?* I wondered. I never spoke with the media that day. But two lawyers working for Bridge did make statements. They took the opportunity to spin a fabricated story that presented me as some kind of school trespassing perpetrator: a threat to children, teachers, and public at large.

At the Kyengera police station, the investigating officer confirmed that Bridge International was responsible for the allegations of criminal offence. I was also informed about a public warning printed with my face on it in the *New Vision* newspaper on Tuesday, May 24 that claimed I was wanted by police and that if anyone had information of my whereabouts to report police immediately. (Which is a very risky proposition in a country with an upswing of violent mob justice happening in the streets of Kampala). It was a private advertisement paid for by the company, in no way connected to, or at the direction of, police authorities in Uganda. Printed in large font in the top left corner of the ad was the company's logo.

I was detained for several hours at the Kyengera police station that day. After pleading my case, the police released me on bond. I was ordered to return to the station the next day at 12:00 for further questioning. That night I laid awake in my hotel room mentally-preparing for the very real possibility that I may be detained the next day, but this time, not released. By 6:30am the next morning, I was at the Canadian Consular Office in downtown Kampala to seek support and advice on my situation. After which, I returned to the Kyengera police station. I was told to wait in detainment for a verdict from the District Public Prosecutor. Later that day I was called into the front office and told the allegations were unfounded and no charges were to be laid. I was released.

But before I left, the police warned that Bridge may "come after you again." The police cautioned me not to go out at night, to move to a more secure hotel, not to interact with anyone I didn't know, to restrict my movements, and to protect the research data I had collected. Feeling relieved yet uneasy, I left with a new found understanding about the fragilities of freedom and security.

Two days later I had a pre-arranged meeting in Kampala with the Permanent Secretary at the Ministry of Education to discuss the operations of BIA. By coincidence, Mr. Snow also had a meeting with the Permanent Secretary right before my scheduled visit. The two of us waited in the visitor's room for about twenty minutes together. Mr. Snow seemed displeased that I was at the Ministry conducting research and not locked up in Kyengera. Following my meeting with the Permanent Secretary that day, I was escorted directly to Entebbe International Airport by colleagues from the Uganda National Teachers' Union. That evening I flew out of the country two weeks before my original departure date.

As a *Washington Post* article described it, the "weird story of the arrest of a Canadian education researcher in Uganda" became international news. For several months following my return to Canada, I couldn't do anything in the morning before typing my name in the search engine to see if I was linked to any new news stories. Researchers, activists, civil society, and

unionists used my story to draw attention to the growing problems associated with unfettered privatization and commodification of schooling in the global South. At the same time, BIA continued to slander me publicly in an effort to undermine my work and damage my reputation. I became a focal point for a broader debate concerning the growth of "low fee" private for-profit schools burgeoning in "developing" countries. The issue was a topic of discussion during a British parliamentary inquiry into the Department for International Development (DfID's) financial support for BIA—in which the International Development Committee of the British House of Commons questioned BIA's CEO, Shannon May, about my mistreatment in Uganda. Ultimately, the report commissioned by the British House of Commons recommended DfID not make any further investments in BIA, stating it "is clear that Bridge is a contentious partner in achieving the aims of Sustainable Development Goal 4 (SDG4)."[1]

On 25 July 2016, nearly two months after been hauled into Kyengera police station and framed as a criminal by Bridge, the Ministry of Education in Uganda took action to close down the 63 schools operated by BIA, stating in a press release in the *New Vision* newspaper that the schools "are operating outside the confines of the law that regulates provision of education services. This is deemed to pose a serious risk to the learning and development of our young people under their charge." BIA then proceeded to sue the Ministry of Education by filing a case with the High Court of Uganda. As a result, the Court issued an injunction to the Ministry, preventing the Ministry of Education to enforce the closure of Bridge International Academies. However, the Court ruled in favour of the Ministry on November 4, 2016 to uphold the decision to halt the operations of this private for-profit schooling business found to be operating unlawfully in the country. I felt vindicated; like I could finally put everything behind me. But little did I know it was a long way from being over.

[1] https://publications.parliament.uk/pa/cm201719/cmselect/cmintdev/367/367.pdf

On December 2, 2016 I was notified that BIA had written allegations to the University of Alberta accusing me of inappropriate academic behaviour under the University's Code of Student Behaviour. This attack felt much more personal than what transpired while I was in Uganda. This multinational company was now targeting me at my home university. BIA utilized the mechanisms of the University to apply pressure to undermine my academic pursuits. After an investigation carried out by the University, spanning two-months, the allegations were dismissed and no sanctions (such as expulsion or suspension) were taken against me. However, in many ways, the damage was done. What was once considered a place to pursue critical academic inquiries, free of outside censorship and intimidation, felt dramatically different. Every time I stepped on campus for another meeting as part of the investigation, I felt like I was returning to Kyengera police station. During this time, I was forced to face an existential dilemma that I'm sure many doctoral students encounter, but under very different circumstances. *Do I even want to finish my degree? Do I want to be a part of a system that can be so easily manipulated by powerful private actors to re-traumatize and intimidate researchers?* I wasn't sure if I'd be able to complete my PhD even if I wanted too.

Suffice to say, this experience left me shaken. Yet, it also reinforced my convictions and passion to do this work. It undoubtedly shaped me, my doctoral student experience, and my researcher positionality. It also forced me to reconsider my research program and the design of this thesis. As a result, this dissertation now takes the form of a "paper-based thesis" consisting of three published (or publishable) journal articles (Chapters 6[2], 7[3], & 8) for which I was the sole author of each. As the sole researcher, author, and creator of these papers, the design of the research program, collection and analysis of data, and manuscript composition are my own

[2] Riep, C. (2019). Fixing contradictions of education commercialisation: Pearson plc and the construction of its efficacy brand. *Critical Studies in Education*, *60*(4), 407-425, DOI: 10.1080/17508487.2017.1281828.

[3] Riep, C. (2017). Making markets for low-cost schooling: The devices and investments behind Bridge International Academies. *Globalisation, Societies and Education, 15*(3), 352-366, DOI: 10.1080/14767724.2017.1330139.

original works. And so, the past is now behind me – my doctoral requirements nearly complete. For that, I have to thank all of you that provided support and guidance along the way. This dissertation stands in solidarity with all researchers and social justice practitioners and activists at-risk.

Curtis Riep

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This dissertation is dedicated to the life and memory of Professor Emeritus Jerrold L. Kachur.

Your relentless spirit will live on in those you touched.

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First and foremost, I would like to extend my deepest gratitude to my supervisor Dr. Jerry Kachur, whom we tragically lost on June 14, 2020. I applied to the Department of Educational Policy Studies at the University of Alberta in 2014 to undertake my doctoral studies under the supervision of Dr. Kachur, based on the respected recommendation I received from my master's supervisor, Dr. Susan Robertson (whom first inspired me to pursue a PhD). So, Jerry was with me from the very beginning of this journey. And I only wish I could say he was with me till the very end. Still, he remains with me. Not physically, but intellectually. His sacred teachings live on through me, and through others. His shrewd intelligence is a scar that all who knew him will bear. Jerry was not just my supervisor, he was a friend, a teacher, and a mentor. Some people come in and out of our lives but their impact is everlasting. I believe Jerry is one of those people because of the supreme mentorship he bestowed during my doctoral studies. He will be missed, but never forgotten.

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To my fellow peers and classmates who shared parts of this journey with me at the University of Alberta and in the Department of Educational Policy Studies, thank you. Peer engagements, dialogue, and deliberation are what make the university experience so special. Although we pursued doctoral studies in different universities in different provinces, thank you to my close friend and colleague Mark Machacek for your intellectual companionship and inspiration throughout the years, dating back to high school. I wish to express appreciation to my father-in-law David Ross for his first-hand impressions and teachings on corporate greed.

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Chapter 1

Introduction

This chapter will begin by structuring the social problem (and subproblems) at the root of this inquiry, which I argue is the neoliberalization of education. The ideological, ideational, and institutional currents of neoliberalism are traced historically and geospatially. The neoliberalizing project will forever be linked to the regimes of Ronald Reagan and Margaret Thatcher, but in large parts of the world, neoliberalism is known as the "Washington Consensus," propagated globally by international financial institutions and supranational organizations. Neoliberalization has impacted all aspects of education, from policy and planning to instruction and administration, rendering the sector largely a by-product of economic principles and financial logics. I argue that the neoliberalization of education involves contradictions resulting from capitalist restructuring, taking place globally and unevenly, that characterise efforts to produce social hegemonic formations. This chapter will then conclude with a brief overview of the research objectives and format of this dissertation.

1.1 Statement of Problem (and Subproblems)

Education is intrinsically connected to human development, cognition, consciousness, and our connections with the natural and social worlds. It is essential to life in many ways—cognitively, socio-culturally, politically, and ecologically. It is one of the most central ways through which a society systematically passes on collective wisdom and knowledge from one generation to the next through processes of active, critical engagement—and that "ability to acquire knowledge and culture, is one of the fundamental purposes of civilization" (Piketty, 2014, p. 308). In its ideal state, education constitutes a cornerstone of social justice, equity, democracy, liberation, autonomy, community, cohesion, and moral and ethical progress. Systems of education therefore reflect *how society cares* for its present and future generations. To be clear, the term "education" is used here, and throughout this dissertation, to refer to publicly regulated, run, and/or delivered mass institutionalized schooling, which is more oriented towards sociological than philosophical aims and more institutionally-oriented than merely learning, learning systems, socialization, and so on. In 1916, during a period of growing nationalism and industrialization in the United States, American philosopher John Dewey, claimed: "Education is not preparation for life, it is life itself" (1916, p. 239).

Today, however, life is governed, above all else, economically. Much of the world has now entered, or plans to enter, a post-industrial phase of capitalist development based on denationalizing and globalizing knowledge-based economies. Education, in turn, has increasingly been rendered as a sector guided by financial logics, economic principles, and capital accumulation strategies; laboring towards the formation of a "market civilization" (Gill, 1995). The conception of education as being part of the "commons," as a societal or public good, is slowly giving way to pressures of marketization, privatization, and commodification—and thus, reimagined, reconfigured, and re-appropriated as an object of trade, increasingly for sale, based on individual competition and consumerism. Such educational changes are not only reproducing social inequalities, they are widening the gap. At the same time, new market actors have become

increasingly involved in educational policy, planning, and delivery. As sociologist of education Basil Bernstein observes: “The principles of the market and its managers are more and more the managers of the policy and practices of education” (1996, p. 87).

Of course, the participation of market actors and interests in education are hardly new phenomena. But what is new, is the conception of education as a sector that is increasingly denationalized, globalized, and managed by de-territorialized organizations and private firms that view it as an untapped market to grow wealth and profitability. As a result, global education industries have emerged and flourished. Globally, the education sector today, including K-12 schooling, higher education, and lifelong learning, is estimated to be worth US$6-8 trillion-dollars (Hartnett, Leung, & Marcus, 2014)—a market that continues to grow as more and more of the education state is privatized and commercialized. Constituting such processes are conditions, constructions, and contingencies rooted in neoliberalism and its relationship to education.

Seen as the political form of globalization, neoliberalism has taken shape unevenly in various geographies, not as a global state but a global system of multiple local states, inspired by American-born free-market capitalism (Wood, 2003). With the spread and diffusion of neoliberalism, education sectors around the world have undergone processes of liberalization, marketization, and privatization—while progressively rendering systems of education as markets for investment and profit-making. Neoliberal globalization, therefore, represents the broad political, ideological, and cultural ecology giving rise to corporate-sector participation and authority in public-sector education, and thus, represents the social problem at the core of this inquiry.

Problematizing neoliberalism, however, first involves identifying what it is and defining its common features. Definitional clarity, however, can be convoluted given the nature of neoliberalism, and because “there are as many varieties of neoliberalism as there are social formations to neoliberalize” (Peck, 2010, p. 15). Neoliberalization reflects processes of uneven and unequal development across various sites and locations, and with different modalities and styles.

To account for variations of neoliberalism, Jamie Peck suggests that "understanding the nature of neoliberalism is to follow its *movements*, and to triangulate between its ideological, ideational, and institutional currents, between philosophy, politics, and practice" (2010, p. 8). Following this approach then, the historical "movements" of neoliberalism (as a globalizing set of ideas and institutional shifts) can be traced back to the Mont Pelerin Society and the philosophical thinking of Friedrich von Hayek and Milton Friedman, put into practice under Margaret Thatcher and Ronald Reagan, and the "Washington Consensus" propagated by international financial institutions (see Gill, 1995; Harvey, 2005; Larner, 2000; Olsen, 2018; Peck, 2010; Peck & Tickell, 2007; Pijl, 1998).

Arguments for *neo*-liberal *rationality* have existed since at least the 1920s, illustrated by the rise of Ordoliberalism in Germany, reconstruction economics in Austria, and the proto--"Chicago School" associated with Henry Simons at the University of Chicago. Under the leadership of Hayek, these early formations of neoliberal thinking were conjoined and sustained through meetings of the Mont Pelerin Society beginning in 1947, which signaled the beginning of a transnational project around neoliberalism. The philosophy of Ordoliberalism was relatively conservative by contemporary neoliberal standards, suggesting that market capacities and efficacy could only be fully realized if embedded in strong legal and social frameworks, which included state management and interventions to ensure market order. For Ordoliberals, nineteenth century laissez-faire capitalism conveyed limitations that required "'market conforming' interventions on the part of the state" (Peck, 2010, p. 17). In the USA, by 1946, the "Chicago School" of economic thought had organized around the ideological leadership of Milton Friedman and the promotion of a kind of "wild west" or libertarian capitalism. Friedman was dogmatically anti-statist and vehemently promoted the idea that markets should be entrusted with strict autonomous powers. Foucault described this *neo*-liberal ideological formation as "anarcho-liberalism" (2008, p. 161). The Chicago School, therefore, differed from the Ordoliberal position regarding the role of the state in market functioning. However, the common enemy

among these two positions was Keynesianism and any related models linked to socialism/collectivism embedded in prior European or American state formations. By the late 1960s, the neoliberal project tended towards the Chicago line of thinking under Milton Freidman, which gained an even wider audience in the years following as Keynesian economics and welfare-state planning came increasingly under attack by political and corporate elites.

By most accounts, neoliberalism (as a hegemonic trend in the making) was activated in the 1970s. An important geopolitical site in the historical transgressions of neoliberalism was Chile, which became the laboratory for Chicago-style neoliberalism following a coup d'état in 1973. Supported by the U.S. government, U.S. corporations, the CIA, and domestic elites in Chile, the socialist president, Salvador Allende, was overthrown and replaced by dictatorial ruler, Augusto Pinochet. Under Pinochet the "Chicago School" revolution took place in Chile, which included neoliberal "shock therapy" (see Klein, 2007) based on free-market restructuring, privatization, deregulation, tax cuts, and cuts to social spending. Milton Friedman and Friedrich von Hayek of the Chicago School of Economics, along with the "Chicago Boys" (a group of Chilean students who studied at the Chicago School) advised Pinochet on the neoliberal experimentation taking place in Chile. These actors resemble the "policy entrepreneurs" that later became instrumental in privatizing education sectors worldwide through new sources of private influence and authority (Ball, 2012). Friedman advised Pinochet to reduce state obligations and allow competition and consumer demand to displace the norm of "public" services by expanding free-markets in their place in order to "greatly facilitate the transfer of enterprises and activities still in the hands of the government to the private sector" (Friedman, 1975). Markets, rather than the state, became the method for allocating economic and social goods, including education (Haughney, 2006). Neoliberal shock treatments applied to Chilean education in the 1970s resulted in a series of market-based reforms that still persist including: deregulation, privatization, reduced public spending, "shared financing," competition, the constitutionalization of for-profit schooling, and a comprehensive voucher system for school financing (Bellei, 2005;

Cabalin, 2012; Elacqua, 2011). For-profit education companies have proliferated as providers in this increasingly privatized, yet state-subsidized, system (signaling the mass transfer of public monies into private hands). Events in Chile beginning in the 1970s, therefore, mark the early period of neoliberalization of education with which this study is concerned.

Beyond this neoliberal experimentation in Chile, led by the Chicago School and enforced with state violence, a wave of economic crises mounting in the 1970s, particularly in the United States and United Kingdom, provided the historical opening for the neoliberal project to further extend itself as a macroeconomic model. "Only a crisis – actual or perceived – produces real change," Friedman famously wrote (1962, p. ix). Hence, when stagflation deepened and Keynesian foundations began to crumble as the dominant model of economic and social development in the 1970s, the conditions were "right" for neoliberal change. Under conditions of macroeconomic instability and institutional "crises"—whether actual, perceived, or engineered—neoliberalism grew, bringing with it a logic of market fundamentalism that represented both an altered, yet rationalized, set of new economic realities.

Subscribing to market-oriented reforms propagated by Friedman, neoliberalism was implemented in variant forms during the 1980s under Margaret Thatcher in the UK and Ronald Reagan in the US. In 1979 Thatcher launched neoliberalism (or Thatcherism) in the UK. Thatcherism represented an attack on society and the Keynesian state; characterizing a new contradictory formula of *governance* based on principles of "free economy and strong state" (Gamble, 1988). Not long after, in 1981, Reagan unleashed his brand of neoliberalism in the US based on free-market or "trickle-down" economics. It was also referred to as "voodoo economics" because it mixed opposing forms of monetarism and supply-side economics. Both cases of neoliberalization in the UK and US highlight the discernible "roll-back" and "roll-out" elements of neoliberalism (Peck, 2010). Roll-back processes represent the "destructive" and deregulatory moments of neoliberalization, including state withdrawal/retrenchment, deregulation, dismantling alien institutions, contracting out, disorganizing sites of power and devolution,

privatization, public expenditure cuts, liberalization, de-unionization, and disciplining potentially unruly subjects (Peck & Tickell, 2007). Meanwhile, roll-out processes represent the "innovative" and re-regulatory moments of neoliberalization, including new modes of govern*ance*, "new public management" (i.e., management by audit), experimental re-regulation, market conforming interventions, low-cost/non-state service provider expansion, public-private partnerships, financial re-regulations and standardization, production of flexible labour, and regressive taxation (Peck & Tickell, 2007). Not coincidentally, and most importantly for this study, these roll-back and roll-out processes of neoliberalization have also come to define the key moments, mechanisms, and events in the expansion of global education industries.

In their various ways, the vanguard regimes of Thatcher and Reagan institutionalized the neoliberal project, nationally and locally, and increasingly through their spheres of influence abroad. The "conviction politics" of Thatcher and Reagan during the 1980s, in turn, signal important watershed events that mark the periodization of neoliberal education reforms in which this study is historically linked. Under Thatcher and Reagan, significant decisions were made to lower taxes on corporations, transfer public-sector authority to private actors, and minimize the role of the state in managing market activity (Pierson, 1994)—which would result in public education becoming increasingly governed by the principles and logics of the market.

In 1979, the United Kingdom elected Thatcher as prime minister. She introduced the first major public spending cut to higher education, which suffered considerably in the decades following. The 1988 *Education Reform Act* ratified under Thatcher, however, entrenched a number of profound principles, objectives, and discourses that still steer educational policy and reforms in the country, such as the introduction of school "choice," managerialism, and challenges to the curriculum authority of professionals.

First, Thatcher accepted and spread the Chicago School idea that publicly delivered and funded services are inherently prone to inefficiency and poor quality, due to inadequate competition and consumer choice, which is meant to improve the performance and quality of

public sector services (Dorey, 2014). This neoliberal belief in "marketization" is meant to introduce or extend the principles and practices of the private sector, such as choice and competition, while disparaging state "interference." This principle reflects the neoliberal mantra that *consumer choice + institutional competition = improved standards*. Marketization also facilitates the increasing involvement of the private sector in delivering, funding, shaping, and sponsoring education services and programs.

Second, Thatcher extended and intensified managerialism and "new public management"—which are key characteristics of neoliberal education reforms whereby the power and autonomy of teachers and local education authorities are deliberately eroded and supplanted by stricter managerial control and bureaucratic hierarchies, coupled with the imposition of various performance indicators and targets (Dorey, 2014). In turn, Thatcher's education reforms "spawned a new regime of inspections and audits both of individual and institutional performance and goal attainment, invariably couched in a discourse of accountability, transparency and value-for-money" from primary to university-level education (Dorey, 2014, p. 109). This "audit culture" in education associated with Thatcherism, problematically, defines what is important as that which can be directly measured and quantified, while excluding other aspects that cannot.

Third, and linked with new managerial reforms under Thatcher, the model challenged the teaching profession itself and promoted a growing distrust, or lack of confidence, in the authority of professional knowledge and curriculum content. Educational managers and leaders popularized the view that front-line professionals and their representative organizations were part of the educational "problem" that needs to be fixed. The linkage to postsecondary education systems and preservice education and basic research was also challenged. Rather than consulting education departments directly, Thatcher preferred seeking advice and creating space for New Right think tanks to guide education policy and reforms (e.g., the Adam Smith Institute, the Centre for Policy Studies, and Institute of Economic Affairs) (Dorey, 2014). Since the 1980s, the type of courses, curricula, content, and skills delivered by schools and universities in the UK have

become ever more responsive to the needs of business and employers. Although not an entirely new phenomenon, processes of globalization intensified this link between education and the economy, which has legitimized education reforms on the basis of ensuring "that Britain has a workforce which can contribute to the requirements of the economy in an increasingly competitive international market" (Dorey, 2014, p. 130-131)

Across the Atlantic in the USA, in 1980, Ronald Reagan was elected the president of the United States setting in motion a wave of corporate education reforms that are still flooding the country. Three years into Reagan's first term, his administration released *A Nation at Risk: The Imperative for Educational Reform*, reflecting a remarkably critical and far-reaching denunciation of public education. The landmark document written by the National Commission on Excellence in Education infamously warned:

> Our nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world…If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. (1983, p. 7).

A Nation at Risk claimed the people of the United States and the nation itself was in danger of losing its position among nations as the global leader of economic competition due to an underperforming education system. For Reagan, the goal was to make America more competitive in the world economy, and public education was public enemy #1 in this quest. As president, Reagan cut federal spending on education by half and took steps to reduce the responsibility of the federal government in the sector, while increasing state power over education through budgetary re-allocations, shifts in command, and new accountability regimes, which came at the expense of local school districts. Privatization efforts, including charter schools, corporate sponsorship in schools and universities, and school "choice" and competition, began to intensify under Reaganomics. In turn, *A Nation at Risk* marks a significant historical event in which corporate actors and market managers were given an unprecedented level of influence and

authority over the future of public education in America—and this ideology spread as did the hegemony of the US empire.

In Alberta, for example, a localized form of Thatcherism and Reaganomics took shape under the premiership of Ralph Klein beginning in 1993. Referred to as the "Klein Revolution," this local variety of neoliberalism involved deep budget cuts (more than 20%) in public spending, including massive spending cuts in K-12 schooling, higher education, and healthcare (Taylor, 2001). In turn, private and corporate sectors gained more influence through new partnerships and modes of governance that promoted privatization and marketization. In the process, education was brought further in line with economic rationalism and managerialism. Since 1993, the government of Alberta has justified education reforms on the basis of economic competitiveness (in order to bring the system in line with the principles of private industry and "human capital" development) and moral conservative grounds (to draw a direct correlation between an inept public education system and social and cultural deterioration). In 1999, Jerrold Kachur and Trevor Harrison observed that:

> These proposals included increased links between school and work; enhanced 'streaming' of students into education programs; increased educational emphasis on scientific, mathematics, and technology as a means of addressing the Canadian economy's productivity decline; the reorganization of schools based on new managerial practices used in transnational corporations; greater use of performance measures to assess school quality; greater public choice in education to improve efficiency and accountability in school systems and increased fiscal austerity ('doing more with less'). (Harrison & Kachur, 1999, p. xx).

Corporate education reforms in Alberta are linked to globalizing neoliberal developments, which became deeply rooted in this locale as a result of the fertile political culture that existed and was ripe for the "New Right" ideology that had already gained prominence in the UK, US, and New Zealand. Alberta, therefore, is one of the earliest examples of how neoliberalism impacted educational restructuring in Canada at the provincial level. At the national level, for example, the International Monetary Fund's "Structural Adjustment Programme for Canada 1994-1995" instructed the Minister of Finance, Paul Martin, to shift how higher education in Canada was

funded, resulting in decreased federal transfers to post-secondary education, increased student tuition, and institutionalized student loan access (IMF, 1995).

The neoliberalizing project will be linked eternally to the regimes of Ronald Reagan and Margaret Thatcher, but in large parts of the world, neoliberalism is known as the "Washington Consensus." Propagated globally by international financial institutions such as the World Bank and International Monetary Fund, the "Washington Consensus" has come to be associated with policy prescriptions of privatization, deregulation, trade liberalization, and market expansion. Structural adjustment programs (SAPs) and loan conditionalities, for example, have forced governments in both the "developed" and "undeveloped" world to set market forces free and open-up their economies *and education sectors* to free trade and foreign investment, while implementing certain visions of "good governance" based on market logics and corporate principles. Neoliberalism (under the label of the Washington Consensus), therefore, can be viewed as a type of "transnational pressure to release economic activity from state regulation" (James et al., 2010, p. 629, citing Olssen, 2004). In doing so, the Washington Consensus has steered institutional change and economic activity in various settings through transnational pressures since the 1980s, which in turn, has contributed to a worldwide infrastructure *for* neoliberal globalization.

Take, for example, in 1994 the World Trade Organization's General Agreement on Trade in Services (WTO/GATS) which effectively transformed education services into an internationally tradable commodity as a result of the rules and laws stipulated by this global agreement. Verger and Robertson (2012) argue that GATS was meant to "reshape the architecture of the education sector to include ownership rights, more market-oriented governance structures, the basis of rules of exchange, and conceptions of control that in turn enables a market logic to flourish" (p. 104). Following Stephen Gill (2008), Verger and Robertson (2012) view GATS and the global education services industry as an example of the "new constitutionalism" related to neoliberal globalization, since GATS represents a range of legal instruments that enable pro-market rules to be "locked-in"

the quasi-legal structures of global governance. Other outposts of the American empire including international financial institutions and international organizations, such as the World Bank and OECD, have also been amongst the most committed and influential actors in support of GATS in education.

So, whilst "neoliberalism is intrinsically globalizing, so too is contemporary 'globalization' a direct product of neoliberalization" (Brenner et al., 2010, p. 192). They are symbiotic processes: neoliberalism represents the spread of global capital interests in pursuit of market expansion through new institutional forms and relations, while at the same time, globalization intensifies and extends neoliberal logics of rule where it operates. Still, the state is at the heart of this global system. It continues to create and to maintain conditions of capital accumulation at increasingly global scales, referred to as the "internationalization of capital" (Wood, 2003, p. 133).

Yet, Jamie Peck suggests that "the neoliberal project is paradoxically defined by the very *unattainability* of its fundamental goal—frictionless market rule. Rather than the goal itself, it is the oscillations and vacillations around frustrated attempts to reach it that shape the revealed form of neoliberalism as a contradictory mode of governance" (Peck, 2010, p. 17). Moreover, Shamir (2008, p. 3) offers a useful account of neoliberalism, suggesting that it:

> Is treated neither as a concrete economic doctrine nor as a definite set of political projects. Rather, I treat neoliberalism as a complex, often incoherent, unstable and even contradictory set of practices that are organized around a certain imagination of the 'market' as a basis for 'the universalisation of market-based social relations, with the corresponding penetration in almost every single aspect of our lives of the discourse and/or practice of commodification, capital-accumulation and profit-making' (Carvalho & Rodrigues, 2006, p. 342, citing Wood, 1997).

By following the movements of neoliberalism and triangulating between its ideational, ideological, and institutional currents, and particularly in relation to education, we can now point to some of its common features (despite contradictions and incongruities). Specifying neoliberalism is also "*politically* necessary" for purposeful resistance, focus, and critique (Hall, 2011, p. 9). Following Wendy Larner (2000) then, this inquiry considers neoliberalism as policy,

ideology, and governmentality.

Neoliberalism as policy, or a policy framework, is defined by market rule (and the liberalization of private enterprise from bonds imposed by government); cutting public expenditures for social services (and reductions in social security); privatization (selling state-owned operations, resources, and/or services to private enterprise); de/re-regulation (reduction in governmental regulations that impede profit-making and reformulated regulations that facilitate capital accumulation); "rolling back" state welfare activities and displacing "public goods" and "commons" with an emphasis on "competition" (representing the individual "responsibilization" of welfare and the emphasis on new market provisions of formerly "public" goods and services) (Harvey, 2005; Peck & Tickell, 2007; Peck, 2010). These broad policy dimensions reflect the prescriptive and pragmatic elements of neoliberalization taking place at increasingly globalizing scales.

Neoliberalism as ideology is a complex and hybrid imaginary, rather than a "pure" and coherent philosophy. Although differentially applied and with multiple readings, the ideology of neoliberalism represents a group of ideas grounded in the following values: free market competition; individualism; "freedom" of choice; laissez-faire economics; minimal government; economic growth as the measure of human progress; market efficiency as an allocative method; commitment to freedom of trade and capital; and, belief in innovation and creativity. It is an economic-bounded rationality that views markets as the "best" way to organize social, and by extension, economic activity since they are associated with competition, efficiency, and choice. These ideas have been promoted by think tanks and corporate and political decision makers, and further backed by powerful international organizations. Neoliberal ideology assumes that growth and prosperity (at least for some) will prevail following the implementation of liberal capitalist social re-programming. As Alex Callinicos observes, the ideology of neoliberalism

> …asserts that the institutions of liberal capitalism are uniquely suited to release distinctively human powers, in particular those of creativity. So – once the right institutions and policies are in place, as specified by the structural adjustment

> programmes favoured by the International Monetary Fund and the World Bank and by codes of 'good governance' drafted by these and kindred international institutions – there should predictably follow a welter of innovations (and a rise in productivity and in the rate of output growth) reflecting the liberation of human creativity (2006, pp. 1-2).

Thus, the ideology of neoliberalism trusts in the potential for innovation, improvement, and growth of individual persons that is believed to be unlocked by free-market capitalism.

Neoliberalism as governmentality marks a shift toward post-structuralist interpretations, or more-specifically, Foucauldian conceptions of neoliberalism. Foucault's notion of governmentality can be conceptualized in three ways. Firstly, it is the "governmental rationality," or "art of government" from which particular strategies, techniques, practices, discourses, and technologies of rule become the methods of a socio-regulatory project (Foucault, 1991; 2003). Secondly, and related to the first, Foucault's conception of governmentality can be seen as a historically specific form of power, reflected in the genealogy of the state. For example, the notion of governmentality "makes a useful distinction between government and governance, and argues that while neoliberalism, may mean less government, it does not follow that there is less governance" (Larner, 2000, p. 12). Thirdly, governmentality is conceived by Foucault as "a form of activity aiming to shape, guide or affect the conduct of some person or persons" as a way to "implement power effectively or maintain it" within society (Foucault, 1982, p. 793; Gordon, 1991, p. 2). Concisely put, it is the "conduct of conduct" (Foucault, 1991)—whereby conduct is shaped not by force but rather compliance or impulse. Thus, neoliberalism as governmentality can refer to a kind of deep-rooted mentality in individuals and societies (such as the "entrepreneurial spirit" or "protestant work ethic") by which human conduct, behaviours, desires, anxieties, and so on, are shaped towards certain (economic and social) ends, which is certainly (re)produced by education systems.

As a social problem, it is important to underline that the neoliberalization of education is both a social *construction* and product of certain *conditions*. It is a social construction in that such

processes need not exist as they do, nor at all. Neoliberalizing education is not an inevitability nor a natural evolution of things. It is a social construction stemming from a multitude of ideas, objects, conditions, and contingencies that also constitute the global education industry. It is a sociohistorical construction deriving *from* certain public policies and governance methods, certain constructed beliefs of public and private schooling, the construction of international trade agreements in education, the construction of transnational standardizations in education, and so on. Hence, it is a construction originating from other preceding social constructions. "Ironic constructionism" refers to how *X* "became so entrenched; it did not have to be, but now it is so much a part of our way of thinking, we cannot escape it" (Hacking, 1998, p. 21). In turn, "social construction work is critical of the status quo" (Hacking, 1998, 6). This inquiry aims to achieve a form of "unmasking constructionism" which "does not seek to refute ideas but to undermine them by exposing the function they serve" (Hacking, p. 21). For example, global education industries make use of certain perceptual and linguistic ideas, such as school "choice," competition, efficiency, "partnership," "personalization," "innovation," "outcomes," "world-class," "21st century skills," and so on, to advance neoliberalization in education. Working in a critical realist fashion, this interpretation asserts a stratified ontology in which the *reality* of the social problem described (i.e., neoliberalization of education) is both discursively and materially constituted.

Hence, in addition to social constructionism, conditions—in the form of structures, institutional currents, and normative values—constitute the regulative situations in which neoliberalism is embedded in socio-material configurations that exist in the "real" world and span diverse sites and locations. In the education sector, certain conditions do not inevitably lead to problematic social outcomes but they are acted on and, in turn, activated by individuals and organizations that operate in situations, settings, and arrangements not entirely of their own making. Multinational corporations, therefore, act on the discursive and material conditions of neoliberal globalization in search of new markets and production sites to serve their own private, profit-maximizing interests. In turn, this study is concerned with the ways in which transnational

corporations both act on and advance particular conditions of neoliberalization in education. Yet, it is not the conditions *per se* that are the problem, but rather how conditions are acted upon by interested agents or parties—or in this case, global edu-businesses.

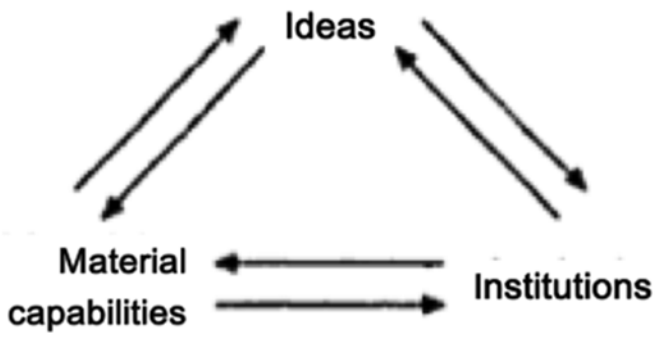
This preceding discussion of neoliberalization and education brings us to an interrelated problem at the core of this study, that is, the way in which relations of (public and private) power link neoliberalism and education in an effort to produce hegemony through ideas, institutions, and material capabilities.

For Antonio Gramsci, the notion of hegemony refers to the maintenance of one social group's dominance over other groups through a form of power that does not simply rely on force or coercion but through consent and willing participation of the governed to a "moral and intellectual leadership" (Gramsci, 1971). This "moral and intellectual leadership" actively "represents the basis of consent for a certain social order, in which the hegemony of a dominant class is created and re-created in a web of institutions, social relations, and ideas" (Robinson, 2005, p. 6). Hence, this thesis explores the ways in which corporate education reform, and specifically the global education industry, represent a contested site of production of social hegemonies over subordinate groups through education provisions which aim to (re)produce certain social relations that are foundational to capitalist formations.

International Relations theorist, Robert Cox, postulated that hegemony is constructed and reconstructed through the dialectical interaction of material capabilities, ideas, and institutions (see Figure 1 below). Succinctly put: "Institutions are particular amalgams of ideas and material power which in turn influence the development of ideas and material capabilities" (Cox, 1996, p. 99). This study is concerned with the ways in which education is both representative and constitutive of this Coxian approach to hegemony formation, or rather, the production of hegemony. Education, and in particular the relationship between corporate education reform and hegemony-making, is severely understudied and under-theorized as a matter of international political economy. Institutions of education most certainly represent particular amalgams of ideas

and material capabilities which in turn influence the development of ideas and material power. Ideas, such as those regarding "official knowledge," "general intellect" or "21st century skills," are linked to and realized through material forces including government expenditures, private capital, investments, and industries. They operate to constitute particular institutions of education, which in turn, influence and reproduce the development of ideas and particular constellations of material powers.

Figure 1: Constructions of hegemony



Source: Cox, R. (1996) *Approaches to World Order,* p. 98.

With the rise of corporate sector participation and influence in education institutions, the place of education in the production of hegemonic formations has taken on an increasingly de-territorialized and marketized order in which private firms are shaping the ideas and structures of learning but also the social relations of production. This dilemma can be linked to what Jessop and Sum (2006) argue is the "fundamental contradiction of capitalism":

> This exists between the increasing socialization of productive forces and continuing private control in the social relations of production. Networked knowledge-based economies heighten this contradiction from both sides. On the one hand, the socialization of productive forces is accelerated in a knowledge-based economy by the increased importance of the 'general intellect' (or accumulated knowledge in the form of an intellectual commons) and the increased scope for 'economies of networks' that are generated in and through multi-actor, polycentric and multiscalar networks . . . In particular we can discern a growing tension between the logic of an information society (based on the collective appropriation of the use value generated by the general intellect and network economies) and the logic of an information economy (based on the private appropriation of the exchange values generated by the fictitious commodification of knowledge and the capacity to capture networks for private benefit) (p. 343).

The global education industry reveals this contradiction, and also works to amplify it, insofar as private control and influence in systems of education (increasing as a result of neoliberalization) enable corporate actors to exercise more authority over social relations of production since they structure that which disseminates and transfers the "official knowledge" deemed "useful" and employable. From a Gramscian perspective, the global education industry then can be considered part of a hegemonic apparatus, or transnational historical bloc, through which forms of "common sense," in support of a specific group's interests, come to be constituted. As economic actors increasingly influence more and more corporate education reform, those who consume education in its commodity forms also become socialized as productive forces in capitalist economies—which underlines the fundamental contradiction of capitalist education. That is, the contradiction that exists when private authority shapes public sector education in ways that further socialize productive forces and the social relations of production that serve the profit-maximizing interests of corporate rule and the maximization of shareholder profit.

On one hand, education is seen as a solution to the problem of inequality that can "change the world" for the better by guiding processes of economic development, growth, prosperity, innovation, and well-being. Renowned economist, Thomas Piketty, for example, contends that global social inequalities are the result of mass concentrations of capital, and "the best way to reduce inequalities with respect to labor…is to invest in education" (2014, pp. 306-7). Yet, on the other hand, education must also be recognized as an institution involved in both the production and social reproduction of capitalist societies. And while education is a contested site of neoliberal rule, it remains a "key institution in producing social relations, including class, race and gender, which in turn mediate income and wealth inequalities" (Robertson, 2016, p. 824). Global processes intensifying education as a new frontier of commodification undeniably produce certain social relations. Those benefiting from such relations, including the global education industry, only heighten the "fundamental contradiction of capitalism" and corollary social problems that arise from it, while further displacing education and its potential to work towards social justice

and cultural, cognitive, and economic freedoms.

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To summarize then, the above discussion of social contradictions, neoliberal globalization, and its relationship to corporate education reforms represent the foundational social problem with which this inquiry is broadly concerned. Globally, the neoliberalization of education has impacted all aspects of the sector – from policy and planning to instruction and administration – to align it with financial principles, business logics, and capital accumulation strategies. In turn, such processes have given rise to newly emergent and rapidly-expanding global education industries. Hence, this dissertation explores the ways in which global education industries, and the private firms constituting them, act on certain conditions to (re)construct certain practices of education, which are also producing and reproducing social relations and capitalist formations that represent a key social problem within the current neoliberal order.

1.2 Research Objective

Transnational corporations represent increasingly influential actors in global education policy and governance, yet oftentimes remain overlooked by educational researchers and scholars. The aim of this research is to critically explore, describe, and explain how global edu-businesses extract surplus value from systems of education through the commodities they produce, the devices they employ, and the discourse and ideas they construct as part of their capital accumulation strategies. In doing so, this research will assess three leading firms from the global education industry – Pearson, Microsoft, and Bridge International Academies. Due to their significant position, scope, scale, and influence, these firms are purposefully sampled to develop empirical generalizations, interpretive understanding, and speculative hypotheses regarding the operations and impact of transnational corporations in education.

The following questions guide this inquiry: (1) what commodity forms, devices, and ideas are produced and drawn upon by firms to re-contextualize, re-appropriate, and re-formulate

education as an object of trade and consumption? (2) how do these objects enter policy discourse, pedagogic discourse, and everyday practices and experiences? and (3) how do they contribute to remaking power relations, their logics, and dynamics in and across diverse social fields? The aim of this research is to advance knowledge regarding commercialization and privatizations in/of education by formulating an explanatory critique of the underlying conditions, tendencies, and mechanisms that continue to stabilize and expand the global education industry. In turn, this research will have theoretical and practical significance for policy-makers, educators, students, and citizens concerned with educational governance, planning, and financing in a globalizing context of market-oriented restructuring in education.

1.3 Format of Dissertation

The format of this dissertation differs from the traditional-format of a thesis comprising chapters of a single subject. While the specialized subject matter of this study is the Global Education Industry, the "body" of this thesis includes three independent papers in journal-article format – each on a different education company – rather than chapters that may rely on each other in order to read the dissertation as a single coherent body of work. Hence, the format of this dissertation is a paper-based thesis in which three published, or publishable, papers in journal-article format constitute independent components of the dissertation. In addition to journal article-based chapters that illustrate the "findings" of such work, paper-based dissertations must also include introductory and conclusory chapters, as this thesis does. The format of this dissertation does however include supplementary aspects of a traditional monograph-style dissertation since it also includes chapters on key concepts (Chapter 2), theory (Chapter 3), social scientific philosophy (Chapter 4), and methodology (Chapter 5). Following these chapters are journal articles on Pearson (Chapter 6), Bridge International Academies (Chapter 7), and Microsoft's *Minecraft* (Chapter 8). The papers that make up Chapters 6 and 7 were published in *Critical Studies in Education* and *Globalisation, Societies and Education*, respectively, which are both peer-

reviewed scholarly journals. At the time of submission of this dissertation, Chapter 9 had not yet been published.

Each firm (including Pearson, Bridge International Academies, and Microsoft) is analyzed separately, constituting three distinct studies that examine different angles and dimensions of the global education industry. Yet together, these papers form a thematically-linked body of work which represents an original contribution to the field of global studies in education. These papers also provide a published trajectory of my doctoral studies and the way in which this work developed over the course of my degree. For the first two and a half years of my doctoral studies, my primary focus and attention was dedicated to examining the edu-business operations of Pearson—a multinational education enterprise at the forefront of the global education industry. Then in 2016, I was commissioned by Education International as an independent contractor to conduct field research in Uganda to examine the activities of Bridge International Academies (which was completely independent from my doctoral studies at the University of Alberta). Following this research, and the experiences that trailed, my doctoral inquiries expanded beyond Pearson to include other firms constituting the global education industry, including Bridge International Academies. As my doctoral research further expanded, my investigations led me further in to the world of EdTech industries and the involvement and influence of Microsoft in educational provisions. By examining a number of transnational education corporations, I began drawing connections between the networks of investors, modes of production, and regimes of accumulation giving rise to a globalizing education industry. Studying multiple corporate actors also gave me the vantage point to examine the different ways in which they enter, engage, occupy, and alter the education sector and how their business activities constitute different sectors of the global education industry. Thus, while the format of this dissertation is exploratory and somewhat unorthodox in its design, this paper-based thesis aims to present empirical findings that constitute a framework for understanding and unmasking some of the key dynamics,

contradictions, and implications of global education industries and their capital accumulation strategies.

Chapter 2

Key Concepts

Research literature describing and analyzing the ways in which public education has changed since at least the last quarter of the 20th century often conflates the terms marketization, privatization, and commercialization. These expressions signify distinct, although related, characteristics of educational change, which jointly refer to educational processes and conditions giving rise to corporate sector participation in public sector education. In this chapter *privatization*, *commercialization*, and *marketization* – the three pillars of the global education industry – are defined to carefully show how they differ but also interrelate to form new contexts of educational restructuring. The concept of *financialization* is also described. So too is the *global education industry* defined in this chapter since it represents the object of analysis that is at the core of this study. Furthermore, the economic actors constituting the global education industry—aptly labelled, *edu-businesses*—will also be defined. Finally, an overview of *corporate education reforms* will be provided since they represent the broad changes in education resulting from marketization, privatization, and commercialization.

2.1 Marketization

Since neoliberal reforms associated with Thatcher and Reagan, governments around the world have shifted the ways in which they manage the interactions and interests between public institutions and private corporations through "the introduction of market forces" (Ball, 1993). These processes are referred to as marketization. Whitty and Power (2000, p. 94) define marketization as "the development of 'quasi-markets' in state funded and/or state provided services." It is about the institution of market forces, mechanisms, and actors in public-sector service delivery and activities. Marketization has been instrumental in reforming the public sector, from the ways in which the state manages education to energy to healthcare. It reflects the ways in which social life is increasingly governed through market-oriented systems; signalling the shift from *government* to *governance*. It affords new spaces, networks, and opportunities for non-state actors (such as corporate firms) to intervene in governance arrangements (such as education systems). The belief is that by opening-up typically state-funded and provided services to market forces a competitive marketplace is created that will increase the quality of public service provisions, while "reducing" costs to "consumers." In education, marketization is demonstrated by quasi-market schemes including school "choice," competition and vouchers, deregulations, and new accountability regimes meant to legitimize corporate-sector involvement. Stephen Ball (2006) argues that the marketization of education has both economic and socio-cultural impacts by way of the "supply and demand, producer and consumer behavior, privatization and commodification, values and ethics and distributional outcomes" (p. 116). Ultimately, as Hogan and Thompson (2017) observe: "marketization is the combined effect of the privatization of education services and delivery and the opening up of schools and their practices to goods and services from commercial providers with the express purpose of leveraging profit from schools" (p. 2). Marketization, therefore, is the culmination of both privatization and commercialization.

2.2 Privatization

With the dismantling of Keynesian welfare state politics and shift toward consumer welfare economies, privatization has become a "globally converging policy" (Rizvi, 2016, p. 4). Concisely put, Stephen Klees defines privatization as "the transfer or dilution of public-sector control and finance of public-sector activities" (2008, p. 319). Whitty and Power (2000, p. 94) see privatization as a "multi-faceted series of processes" organized around four possibilities: "charging for public services previously paid for out of taxation"; "letting the private sector run a service that continues to be paid for out of taxation"; "selling public services and transferring their functions to the private sector"; and "deregulating the private sector or liberalising arrangements that previously prevented the private sector from competing with state-provided services." Privatization is often implemented as a way to reduce reliance on government provisions due to strains on the existing public system or because of an ideological commitment to neoliberalism. Yet, privatization involves variable methods, meanings, and arrangements. Social theorists such as Bob Jessop (2002) and Stephen Ball (2007, 2012) have noted that the term "privatization" is ambiguous because different modalities emerge based on the relationship between "public" and "private" sectors and the degree to which they interact, finance, collaborate, and/or meld into each other. To account for this public/private intertwining, Degefa (2011) (cited in Rizvi, 2016, p. 5) provides an approach for the study of privatization based on a range of configurations from cost-sharing techniques (public provision and private financing) to restructuring public institutions as business operations (corporatization) to outsourcing arrangements (market provision and state financing) to non-state schemes (market provision and financing). Hence, by virtue of the overlapping dynamics of "the state" and "the market" that produce privatizations (and also marketization), various configurations of corporate sector authority in public sector education are enabled.

Ball and Youdell (2007) also make the distinction between privatization that is "endogenous" and "exogenous." Endogenous privatization refers to the ideas, designs, methods,

and procedures imported from the private sector in order to reform the public sector in ways that make it function more "business-like." This form of privatization is identified in the literature as "new public management" (NPM) and also referred to as "new managerialism" (Ball, 1998; Deem, 1998; Deem & Brehony, 2005; Gerwitz & Ball, 2000; Hall et al., 2015; Lynch, Grummel & Devine, 2012; Peters, 2013; Tolofari, 2005; Verger & Curran, 2014). It refers to the use of business and management models to administer public service organizations in order to improve the efficiency and effectiveness of the state. This type of privatization in education is exemplified by the redefinition of school principal (or headmaster) as school "manager" and the introduction of performance management techniques. On the other hand, exogenous privatization involves the "opening up of public education services to private sector participation on a for-profit basis and using the private sector to design, manage or deliver aspects of public education" (Ball & Youdell, 2007, p. 9). It is characterized by new state forms and modalities (including network governance, outsourcing arrangements, and public-private partnerships) that create new "market opportunities" for businesses and venture philanthropists to get involved in education provisions (Apple, 2001, 2003, 2005; Ball, 2007, 2012; Robertson et al., 2012). This type of privatization, for example, is articulated in terms of school "choice" – meant to increase competition and standards – resulting in higher levels of (increasingly for-profit) private forms of schooling. In various contexts this has resulted in "the reconstitution of the role of the state from that of service delivery to a combination of regulation, performance monitoring, contracting and the facilitation of new providers of public services" (Ball, 2012, p. 36). So, while marketization is about the incorporation of market mechanisms, devices, actors, and techniques into new governmental arrangements, so too is privatization, but it is also about selling-off public services and transferring their functions to the private sector.

2.3 Commercialization

As more and more of the education state is marketized, privatized, and outsourced in various geographies through a series of reforms designed to introduce competition and increase standards of efficiency in service delivery, new "market opportunities" have arisen. In turn, companies have increasingly entered the education scene in search of profitable openings to produce, sell, and market their educational commodities. Thus, "commercialization is [about] the creation, marketing, and sale of education goods and services to schools by for-profit providers" (Hogan and Thompson, 2017, p. 11). It is an outcome of privatization and marketization but it also advances these processes (through production and supply, by shaping consumer behaviours, mediating transactions, and so on). Commercialization refers to education in its various commodity forms. It involves the producers and sellers of educational goods and services, and therefore, is underpinned by education industries around the world. Commodities created by education industries and sold to education authorities and institutions operate across all three educational "message systems" – pedagogy, curriculum, and assessment (Ball, 2012, p. 127) – including testing, learning materials, instructional tools, and instructional services. Paying user fees for educational access and accreditation can represent both a form of commercialization and privatization depending upon whether or not the consumer is paying a private entity (commercialization) or a publicly-funded and/or provided service establishment (privatization). On account of marketization, privatization, and commercialization a global education industry has emerged, which represents a dramatic shift towards non-state power and private authority in provisions of education.

2.4 Financialization

While commercialization refers to education in its commodity form, education has also been turned into an asset as part of the speculative, investment logic of finance capitalism. As such, there is a distinction to be made between commodification and *financialization* in which the former is based on markets and the latter is based on finance in the determination of modern

capitalist developments. Yet, this does not mean these two processes are mutually exclusive since market dynamics can and do guide financial investments and capital investments can and do build markets. Nevertheless, financialization usefully characterizes contemporary capitalism according to Chiapello (2014, 2015), as a process of colonization by finance in and across economic, political, and social contexts through various kinds of financialized valuations. In turn, authors such as Birch and Muniesa (2020) argue "the dominant form that technoscientific capitalism affords is not the commodity but the asset, and that the financial contours it entails are not those of market speculation but of capital investment" (1-2).

For Birch and Muniesa (2020), the essential component of financialization is the asset, which is a financialized object or form of capital (material or immaterial) that is a productive force and not just a commodity—it can "mean something that can be owned or controlled, traded, and capitalized as a revenue stream, often involving the valuation of discounted future earnings in the present" (p. 2). Education then, has increasingly been turned into an asset: financed, managed, traded, and treated as an investment in future earnings. The modernization of public investment and public management of education demonstrates this as policies, budgets, and curricular outcomes are guided by financial valuations and returns on investment as much as anything else. In turn, the public nature of education is ever-changing, illustrated by shifting financescapes that are driving performance metrics, competitive rankings, public "choice" paradigms, tuition fees, and so on, which demarcate the valuations of educational programming as an investable opportunity and newly financialized, profitable asset. Financialization, therefore, is an important dimension of capitalist restructuring in education denoting capital investments in the global education industry.

2.5 Global Education Industry

Globally, the education sector is estimated to be worth at least US$8 trillion dollars, and growing (Hartnett, Leung, & Marcus, 2014). In the US alone, the education market was valued at US$1.35

trillion in 2017 and it is expected to grow to more than US$2 trillion by 2026 (Zion Market Research, n.d.). As an emergent industry, the global education industry (GEI) intends to extract surplus value from this multi trillion-dollar sector that has remained largely untapped by market forces, that was, up until the neoliberal turn of the 1980s and 90s.

In terms of neoclassical economics, an industry refers to rational, self-interested parties interacting in the production and exchange of goods and services, whereby the classification of industries is defined by the behaviours of business. Andrews (cited in Nightingale, 1976) has described the "chief characteristic of an industry" as

> …largely a matter of technique and processes; an individual business must be conceived as operating within an 'industry' which consists of all businesses which operate processes of a sufficiently similar kind (which implies the possession of substantially similar technical resources) and possessing sufficiently similar backgrounds of experience and knowledge so that each of them could produce the particular commodity under consideration. (1951, p. 168)

For this inquiry, the particular commodity under consideration is "education," which is far from homogenous but increasingly is so due to processes of globalization and standardization. At the same time, however, market developments and "innovations" are creating new lines of educational products and services at an unprecedented rate. The methods, ways, practices, and techniques of education (i.e., how education "is done"), however, remain polymorphous due to varying cultures, geographies, resources, and so on. Hence, in the context of education, it may be more appropriate to speak of global education industr*ies*, rather than a singularly uniform industry. However, there are foundational elements including technical, material, institutional, and social relational characteristics around which an education industry can be conceived.

This study takes an approach to industrial enquires that is sociological and based on political science perspectives. As a heuristic and conceptual device – and following the approach advanced by Pierre Bourdieu (1993) – Verger, Steiner-Khamsi & Lubienski, (2016) view the GEI as a "social field," that is, "as a structured social space with its specific institutions, forms of agency and power practices; in this space, different actors struggle for the expansion, transformation

and/or reproduction of the field, as well as for having an advantageous or dominant position in it" (p. 11). Representing a quasi-sovereign "social field," Verger et al. (2016) view the GEI as an economic sector constituted by its own set of rules, regimes, policies, and social forces, in which a wide range of educational goods and services are produced, exchanged, and consumed. It is opening-up the provision of education goods and services to a wide range of transnationally-configured processes and private actors. In turn, the education sector has been subject to competitive dynamics between private providers that also operate in opposition to conventional public providers, which increasingly mimic the private sector (through "new public management" techniques) in order to be more (cost-)efficient and competitive within the global education market (Ball, 2012). The GEI is progressively advancing the reconfiguration of education from a traditionally de-commodified, public good towards something that is increasingly bought and sold through the mechanisms of a state-sanctioned marketplace and international trade. Like any industry, the GEI is driven by profit motives and capital accumulation strategies; while access to global financial capital and new markets are further bolstering the activities of the GEI and its territorial and institutional expansion (Verger et al., 2016).

Traditionally, market opportunities in education have existed mostly in the pre-kindergarten and post-secondary levels, where the state has been less prominent. However, that has changed significantly over the last decade and a half as for-profit industries have penetrated the primary and secondary levels of education in both the global North and the global South. GEI objects of trade and consumption involve a wide variety of educational services and goods, including publishing, testing and qualification systems, credentials, administration and management products, software, learning tools and materials, and online learning products and services (Ball, 2012; Verger et al., 2016). Some particularly large GEI conglomerates such as Pearson have undergone processes of vertical and horizontal integration as well as business mergers and acquisitions to create a type of "one stop shop" delivering products and services for all areas of learning.

Currently, the GEI is undergoing a period of expansion underpinned by various trends taking place on a global scale. Verger et al. (2016, pp. 6-11) identify six significant factors and conditions that explain the growth of the GEI. These factors include: *economic globalization, commodification of schooling, financialization of the education sector, changing governance of education, evidence-based policy, and information technology and learning*.

First, *economic globalization* represents a driving force that is both increasing the demand for education and the cross-border supply of educational services. Under conditions of economic globalization, education is treated as a strategic instrument that can foster the economic competitiveness of nations, regions, and localities in global knowledge-based economies. In this context of increased educational demand, the globalization of the economy has responded with new market-based forms of educational trade and delivery, including cross-border supplies.

Second, in the same way that nations attempt to raise their economic competitiveness through educational improvements and investments, so too are families and individuals, by engaging in the *commodification of schooling*. Here education is treated as a privatized, individualized, and positional good believed to give youth a step-up in life by paying for positions in what are perceived as relatively better schools. At the same time, such processes are breaking down, or perhaps reconfiguring, collectivist and communitarian ideals of education as a form of solidarity and social cohesion.

Third, *financialization of the education sector* is another important factor related to the expansion of the GEI whereby private investors and commercial banks view education enterprises as an investable opportunity due to their potential for profit-making. Yet, it is not only private actors that engage in financial market activities to grow their investment portfolios in education but also public organizations, including public universities that participate in financial market practices to counteract the decline in public spending. In turn, "an important portion of the university finances is derived from derivative purchases, debt management affairs and even in complex real estate operations" (Verger et al., 2016, p. 9).

Fourth, the *changing governance of education* is demonstrated by global trends in education policy, including curricular standards and accountability regimes, which are also opening-up new business opportunities for GEI actors. For example, standardizations across curricula enable edu-businesses to produce educational materials that can reach a broader market across territorial regimes. New accountability regimes are also adding pressure on schools and districts to deliver results linked to perverse, uniform metrics that are creating an industry of education experts and consultants that sell school "improvements" in the form of policy solutions, interventions, testing preparation services, and so on (Ball, 2012).

Fifth, change is informed by *evidence-based policy* which has also been appropriated and modified by GEI firms as a key strategy to advance their commercial interests. Here, firms selectively use certain "evidence" – in the form of metrics, outcomes, results, and other performance-based data – to frame and package their educational products, policy solutions, and interventions in ways that align with the goals of governments and other education stakeholders. In chapter 6, I analyze this issue in-depth in the context of Pearson's edu-business operations and the ways in which it has created a pseudo-scientific tool to measure the efficacy of its educational commodities as a business strategy to maintain profitability.

Sixth, and finally, tech entrepreneurs and the IT industry, in conjunction with state actors, view education as a sector in need of reform as well as an emerging market for capital growth to advance *information technology and learning* through the intensification of technological trends, devices, and new digital learning technologies. These six conditions highlighted by Verger et al. (2016) provide an explanation for the growth of the GEI. Each of which will be further exemplified in the case studies of this dissertation pertaining to the activities of Pearson (Chapter 6), Bridge International Academies (Chapter 7), and Microsoft's *Minecraft* (Chapter 8).

2.6 Edu-Business

"Edu-business" refers to a broad category of economic actors central to the growth and intensification of the GEI "whose activities are focused on the direct (hard and soft) education services sector" (Ball, 2007, p. 69). They represent potent yet largely unaccountable actors, partners, contractors, and enablers of shifting political logics and processes connected to neoliberal globalization that increasingly render education as a sector guided by business logics, financial principles, and market interests. In addition to edu-businesses, these organizations have been referred to as "transnational education corporations" (Kim, 2016), "international education businesses" (Steiner-Khamsi, 2016), "for-profit knowledge companies" (Spring, 2008), "for-profit welfare companies" (Rönnberg, 2017), "public service companies" (Ball, 2007) and simply, "education corporations" (Robertson & Dale, 2015). The terms used to describe these actors (i.e., "for-profit" and "public" "welfare") signify the ways in which their activities blur the public/private, or rather, state/market divide. And, whilst edu-businesses can be "transnational" in their scope and operations, they still "generally have a base, together with dominant shareholders and boards, in single nation states and depend on them in many foundational ways" (Wood, 2003, p. 135).

Edu-businesses have also been categorized by Verger et al. (2016) as: (1) chains of private schools (many of which are for-profit, such as Bridge International Academies, and are diversifying the private schooling sector traditionally controlled by religious and NGO providers); (2) big education conglomerates (which provide a wide variety of specialized educational goods and services ranging from publishing and testing to data management and e-learning products, such as Pearson, but also IT companies like Microsoft that see "Ed-Tech" as a new frontier for profit-making); (3) consultancy firms (including PriceWaterhouseCoopers and McKinsey), which have broad global portfolios and apply business logic to education, but also smaller-scale individual consultants that focus more exclusively on education), and; (4) philanthropic foundations (which may be registered as "non-profit" entities, formally separate from corporate structures, but are typically aligned – at least implicitly – with the business strategy of their

funders and founders). The body of this dissertation focuses specifically on the activities, strategies, and practices of edu-businesses.

2.7 Corporate Education Reform

This study delineates educational changes connected to neoliberalization (encompassing marketization and privatization processes) as that which generally can be described as "corporate education reform." Wayne Au and Joseph Ferrare (2015) usefully summarize this reform movement as the:

- defunding of public education through regressive tax policies and budget priorities that cut not only spending on public education, but also state-funded [social supports and programs for youth];
- accumulation by dispossession of public monies from public education vis-à-vis the marketization of educational services through private contracts (i.e., testing companies, textbook publishers);
- deregulation of teacher labour practices (anti-union, anti-tenure), teacher and administrator certification [...] and school governance;
- reconstruction of access to public education in the form of free market competition (i.e., charter schools and private school voucher programs);
- evaluation-through-comparison of public education students, teachers, administrators, and school communities through competitive metrics associated with high-stakes, standardized test scores;
- reshaping the vision and vocabulary of public schools along the lines of corporate businesses, including the redefinition of school leadership as 'management,' the recasting of district leadership as 'Chief Officers' (i.e., CEOs, COOs, CFOs, etc.), the identification of students and parents as 'consumers,' and the redefinition of learning and teaching as 'production targets,' 'performance indicators,' 'value-added,' and the like;
- narrowing the purposes of publication to that of solely meeting the needs of the business community and/or the economy (losing sight of other important humanistic, civic, cultural, and environmental goals of public education);
- reliance on democratically unaccountable NGOs, philanthropies, for-profit and non-profit organizations, and corporations for guidance on, and implementation of, public education policy. (Au & Ferrare, 2015, p. 8)

Additionally, I would include the increasing prevalence and implementation of education technologies as a corporate education reform (such as e-learning, online education, digital learning technologies, and other ed-tech products) that are mass-produced, marketed, and delivered to students.

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To recap, this chapter defines the key concepts constituting the broad contours of this inquiry. Concisely put, *privatization* refers to the reduction or transfer of public sector control and financing of public education; *commercialization* refers to the production, marketing, and sale of educational goods and services by external providers; *marketization* refers to the introduction of market forces and mechanisms into education policy and provision, and; *financialization* refers to the investable opportunities opening-up for commercial investors in education. These concepts refer to the central processes, conditions, and dynamics giving rise to, and advancing, the *global education industry*, which is described as a globalizing economic sector structured by certain institutions, forms of agency and power relations, in which a range of educational goods and services are manufactured, traded, and consumed. *Edu-businesses* refer to the economic ,,, central to the production, reproduction, and operation of the GEI. And finally, *corporate education reform* are the broad sociocultural, institutional, regulatory, and fiscal changes resulting from privatization and marketization processes in education. These concepts are foundational to this study and they provide the broad conceptual contours for what follows—that is, a theoretically-informed, empirically-grounded research dissertation on global commodifications in and of education and the role that business plays in such processes.

Chapter 3

The Politics of Education and Neo-Capitalism: A Social Theoretical Framework

As discussed in the previous chapter, the global education industry is constituted by its own set of logics and rules, methods of operations, and social relations and forces culminating in the production and consumption of a wide array of educational goods and services. Yet, education industries are not entirely of their own making. They are structured: economically, politically, discursively, and ecologically. Hence, this chapter lays the foundation for a social theoretical framework for studying the politics of educational change and neo-capitalism. Theoretically, it is postulated that the social structures and processes that education industries engage in and represent can be analyzed according to *political economy*, *political regimes*, *political discourse*, and *political ecology*. In doing so, this chapter transitions from key concepts to political theory informed by empirical examples to provide a social theoretical commentary, or meta-commentary, for the study of global education industries.

3.1 Social Theory and Institutional Analysis

Central to this inquiry is the examination of institutional structures and processes related to corporate sector involvement in education. It is an "actor-centered" investigation concerned with how organizations (i.e., firms) *work*, or participate, in the education sector, in conjunction with other organizations, the state, and society. In turn, this research investigates the activities, arrangements, and strategies of three of the foremost firms from the global education industry – Pearson, Microsoft, and Bridge International Academies – to understand the institutional processes they engage in and represent. Andrew Sayer (1992) claims, "In moving from abstract concepts of these objects, structures and mechanisms, step by step towards the concrete, 'theoretical' claims (e.g. about the relationship between capital and surplus value) must be combined with empirically discovered knowledge of contingently-related phenomena" (p. 140)— which is the task of this chapter and those that follow it. In doing so, the social structures of accumulation that education industries engage in and represent are analyzed, theoretically and empirically, as four layers of reality: (1) political economy; (2) political regimes; (3) political discourse; and (4) political ecology. This form of institutional analysis is meant to address the processes by which social structures related to the GEI – including both normative and behavioural elements – are established, (temporarily) stabilized, and undergo change over time.

3.2 Political Economy

Political economy refers to a stream of inquiry in the social sciences that studies the "relationships between economic and sociopolitical phenomena and their modes of regulation in different institutional contexts" (Ramella, 2015, p. 1). Its origins have been traced back to the French economist Montchrétien who referred to political economy in 1615 as "the science of the acquisition of wealth" that is, "a *political science* connected to public economy and state finances" (Ramella, 2015, p. 1). Political economy is usually associated with the works of Karl Marx and his

focus on the capitalist system as the organizing principle in society. Marxian political economy aims to understand the circulation and accumulation of capital in different institutional contexts and the "surface appearances that disguise underlying realities" (Harvey, 2014, p. 5). The differences between reality and appearance, or rather the *contradictions of capital*, formulate the "basic architecture for capital accumulation" (Harvey, 2014, p. 88)—and through which we can begin to understand related events and processes. As Marx claims, "If everything were as it appeared on the surface, there would be no need for science." Marxist social scientific thought, in turn, is based on dialectical materialism, or historical materialism, which focuses on the contradictory relationships and circumstances that generate socioeconomic phenomena. Dialectical materialism seeks to "trace the various historical tendencies and contradictions of capitalism back to certain structurally constitutive contradictions of its mode of production" (Bhaskar, 2003, p. 159). From this perspective then, historical and structural contradictions involve "inclusive operations or forces of non-independent origins" that are "*internally related* to a mystifying form of *appearance*" (Bhaskar, 2003, p. 159). David Harvey (2014) has identified seventeen contradictions of capital and I will discuss ten of them as they relate to this study, which are foundational to my political economy approach concerned with capital accumulation strategies in educational institutions.

Contradiction 1: "Use value" versus "exchange value." Each and every commodity that is bought and sold in a capitalist society has a use value and an exchange value. Use value refers to a product's utility in fulfilling needs and wants as afforded by its material properties. Exchange value is the "quantitative relation, as the proportion in which values in use of one sort are exchanged for those of another sort" (Marx, 1996, p. 46)—meaning it is the quantitative value based on a product's use value for others. To the extent that these two forms of value differ, for any given commodity, a contradiction exists. Certainly, "capitalism is driven by [such] contradictions of capital" (Harvey, 2014, p. 9).

Education has many different types of use value since it can satisfy a wide range of needs and wants related to the acquisition of knowledge. Yet, in its commodity form, the value for which education is exchanged (i.e., how much it is worth) is rather difficult to quantify. Money is used as the quantifiable measure through which educational commodities are exchanged; however, this price is often at odds with use value. How do you put a price on knowledge and the social processes of learning? Education in its commodity form, therefore, represents a significant contradiction. By quantifying the value of education, however, through performance measures, indicators, outcomes, standardized comparisons, and so on, this social contradiction is (temporarily) stabilized. For example, Pearson has created its own "efficacy framework" to measure the "performance" and "outcomes" of educational commodities sold by the firm in order to market their "value" to consumers (which will be the topic of Chapter 6 in this thesis). The exchange value of social objects, in turn, have increasingly dominated the use value aspects of social life, and in turn, many use value categories that have traditionally been uncommodified and provided through state patronage such as education, healthcare, and public utilities are increasingly being privatized and commodified.

Contradiction 2: Private property and the capitalist state. Scholars such as David Harvey, Bob Jessop, and Ellen Meiksins Wood have argued convincingly that capital circulation and accumulation requires a multitude of nation-states; to the extent that stateless capitalism seems almost unimaginable. Such issues will be discussed later on in relation to political regimes, but for now, the important point is that private property supported by state authority is foundational to capitalist relations and formations. "The eradication of usufructuary rights and the infamous process of enclosure of the commons have led to the dominance of a system of individualised private property rights backed by state power as the *basis* for exchange relations and trade" (Harvey, 2014, p. 41). The "enclosure of the commons" goes beyond a territorial classification and includes such "things" as marine life, the earth's atmosphere, population growth, and the "general intellect." In this vein, Harvey asks: "[s]hould knowledge be universally available to all or privately

owned?" (2014, p. 41). This line of questioning highlights the social contradictions and tensions that exist when the commons are enclosed and privatized under the auspices of the capitalist state. Contradictory relations emerging from private property and capitalist state formations in education involve many different forms and models. For example, in many jurisdictions across the globe, private companies are awarded lucrative contracts to design, build, finance, manage, and maintain public school buildings, for terms that last as long as 30 or 50 years. In the USA, for example, politically connected corporations are taking over the operations of charter schools as well as engaging in corporate sponsorship deals that are creating new business opportunities for private capital to experiment in publicly-sanctioned institutes of education (Sondel, Kretchmar, & Ferrare, 2015; Au & Ferrare, 2015b).

Contradiction 3: Private appropriation and common wealth. Reinforcing the private appropriation and accumulation of common wealth is the dispossession of the value produced by social labour (Harvey, 2014). Take, for example, cultural workers in the GEI. The social value produced by teachers' labour is immense. Yet, in many ways, it goes unaccounted and appropriated privately by firms and producers—and thus, signifying the simultaneous dispossession and accumulation of large amounts of common wealth created by public education. The same could be said about other educational workers including curriculum developers that produce learning materials, courses, and objects of knowledge for the commons, which can be appropriated by the GEI in the interests of private capital. Hence, global edu-businesses engage directly in the dispossession of the value that education generates as a product of social labour. The common wealth produced by systems of education is being appropriated by private entities in more efficient, self-propelling, and maximizing ways as private sector participation in educational governance becomes further institutionalized.

Contradiction 4: Capital and labour. Within capitalist societies, people have to sell their labour power – both material and immaterial labour, including "mental work" in knowledge-based economies – in order to live. In doing so, capitalists can see to it that labourers produce

more in terms of productive value than what they earn; creating an imbalance between wage earnings for labourers and the capital they create. The value of teachers' labour provides an obvious example here again. However, new graduates from postsecondary institutes offer another example as to how this contradiction can play out. For example, college/university graduates invest in their own human capital to compete for jobs in a competitive marketplace by paying increasing levels of tuition fees. Yet, at the same time, they become enslaved by student loans and debts, left with no other option but to sell their labour power at rates that are lower than market value. In this way, uneven relationships between education, capital, and labour is extracting more and more value from future workers who have to invest more and more in themselves (appropriated by private education industries) in order to survive within the system.

Contradiction 5: Technology, work, and human disposability. Technological innovation and the shifting nature of work and human replaceability highlighted by Harvey (2014) and others (Danaher, 2019; LaGrandeur & Hughes, 2017) are central dimensions of new capitalist restructuring taking place in education. Technological change and innovation are creating new possibilities for capital growth and accumulation in education as well as in many other sectors, which has also brought forth new contradictory processes.

For example, the OECD released a report in 2016 entitled, "Innovating Education and Educating for Innovation: The Power of Digital Technologies and Skills." It states that innovation in education has mostly been limited to corporate activity in developing new instructional tools and technologies. In turn,

> A tool industry is being formed: a population of specialised firms that invent, design and commercialise educational tools. As in any historical example of a tool industry emerging, this involves a process of relocation of knowledge at least in part away from the point of delivery of the educational service. A shift in knowledge 'holding' is taking place as a new site of knowledge accumulation emerges: the tool producer. Historically, one important reason for the emergence of a tool industry (beyond the classical reason of a growing market) is the rise of a systematic approach to the problem of increasing productivity. The process of relocation of specialised knowledge about tools away from the institution which delivers the final service – in this case the school – allows generic and multi-purpose machines

> and tools to be produced, replacing the specialised tools which would formerly have been developed within each organisation delivering the service. (OECD, 2016, p. 134)

Indeed, the emergence of a "tool industry" in education is shifting the role of knowledge "holders" to private firms. Educational tools produced by market forces enact functions of power by encoding the tool with certain coordinates of knowledge, which also respond to problems of practice and productivity in ways known to (benefit) the tool producer. As a result, global education industries play a central role in the renovation and innovation of education by creating new technological tools that are altering the socio-material relations and existential meaning of teaching, curricula, and evaluative processes in education (Ball, 2012; Burch, 2009; OECD, 2016). While learning tools and apparatuses are not "new" in any way, what is new is the extent to which educational innovations have become a liberalized market for financial investment and private capital interests to grow markets for educational gadgets and devices. Hence, technological innovations are at the cutting-edge of corporate education reform that are creating new opportunities and possibilities for capital growth and accumulation, whilst changing the nature of work among educators and other working professionals as well.

Contradiction 6: Divisions of labour. The preceding discussion on technology, work and human disposability, raises another contradiction that exists in relation to the division of labour. As Harvey notes, this contradiction of capital is represented by alienation: whereby the "gains in productivity, output and profitability that capital achieves by virtue of its organisation of both the detail and the social division of labour come at the cost of the mental, emotional and physical well-being of the workers in its employ" (2014, p. 125). The division of labour introduced by new educational technologies, in many cases, can transform teachers into machine operators and/or "appendages of the machine" (Harvey, 2014, p. 125)—representing the de-skilling and re-skilling of teachers' work in relation to new divisions of labour that are designed to maximize efficiencies

and minimize the costs of production. Bridge International Academies provides a clear example of this, which will be discussed in Chapter 7.

Contradiction 7: Monopoly and competition: centralization and decentralization. Proponents of markets and quasi-market schemes in education (and other sectors) espouse the idea that market-based systems of delivery take "the natural proclivity of human beings to compete, unleashes it from social constraints and harnesses it through the market to produce a dynamic and progressive social system that can function for the benefit of all" (Harvey, 2014, p. 131). State involvement in maintaining a competitive environment for the circulation and accumulation of capital is considered a primary objective of governmental policy in capitalist economies. Yet, as countless examples demonstrate, including the global economic crisis of 2008, such political processes can facilitate the growth of monopoly power and highly-dysfunctional concentrations of wealth, aided and abetted by functions of the capitalist state. Monopoly power, therefore, is central to the maximizing potential and functionality of capital that "exists in a contradictory unity with competition" (Harvey, 2014, p. 134).

Decentralization and deregulation trends in educational governance have created conditions for oligopolies and monopolies to emerge in place of competitive markets. In its commodity form, education is subject to monopoly strategies in a number of ways, including name branding (e.g. Oxford Learning and Cambridge Learning Services); intellectual property rights and licensing agreements; and, price differentiation in order to secure a monopoly price, such as Bridge International Academies' aim "to be the global leader in providing education to families who live on $2 a day per person or less" (BIA, 2016a). Deregulation and decentralization, therefore, often facilitates and obscures the re-regulation and re-centralization of power as idealized commitments to competition often consolidate power among already powerful capitalists.

Contradiction 8: Disparities of income and wealth. Social struggles over the circulation and accumulation of capital produce a wide range of socioeconomic disparities. Education

reforms based on privatization and commercialization, for example, have clear impacts on future distributions of income and status. It can systematically organize life outcomes and chances through educational opportunities that are increasingly mediated by one's ability to pay (or not pay). In turn, education in its commodity form works to ensure that:

> Some groups will benefit tremendously from their education even though their education will be expensive. Other groups will benefit enough from education to make some private investment logical. For others, education will only give them the skills to compete for jobs which pay for their survival. (Ilon, 1994, p. 102)

Hence, the form and quality of education that learner-consumers receive will largely depend upon how much they can financially invest in themselves. And thus, rendering education increasingly differentiated, segregated, discriminatory, and the source of growing disparities of income and wealth on a global scale. This is as much a contradiction as it is an impending social crisis (see Piketty, 2014).

Contradiction 9: Social reproduction. Educating (future) workers to enhance their productivity and output "has been a major feature in capital's history" (Harvey, 2014, p. 183). Historically, capital's growing interest in the productive capacity of workers is exemplified by the introduction of a set of education clauses in the English Factory Acts, beginning in 1833, that were meant to change the working hours and conditions of children, improve their moral state through religious education, and promote literacy and mathematics. Henceforth, investments in educational provisions were seen as investments in "human capital" (i.e., the economic utility of the individual). As the history of capital illustrates, however, the costs of education have increasingly been passed onto private individuals who pay for their own participation in processes of social reproduction (so not, perhaps, to be "left behind"). Yet, what remains contested (and central to this inquiry) is the extent to which the private interests of capital influence our systems of knowing and the general intellect imparted through public education which may be at odds with the publics' interests. As Harvey (2014) points out:

> While public education has done much to meet capital's demand for ideological conformity combined with the production of skill sets appropriate to the state of the division of labour, it has not eradicated the underlying conflict. And this is so in part because state interests also enter in to attempt to forge a sense of cross-class national identity and solidarity that is at war with capital's penchant for some form of rootless cosmopolitan individualism, to be emulated by both capitalist and worker alike. None of these contradictions of the content for public education can easily be settled, but this does not detract from the simple fact that investment in education and training is sine qua non for capital's competitiveness. (184)

Beyond labour skills and consumer habits, however, social reproduction is about the reproduction of geographically- and historically-specific cultural forms and practices (Katz, 2001). These cultural forms and practices shape our worldviews, beliefs, and relationships to people, nature, religion, politics, and so on. In turn, they "maintain and reinforce class and other categories of difference…and naturalize the dominant social relations of production and reproduction" (Katz, 2004, p. 20).

Contradiction 10: Freedom and domination. In capitalist economies, individual liberties and freedoms are conceived as a self-governing mode of existence *through* which the conduct of individuals can be regulated according to rules and logics of a market society. This neoliberal form of control can be referred to as *governmentality*. It is a method of power that aims to shape the conduct of people vis-à-vis self-regulating compulsions and commitments to "the market." Freedom is meant to unleash the productive power of individuals, leading to a surplus in production and consumption that is not held in check, but maximized. It is "a *more efficient kind of subjectivation and subjugation*" whereby "the *I* is now subjugating itself to internal limitations and self-constraints, which are taking the form of compulsive achievement and optimization" (Han, 2017, p. 1). Hence, discipline and restrictions put on one's self become the objects of freedom through which domination, compliance, and optimization are effectively achieved in neo-capitalist societies.

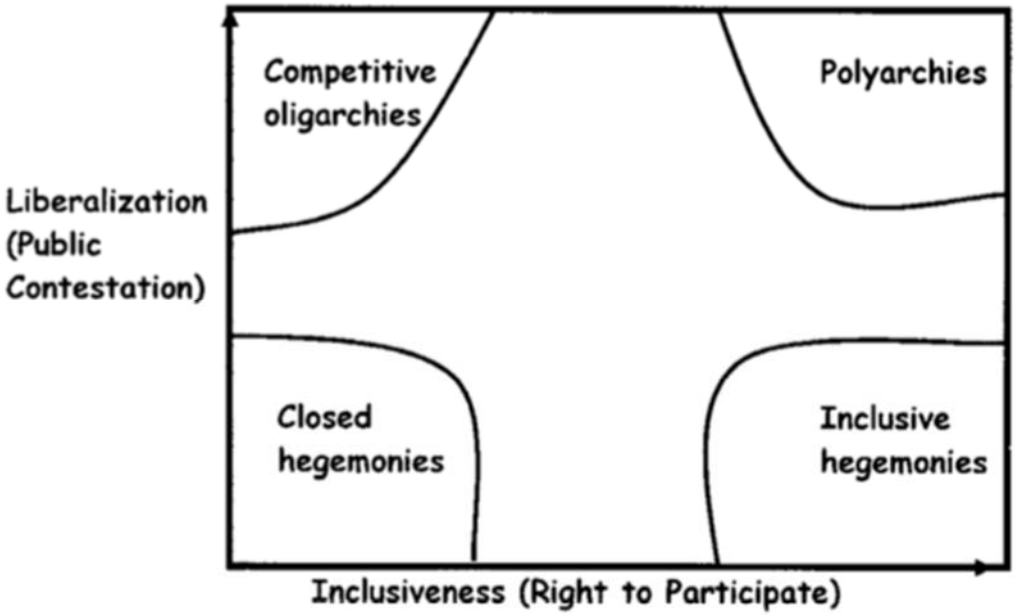
The preceding discussion on political economy constitutes one (albeit foundational) layer of reality regarding the politics of capitalist restructuring in education. In doing so, it emphasizes

the contradictions of capitalist formations in education related to (1) use value vs exchange value, (2) private property and the capitalist state, (3) private appropriation and common wealth, (4) capital and labour, (5) technology, work, and human disposability, (6) divisions of labour, (7) monopoly and competition, (8) disparities of income and wealth, (9) social reproduction, and (10) freedom and domination. A central substantive insight about contradictions and levels of being is that "invisible" mechanisms are actualized in historical tendencies and manifest themselves in human experience as *real* empirical facts. The aim of this political economy reading is to lay the foundation for a *critical realist* metatheoretical framework, as an explanatory social science that aims to interpret, evaluate, and explain the contradictions of capital demonstrated by the activities of GEI firms. The next section of this chapter will discuss another layer of reality encompassing corporate sector involvements in education: political regimes.

3.3 Political Regimes

Quite broadly, regimes refer to systems of regulation. More specifically, Charles Tilly and Sidney Tarrow claim they involve two governing principles that form the basis of oppositional politics (or struggles for power): (1) control over territory, its people, its resources, and its activities, and; (2) control over certain organizations and their members, regardless of geographic location (2007, p. 29). The second principle refers to structures of power that are increasingly carved out along transnational lines, including the activities of corporations, global advocacy networks, religious organizations, foreign militaries, and so on. Despite the countless examples and variations of regimes over the course of history, scholars have attempted to classify their different forms. Robert Dahl's notable classification of regimes is illustrated in the diagram below. It posits that both the formation and function of a regime is determined by competing (although, hegemonic) relations to power, which in turn, shape how people, places, and resources are managed.

Figure 2: Liberalization, Inclusiveness, and Democratization



Source: Robert Dahl. *Polyarchy: Participation and Opposition*. London: Yale University Press, 1971. p. 7.

Following Dahl's approach, political regimes are typically classified according to their liberalization/autocracy in relation to their inclusivity/democracy. Political regimes, therefore, are characterized by the methods through which a population or territory is governed and the degree to which people can participate liberally, or not, in the politics of their own becoming. In turn, four types of political regimes are commonly recognized: (1) closed autocracy, (2) semi-liberal/electoral autocracy, (3) electoral democracy, and (4) liberal democracy (Siaroff, 2013; Lührmann, Tannenberg & Lindberg, 2018).

The important point for this inquiry is that education markets and industries have occurred across all regime types, albeit in various forms and with fluctuating degrees of influence. For example, Chile, under the dictatorial rule of Augusto Pinochet (1973-1988), representing a closed autocracy, is regarded as a neoliberal laboratory for educational policies of marketization and privatization. A more recent example includes the United Arab Emirates: a closed autocracy with a highly privatized and commercialized education sector. Electoral autocracies such as Kenya and Ghana have privatized aspects of public education, typically under the guidance of

international financial institutions such as the World Bank and IMF. Electoral democracies and liberal democracies around the globe have also embraced corporate education reform. This is not to say that all regime types always produce the structures and conditions of corporate education reform but that the propensity for such to occur exists, in reality, across all political regimes. Hence, current classifications of political regimes tell us very little about the structures and organization of neoliberalized education but it does tell us is that such processes are polymorphous, unrestrained, and without boundaries.

New global spatialities and governance structures in education that involve the rescaling of politics (Brenner, 2004), therefore, have reconfigured policy processes and structures through an interplay of local, national, and global relations. On account of this rescaling of politics in education, new modes of governance have emerged within the context of a post-Westphalian state system. Robertson, Bonal, and Dale (2002, p. 232) explain that:

> The shift from national to postnational is reflected in the change in scale of governance of education – from national to either or both supranational and subnational – and the shift from state to [postnational] regime is reflected in the changes in the configurations and coordination of educational governance, from assumed state monopoly over all aspects of to a bewildering range of possibilities in which regulation seems to be the only necessary element of state monopoly, though … even that cannot be assumed.

Although the nation-state has lost much of its monopoly over education policy processes, it still plays a number of critical roles in the politics of education—however, in newly imagined and restructured ways that function in relation to a marketplace of providers. Rescaling the politics of education leads to de-nationalization and liberalization, whilst reconfiguring policy and governance through a mix of vertical and horizontal relations that stretch globally. Commenting on the operations of Pearson, Stephen Ball observes that, "By virtue of its reach and size Pearson is able to deal with national governments and multilateral agencies – as in the instances of China and UNICEF – and it can provide 'one-off' solutions to national and international development problems" (2012, p.128). New actors including international organizations (e.g. the OECD, World

Bank, Bill and Melinda Gates Foundation, and transnational corporations), therefore, increasingly participate in the public administration and governance of education in a variety of sites, at a variety of different scales. For this study on the GEI, the most important dimension of political regimes (or regime change) relate to "heterarchization" and "internationalization."

Heterarchization refers to the shift from hierarchical forms of government to public-private sector govern*ance* characterized by a horizontal diffusion of authority (Ball & Junemann, 2012; Jessop, 2015). Increasingly, new actors and agendas have become involved in educational policy processes; redrawing the boundaries between the public and private sectors and replacing old hierarchical, administrative structures and relationships with new organizational forms. Ball and Junemann (2012) refer to these new organizational forms as "heterarchies," arguing that, as an organizational hybrid of hierarchy and network, heterarchies recognize the "diverse horizontal and vertical links that permit different elements of the policy process to cooperate (and/or compete)" (p. 138). Rather than constituting a particular regime type or administrative structure, however, heterarchies are made up of processes and relations. They "have many of the characteristics of 'assemblages' of and for policy and governance, inasmuch as they contain heterogenous elements placed in diverse relations to one another, in latent structures or as social morphology" (Ball & Junemann, 2012, p. 138). As Jessop (1998) points out, the conditions for successful heterarchical governance depend on institutionalized negotiations, whereby actions are coordinated to secure particular outcomes that are deemed mutually beneficial. Thus, the state relinquishes part of its capacity for hierarchal, top-down, authoritative decision making in exchange for "policy solutions" (Ball, 2012) provided by private-sector actors including corporations, whilst (transnational) corporate actors forgo some autonomy and submit to regulatory oversight and regulation in order to gain political influence and market advantages. Heterarchical governance, therefore, is not an absolute change, "but rather a shift in the balance or mix between the different elements of government—bureaucracies, markets and networks" (Ball and Junemann, 2012, p. 5). As a result, the role of the state is transforming "from that of

service delivery to a combination of regulation, performance monitoring, contracting and the facilitation of new providers of public services" (Ball, 2012, p. 36)—that is, a "commodifying agent." These developments have been portrayed by Jessop (2002) as processes of "*destatizaton*" which "involves redrawing the public-private divide, reallocating tasks, and rearticulating the relationships between organisations and tasks across this divide on whatever territorial scale(s) the state in question acts" (p. 199).

The second dimension of political regimes facilitating the emergence and expansion of the GEI relates to internationalization, which refers to the gradual embeddedness of the state within structures of international production and accumulation (Cox, 1987). In other words, the functions of the state, whatever regime type it may be, are regularly organized to permit the global circulation and accumulation of capital. As Ellen Meiksins Wood astutely claims, in its current political form, "globalization is not a global state but a global system of multiple states" (2003, p. 6). It is through an international network of states with de/re-centralized arrangements, infrastructures, and procedures of governing, attune to local customs and traditions, that enable the day-to-day functioning and circulation of capital to accumulate. International trade agreements, for example, such as the WTO/GATTS "lock-in" states that become embedded in international procedures and regimes of liberalization that rely upon the legitimation and organization of nation states to function properly and effectively (Robertson, 2003). Increasingly re-formed to work in the interests of global capital, state programs and services are rendered into contractable and commodity forms; often produced and exchanged along transnational lines. At the same time, privatized state-based systems are re-designed to support the economic competitiveness of a group of people and produce labourers (of different and flexible varieties) that contribute to modes of production and accumulation, at increasingly global scales. This discussion highlights the way in which the state can be thought of as being both colonized and colonizer. That is, the state is both the field through which various micro-practices of power discover their legitimacy and rationality and the vehicle by which this rationality spreads to new

areas of the social. Bob Jessop has further advanced this line of thinking by treating the state not as an entity but as a social relation with different strategic effects through which micro relations of power can be organized, consolidated, and institutionalized—and thus, constituting a type of "state power" (Jessop, 2007). Internationalization also refers to the new global agendas and networks of actors involved in education governance, such as international testing regimes like the OECD's PISA, multilateral agreements and partnerships like the Global Coalition for Education, and of course, the activities of transnationally-configured education enterprises. In addition to heterarchization, these dimensions of regime variation account for another important layer of reality to interpret and explain corporate sector participation in education.

Corporate involvement and influence in education involves a set of institutional structures, processes, conditions, and mechanisms that function at different layers, or strata, of reality. Political *economy* refers to the relationship between economic and sociopolitical activities and their modes of regulation in different institutional contexts, which can be analyzed through their contradictory relations and processes. *Regimes* form the basis of power struggles and the ensuing administration of territories, people, groups of people, and their activities and resources. The emergence and expansion of the GEI is the result of regime changes directly linked to heterarchization and internationalization. *Discourse* is another relatively autonomous (emergent) strata (discussed in the next section of this chapter), which has feedback effects on other levels like a *Matryoshka* (or Russian nesting) doll.

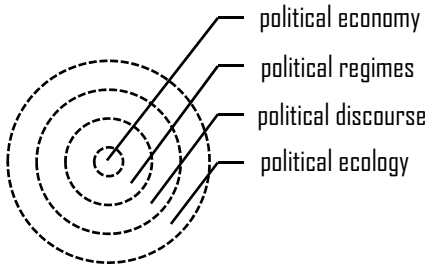


Figure 3: Four (Political) Layers of (Social) Reality

3.4 Political Discourse

Participation in political life, broadly-conceived, requires some form of language or method of communication. Political activities and actions such as social organization, citizenship, democracy, national sovereignty, policy-making, and so forth, would not occur without the use of language to connect, mediate, negotiate, deliberate, and coordinate. Politics, and all that is "political," therefore, involve some linguistic, discursive, or communicative dimension. For Paul Chilton, and others, this "leads to the need to explain how use of language can produce the effects of authority, legitimacy, consensus, and so forth that are recognised as being intrinsic to politics" (2004, p. 4). Political discourse, in turn, represents another layer of social reality that can be analyzed to explain how not only written or spoken communication but any production of meaning (i.e. semiosis) can work towards political objectives.

Fairclough and Fairclough (2012) view political discourse "as primarily a form of argumentation" meaning that "politics is most fundamentally about making choices about how to act in response to circumstances and events and in light of certain goals and values, and such choices and the actions which follow from them are based upon practical reasoning about what should be done" (p. 11). Representing a "form of argumentation" then, political discourses "are always ideological and 'positioned' ways of presenting social practices in the world and life in general, which means that they are not casual, but always *come from somewhere*" (Block, 2019, p. 10). In turn, discourse and discursive strategies are employed by political actors – individuals, institutions, and organizations involved in political processes and events – in struggles for power and/or reconciliation. This point is critical. It involves asking questions about the language and narratives, visions and vocabulary that *come from somewhere* to be employed for political objectives. For this inquiry, it involves critically analyzing the discourse used by commercial agents to legitimize their participation and normalize their authority in the politics of educational restructuring.

In politics and society, "the truth" is often produced by structures of power, and in the process, the authoritative or "official" accounts of what is *true* and *factual* tend to feed powers that be. As Marx and Engels have noted, "[t]he ideas of the ruling class are in every epoch the ruling ideas" ([1846] 1998, p. 67). The production of knowledge is therefore constitutive of power relations, and the power structures by which society is governed, by in large, authorize *that* knowledge as truth, and others as not. Foucault's conceptualization of "regimes of truth" refers to how:

> 'Truth' is to be understood as a system of preferred procedures for the production, regulation, distribution, circulation and operation of statements. 'Truth' is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extend it. (Foucault [1977] 1980, p. 133).

Hence, "the meaning of power and the content of interests is largely a function of ideas" (Wendt, 1999, p. 96). In turn, the arguments embedded in language, statements, and communications presented by powerful actors provide us with empirical objects to uncover and expose the content of their interests.

For the purposes of this study then, a central line of questioning relates to the hegemonic ideas, arguments, and social narratives that provide agents with reasons for action. Or put differently, which discourses are appropriated by commercial actors to "frame," legitimate, and advance their participation in educational policy, practice, and processes?

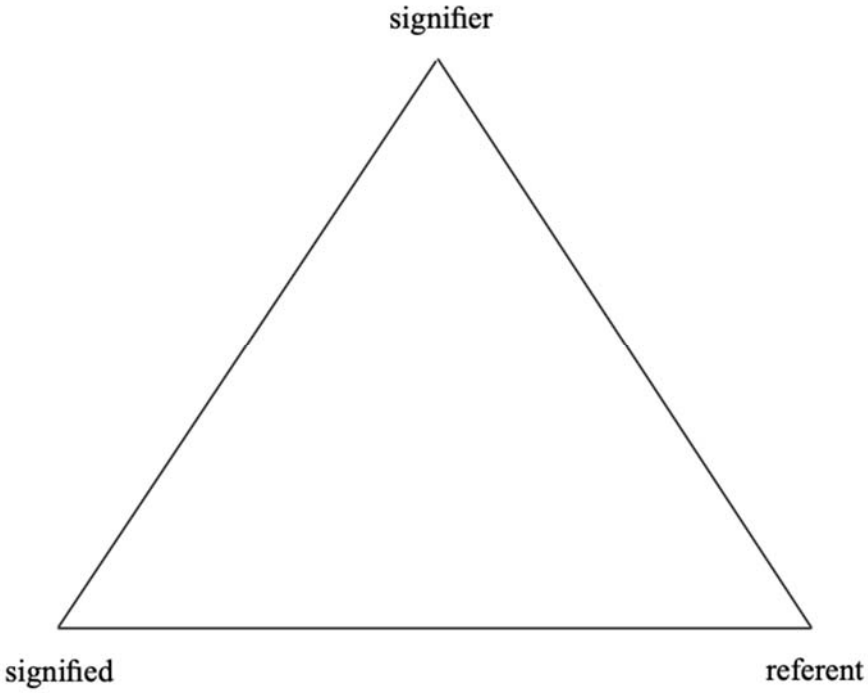
In studying discourse, David Block (2019) outlines three general levels of analysis. First, is the "micro level of social events, examining how meaning is made through semiosis" which may involve language analysis related to a text's form or meaning or a wide range of sound or image-based analyses including audiovisuals, non-verbal communication, signs, symbols, aesthetics, and so on (p. 8). Second, there is an intermediate or meso level of analysis, related to "social practices as orders of discourse" concerned with the ways in which texts are produced, circulated,

and consumed, and "how these processes are constituted by and constitutive of power relations in society" (p. 9). Third, the macro level "considers the temporal/historical framing of social events and social practices, for example, how a given text intersects with and is constituted by other previous and present texts—how it is shaped by, and may contribute to the shaping of, broader economic, political, social and cultural currents in society" (p. 9). For this inquiry, I am interested in the social practices of GEI firms and the ways in which they produce, re-produce, circulate, and appropriate language, how that language and the objects they represent are consumed, and how these processes are shaped by and contribute to certain power relations in society.

Semiotic studies such as this, concerned with how meaning is made in texts and cultural practices, require "a philosophical stance in relation to the nature of signs, representation and reality" (Chandler, 2002, p. 59). Ferdinand de Saussure's theory of signification refers to the idea that a linguistic sign embodies a relationship between a signifier and a signified, which is not the relationship between "a thing and its name, but between a concept and a sound pattern" (Daniel, 2007). In line with this way of thinking, "the linguistic sign does not 'stand for' an external world but construes it" since the "concept-sound pattern relationship is internal to language, internal to the mind, and is independent of external reality" (Daniel, 2007). Yet, this account of signification omits the extra-discursive world and dimensions through which objects are made in language through already "available descriptions" and their referents (Sayer, 1992, p. 35). Therefore, the meaning of something is not given prior to being "worded" or expressed, so signifieds cannot exist independently of other words and/or other signifiers (Sayer, 2000). As Fairclough explains: "the relations of words to meanings is many-to-one rather than one-to-one, in both directions: words typically have various meanings, and meanings are typically 'worded' in various ways" (Fairclough, 1992, p. 185). Different wordings also change meanings. Hence, a critical realist approach to the interpretation of meaning in texts and signs is based on *intertextuality*, which

suggests that “meaning is not located at any specific point but is continually ‘deferred’ across the network” (Sayer, 2000, p. 36) and formed through the play of “difference and deferral of meaning” (Derrida, 1976). Given that “meanings are not locatable at single points” the object of description, that is, the *referent*, must be included in the signifier-signified relationship. In doing so, the signification process can be represented as a triangle (see Figure 4 below), which takes place through networks of such triangles. Sayer notes, “[t]he signifier transmits the locutionary force in communication,” that is, the wording or phrasing through which communication is expressed “though not in isolation but through differences from other signifiers; the referent is that which we speak or write about, be it something physical or a discursive object” like policy, curricula, or educational credentials, for example, while the signified “may involve analogies, metaphors and metonymies, enables conceptualization, albeit again, always through its relations of difference to other signifieds” (2000, p. 36-37).

Figure 4: Signification Process as a Triangle



Education industries engage in and represent signification processes that help to legitimate, normalize, and advance corporate education reform in various ways. Take, for example, the language of "public-private partnership" (PPP). As an emerging policy mechanism in education through which corporations are becoming increasingly involved in education, PPPs represent an important object of analysis (i.e. a *referent*) concerning the privatization of education. PPPs are expressed in language as forms of "partnership," "collaboration," and "cooperation"—the signifiers. In such processes, the signifieds include a range of thought objects, such as "shared risk/responsibility," "public sector reform," "corporate social responsibility," "corporate citizenship," and so on. These differences in meaning concerning the representation of PPPs are part of the interplays, operating discursively and extra-discursively, that mediate corporate sector involvement and influence in education. For example, Pearson has invested US$2.25 million into a partnership with the Jordanian Ministry of Education and Save the Children UK since 2015 to establish a program that delivers basic education services to hundreds of Syrian refugees in Jordan. Pearson's marketing departments communicate this PPP as "sustainability in action," and part of its philanthropy and corporate social responsibility. A significant amount of the company's investments in the project has gone towards "researching and developing new programmatic and digital solutions for delivering education to Syrian refugees and host community children in Jordan, with an ambition to adapt and scale these in other emergency situations."[4] Hence, for Pearson, this PPP provides an opportunity to test new products and services, enter new markets, establish a positive reputation and public image, and strengthen its position within society. Hence, certain thought objects related to educational privatization and marketization are made in language through processes of signification, such as public-private partnerships, that work to facilitate and legitimate corporate education reform.

[4] https://www.pearson.com/sustainability/every-child-learning.html.

"Cognitive frames" represent another helpful tool to think through some of the ways in which discourse can enclose how we think about, imagine, perceive, and construe things. As a theoretical perspective, cognitive framing "is rooted in the symbolic interactionist and constructionist principle that meanings do not naturally or automatically attach themselves to the objects, events, or experiences, we encounter, but arise, instead, through interpretive processes mediated by culture" (Snow, 2007). Cognitive frames refer to the representations, renderings, and simplifications of reality that shape the thinking and conduct of people. They can refer to the ideas that social, political, and economic actors and groups mobilize to advance their views and vision of the world, including societal problems and preferred "solutions" (Verger et al., 2016). Take, for example, the global financial crisis of 2007-08. Sparked by subprime lending in the US, the political response was a multi trillion-dollar bailout for financial institutions that were responsible for the economic collapse in the first place, but were deemed "too big to fail." While the US government's decision and procedures for bailing out a dysfunctional banking system are slightly more nuanced, Fairclough and Fairclough (2012) remind us that:

> Ways of describing (including 'framing') the situation, of explaining its causes, or of narrating a sequence of events are usually contributing premises to an argument for action, whose conclusion will be supported by certain ways of describing, narrating or explaining, and not others.

Representing a type of cognitive frame, "too big to fail" set the stage for a certain line of argumentation about what should be done, politically, in response to the economic crisis.

Similar types of framing occur across various educational domains, and in response to a wide range of "crises" and policy issues in education that further advance private sector participation in public sector education. For example, privatization processes in education have been framed positively as matters of school "choice," "competition," "decentralization," "accountability," "modernity," "innovation," "21st century learning," "efficiency," "impact," and so on. Certain language and vocabulary, and the social imaginaries it conjures and creates, are

mobilized by supporters and profiteers in ways that promote the acceptability and desirability of such processes. Hence, a theory of political discourse and semiotics remind us that objects of educational commodification are socially constructed and mediated by cultural meanings and values attached to them through some kind of linguistic, communicative, and/or discursive dimension.

3.5 Political Ecology

As capital seeks to re-produce itself, expand, and grow, it also creates and co-creates structures, logics, rules, institutions, discourse, and landscapes conducive to its circulation and accumulation. Referred to as the "universalizing tendency" of capital, this economic imperative brings with it certain political, cultural, and ecological transformations (Chibber, 1999). The universalizing tendency of capital functions geographically to "create a world market, subjugate all antecedent modes of production, and replace all jural and institutional concomitants of such modes and generally the entire edifice of precapitalist cultures by laws, institutions, values, and other elements of a culture appropriate to bourgeois rule" (Guha, 1997, pp. 13-14). Capital has the tendency to expand its zone of operations through the *action of individual firms* "to find new markets, to create new ones if needed by displacing existing economic forms, to reach into every part of the world and incorporate it into a world market" (Chibber, 1999, p. 110). The expansion of capitalism into non-capitalist zones of social and natural life draws attention to how capital accumulation processes are socio-*ecological* processes constituted by certain environmental conditions and changes. As Jason Moore argues, "'*The* economy' and '*the* environment' are not independent of each other. Capitalism is not an economic system; it is not a social system; it is *a way of organizing nature*" (Moore, 2015, p. 2). Political ecology, therefore, forces us to think about how environments are produced and how they are entwined with the tendencies of capitalism: accumulation, growth, and crisis (Peet, Robbins, & Watts, 2011).

Moore (2015) offers a theory of capitalism in the form of a "web of life" or "world-ecology" perspective that involves "joining the accumulation of capital, the pursuit of power, and the co-production of nature in dialectical unity" (p. 2). This "world-ecology" view is "understood not as history from above but as the fundamental co-production of earth-moving, idea-making, and power-creating across geographical layers of human experience" (Moore, 2015, p. 3). Moore's theory of capital accumulation in "dialectical unity" with the production of nature and pursuit of power is based on two key observations from Karl Marx and Henri Lefebvre.

First, is Marx's argument that capital relentlessly drives toward the "annihilation of space and time" (1973, p.424). In doing so, capital reworks space-time dimensions as factors that do not hinder but rather accelerate the accumulation and growth of capital. Education technologies, for example, are rewiring teaching and learning so that it can take place across vast distances through new relational patterns and forms in "real-time" through video communications, webcasts, screen-sharing, online learning platforms, and other digital technologies. Hence, the annihilation of space and time is a market advantage for GEI agents aiming to expand their marketability. Second, Lefebvre (1991) makes the point that capital not only inhabits or conquers space, but that it also *produces* space. "Space is not incidental; the accumulation of capital *is* the production of space" (Moore, 2015, p. 10). Now, more than ever, learning is a globally-integrated system of technologies, materials, relations, experiences, and so on, that also produce new spaces for commercialized learning in many different ways. From the extractive mining processes that supply the raw materials for our educational gadgets to the information superhighways that connect us to the physical construction of classrooms, schools, colleges, universities, campuses, satellite campuses, learning "hubs," and so on—education markets produce certain environments. Not to mention the ways in which capital flows and uneven investments into faculties of research in Engineering, Biotechnology, Environmental Design, and so on, also build systems of education that view the environment as an object to be shaped and molded for a variety of (mostly industrial)

purposes. Indeed, the accumulation of capital through educational processes reflect not only the appropriation of, but also the production of, space.

The edu-business activities of Bridge International Academies provide a clear example as to how GEI firms *produce space* for commodification processes and manage to *overcome space and time* in their pursuit of profit. First, Bridge utilizes GPS devices, satellite imagery, household surveys, and other cartographical tools to map terrains and populations in developing economies to identify suitable locations to construct for-profit schools in areas that are commercially viable. A political ecology perspective then, is concerned with how such processes of mapping and measuring create new socio-ecological representations through which capitalism can bring ever-wider "domains of experience under systematic" control and order (Scott, 1998, p. 3). In doing so, Bridge International Academies establish boundaries that delineate and organize the zones of their commercial operations in low-income contexts in the global South from which capital is then to be extracted. Second, Bridge is able to "annihilate" space and time in its pursuit of capital growth through a newly technologized system of service delivery, in which lesson plans are created in the US, then sent electrically, uploaded daily, and delivered in Bridge's classrooms across Africa and Asia by local employees who simply readout scripted lesson plans from handheld tablets. It is a model of education delivery utilizing internet-enabled information and communication technologies to maximize (cost-)efficiencies in production and delivery, overcome space and time, and benefit from economies of scale. Hence, capital accumulation strategies involve socio-ecological processes through which geo-spatial and temporal configurations can be shaped, reshaped, produced, and manipulated in the interests of capital.

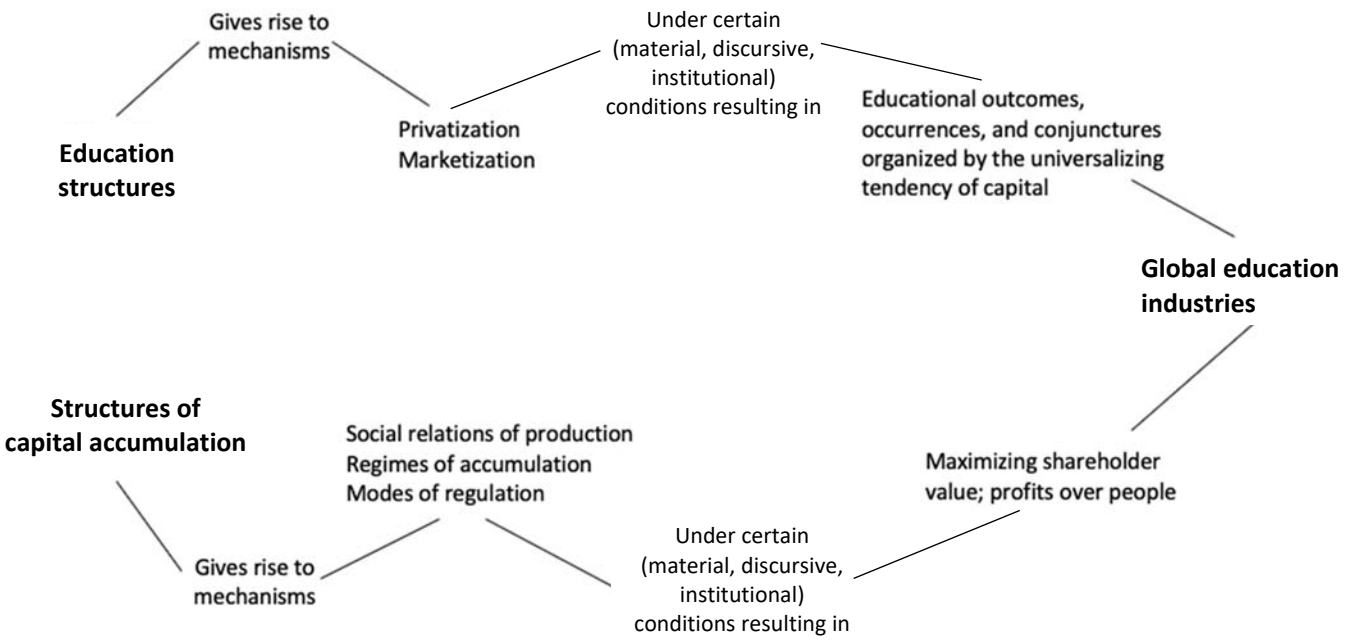
Chapter Summary

The preceding discussion has provided an overview of the foundational layers of a meta-theoretical framework through which the social structures of accumulation that education industries engage in and represent can be studied as political economy, political regimes, political discourse, and political ecology.

Political economy focuses on the relationship between economic and sociopolitical activities and their modes of regulation in different institutional contexts, which can be analyzed through the contradictions at play in such processes. Political regimes form the basis of power struggles – linked to processes of heterarchization and internationalization – and the ensuing administration of territories, people, and their activities and resources. Political discourse focuses on the ways in which language and communication as well as any production of meaning (or semiosis) can work towards certain political ends, including the authorization, legitimization, and normalization of corporate education reform. Political ecology reminds us that circulation and accumulation of capital also (re)organizes nature and produces new environments conducive to such processes. In doing this research, my approach has particularly focused on the global culture (i.e. discourse, language, meanings) and political economy of educational change and commodification.

As a note of caution, the development of my meta-theory and social theory was not something I deductively presupposed then poured my findings and case studies into. While, most certainly, I started my various researches with some creative intuitions and quite a few previous understandings to orient my own research, the primary reframing presented above was based on an inductive reworking of my previous concepts, categories, and classifications. Figure 5 is an illustration of this conceptualization process.

Figure 5: Illustration of conceptualization of the research process



Adapted from Danermark, B., Ekstrom, M., Jakobsen, L., & J. Karlsson. (2002). *Explaining Society: An Introduction to Critical Realism in the Social Sciences*. New York: Routledge. Pp. 111.

What emerged is my tentative understanding of how all the parts fit into a broader pattern: based on politics of education and capitalist restructuring. What was described in this chapter is a kind of open-ended and engaged form of dialectical thinking drawn from my archive of life and my intention to figure out what is going on in a very complex and contradictory form of theorizing the global commodification of education. This theorizing is still subject to change as is my thinking about it given new evidence, creative speculation, and collegial dialogue. The next chapter connects this theoretical framework to my philosophy of social science and research design, which is rooted in critical realism.

Chapter 4

Philosophy of Social Science

This chapter introduces a philosophy of social science based on Critical Realism that is foundational to the nature and design of this research. Critical realism focuses on the different layers of structures, relations, and "generative mechanisms" giving rise to phenomena within the natural and social worlds—denoting a stratified ontology. Representing a meta-theoretical framework for this study concerning the politics of capitalist restructuring in education, a critical realist mode of abstraction and interpretation can be conceptualized through the distinctions between *intensive* and *extensive* research, which will also be discussed in this chapter.

4.1 Critical Realist Ontology

As a philosophy of (social) science, Critical Realism (CR) is not a theory, but a meta-theory, that fits congruently with a number of substantive theoretical positions. For example, critical realism has been explored and situated in relation to the works of Karl Marx (Albritton, 2007; Banfield, 2016; Brown, Fleetwork & Roberts, 2002; Creaven, 2000; Ehrbar, 2007; Joseph, 2002), Antonio Gramsci (Jessop, 2004; Joseph 2002; Pearce & Tombs 1998; Sum & Jessop, 2013), Émile Durkheim (Pearce, 1989, 2007), Jacques Derrida (Gratton, 2017; Joseph & Roberts, 2003), Pierre Bourdieu (Öğütle, 2013; Potter 2000; Vandenberghe, 2014), and Michel Foucault (Al-Amoudi, 2007; Datta, 2007; Frauley, 2007; Pearce & Woodiwiss, 2001; Sayer, 2012; Woodiwiss, 2007), among others. For my own inquiry, critical realism represents a meta-theoretical framework situated in relation to global political economy and critical discourse studies for the purpose of advancing a theory on the politics of capitalist restructuring in education. It proceeds to under-labour in what is generally considered the early stages of critical realism associated with Bhaskar's *Possibility of Naturalism* (1979) which is concerned with "transcendental realism," "critical naturalism," and "dialectical critical realism."

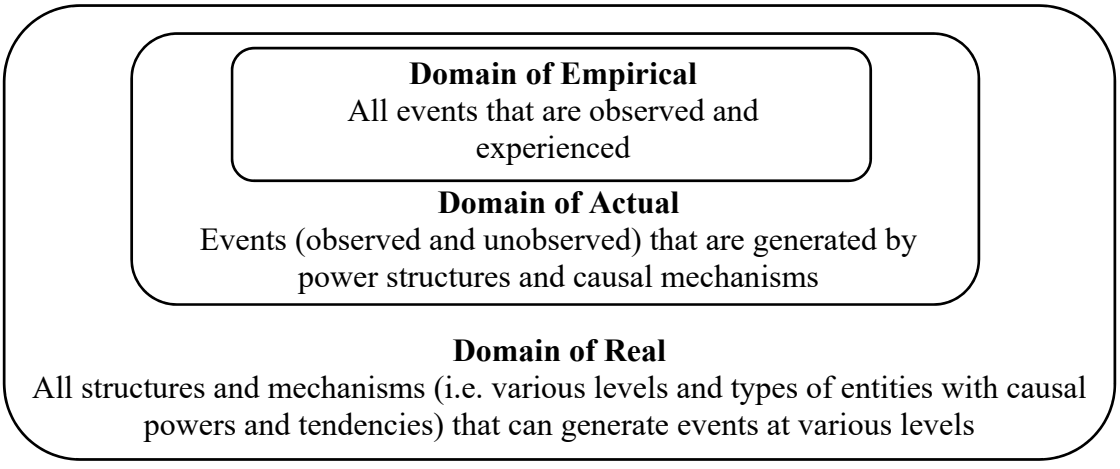
First and foremost, this study is critical realist insofar as it represents a stratified ontology. A fundamental feature of CR is the gravity with which it places on ontology. With this concern for ontology, critical realist perspectives begin from questions about what exists (e.g., the conditions under which social objects such as "educational commodification" emerge). Ontologically, critical realism makes the distinction between the various layers or "strata" in both the social and natural worlds. Layers of the social world are stratified by mechanisms, not things or events, in which "mechanisms are, so to speak, *layers* of nature, and are *ordered*" (Collier, 1994, p. 46). Hence, a critical realist notion of the social world is that "of a world comprised of various layers of structures and generative mechanisms … so that the social world is also comprised of a stratified ensemble of structures and relations" (Joseph, 2000 p. 186). In the context of this study, a critical realist approach focuses on the different layers of structures, relations, and "generative

mechanisms" giving rise to global education industries and the extraction of surplus value from educational systems, processes, and practices.

The stratification of structures and mechanisms functioning at different layers that make up the social world, however, are not assumed by critical realists to be self-evident, easily observable, or perfectly probabilistic. CR differs from the epistemic realism of positivism since the objects of social science are often unobserved, unseen, and/or unnoticed. Take, for example, social structures of education that involve unseen and unintended effects, forms of social reproduction, inequalities, hidden messages, codes, and forms of social control that may go on unnoticed. Hence, a critical realist perspective contends that our inquiries into structures and systems cannot merely be conflated with our experiences of them. And thus, "Bhaskar's stratified, differentiated and emergently real ontology indicates that what appears and is immediately experienced are only surface features of deeper realities" (Banfield, 2016, p. 3). Applying a critical realist approach to educational studies then, David Scott (2015) notes that:

> The key problem for educational theorists and philosophers is to address the fact that the social world exists separately from the individual and is real, but that the set of constructs and the relationships between them that are used to describe that world could be different than they are. (p. 643)

Critical realism, therefore, is based on "ontological domains"—making the distinction between the "empirical," the "actual," and the "real" (illustrated in Figure 6 below)—and argues that surface-level appearances coverup deeper realities (Bhaskar, 1978, 1979, 1986).



Each mechanism (or set of mechanisms) exists within a different stratum, encompassing particular properties and relations, and the nature (or tendencies) of one stratum explains the other. Critical realism, therefore, is said to be a form of "transcendental realism" or "depth realism" in that "it looks beneath the course of events to the mechanisms that generate it, and beneath each layer of mechanisms to the one that founds it, it also recognizes a depth dimension in the object of science" (Collier, 1994, p. 50). For Bhaskar, the relation between a higher-level mechanism and an underlying mechanism is thought of in terms of rootedness and emergence in which the "higher-level one is rooted in, and emergent from, the more basic one" (Collier, 1994, p. 110). The more complex aspects of reality (higher-level mechanisms) involve features that are not reducible to the less complex, however. Instead, the higher-level mechanism must be discovered first; "it then becomes the phenomenon to be explained in the next stage of ever-deepening scientific knowledge" (Collier, 1994, p. 110). In turn, critical realists ask: "What must be true in order for x to be possible?" This reflects a type of retroductive reasoning which "proposes something that may not have been observed or could not be observed directly" (Blaikie, 1993, p. 165), and "it is this 'something' (whether actual or potential) that, if it were true (as knowledge is always fallible), would explain the existence of the social objects" (Frauley & Pearce, 2007, p. 19). Karl Marx, for example, could be considered a proto-critical realist, since he inferred empirically that class conflict arose from the contradictory processes of a capitalist mode of production, and if true, could explain the emergence and reproduction of class conflict.

Bhaskar's critical realist approach also makes the distinction between the "intransitive" and "transitive" dimensions of (social) scientific knowledge. The intransitive dimension refers to the objects of science that we study, which exist independently of the scientific inquiry, and the transitive dimension refers to the theories and discourses used to make sense or describe the objects that we study. Transitive dimensions that mediate our reality through language, text, and discourse must also be acknowledged as provisional, fallible, revisable, and disputable (Sayer, 1992, 2000). This "incompleteness" not only has epistemological aims, but also ontological aims,

as the "objects" of scientific study are continuously undergoing historical evolutionary change caused by the double hermeneutic (Sayer, 1992). "Thus, a genuinely scientific realism is necessarily a critical one, which continually reflects on and revises its own categories and instruments" (Gorski, 2013, p. 659). Moreover, critical realism rejects the notion that the "truth" of our social reality exists in some settled, motionless state solely explained through closed experiment and observation. In turn, the transitive dimensions of a critical realist philosophy of science are in contradistinction to positivism, while the intransitive dimensions (the notion that things exist and act independently of our descriptions and explanations) are in contradistinction to extreme or anti-realist readings of linguistic idealism, existential hermeneutics, or postmodernism. It is a type of "sociology of knowledge" approach to social scientific inquiry. Here, the intransitive objects of inquiry represent global edu-businesses and the commodities they produce and sell, the ideas and discourse they implement, and the processes they engage in and represent. Yet, as Bhaskar reminds us, "If the objects of our knowledge exist and act independently of the knowledge of which they are the objects, it is equally the case that such knowledge as we actually possess *always consists in historically specific social forms*" (Bhaskar, 1979, p. 1, *italics added*).

At the core of critical realist social scientific work is explanation. "To explain something is to identify the structures and powers that produced it" (Gorski, 2013, p. 668). Explanatory theories following a critical realist approach are conceptual models involving deep-rooted mechanisms that constitute the different stratums of the social world. Taken here to study corporate activity in education (the intransitive object), a critical realist approach focuses on the mechanisms and powers causing corporate education reforms to take root and deepen their influence within societies. Critical realists argue that our social worlds are made up of various layers of structures and generative mechanisms that have causal powers involving certain tendencies and processes that are not always seen or observable, but from which our realities emerge, effected in different ways under particular conditions. Methodologically, therefore, social

science must search for the emergent mechanisms, concealed or unconcealed, operating at various stratums, that codetermine laws, exhibit causal powers, and interact and codetermine events with other laws and forces in the open systems of the social world (Bhaskar, 1978; Collier, 1994). CR, therefore, is a meta-theory that must be "translated" into workable social scientific frameworks that align with the specific aims and objects of inquiry.

Going beyond surface-level appearances that conceal underlying realities is the core aim of this critical realist framework. Taking a stratified ontological approach then, this inquiry outlines and develops a theoretical framework that accounts for the various layers, or strata, of reality that constitute the social world (or in this case, the GEI as a social object of study). It is a theoretical research framework, discussed in Chapter 3, for investigating the politics of privatization and commercialization in education as layers of reality; characterized by their own sets of mechanisms, structures, and relations.

4.2 Research Design: Intensive and Extensive

To conduct the type of theoretically informed concrete research this study sets out to accomplish requires an alternative research design. Such a research design, for abstracting and interpreting the activities of education industries, can be conceptualized through the distinctions between *intensive* and *extensive* research (Harré, 1979; Sayer, 1992; Sayer, 2000).

Both types of intensive and extensive research design ask different kinds of questions. Intensive research asks how a causal process works out in a particular case or limited number of cases, and in doing so, asks questions about "What produces certain change?" and/or "What did the agents actually do?" (Sayer, 1992, p. 243). On the other hand, the focus of extensive research is to discern "common properties and general patterns" of a group of individual actors to determine how widely certain characteristics or processes are represented (Sayer, 1992, p. 242). For this study on the GEI, I use both types of questioning to investigate the social practices,

strategies, and actions of a limited number of firms giving rise to educational change and certain socioeconomic phenomena.

Another difference between intensive and extensive research is the type of groups studied, and how they relate. Extensive research is concerned with the ways in which groups can be defined *taxonomically*, that is, by common properties and patterns—although the members of that particular group (of people, institutions, etc.) may not actually interact directly with one another (Sayer, 1992; 2000). Intensive research is mainly concerned with "groups whose members may be either similar or different but which actually relate to each other structurally or causally" (Sayer, 1992, p. 244). Certainly, the GEI is an assemblage of networked relations in which resources, information, contacts, services, and so on, are exchanged and function both structurally and causally. For example, Pearson is a funder of Bridge International Academies—resulting in social and material relations that seek to work in the interests of both parties. Moreover, Pearson and Microsoft actively participate in joint educational partnerships, initiatives, and networks, in a variety of spaces and capacities devoted to educational change, "innovation," and "improvement." Broadly-speaking, they share a common vision for the future of education and their efforts are coordinated, serendipitously or deliberately, to commodify more and more of the education sector, globally. Causality, therefore, is analysed through actual connections (Sayer, 1992). For this study of the GEI, I am concerned with taxonomic groups and how they may or may not interact.

Andrew Sayer notes that in intensive research studies, the individual objects of analysis (i.e. people, institutions, organizations, discourse) "need not be typical and they may be selected one by one as the research proceeds and as an understanding of the membership of a *causal* group is built up" (1992, p. 244). Such was the case within this research process, which originated as a study solely on Pearson then developed into a small number of case studies. By expanding the scope of analysis to multiple GEI firms, my aim is to understand and interpret the structures,

processes, and causal groups they are a part of and represent. Hence, this intensive research is exploratory in nature. It runs "counter to the rather peculiar idea that researchers should specify what they are going to find out about before they begin and an acknowledgement of the need to develop research procedures which do not inhibit learning-by-doing" (Sayer, 1992, p. 244).

Thus, intensive and extensive research is complimentary of one another in light of their strengths and weaknesses. Causal explanation and interpreting meanings in context are strengths of intensive research, although such "results" may not be representative of the whole population. Yet, "the adequacy of an analysis of a single case need have nothing to do with how many other such cases there are" (Sayer, 2000, p. 21). Even so, while events at the level of the empirical and concrete may be unique, the structures and mechanisms into which individual agents are situated and exist, and abstract knowledge of such, may apply to other cases, more-generally (Sayer, 1992). Moreover,

> In some cases the unusual, unrepresentative conjuncture may reveal more about general processes and structures than the normal one. Rare conjunctures such as experimental communities, social or institutional crises, psychological abnormalities, identical twins reared apart, etc., may lay bare structures and mechanisms which are normally hidden. (Sayer, 1992, p. 249)

Whereas extensive studies focus on formal relations of similarity, intensive studies focus on social relations that are substantial, structural, and causal (Sayer, 1992; 2000). Hence, my research is mixed in that it combines both intensive (a limited number of causal agents analyzed using interpretive methods and ethnography) and extensive research (since different parts of the group are analyzed taxonomically).

In the next chapter, I present the elements of this research design in greater detail including the particular methods and techniques brought together to work towards the objectives of this research. It is a mixed methodological approach designed to interpret and explain the

structures and strategies of accumulation that GEI firms represent and engage in across different social fields.

Chapter 5

Methodology & Techniques

This chapter outlines the research design, or general strategy, concerning the choice and use of particular methods put in place to work towards specific objectives (methodology), and the techniques used to collect and analyze data related to the research questions (methods) (Crotty, 1998). This methodology is justified by a collection of theories and meta-theories, most notably critical realism, which does not rigidly prescribe a set of particular methods but rather allows for flexibility to select, mix, and reject certain methods (Morrow and Brown, 1994; Sayer, 2000). It is a mixed methodological and exploratory approach that merges concepts and methods from critical discourse and semiotic analysis along with network ethnography, in conjunction with those from critical political economy studies, to investigate the capital accumulation strategies of some of the most influential edu-businsses in the world.

5.1 Realism and Empirical Research Methods

According to Andrew Sayer (2000, p. 19), "compared to positivism and interpretivism, critical realism endorses or is compatible with a relatively wide range of research methods, but it implies that the particular choices should depend on the nature of the object of study and what one wants to learn about it." The nature of the object of this study is that of a social system with layers of structures and causal mechanisms. It is "concrete" in that the GEI is a product of multiple mechanisms and forces, including regimes, rules, resources, institutions, and discourse that operate across different layers of reality. It is an open, dynamic, chaotic, and multifaceted object of analysis. As such, the different components cannot be isolated and examined under controlled conditions. "So much," therefore, "depends on the modes of abstraction we use, the way of carving up and defining our objects of study," Sayer claims (2000, p. 19). In what follows then is a conceptualization of my mode of abstraction and the different methods that fit together to constitute a multi-methodological approach meant to interpret and explain the complex activities that GEI firms engage in and represent, across a variety of social contexts.

5.2 Theory-based Construct Sampling, Grounded Theory, & Paper-Based Studies

Making use of theory-based construct sampling, this methodology is based on the selection of information-rich cases for in-depth study. Theory-based construct sampling involves processes whereby the "researcher samples incidents, slices of life, time periods, [organizations] or people on the basis of their potential manifestation or representation of important theoretical constructs. The sample becomes, by definition, representative of the phenomenon of interest" (Patton, 2002, p. 238).

By sampling a small group of industry-leading businesses and studying the processes they engage in and represent, inferences about the broader GEI (i.e., what it is, what it does, and what it means) can be sequestered. Yet, this study does not assume generalization. So, while the edu-

businesses examined for this study may not provide a model for other enterprises of different positions and sizes they do provide paradigmatic, *critical cases*, which – through their tendencies, methods, and transnational business practices – *tell us something* about the broader trends and applications of the GEI. "Critical cases are those that can make a point quite dramatically or are, for some reason, particularly important in the scheme of things" (Patton, 2002, p. 236). For this study, GEI firms are the objects of analysis representing important cases that reveal deep insights for interpreting and explaining the cultural politics of education industries.

Finding manifestations of a particular social phenomena to explore (such as corporate activity in education) allows for the interpretation and construction of theoretical concepts under scrutiny. This approach to theoretical sampling, therefore, follows a type of "grounded theory" (Glaser & Strauss, 1967). That is, it is emergent, open-ended, and an interpretive approach that acknowledges the crucial role of language, symbols, and culture in shaping individual and collective meanings and actions. An in-depth case study approach of theory-based construct sampling is brought together with empirically-based analytical processes of selecting and coding data, re-checking, reflecting on, and integrating theoretical categories and taxonomies through analytical accounts—and thus, labouring towards the development of a substantive and recognizable theory of social action/transformation. Theoretical sampling is therefore done for the purpose of developing new concepts.

Grounded theory makes uses of "theoretical sampling to elaborate the properties of a category, to make the category more precise, and to discover variation in it or between theoretical categories and make them more precise" (Charmaz & Belgrave, 2015). Further data collection and sampling through analytical phases and stages can refine the concrete into more abstract interpretations, forming the basis of an explanatory theory. Here, the theoretical sampling of GEI firms, and their products and activities, in tandem with grounded theoretical techniques, aim to provide an explanatory theory regarding the extraction of surplus value from education by industry. It provides a (provisional and fallible) theoretical construct for interpreting and

understanding the cultural politics of GEI activities, embodied in the discourse, language, symbols, objects, and meanings of GEI actors. Moreover, as a social justice-based research inquiry, this explanatory theory is meant to address issues of power, ideology, and equity concerning the logic and rule of capitalist markets in education.

To develop an explanatory theory of GEI activities and processes this inquiry involves a sampling process that is based on *intensive* research practices. That is, a concentrated study of a limited number of cases. Hence, the GEI firms that are the objects of this study include Pearson plc, Bridge International Academies, Ltd., and Microsoft Corporation. Due to their significant position, scope, scale, and influence in globalizing education markets, these companies are purposefully sampled to extensively study the objects they produce and the processes they engage in and represent. It presupposes that the market position, size, and strategy of these firms play an important role in setting the standards for global edu-businesses as a whole. This dissertation research is also paper-based. Meaning that case studies on Pearson, Bridge International Academies, and Microsoft are organized around a common thematic and as a set of three papers in journal-article formats. Hence, each firm is analyzed separately, constituting three distinct studies that examine different angles and the many sides of the GEI in an effort to identify analytical cleavages and variations. Taken together, this set of papers represents a coherent study on the global culture and political economy of the GEI from the vantage point of three prominent edu-businesses.

5.3 Cultural Political Economy and Critical Semiotic Analysis

This inquiry is integrally-informed and guided by cultural political economy (hereafter, CPE). CPE is a post-disciplinary approach that makes the "cultural turn" in analyses regarding articulations of political economy (see Best & Paterson, 2010; Jessop, 2004; Jessop & Sum, 2006; Robertson & Dale, 2015; Sum, 2010; Sum & Jessop, 2013). This "cultural turn" embraces "approaches oriented to argumentation, narrativity, rhetoric, hermeneutics, identity, reflexivity,

historicity, and discourse" (Jessop 2010, p. 337). It seeks to avoid "soft cultural economics" (or soft economic sociology found in post-structuralism) and "hard orthodox economics" (such as neo-classical economics, determinist forms of Marxism, and other approaches that naturalize the economy and its laws while neglecting its social and cultural embedding) (Jessop, 2004). Methodologically, CPE merges concepts and techniques from critical semiotic analysis with those from critical political economy. In turn, CPE involves examining the constitutive role of semiosis and semiotic practices in economic and political activities, institutions, and the broader social order of things. Equally important as semiotics are the extra-semiotic (i.e. material) conditions that signify the wider social context and circumstances that make semiosis possible and give it meaning and influence.

A useful instrument in the CPE toolbox is the idea of "economic imaginaries." They refer to the semiotic systems and practices that give meaning and shape to the "economic" field (Jessop 2010). They involve a set of beliefs, values, rules, ideas, and institutions linked to particular social forces and groups in society through which the economic field is imagined. Hence, economic imaginaries "provide a semiotic frame for *construing* economic 'events' but they also help to *construct* such events and their economic contexts" (Jessop 2004, p. 164). CPE studies, therefore, pay critical attention to the economic imaginaries that are activated by certain actors and organizations, and how they secure conditions for accumulation through semiotic practices. For this study, the economic imaginaries represented by the GEI will be explored to interpret and explain the ways in which education is (re)defined as a subsystem of the economic field and (re)structured as a site for regulating conduct and articulating strategies, projects, and visions oriented to these imagined economies.

As a methodology, CPE involves steps to uncover the broad evolutionary and institutional (including material and semiotic) mechanisms of political economy developments, which include "variation," "selection" and "retention" (Jessop 2004). Critical to this approach is the dialectic

between semiotic and structural selectivity, which together form "strategic selectivity" (Jessop 2008, p. 240). In Jessop's words (2004, p. 6-7), this involves the:

- Selection of particular discourses (the privileging of just some available, including emergent discourses) for interpreting events, legitimizing actors, and (perhaps self-reflexively) representing social phenomena. Semiotic factors operate here by influencing the resonance of discourses in personal, organizational, institutional, and broader meta-narrative terms and by limiting possible combinations of semiosis and semiotic practice in a given semiotic order. Material factors also operate here through conjunctural or institutionalized power relations, path-dependency, and structurally-inscribed selectivities.
- Retention of some resonant discourses (for example, inclusion in an actor's habitus, hexis, and personal identity, enactment in organizational routines, integrated into institutional rules, objectification in the built environment, material and intellectual technologies, and articulation into widely accepted accumulation strategies, state projects, or hegemonic visions). The greater the range of sites (horizontally and vertically) in which resonant discourses are retained, the greater is the potential for effective institutionalization and integration into patterns of structured coherence and durable compromise. The constraining influence of complex, reciprocal interdependencies will also recursively affect the scope for retaining resonant discourses.
- Reinforcement insofar as procedural devices exist that privilege these discourses and their associated practices and also filter out contrary discourses and practices. This can involve both discursive selectivity (for example, genre chains, styles, identities) and material selectivity (for example, the privileging of certain dominant sites of discourse in and through structurally selective strategic selectivity of specific organizational and institutional orders). Such mechanisms recursively strengthen appropriate genres, styles, and strategies and selectively eliminate appropriate alternatives, and are most powerful where they operate across many sites in a social formation to promote complementary discourses within the wider social ensemble.
- Selective recruitment, inculcation, and retention by relevant social groups, organizations, institutions and so on, of social agents whose predispositions fit maximally with the preceding requirements. (Jessop, 2007, p. 6-7)

Hence, a comprehensive CPE analysis involves examining the semiotic and extra-semiotic dynamics at play in the "contingent emergence" (variation), "subsequent privileging" (selection), and "ongoing realization" (retention) of mutually supportive discourses and material practices (Jessop 2010, p. 340). For this inquiry, this involves explaining the strategic selectivities of edu-businesses (representing the concrete phenomena and material practices under study that also signify a semiotic "character") through the abstraction of devices, tools, discourse, and techniques associated with the GEI. Abstracting through critical semiotic analysis and critical discourse

analysis, in turn, form analytical distinctions and themes. Then, referring back to the concrete, conjoining the abstract constituent elements, noting how they function together, and with what consequences, this dissertation research aims to interpret and explain the political-economic discourses and semiotic practices constituting the GEI.

5.4 Critical Discourse Analysis

Critical discourse analysis (CDA) is a complementary technique for CPE studies since it can "provide explanatory contextualisations of the production, communication, and reception of semiosis and therefore provide a means of thinking about the articulation of the semiotic and extra-semiotic in social transformation" (Fairclough, Jessop and Sayer, 2003, p. 23). CDA enables us to identify and explore the extra-semiotic conditions and contexts that give meaning and power to certain discourse. Thus, the "cultural" within CPE refers to "the ensemble of social processes by which meanings are produced, circulated and exchanged" (Sum & Jessop, 2013, viii)—that is, the discursive and semiotics dimensions—that form the basis of political economy developments. Discourse, semiosis, and hermeneutics are therefore crucial methods to interpret and explain the logic of capital accumulation in its sociohistorical and cultural contexts. Critical Discourse Studies, in turn, has been defined as "an inter-disciplinary approach to language in use, which aims to advance our understanding of how discourse figures in social processes, social structures and social change … and seeks to develop a critically contextualised approach … [to] issues of ideology, power and inequality" (Flowerdew & Richardson, 2018, p. 1).

Ontologically, CDA views language as a form of social practice and focuses on the ways social and political domination are produced and reproduced through different forms of communication (Fairclough, 1992, 2013; Chouliaraki & Fairclough, 1999). It views discourse as a way of organizing and structuring social life. Beyond just the study of text and language, it explores social phenomena that are necessarily complex and require a multi-disciplinary and multi-methodological approach (Wodak & Meyer, 2009). Discourse analysis is complimentary of

this research study since it is concerned with social structures and processes at the macro-level yet remain in dialectical relationship with social action and events taking place at the micro-level; implicated in language, text, argumentation, ideology, and other forms of discourse. As Fairclough suggests: "texts and discourse constitute a major source of evidence for grounding claims about social structures, relations and processes" (1992, p. 211). Discourse, therefore, constitutes an important research "site" to investigate the emergence, structuration, and expansion of GEI authorities and the processes and relations they represent. CDA is integral for deconstructing relations of power by analyzing the language of those in power and how this discourse (re)produces forms of systemic control and oppression. As Habermas suggests, language "serves to legitimize relations of organized power" (1967, p. 259). In turn, CDA is useful for "de-mystifying ideologies and power through the systematic and retroductable investigation of semiotic data (written, spoken or visual)" (Wodak & Meyer, 2009, p. 3). In doing so, CDA can open-up new inquiries into relations of power since discourse reflects the concrete realization of abstract forms of power/knowledge (Foucault, 1977).

This inquiry into the cultural politics of the GEI, vis-à-vis the discourse, language, and communications embedded in their social and economic activities and artefacts, involves extensive document and content analysis. Analyzing the content of market-research and industry reports on the GEI, education company websites and the websites of subsidiary, ancillary and holding companies, the financial accounts and reports of GEI actors, as well as examining media releases, blogs, company brochures, editorials, online product reviews, customer testimonials, corporate presentations, seminars, and so forth, is a crucial part of this research process. Furthermore, governmental documents including various Ministry of Education reports, statements, and policies where the GEI operates, as well as discourse from supranational governmental organizations, such as the UN and OECD, also provide useful sources for discourse-analytics that provide explanatory contextualizations concerning the discourse and semiosis of global edu-businesses.

Discourse Historical Analysis (DHA) is an offshoot of CDA and Wodak and Meyer (2016) identify three forms of critique developed as part of DHA that are essential to my own framework. They are (1) "discourse immanent critique," which is meant to identify internal contradictions, incongruities, and tensions within a certain practice; (2) "socio-diagnostic critique" which draws on social theory and contextualized knowledge to show the ways in which some discursive practices can influence, control, and manipulate, and; (3) "prognostic critique," which uses the insight from immanent and socio-diagnostic critique to "contribute to the improvement of communication" (Wodak & Meyer, 2016, p. 65).

In this dissertation, I focus on the contradictions, incongruities, and manipulations that take place in relation to, and through, discursive practices. This involves identifying, interpreting, and decoding language and communicative methods associated with the GEI and re-articulating the nexus of meaning (typically, concealed) by which they were produced and what they represent. It is a hermeneutical mode of interpretation informed by critical semiotic studies and cultural political economy that aims to reveal how legitimatization and authority are achieved by the GEI through discursive practices (although social tensions and dilemmas exist). Discourse related to "efficiency," "innovation," "standardization," "personalization," "freedom," and "choice," for example, represent a mode of life and production appropriated by the GEI that also involve contradictions requiring interpretation and explanation. In turn, this approach "tempers the critical power of deconstruction to expose ellipses and contradictions of discourse with the reconstructive power of hermeneutics to tease out meanings in their cultural coherence" (Hall, 1999, p. 19). Social contradictions implicated within GEI language, communications, and discourse, then, are dialectically and hermeneutically decoded and translated to reveal new meanings about the social objects of analysis.

5.5 Networks and Network Ethnography

New modalities of governance in education are following the respatializing aspects of globalization. Education policy processes have shifted away from conceptions of a "predominantly national system to a more fragmented, multi-scalar and multi-sectoral distribution of activity that now involves new players, and new ways of thinking about knowledge production and distribution" (Robertson & Dale, 2008, p. 33). Ball (2012, p. 93) extends this point to suggest that "education policy analysis can no longer sensibly be limited to within the nation state – the fallacy of methodological territorialism – and [...] must also extend its purview beyond the state and the role of multinational agencies and NGOs to include transnational business practices." In turn, networks represent an important analytical technique and conceptual device for studying the rising presence and involvement of corporate actors in new arenas of education governance.

With the increasing fragmentation, scalarization, and respatialization of the operations of nation-states through "strategic alliances, joint working arrangements, networks, partnerships and many other forms of collaboration across sectoral and organizational boundaries" (Williams, 2002, p. 103), networks represent important sites for policy analysis. Networks, for instance, are deployed by Stephen Ball in two ways: (1) as a method "for looking at the structure of policy communities and their social relationships. It works to capture and describe *some aspects* of these relationships, that is some of the more *visible* aspects of these relationships," and (2) as a conceptual device "used to represent a set of 'real' changes in the forms of governance of education, both nationally and globally" (2012, p. 6). Network analysis, in turn, focuses on the relational patterns and flows of "people, capital and ideas" (Ball, 2012, p. 5) that constitute certain social and policy formations. It represents an analytical technique to trace the complex sets of social relations and exchanges (of money, information, and expertise) giving rise to new forms of network governance arranged to achieve certain objectives (Rhodes, 1996). For this inquiry, an approach informed by network governance is employed to trace the transnational business practices of leading GEI firms to explain their roles and modalities in educational restructuring projects.

Au and Ferrare (2015) suggest using network analysis to examine corporate involvement in education by demonstrating the ways in which "powerful networks of private/non-public organizations (philanthropies, non-profit organizations, corporations, and other non-governmental policy actors) are stitched together to effectively form new, relatively unaccountable, governance structures for education, essentially occupying the authoritative spaces created by the shrinking of the neoliberal state" (p. 16). In turn, new forms of network governance have involved "the transfer of power and coordination from bureaucratic structures to informal social networks of private individuals and organizations working to transform public education by constructing new education markets" (Au & Ferrare, 2015, p. 9). By examining GEI activities as networks of governance, this inquiry is focused on the ways in which power is institutionalized and redistributed in newly privatized ways—and in the process, is creating new education markets.

In particular, this research draws principally from an evolving field of policy sociology in educational studies related to "network ethnography" which has been employed in a number of important studies as a method to examine policy mobilities (see Ball & Junemman, 2012; Hogan, 2015; Ball, Junemann, & Santori, 2017; Olmedo, 2013; Shiroma, 2013). In conceptualizing a network ethnography approach for global educational policy studies, Ball and Junemann (2012) extend the model developed by Howard (2002) that views network ethnography as a technique for studying the operations of "hypermedia" organizations—those are, "organisations that have become increasingly 'wired' where physical proximity becomes strategically less important for social organisation" (p. 551). Howard (2002) argues that even though these organizations have developed in ways that enable business operations to be carried out over vast and disparate geographical areas this "should not become a methodological reason for excluding them from ethnographic study" (p. 555). Instead, these hypermedia organizations—emblematic of the GEI—provide new sites to study education policy processes that no longer stem from, or are constrained to, the boundaries of the nation-state, but are linked to global systems of capital.

The approach conceptualized by Anna Hogan (2015) that views the network ethnographer as *cyberflaneur* is particularly demonstrative of the methodology used for this research. The idea of network ethnography and the *cyberflaneur*, Hogan explains, comes from the 19th century *flaneur* who "pioneers a new way of seeing, experiencing and representing modernity, and in particular points to new ways of engaging with policy problems and their analysis" (2015, p. 383). It draws from the work of Kenway and Bullen (2008) that refers to the "youthful *cyberflaneur*" as someone that makes use of new information and communication technologies to critically observe global consumer culture. These individuals, Kenway and Bullen (2008) argue, possess the "freedom and agency to look beyond the surface gloss of global consumer culture and to discover what lies hidden" (p. 25). Such an approach allows network ethnographers to trace policy mobilities and policy fetishes that transcend geographical locations and political boundaries; to show "how socio spatial scales, from the global to the local, are actively produced" (Roy, 2012, p. 35). To address the new global spatialties of policy processes then, Hogan (2015) suggests that ethnographic:

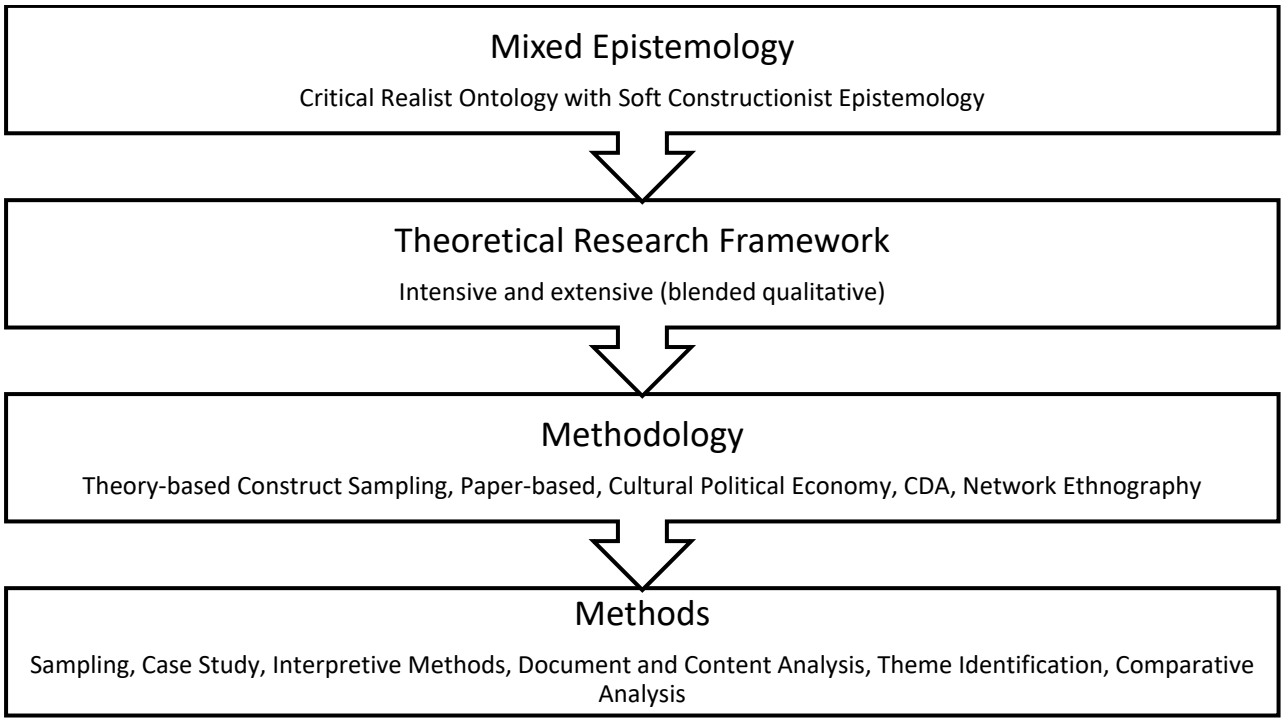
> …researchers must travel from the local to the global, between the vertical and the horizontal and across the divides of the public and the private, dwelling on moments of interests, before again travelling between the interrelations that tie these complexities together. This does not however necessarily mean physically travelling across these spaces, but rather, as network ethnography suggests, employing new technologies to access, understand and account for the factors associated with new global spatialities (p. 386).

5.6 Research Design: A Critical Cultural Political Economy Account of the GEI

Epistemologically, this inquiry is mixed and guided by critical realism and its concern with stratified ontology as well as the ongoing, dynamic processes involved in the creation of, and assumptions about, social reality. Social theoretically, it is broadly-speaking, a critical realist approach to historical materialism (social science) that operates as a more specific version of the intensive and extensive methods used in cultural political economy. It draws from (new) political

economy accounts concerned with capitalist restructuring, and specifically, the ways in which discourse and semiosis (or, the cultural) intervene in political-economic developments. Methodologically, this study of education industries is operationalized through theory-based construct sampling and case study analysis that takes on the form of a paper-based dissertation. Critical discourse and critical semiotic methods are employed to examine the constitutive role of discourse and discursive practices and semiosis and semiotic practices in political-economic processes related to GEI expansionism. Network ethnography is also incorporated into this multi-methodological approach to trace new global spatialities, connections, and points of corporate involvement in education policy processes. Interpretive methods (such as CDA and network ethnography) reflect intensive research design elements. Together, these different elements of the research program formulate a critical cultural political economy account to interpret and explain the capital accumulation strategies and activities implemented by some of the most influential and powerful GEI organizations. These different features of the research program are illustrated in the figure below.

Figure 7: Research Design Elements



5.7 (De)limitations and Ethical Considerations

This research is delimited in at least two ways: (1) by its theoretical orientations and (2) methodological scope. First, the theoretical assumptions of this research frame, or narrow, my own thinking, knowing, and interpretation of the various powers and structures related to the GEI. How would my interpretive findings differ, if I were to apply a dissimilar theoretical lens to this study that did not focus on global culture and political economy? Second, the vast scope and objective of this research project has limitations. It attempts to identify, evaluate, and explain the cultural politics of the GEI through comprehensive case studies of Pearson, Bridge International Academies, and Microsoft. Then, referring back to the concrete, conjoining the abstract constituent elements, noting how they function together, and with what consequences, this research aims to provide an empirically-grounded, theoretically-informed account of the ways in which GEI actors extract surplus value from systems of education. This complex and multi-methodological approach is ambitious, yet also provisional and fallible.

It is also important to note the ethical nature of critical hermeneutic-based research that works with public documentation at various levels and in different forms instead of traditional methods such as interviewing or the involvement of participants. The decision to analyze empirical objects, tools, and devices to interpret and explain the cultural logic and production of the GEI, is ultimately an ethical and strategic consideration, which does not necessarily mean sacrificing experience and reality, but might optimally heighten our understanding of them. There is ample amount of publicly-available data on the GEI that remains overlooked and under-researched. Here, such data are not taken for granted but rather are the focus of this hermeneutic (re)examination, which forgoes using research subjects and interviews with vulnerable learners/consumers and employees from the GEI.

5.8 Trustworthiness

Lincoln and Guba (1985) claim that "trustworthiness" of a research study is important for evaluating its contribution to the advancement of knowledge. Trustworthiness involves establishing: "credibility," "transferability," "dependability," and "confirmability" (Lincoln & Guba, 1985) as well as "replication" and "corroboration" (Sayer, 1992). "Credibility" refers to confidence in the "truth" of findings. My research will rely on triangulation as a methodological technique to ensure credibility. This involves using multiple data sources and multiple methods to interpret and explain GEI logics and processes. This triangulation of methods and case studies elucidates complimentary aspects of the same phenomena. Intensive research on Pearson, Bridge International Academies, and Microsoft also works to reconcile the issue of credibility by "identifying those characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them in detail" (Lincoln & Guba, 1985, p. 304).

"Transferability" refers to the applicability of the research findings in other contexts. Case studies of Pearson, Bridge, and Microsoft are geared towards transferability, since they reflect similar characteristics and processes as other education companies. Claims of transferability require "thick description" and involve ample description of the underlying principles, procedures, practices, and contexts implicated within the activities and objects of these firms.

In extensive research, "replication" is used to test how generally applicable particular findings are in the wider population, and in intensive research, "corroboration" is used to determine whether or not certain results actually apply to those individuals that were studied (Sayer, 1992). To check for replication I test the uniqueness, or universality, of particular practices and strategies put in place by edu-businesses, such as certain discursive strategies, by comparing them to other GEI firms. To test for corroboration, I compare my findings with product reviews, performance/impact assessments, consumer evaluations, secondary research, and collegial/professional dialogue.

"Dependability" refers to findings that can be shown to be consistent. In relation to my

study, dependability is understood as meaning consistency of interpretations based on the methodological approach. To ensure dependability, I rely on a dialectical approach that is used to audit my own interpretations and re-evaluate the accuracy of these conclusions and whether or not they are supported by the data.

Finally, "confirmability," for the purposes of this study, refers to the degree in which interpretations are "found" in the research data. To establish confirmability throughout the course of my research, an audit trail is kept that captures the process of data reduction, reconstruction, analysis, and synthesis. Triangulation of methods and sources will also be utilized to maintain confirmability. Reflexivity is also an essential technique I utilize as a researcher at every stage of the research process. Reflexivity involves critical self-reflection and questioning the various perspectives, values, and assumptions I hold as a researcher and how this may or may not shape my research.

Chapter 6

Fixing Contradictions of Education Commercialization: Pearson Plc and the Construction of its Efficacy Brand

This published chapter on Pearson marks the first stage of my doctoral research conducted between 2015 and 2016. Entering my doctoral program, my intention was to dedicate my entire dissertation to exploring the roles, strategies, scope, and impact of Pearson's vast business ventures in education. As the "world's leading learning company," it represents a paradigmatic case to explore this new type of transnational corporate actor increasingly involved in the global governance of education. Reviewing Pearson's financial accounts and reports, webpages, marketing documents, blogs and statements, and so on, it became clear that the company's aim to restructure itself as a globally integrated education conglomerate was premised on the idea that in order to justify and expand its commercial enterprise in education it must provide proof of "impact" in the form of measurable learning outcomes. To do so, Pearson launched its *Efficacy Framework* in 2014 and by 2018 it had plans to report publicly on the efficacy of its entire line of educational products. Given that I was researching Pearson and its *Efficacy Framework* concurrently as it was being promoted, I felt it was relevant and timely to publish my findings before completing my thesis to help inform the broader debate about Pearson and its commercialization strategies in education.

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Fixing Contradictions of Education Commercialization: Pearson Plc and the Construction of its Efficacy Brand

ABSTRACT

This paper explores some of the fundamental contradictions related to the commercialization of education and how Pearson plc – "the world's leading multinational education company" – is trying to overcome these challenges through discourse and semiotics. Pearson's *Efficacy Framework* is a semiotic-calculative device created to measure the impact of educational products and services sold by the company. This paper examines the ways in which the efficacy program and tools developed by Pearson represent a type of "social fix" intended to resolve contradictions linked to education commercialization by demonstrating the "measurable impact" and "outcomes" resulting from its educational products and services and communicating that to customers, shareholders, policymakers, state managers, and partners. Efficacy will be analyzed as it relates to a hegemonic "knowledge brand" in the making in education that is being actively promoted and appropriated by Pearson. Pearson, therefore, aims to construct a corporate brand and reputation around efficacy based on legible measures of performance, which this paper argues is in response to risks and contradictions associated with the commercialization of education.

6.1 Introduction

Education has increasingly been rendered as a commodity that is produced, consumed and exchanged through market mechanisms. In turn, a global education industry has emerged, constituted by systems of rules, policies, processes and social forces that interact dialectically to influence education commercialization (Ball, 2012; Robertson & Dale, 2015; Verger, Lubienski, & Steiner-Khamsi, 2016). For instance, economic globalization has increased the demand and cross-border supply of educational services and products; international trends in education policy and governance reforms have advanced the logic of decentralization, standardization, austerity and evidence-based policy paradigms that involve increased private-sector participation and market-oriented restructuring; the growth of information technologies (IT) in relationship to learning has also created new market opportunities, and hence; the commodification and financialization of education has undergone considerable expansion and intensification across all levels from pre-primary schooling to higher education and lifelong learning (Verger et al., 2016). In 2014, Bank of America-Merrill Lynch estimated that the global education industry was worth US$4.5–5 trillion and expected to grow to US $6–8 trillion by 2017 (Hartnett, Leung, & Marcus, 2014, p. 6).

This paper explores some of the contradictions of education commercialization and ways in which global edu-businesses try to overcome such contradictions through discourse and semiotics in order to secure capital accumulation.

Pearson plc, the self-adorned “world’s leading learning company” is a paradigmatic case to study the growth of the global education industry and edu-businesses that seek to profit from it. Pearson is an influential, yet largely unaccountable, actor, partner, contractor and enabler of shifting political logics and processes connected to neoliberal globalization that is transforming education into a sector guided by market principles, financial logics and capital accumulation strategies. And while Pearson is the focus of this paper, this analysis is concerned with a much broader phenomenon that relates to how edu-businesses attempt to legitimate and secure their profit-making activities in education.

Pearson's commercial activities in education span pre-primary to post-secondary levels and language to lifelong learning sectors in more than 70 countries around the globe. It has an extensive business portfolio in education with products and services related to assessment, publishing, curricula, data management/processing, administration and learning and technology as well as the Pearson Affordable Learning Fund that provides "low-cost" private schooling in the global-South and the operation of private colleges in the global-North such as Pearson College London. In 2015, Pearson's sales dropped by 5% but remained substantial at £4.5 billion.

John Fallon, the Chief Executive Officer of Pearson, states: "We think education will turn out to be the great growth industry of the 21st century" (Pearson plc, 2012, p. 8). This belief stems from socio-economic trends taking place on a global scale:

> As rapid advances in technology continue to disrupt the world of work, the economic value of education and skills will continue to increase. Governments spend trillions of dollars per year on education and training; and, each year, the still rapidly growing middle class invests more of its own increasing wealth in the education of themselves and their children. And yet, the world fails to meet the learning needs of far too many of our fellow citizens (Pearson plc, 2013, p. 9).

For more than a decade, Pearson has gone about restructuring the company into a globally integrated education conglomerate in order to capitalize on "the sustained and growing global demand for greater affordability, access, and achievement in education" (Pearson plc, 2014, p. 17). As the company claims:

> …the bigger Pearson's social impact – in improving access to good quality education and ensuring that translates into meaningful learning outcomes for far more people – the more we can create a faster growing and more profitable company, and do so in a sustainable manner (Pearson plc, 2015, p. 6).

Therefore, the company's "commercial goals and social purpose are mutually reinforcing" (Pearson plc, 2012, p. 34). For Pearson then, demonstrating "social impact" is "a form of justification of the company's commercial activities, or a form of legitimation for profit" (Junemann & Ball, 2015, p. 6).

In turn, Pearson aims to generate data that makes legible and visible the "outcomes" and/or "performance" of its educational commodities. It is part of a corporate strategy whereby Pearson intends to rebrand and reinvent itself as the "efficacy company" in education that can deliver social impact in the form of effective and efficient outcomes for learners. As Marjorie Scardino, the former CEO of Pearson (1996–2012), announced in 2012: "We're setting out to become the efficacy company. . .we need to define ourselves by how effective we are, by the impact we make." John Fallon, the current CEO of Pearson, has maintained that: "We want to be able to demonstrate that everything we do as a company delivers an improved learning outcome." Hence, the goal of Pearson is to construct a corporate brand and reputation around efficacy that builds trust with customers and legitimates it's for-profit activities in education.

This paper aims to contribute to the growing body of literature on the global education industry by focusing on particular discourse, ideas, meanings, brands, desires and symbols used by education corporations like Pearson to advance capitalist restructuring in education. Scholarly attention that deconstructs the discourse and semiotics mobilized by transnational corporate actors for the purpose of commodifying more and more of the education sector is necessary for understanding the expansion and intensification of the global education industry and opening it up to critique. Therefore, this paper examines the discursive and semiotic techniques of Pearson that aim to construct a corporate brand and reputation around "efficacy" in order to overcome contradictions related to education commercialization.

This paper adopts a "cultural political economy" approach (Best & Paterson, 2010; Jessop, 2004; Jessop & Sum, 2006; Robertson & Dale, 2015; Sum, 2010; Sum & Jessop, 2013) to examine the cultural (or discursive) aspects of capitalist restructuring associated with the political economy of education. In the first section, I outline four fundamental contradictions related to education as a commodity. In the next section, I examine how Pearson is trying to "fix" such contradictions through its *Efficacy Framework*: a semiotic-calculative device created to measure the performance of educational products and services sold by the company. Methodologically, the

semiotic and discursive techniques and practices for collecting, measuring and disseminating data contrived from Pearson's *Efficacy Framework* will be analyzed using an approach based on critical semiotic analysis and critical political economy (Jessop, 2004, 2010). It will be argued that Pearson's *Efficacy Framework* is meant to fix contradictions linked to education commercialization by ensuring consumers, clients, shareholders, policymakers, state managers and partners the efficacy of its products and services. By constructing a corporate brand and reputation around efficacy based on legible, measurable and auditable techniques, Pearson aims to secure capital accumulation in the global education industry despite risks and contradictions that exist. The notion of efficacy will also be discussed as it relates to a hegemonic "knowledge brand" in the making in education which is being actively promoted and appropriated by Pearson. In the conclusion, a brief overview of insights gleaned from this paper will be discussed.

6.2 Education as a Commodity: Contradictions and Crisis-Tendencies

The liberal propensity to treat education as an economic commodity involves contradictions and crisis-tendencies in *at least* four fundamental ways. Yet, it is important to note that not all forms of education as a commodity are contradictory. Typically, tutoring and some types of professional/corporate learning have been delivered as commodities that are bought and sold privately. Hence, the following discussion is concerned with broader conceptions of education including those forms generally regarded as a "common good" and/or constitutionalized as a "human right" such as primary, secondary and tertiary education. Here, contradictions are referred to as the "various ruptures and inconsistencies both among and within the established social arrangements" (Seo & Creed, 2002, p. 225).

First, education in its commodity form is a contradiction given that learning and the transmission of knowledge that takes place can be secured otherwise than through market exchange. For example, reciprocity and/or redistribution via state or communal patronage can

provide educational services without user fees. Many countries around the globe provide free, high-quality public education to their citizens. Yet, this is the exception not the norm. It is a matter of political will and priorities.

Education is essential to human activity, survival and growth, intrinsically linked to life itself. Yet, under conditions of political and economic liberalism it has been rendered as something that is increasingly bought and sold – representing a "fictitious commodity" (Polanyi, 2001). Like knowledge, education "acquires a commodity form insofar as it is *made artificially scarce*" (Jessop, 2007, p. 120; *emphasis added*). Education is "made artificially scare" as a result of political choices, interactions, tactics, financial outflows and structures of power and influence through which the supply and provision of quality education is "rationed" (Gillborn & Youdell, 2000). As state provision and supply of education is systematically reduced in relation to demand, the participation of private (foreign) actors has increased in the sector along with cross-border supplies of education (Verger et al., 2016). In spaces of state retrenchment, new commercial opportunities have emerged for corporate actors to help fill the "governance gap" in the form of outsourcing arrangements, public–private partnerships and the direct provision of for-profit education (Bhanji, 2008). In the global North, market opportunities have mostly come in the form of curriculum and assessment services, traded as commodities, as governments "open up" the sector to requests for tender that are assumed to be the most cost-effective and efficient mode of delivery. Charter school programs and higher education institutes privately owned and operated as businesses also occupy education markets in the global North. In the global South, for-profit actors increasingly sell schooling as commodities where the political and economic determination to deliver quality education for all is lacking (Macpherson, Robertson, & Walford, 2014). Education commercialization, therefore, is a social and political construction, and contradiction, given that learning can take place in non-commodity forms including reciprocity and/or redistribution via state or communal patronage.

The second contradiction linked to education commercialization concerns the "use-value" and "exchange-value" aspects of educational commodities. "Exchange-value refers to a commodity's market-mediated monetary value for the seller; use-value refers to its material and/or symbolic usefulness to the purchaser. Without exchange-value, commodities would not be produced for sale; without use-value, they would not be purchased" (Sum & Jessop, 2013, p. 243). A contradiction exists insofar as educational commodities are sold at prices that are not congruent with their symbolic and/or economic utility. As David Harvey points out:

> All the commodities we buy in a capitalist society have a use value and an exchange value. The difference between the two forms of value is significant. To the degree they are often at odds with each other they constitute a contradiction, which can, on occasion, give rise to a crisis (2014, p. 15).

In education, this type of contradiction and crisis-tendency can take many forms. For example, governments purchase mass-produced and standardized examinations from corporations such as Pearson that shape the design and meaning of education, yet the focus on data-based scores and results produced by commodities for testing can often be at odds with notions of "quality" in learning. Educational consumers of higher education accumulate mass debt investing in credentials and degrees in order to enhance their human capital and economic outlook, yet may still end up un(der)employed. And in low-income countries, the aspirational poor expends significant proportions of family income on for-profit schooling delivered by multinational corporations, yet rather than alleviating poverty, often entrenches it.

Contemporary capitalism is largely considered to be a knowledge-based economy in which "knowledge has become the most important factor of production and the key to economic competitiveness" (Jessop, 2007, p. 115). Under such conditions, education has become dominated by an instrumentalist view in which education is valued insofar as it develops human capital and economic competitiveness, referring to the skills, information and knowledge acquired from education that enhance the productivity of the human being as an economic factor of production

(Robeyns, 2006). Learning, as an investment in the production of human capital within knowledge-based economies, also remakes consumers of education into economic factors of production that become integrated into capitalist structures of subjugation (Simons, 2006). This brings us to the third contradiction.

Education commercialization both expands and intensifies private control and influences over the learning and transmission of knowledge and socialization that takes place within systems of education, which is even more salient in knowledge-based economies given that it also increases private (oftentimes corporate) control in the social relations of production. This dilemma can be linked to what has been described by Jessop and Sum (2006) as the "fundamental contradiction of capitalism"—which "exists between the increasing socialization of productive forces and continuing private control in the social relations of production" (Jessop & Sum, 2006, p. 343). The augmentation of private control and influence in systems of education resulting from commercialization enable private actors to exercise increased authority over social relations of production since they structure that which disseminates and transfers the "general intellect" deemed useful and employable in knowledge-based economies. In turn, at the same time as private economic actors increasingly influence, and profit from, the distribution of knowledge via market exchange, those who purchase it also become socialized as productive forces in knowledge-based capitalist economies – reflecting a fundamental contradiction.

An example of this "fundamental contradiction of capitalism" is demonstrated by Pearson's edu-business activities in the Philippines. In 2013, Pearson partnered with Ayala Corporation to establish a for-profit chain of "low-fee" private high schools in the Philippines known as Affordable Private Education Centers (APEC). In addition to selling schooling as a commodity, APEC delivers a "reverse-engineered" curriculum oriented to meet the labour needs of industry (Riep, 2015). For instance, APEC aims to produce a repository of cheap and semi-skilled workers employable as call centre agents in the emerging business process outsourcing (BPO) sector in the Philippines. Not by coincidence, Ayala is a business leader in the BPO sector

in the Philippines. In turn, this reflects the ways in which private authority exercised by corporations in education also influences the social relations of production.

The fourth contradiction, or rather crisis-tendency, linked to education commercialization is a culmination of the preceding three contradictions already outlined: that is, the (re)distribution of education through market mechanisms has produced and exacerbated social inequality, inequity and segregation (Ball, 1993; Apple, 2001; Ball, 2003; Gewirtz, Ball, & Bowe, 1995; Lauder et al., 1999; Marginson, 1997). Marketized and commercialized education increases inequality by restricting and/or organizing access according to levels of payment (or rather, privilege). And while Pearson's website claims "market-based approaches can accelerate access to quality education," this approach intends to commodify the exact inequality it implicates – which is as much a contradiction, as it is an impending social crisis.

6.3 Fixing Contradictions through Discourse and Semiotics

Contradictions and crisis-tendencies linked to education commercialization can be resolved (if only temporarily) through "social fixes" ('where social is understood in terms of social practices with discursive and extra-discursive moments') (Sum & Jessop, 2013, p. 246). Social fixes reflect contested and compromised, repeated and varied processes, including a range of social, political, and economic forces and projects that "secure a relatively durable pattern of structural coherence in the handling of the contradictions and dilemmas inherent in the capital relation" (Jessop & Sum, 2006, p. 321). Fixes can be studied in relation to their semantic, institutional and spatio-temporal dimensions: insofar as particular *institutions*, embedded in the contradictions of capital, make strategic use of structural and *discursive selectivities* that favour some actors, alliances, interests, projects, visions and so on, which include *spatial* and *temporal boundaries* within which modes and phases of continued capital accumulation become normalized (Sum & Jessop, 2013). This paper focuses on the semiotic (or discursive) formations put in place by Pearson that aim to fix contradictions and crisis-tendencies related to education commercialization.

Semantically, a social fix "limits what can be seen, imagined, communicated and understood, and, through specific discursive fields (orders of discourse) they provide the categories that connect to particular fields of social relations" (Sum & Jessop, 2013, p. 247). Pearson has created an *Efficacy Framework* to categorize and delimit "what can be seen, imagined, communicated and understood" about the company by measuring, calibrating and communicating the "efficacy" of its educational commodities. Pearson claims "an education product has efficacy if it has a measurable impact on improving people's lives through learning" (Barber & Rizvi, 2013, p. 12). By focusing on the "measurable impact" that an educational commodity can have on the life of a consumer/learner, Pearson intends to reconfigure the parameters by which its edu-business activities are judged and perceived in order to shape the social perceptions of consumers and how they come to know, or what they know, about Pearson and its products. It is a semiotic social fix designed to maintain business growth and profitability in a context of risk and contradiction.

6.4 Pearson's *Efficacy Framework*

The *Efficacy Framework* developed by Pearson is designed to calculate the "measurable, proven impact on learners' lives" (Pearson plc, 2014) resulting from the consumption of educational commodities sold by the company. It is a standardized review process that assigns a particular rating to Pearson's products and services, based on a four-point colour-coded scale, measured in relation to four criteria areas: outcomes, evidence, planning and implementation, and capacity to deliver. Evaluating and calculating product efficacy is done to ensure "that all Pearson products and programs address the factors that could affect the learning outcomes that they are ultimately able to produce, in a consistent way" (Pearson plc, 2013, p. 16). If it is determined that a product is demonstrating positive results in line with the *Efficacy Framework*, then the "product is likely either already demonstrating efficacy, or at least on the path to efficacy" (Barber & Rizvi, 2013, p. 17). Pearson's *Efficacy Framework*, therefore, is a meaning-making apparatus designed to

calculatedly attach the notion of "efficacy" and its associated meanings to the products and operations of the company through visible and legible performance metrics.

Yet, what is crucially missing from Pearson's *Efficacy Framework* is a clear way to measure product efficacy that connects inputs to outputs. Although this auditing tool emphasizes "outcomes" there are no clear measures to account for the inputs that make the outcomes of learning possible. As is the case with Pearson and its *Efficacy Framework*:

> …when organizations do not have clear measures of productivity which relate their inputs to their outputs, the *audit* of efficiency and effectiveness is in fact a process of *defining* and operationalizing measures of performance for the audited entity. In short, the efficiency and effectiveness of organizations is not so much verified as constructed around the audit process itself (Power, 1997, p. 51).

Hence, the *Efficacy Framework* is a process for naming and defining performance outcomes rather than verifying them. Pearson claims that:

> Fundamentally, efficacy is about defining what outcomes we need to achieve for our learners and building in the capabilities to measure and improve those outcomes. Starting with outcomes requires a shift in the way education companies build and market their products and services (Barber & Kumar, 2015, p. 10).

In turn, Pearson is attempting to grow its global edu-business by focusing on the auditability, deliverability, and hence, marketability of outcomes.

This renewed focus on outcomes is part of Pearson's organizational shift from a business that provides education inputs (e.g. selling textbooks) to one that provides education outputs (e.g. measurable and "certifiable" learning outcomes) as pointed out by Hogan, Sellar, and Lingard (2016a). By focusing on the outcomes of its educational products and programs, Pearson intends to modify the way in which the company and its edu-business activities are seen and judged by consumers.

Pearson claims its products and services deliver four types of outcomes related to efficacy: (1) *access*, which refers to the degree that learners can access a product (e.g. in terms of technology and socio-economic access); (2) *completion,* which refers to the tasks and courses completed by learners; (3) *achievement,* which refers to the standards of competencies, skills, and qualifications

achieved and (4) *progression,* which refers to the learners ability to progress onto further education, training, or employment (Barber & Kumar, 2015, p. 21). Pearson also makes the distinction between learn*ing* and learn*er* outcomes in which the former is "statements about what has been learned" and the latter refers to the "way a human life is transformed by an educational experience" (Barber & Kumar, 2015, p. 20). By marketing learn*er* outcomes as the more expansive ways in which "a human life is transformed by an educational experience," Pearson intends to show the ways in which the acquisition of products and services sold by the company results in a set of instrumental outcomes that improve the lives of consumers. To date, Pearson has completed over 200 "efficacy reviews" and by 2018 the company plans to report publicly on the efficacy of its entire global product portfolio with the same rigor and consistency as its financial reporting.[5] As Pearson claims:

> This new and transparent approach to efficacy is central to our purpose and also makes good business sense. We hope that by demonstrating the evidence base that supports our products we will encourage a deeper engagement with learning outcomes across the education sector and at the same time clearly demonstrate the benefits of using those products (Pearson plc, 2013, p. 14).

To date, Pearson has released more than a dozen "efficacy reports." One of which was a review of CTI Education Group – a private higher education institute that serves approximately 10,000 students across 12 campuses in South Africa.

Pearson has been the 100% owner of CTI since 2013. On the company's website it claims that "Pearson's strong brand, educational resources and global reach will help leverage CTI's strengths and transform the higher education landscape in southern Africa" (http://www.cti.ac.za/about-us/). At CTI, the focus is on "arming students with real-life career

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[5] Pearson claims its efficacy reports "will be audited by an external firm, which will validate [its] approach, data, and conclusions" (Barber & Kumar, 2015, p. 5). The multinational auditing firm, PricewaterhouseCoopers (PwC), has been chosen as the external partner to 'validate' Pearson's efficacy findings. However, PwC has its own history of corruption, fraud, tax evasions and negligent auditing practices. For example, as part of the Luxembourg Leaks it was made public in 2014 that PwC negotiated 548 tax avoidance schemes with 343 multinational corporations in Luxembourg. In another case, PwC was found to be unethically favoured by the World Bank in a bid to privatise the water distribution system in Delhi, India.

skills and training them to succeed as employable graduates in a competitive 21st century economy" (CTI Education Group, 2016, p. 3). In turn, an "intended outcome" advertised by CTI is employment or further education and training which students should achieve if they successfully complete tasks, modules, pass exams and attain the qualification they enrolled in to do at CTI. Sixty-eight per cent of CTI graduates find full-time, part-time or voluntary work or move onto further education or training, according to Pearson. However, Pearson also admits there are "limitations to this data because responses are self-reported and the survey only had a 25 percent response rate" (http://www.pearson.com/efficacy-and-research/efficacy-reports.html). Therefore, correlations that lead to extrapolation are oftentimes oversimplified causing an impression of (in)efficacy that is misrepresented. The "efficacy report" on CTI claims that:

> Pearson is continuing to investigate the efficacy of CTI and is establishing mechanisms to make efficacy research easier and more accurate to conduct. Students this year will receive a unique student identifier, allowing CTI to track student progression through the institute longitudinally. The unique student identifiers, paired with a redeveloped data infrastructure, will help Pearson conduct research around how successfully students engage with the course, achieve their qualifications, complete their module tasks, and progress after they've graduated (http://www.pearson.com/efficacy-and-research/ efficacy-reports.html).

Putting in place efficacy mechanisms that show the impact of CTI, therefore, is a semiotic/discursive strategy meant to secure business operations.

Pearson has also released an efficacy report for its product aimswebPlus, which is a data-intensive assessment and reporting tool that helps educators track student progress in subjects such as reading and mathematics at each grade level from kindergarten to Grade 8. The United States and Canada are its key markets, and it currently reaches 3.8 million learners. Pearson has conducted evaluations that suggest testing results derived from aimsweb correlate with results scored by students on state tests in reading in math, "which is one way to demonstrate the product's validity" (http://efficacy.pearson. com/product-progress/aimswebplus.html):

> In a study of roughly 1,000 students at each grade level from grades 3 to 8, Pearson found correlations ranging from 0.60 to 0.72 between scores on aimsweb reading assessments and scores on state reading tests in North Carolina and Illinois. Another study of about 700 students at each grade level from grades 3 to 8 found correlations ranging from 0.57 to 0.78 between scores on aimsweb math assessments and state math tests in North Carolina and Illinois. Pearson has also demonstrated that students who do poorly on their aimsweb assessments are unlikely to do well on their state math and reading tests – up to 85 percent of grades 3–8 students who failed their state math tests and up to 80 percent of students who failed their state reading tests were correctly flagged by aimsweb as at-risk. This sort of predictive accuracy allows teachers to develop and implement the proper educational interventions for those students who are at-risk of failing state exams.

By their very nature, tests produce calculable results and scores. Pearson's efficacy review of aimsweb, therefore, is a type of double-audit. Since it aims to assess the validity of a product, yet, the product under review is itself a test that evaluates the ability of a student. It is a test of tests. However, what is lost in this fixation over results is the inputs (curricula, teachers, pedagogy, etc.) that make the outcomes of education possible.

Vital to the *Efficacy Framework* and review process is the collection of "efficacy evidence" that enables Pearson to "generate valid and reliable claims about the products' impact on learner outcomes" (http://www.pearson.com/efficacy-and-research.html). Evidence of efficacy can be "as simple as user surveys and as complex as randomized- controlled trials or longitudinal research" (Barber & Kumar, 2015, p. 24). It differs for each product based on the targets of learning outcomes and where a product is within its lifecycle. For example, Pearson states that if it were:

> …to study whether our universities in South Africa are adequately preparing graduates for careers, we might plan to do a longitudinal analysis to measure career outcomes over time. On the other hand, to study whether those graduates felt satisfied with their education, we may conduct a simple online survey before they graduate (Barber & Kumar, 2015, p. 24)

Standards of evidence collected by Pearson vary in complexity: from surveys that determine levels of customer satisfaction, to pre- and post-tests that indicate a correlation between products and

the attainment of certain outcomes, to controlled studies that isolate the impact of products and thereby provide evidence of practical and/or statistical significance.

Pearson's efficacy evidence is meant to resolve the uncertain relationship that exists between the exchange-value and use-value of educational commodities by demonstrating the "measurable impact" its products and services have "on improving people's lives through learning" (Barber & Rizvi, 2013, p. 12). Yet, these calculations are highly reductionist and can misleadingly attribute certain outcomes to products or services rather than intake variables. Isolating and measuring the correlational effect that a particular educational commodity has on the life outcomes of a learner is abundantly complex given the confluence of background variables that effect learning and its ability to "improve" the life of a learner. Pearson intends to perform longitudinal and systematic analysis over long periods of time to collect explanatory evidence that shows the "measurable impact" its products and services have on learner outcomes. However, in the interim, the company plans to continue to "depend on test and exam results, graduation rates and other measures as proxies" (Barber & Rizvi, 2013, p. 13). Yet, a potential conflict may arise from using standardized exam results to measure the efficacy of Pearson's products, which is particularly problematic in the United States where Pearson is the largest provider of education assessments. Pearson has multi-year contracts with the federal government and more than 25 states to administer and score examinations. By linking efficacy evidence to standardized tests, also prepared and scored by Pearson, this system can be manipulated so that Pearson products are framed and seen as the correlative factor that produces certain desired results. Indeed, the *Efficacy Framework* is designed to define and operationalize measures of performance for products and services sold by Pearson.

6.5 *Efficacy* as a Hegemonic "Knowledge Brand" in the Making in Education

Pearson claims it "adopted the term 'efficacy' from the pharmaceutical industry, where demonstrating the efficacy of medical interventions through systematic trials is essential" (Barber & Rizvi, 2013, p. 12). In the education industry, the recontextualization of efficacy involves demonstrating the ways in which education interventions (i.e. products, services, programs) deliver efficient and effective outcomes. For over a century, education administrators have been concerned with the operational efficiencies of industrialized systems of education. However, since the 1990s neoliberal rationality and practices of government have intensified demands for national systems and various programs of education to produce *cost-effective results*. A hegemonic discourse related to efficiency, (cost-)effectiveness, usefulness, productivity and performance (i.e. efficacy) – constructed through the dialectical interaction of ideas, institutions and material power – now governs education, globally. For Pearson, advertising effective and efficient outcomes to customers is a cleverly devised strategy to align the company's commercial activities with a "neoliberal imaginary" (conceived as the semiotic aspects that give meaning and shape to politics and economics) which has become hegemonic in education policy, practice and discourse.

New public management (NPM) is the dominant mode of governance aligned with neoliberal rationality. It "consists of a cluster of ideas borrowed from the conceptual framework of private sector administrative practice" (Power, 1997, p. 43) that involves the inculcation of market values and principles for governing public services (Lynch, 2015). A politics of cost-control, outsourcing, contractualization and the creation of market and quasi-market mechanisms represent the organizing principles and methods of service delivery according to NPM (Power, 1997). This involves "the reconstitution of the state from that of service delivery provider to a combination of regulation, performance monitoring, contracting and the facilitation of new providers of public services" (Ball, 2012, p. 36). Yet, this "hollowing out of the state" brought on by NPM also "generates a demand for audit and other forms of evaluation and inspection to fill the hole" which is said to enhance "accountability to customers for the quality of

service via the creation of performance indicators" (Power, 1997, p. 43). In turn, the spread of NPM is believed to be:

> …the success of political discourses which have demanded improved accountability of public services . . . in terms of performance. It has been argued that taxpayers have rights to know that their money is being spent economically, efficiently, and effectively – the three E's – and that citizens as consumers of public services are entitled to monitor and demand certain minimum standards of performance. (Power, 1997, p. 44)

With greater demands for improved accountability in public services, Pearson is appropriating a discourse of efficacy to stabilize concerns and anxieties related to neoliberal restructuring and education commercialization.

As citizens are remade into consumers of "public" services while governments increasingly outsource their responsibilities to new private providers, "value for money" (VFM) evaluations have become increasingly important. VFM refers to assessments that determine whether or not a buyer, given their available resources, has obtained maximum value for the products they purchase. Pearson explains: "As governments – and individuals – invest more in education, they are demanding better value for money. They expect better teaching, better outcomes and more accurate ways of measuring progress" (Pearson plc, n.d., p. 3). VFM is listed on Pearson's *Efficacy Framework* as a key outcome by which its products and services are evaluated. VFM auditing is concerned with defining and judging *accountability* in terms of efficiency and effectiveness: "*efficiency* as accountability for ensuring that maximum output is obtained from the resources employed or that minimum resources are used to achieve a given level of output/service" and "*effectiveness* as accountability for ensuring that outcomes conform to intentions, as defined in programs" (Power, 1997, p. 50). In education, accountability is monitored through the "increasingly intrusive surveillance of staff in the name of efficiency and performance management" (Connell, 2013, p.102) which includes mass-produced and standardized examinations that test both student and teacher effectiveness in relation to desired programmatic outcomes. Auditing performance in education for accountability purposes based on efficiency and

effectiveness also restructures programs and systems of education to conform with calculable outcomes and performance indicators. As Lynch (2015) points out "because auditing is about inspection, control and regulation (Lingard, 2011; Power, 1994; Shore & Wright, 1999), its introduction into the education lexicon signifies the development of a whole new system of disciplinary regulation through measurable accountability, quality assurance and performance" (p. 194). Hence, the discursive and disciplinary power of efficacy resides in its ability to render systems of education as something auditable, and hence, measurable via performance monitoring. In turn, this forms the basis of a new mode of accountability between education consumers and private providers like Pearson based on VFM propositions.

A "discursive formation" (Foucault, 1970) related to patterns and concerns for efficacy in education is becoming increasingly dominant; augmented by extra-discursive formations connected to institutions, neoliberal politics and economic restructuring. A globalized testing regime represents this discursive pattern towards efficacy in education based on measurable performance. The Programme for International Student Assessment (PISA), Teaching and Learning International Survey (TALIS) and Indicators of National Education Systems (INES), all of which are administered by the Organisation for Economic Co-operation and Development (OECD), represent some of the most prominent examples of the globalized testing establishment. In 2014 Pearson won a competitive tender by the OECD to develop the frameworks for PISA 2018 to define which educational outcomes will be measured and how. In addition to international testing regimes like those administered by the OECD and Pearson, there are multitudinous examples of governmental and non-governmental actors that reverberate neoliberal discourses related to efficacy as the art of how best to govern education (see Table 1).

Table 1. Examples of different institutions and discourses related to efficacy in education across different scales.

Scales	Institutions	Efficacy discourse, documents and/or instruments	Description
International	UNESCO	*General Educational Quality Analysis/Diagnosis Framework (GEQAF)*	Analytical tool for member states to diagnose and analyse cost-efficiencies/inefficiencies of education systems
	World Economic Forum	*New Vision for Education – Unlocking the Potential of Technology 2015*	Advocates that educational technology can be aligned with learning objectives to efficiently deliver instruction and learning
Regional	Inter-American Development Bank	*Education: Sector Policies 2015*	Efficiency of investments in education by the bank is a main of objective in order to achieve cost-effective results
	World Bank, Africa Region	*Index of efficiency*	Measures the amount of public resources 'wasted' on children who drop out before finishing primary education or on repetition years
National	UK Government, Department for Education	*Review of efficiency in the schools system 2013*	Policy paper that reviews the relationship between how schools allocate their budget and the results they achieve
	Bill & Melinda Gates Foundations, United States	*Intensive Partnerships for Effective Teaching*	An initiative in the United States that measures teacher efficacy to produce learning outcomes and to improve overall teaching effectiveness
Local	Ontario Ministry of Education	*School Effectiveness Framework: A support for school improvement and student success*	A guide for school boards to improve school effectiveness and student outcomes
	Chelsea Public Schools, Massachusetts	*District Improvement Plan 2011–2016*	A district goal is to evaluate the cost-effectiveness and efficacy of policies and procedures that are standards-based and driven by student achievement data

Source: Personal compilation based on website information and online policy documents from different institutions, accessed on 5–7 January 2016.

Circulating transnationally within policy networks the discourse of efficiency and effectiveness has become hegemonic: normalized, institutionalized, packaged, marketed, branded and consumed in various policy settings and sold by consultancy firms and private enterprise. Diverse and complimentary institutions interlinked by a familiar economic imaginary conduct their operations in line with this dominant managerialist knowledge. As a result, networks and hegemonic blocs have formed that administer and prescribe, at various levels, a market-disciplinary project in education based on performance and efficiency. The re-contextualization of performative discourses then are (re)appropriated and relocated in ways that both fit and reaffirm existing social relations (Bernstein, 1996). The development of pre-packaged and ready-

made models (such as measures of performance, outcomes, standards, curriculum, modules, manuals and methods of delivery) associated with "intellectual expertise" and leadership (including government officials, academics, consultants, firms, technocrats, etc.) form an assemblage of knowledge and experts that have given rise to a hegemonic "knowledge brand" of efficacy in education. Sum and Jessop (2013) define a "knowledge brand" as:

> …a resonant hegemonic meaning-making device advanced in various ways by 'world- class' gurus–academics–consultants who claim unique knowledge of a relevant strategic or policy field and pragmatically translate this into (trans-)national policy symbols, recipes and toolkits that address policy problems and dilemmas and also appeal to pride, threats and anxieties about socio-economic restructuring and changes. In this regard, a knowledge brand is a trans-national manifestation and condensation of institutional, organizational and discursive power in the knowledge–consultancy–policy circuit. After all, not all forms of knowledge are equal; some are more prominent and 'brandized' than others. Thus, knowledge is at the same time diffused and condensed along specific nodal points, the location of which is extra-discursively as well as discursively conditioned. (p. 305)

Efficacy, therefore, is a hegemonic "knowledge brand" in the making in education, by which programs and systems of education are discursively and extra-discursively governed in order to yield cost-effective "results" and productivity.

6.6 Imagined Reputation

Pearson's efficacy program and tools are meant to construct a corporate image and reputation around the "knowledge brand" of efficacy and its associated meanings related to performance, effectiveness and usefulness. As the company claims: "We know what's really important – commercially, strategically, ethically – is that every product we make and sell can be measured and judged by the outcomes it helps to achieve" (Pearson plc, 2014, para. 1). "Measurable impact" and "outcomes" calculated by Pearson's *Efficacy Framework* represent the data from which the company intends to establish a "cognitive frame" (Beckert, 2010) for consumers to understand, evaluate and judge the edu-business practices and products of Pearson. It is a semiotic social fix that "limits what can be seen, imagined, communicated and understood" (Sum & Jessop, 2013, p.

247) about Pearson and its products – which is largely in response to the crisis of reputation that has afflicted the company's brand and image in recent years.

As Pearson claims: "our business depends on a strong brand, and any failure to maintain, protect and enhance our brand would hurt our ability to retain or expand our business" (Pearson plc, 2013, p. 43). Yet, a number of indicators show fractures in the Pearson brand: the company's stock declined by 40% in 2015; the company lost multimillion dollar contracts to deliver tests in New York and Texas; protests against its standardized examinations and data management products and practices have increased throughout the United States including boycotts, demonstrations, and student walkouts and refusal to write Pearson-made tests; an ongoing FBI investigation into collusion between Pearson, Apple and the Los Angeles Unified School District regarding a US$1.3 billion project to equip all K-12 students with a personal iPad has gone public; teacher union activism, particularly by the global federation of teacher unions, Education International, along with civil society organizations around the globe have made Pearson the object of resistance; a webpage has emerged in which disgruntled consumers of Pearson can voice their complaints (http://pearson-education.pissedconsumer.com), and a growing body of articles and blogs condemning Pearson such as *Forbes* article "Everybody hates Pearson" all indicate that the social perception of the company is problematic. In turn, Pearson's efficacy program is designed to shape (or reshape) how consumers perceive, rationalize, value, and think about its products in order to manage contradictions and crisis-tendencies related to its edu-business activities.

Constructing a corporate brand and reputation around efficacy relies on demonstrable outcomes. Pearson's global program of efficacy, therefore, is meant to make visible and legible the impact of its products. As part of this project, Pearson has announced an "ambitious vision" known as the "Efficacy Growth & Impact Goals" by which the company "commits to impacting the lives of 200 million learners by 2025 in critical ways" that includes providing access to primary, secondary and post-secondary education, enhancing literacy and numeracy, and improving

student employability (http://www.pearson.com/about-us/growth-and-impact.html). Quantifiable metrics that show proof of impact are produced by standardized test results, graduation rates, customer surveys, and other proxies that are meant to give the impression of efficacy. As Michael Power points out, the reputation of different organizations can be socially constructed through auditing practices and techniques that conjure up perceptions of effectiveness, productivity, value, etc. (Power, 1997, 2007). By generating evidence-based calculations that "prove" the efficacy of its products, Pearson intends "to construct and manage social perceptions" (Power, 2007, p. 129) and forge a corporate reputation around the calculability and auditability of efficacy. In doing so, the company claims measurable impact goals "will serve as a driver of Pearson's future growth and profitability" (http://www.pearson.com/about-us/growth-and-impact.html).

For Pearson the aim is to develop a reputation in which its educational commodities are seen and "shown to deliver meaningful, measurable outcomes" (Barber & Kumar, 2015, p. 4). Hence, Pearson is marketing a type of "neo-social mode of accountability" connected to education commercialization, bound by market rationality (Hogan et al., 2016a; Hogan, Sellar, & Lingard, 2016b; Vogelmann, 2012). The "term 'neo-social' refers to the economisation of social responsibilities produced by demands that market actors assume social responsibilities that complement, or enhance, their focus on profit and market capitalization" (Hogan et al., 2016a, p. 244). This is part of Pearson's new corporate social responsibility strategy that emphasizes accountability to consumers in the form of outcomes that demonstrate product efficacy, which has also been highlighted in the works of Hogan et al. (2016a, 2016b). Indeed:

> Pearson have embraced performative accountability as a way to conjure a moral dimension to its operations, presenting itself as a corporation focused on a double bottom line of profitability for its shareholders and social responsibility for improving people's lives through learning. (Hogan, Sellar, & Lingard, 2015, p. 6)

Pearson, for example, states:

> We believe in the concept of shared value: that long-term financial success is a direct result of delivering social outcomes. So for us, efficacy makes perfect business sense. If our products deliver what our customers and learners need, we will be commercially successful. (Barber & Kumar, 2015, p. 15)

Hence, by mobilizing the discourse and practices of efficacy and efficacy auditing, Pearson aims to construct a particular reputation – imagined or real – to overcome contradictions related to its edu-business activities.

As part of this restructuring and rebranding process around efficacy, Pearson recruited "education expert" Sir Michael Barber in 2011. Appointed as Pearson's Chief Education Advisor, Barber is "leading Pearson's worldwide program of efficacy and research ensuring the impact of the program on the learner outcomes of Pearson and its customers" (http://www.pearson.com/michael-barber/bio.html). Prior to Pearson, Barber was the Head of global education practice for McKinsey & Company. He also served the UK government (from 1997–2005) under Tony Blair's regime as both the Head of the Prime Minister's Delivery Unit and as Chief Adviser to the Secretary of State for Education on School Standards. Barber has also worked as a global consultant with governments in Australia, Punjab, the United States, and Ontario. By recruiting Barber, Pearson also gains his connections, status, reputation, and influence in high-profile policy networks. As Hogan et al. (2015) point out:

> …Barber, as 'a leading authority on education systems and education reform' (Pearson plc, 2011) with connections to a range of government and academic actors in education policy globally, is able to help constitute an assemblage in which Pearson might become seen as a morally authoritative agency in educational matters . . . For example, Barber, as a former bureaucrat, can help to communicate the relevance and currency of Pearson's activities to government officials, and this likely serves to promote the perceived legitimacy and authority of using Pearson for government contracts and services. (p. 49)

For Pearson the goal is to develop the reputation of a moral authority in education. However, in November 2016, Pearson announced that Barber decided he will leave the company and his position as Chief Education Advisor in late 2017, instead to continue working with governments.

6.7 Conclusion

Education commercialization involves fundamental contradictions and crisis-tendencies which Pearson is attempting to overcome through discourse and semiotic techniques. This paper explores the ways in which Pearson aims to make visible, legible, and calculable the effectiveness and usefulness of its products through practices and apparatuses connected to its *Efficacy Framework*. Yet, it is not only Pearson that markets "impact" and "outcomes." Other education companies like Laureate Education, Inc., the largest for-profit higher education company in the world, advertises "strong student outcomes" and a "proven quality and reputation" while Bridge International Academies, Ltd., the largest for-profit provider of low-cost schooling in the world, claims it has a social mission to school 10,000,000 children in low-income countries while demonstrating "impact evaluation results." Claims such as these are meant to legitimate commercial activities in the education sector. In response, critical students, educators, administrators, and citizens must be conscious of, and act upon, instances when they are being sold illusory outcomes, symbols, and results that lose sight of the self-determining, humanistic, and emancipatory elements of education.

Current social arrangements related to the global education industry demonstrate that those who have the most to gain from education commercialization are the global edu-businesses and edu-preneurs selling products, services, policies, and programs (Verger et al., 2016). Consequently, the goal of Pearson's *Efficacy Framework* is to show that purchasing and consuming its educational products is a "win-win" for vendors and customers alike – a double bottom line based on profitability for shareholders and social outcomes for learners. However, not is all as it might seem. As this paper demonstrates, the *Efficacy Framework* is a "meaning-making device" (Sum & Jessop, 2013, p. 305) that intends to delimit what can be seen, imagined, communicated and understood about Pearson and its products. This semiotic-calculative device is designed to shape the social perceptions of customers, policymakers, state managers, and share- holders by defining and operationalizing the measurable impact and outcomes that are said

to result from Pearson's educational commodities—and thus, constructing an imagined reputation around performance and effectiveness. By focusing on the discourse and devices mobilized by "the world's leading education company" that aims to uphold the capital relation in education despite contradictions and crisis-tendencies that exist, this paper contributes to our understanding of the global education industry and the ways in which it might be (temporarily) stabilized or expanded. Ultimately, it is hoped that contradictions related to education commercialization, rather than be normalized and institutionalized by the efforts of those who benefit from them, "can be a fecund source of both personal and social change from which people emerge far better off then before" (Harvey, 2014, p. 3) by opening them to critique, action, and transformation.

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Chapter 7

Making Markets for Low-Cost Schooling: The Devices and Investments behind Bridge International Academies

This published chapter on Bridge International Academies marks the second phase of my doctoral research conducted in 2017. Following my experiences in Uganda as an independent contractor, my intellectual attention and energy turned to the edu-business activities of Bridge International Academies. Drawing from my archive of life experiences, including prior doctoral studies and knowledge gained from investigating Bridge International Academies in local communities in Uganda, I began to chart a revised research agenda in which edu-businesses might be analyzed via the tools, technologies, and devices utilized to *make* education markets. It signals a shift from the semiotic and discursive qualities of Pearson's *Efficacy Framework* to the materiality of market devices and financial investment. Additionally, whereas Pearson represents an education conglomerate whose activities demonstrate the wholesale commodification of educational goods and services, ranging from the sale of curricula and testing to data management and pedagogical devices, Bridge International Academies represents a different type of edu-business whose strategy is to establish for-profit chains of "low-cost" private schools in communities in the global South. Therefore, in further developing a conceptual framework to understand the variable ways in which education companies pursue capital accumulation, Bridge International Academies provides a definitive case study to explore these dynamics and expose another angle of the global education industry.

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ABSTRACT

This paper explores the market-making devices behind Bridge International Academies: a for-profit education company aiming to school millions of nursery and primary aged-students living on less than $2 per day. A wide variety of devices are utilized by Bridge International Academies to construct mass markets for low-cost schooling, including GPS devices that map low-income communities, smartphones that automate administrative functions, and computer devices that perform the duties of a teacher. Moreover, this paper also outlines the network of investors supplying the company with the necessary capital to put market devices into practice and hence, build markets for low-cost schooling.

7.1 Introduction

Like billboards for Coca-Cola and ExxonMobil along major transportation routes in the "developing" world, billboards for multinational education company, Bridge International Academies (also referred to as "Bridge"), can be found advertising nursery and primary education as commodities for sale throughout Africa and Asia. "Choose Quality, Choose Bridge," glossy billboards read; signifying the emergence of new market-based social relations and school choice (for those able to pay). In the nearby towns and "slums," under the shadow of corporate billboards, Bridge constructs private storefront schools that aim to serve the masses living in poverty. Green signposts with the slogan "Knowledge for All" point customers in the direction of makeshift schools assembled by Bridge, tacked together using vividly green-coloured sheets of corrugated iron and wooden poles. In the low-income communities where Bridge sets up shop, individuals wearing reflective vests with the Bridge logo printed on the back can be spotted distributing marketing leaflets to enhance customer awareness, brand recognition, and recruit new student/customers. Those turned onto the logic of consumption promoted by Bridge are greeted in the front office of each academy by a chalkboard that lists the price of school fees, uniforms, and ancillary costs for each grade level similar to menu boards at fast-food chains. Student enrolment and the collection of fees (and all other administrative duties) are processed using smartphones handled by "Academy Managers" that include customized applications such as a mobile money system that make market transactions quick and easy. In exchange for user fees, student/customers receive scripted lessons, devised at corporate headquarters in Boston and Nairobi, which are transmitted wirelessly and recited word-for-word by local community members using tablet e-readers; representing a form of pre-packaged and commercialized pedagogy that is uniform and consistent from one cookie-cutter school to the next, whether that be in Kenya or Nigeria or India.

Markets are created. They are neither predetermined nor preconfigured. Market transactions consisting of commodities and trade, buyers and sellers, rational choice, and economic conduct have to be made cognitively, structurally, culturally, and legalistically (Levin 2008). A growing body of literature connected to the work of Michel Callon and colleagues (Çalışkan & Callon, 2010; Callon, 1998; Callon & Muniesa, 2005; Callon, Meadel, & Rabeharisoa, 2002; Callon, Millo, & Muniesa, 2007) has been instrumental in developing an approach for understanding market-making activities and practices based on "new" economic sociology. This includes the ways in which everyday tools, artefacts, and objects – theorized as "market devices" – configure economic activity and facilitate the construction of markets. Items such as the shopping cart (Grandclément & Cochoy, 2006), stock tickers (Preda, 2006), and brands (Onyas & Ryan, 2015) have been studied as market devices, insofar as they configure exchanges, inform practices, and create new modes of calculation. In education, a variety of objects and mechanisms exist that render the sector marketable: from school vouchers to competitive rankings, from the standardization of curricula to mass standardized testing, from student loans to trade agreements, and so on. Yet, outside of some meaningful contributions, critical scholarly attention has oftentimes overlooked the market-making tendencies of objects, tools, and artefacts that intervene in the construction of education markets.

This paper explores market devices put in place by Bridge International Academies, which have enabled the company to rapidly construct markets for low-cost schooling throughout Africa and Asia. From the billboards and advertisements that promote consumerism, to the sheets of iron that frame storefront schools, to the computer devices that perform the duties of a teacher, Bridge has assembled a variety of tools that intervene and interact to create education markets.

> The first Bridge International Academy opened in the Mukuru slum in Nairobi, Kenya in 2009. Today there are hundreds and Bridge continues to expand across Africa and Asia. With a mission of *Knowledge for all*, Bridge plans to educate 10,000,000 children across a dozen countries by 2025. (BIA, 2016b)

Bridge International Academies and its market-making activities have been financed by a network of actors that includes Bill Gates, Mark Zuckerberg, and the World Bank/International Finance Corporation (IFC), among many others. Hence, this paper is concerned with not only market devices but also the market investments and investors that support the operations of the firm. Bridge is the subsidiary company of NewGlobe Schools, Inc. founded in Delaware, US by Jay Kimmelman, his wife Shannon May, and Phil Frei. Linking up in San Francisco in the early 2000s while "…working on issues related to education, innovation, and development" these three edu-preneurs "…wondered why no one was thinking about schools in developing countries the way Starbucks thought about coffee" (BIA, 2013a, p. 5, 2). That was, as a mass-produced item for consumption sold in high-volumes at "low-cost" with consistent standards across a global chain of suppliers.

Multinational corporations such as Bridge see the masses living in poverty (on less than US$2 a day) as a huge source of untapped revenue – referred to as the "fortune at the bottom of the pyramid" (Prahalad and Hart, 2002). "Bottom of the pyramid" (or BoP) schemes suggest that multinational corporations "look at globalisation strategies through a new lens of inclusive capitalism" (Prahalad & Hart, 2002, p. 1) by creating "pro-poor" markets that provide low-cost services. Bridge has identified two distinct "market opportunities" at the bottom of the pyramid: "one previously undiscovered, and one previously non-existent" (BIA, 2016a). The first relates to the "800 million primary and nursery aged pupils living on less than US$2 per person per day [that] lack access to quality schools" whose families, according to Bridge, spend on average US$80 per year on education, resulting in a US$64 billion parent paid market (BIA, 2016a). To date, Bridge has set up private storefront schools in Kenya, Uganda, Nigeria, and India to tap into this US$64 billion parent paid market by selling low-cost education directly to fee-paying customers.

The second market opportunity identified by Bridge involves a US$179 billion publicly funded charter school market in low-income countries (BIA, 2016a). This is exemplified by the Liberian Partnership for Schools program, a public–private partnership, in which Bridge has been

contracted by the Liberian government to operate charter schools that are publicly funded. It is the "[f]irst large-scale publicly-funded, privately operated model in Africa" (BIA, 2016a). The company claims it can manage large-scale systems such as charter school programs because it has "…proved the ability for a private operator to operate at government-budget price points and scale" (BIA, 2016a). By leveraging tools and technology that cut costs and deliver basic education at lower price points, Bridge aims to tap into these "previously undiscovered" and "non-existent" markets for schooling in the global-South.

The approach taken in this study of Bridge International Academies represents a "pragmatic turn" in economic sociology concerned with the material and mundane aspects of market-making. As such, this paper is composed of two sections that focus on the following:

- *Market devices* – representing the systematic arrangement of various objects, tools, and technologies including GPS devices, smartphones, tablet e-readers, internet-enabled ICT, pricing systems, branding techniques, and product evaluations presented as "scientific" fact that intervene in the construction of markets, and;
- *Market investments* – representing the capital investments provided through a network of actors including venture capitalists, commercial investors, philanthropic organizations, international financial institutions, and governmental bodies that provide equity capital, know-how, and other technical means for building and expanding markets.

In turn, this paper is preoccupied with the material and discursive assemblages of Bridge International Academies, consisting of objects, tools, and capital investment that interpose the will and performativity to construct low-cost markets for schooling.

7.2 Market Devices

According to Callon, Millo, & Muniesa (2007, p. 2) the notion of a "market device" offers "…a simple way of referring to the material and discursive assemblages that intervene in the construction of markets," enabling them to exist and operate. Market devices are wide-ranging and ever-changing. As the "new" economic sociology literature has revealed, they represent the tools, the discourse, the science and technologies that "…produce or 'render' markets through processes of attachment and detachment, entanglement and disentanglement" (McFall, 2009, p. 267). It derives from Michel Foucault's notion of *dispositif*, translated as "device" or "apparatus," as well as further elucidations by Gilles Deleuze who (along with Feliz Guattari) conceived of the notion of *agencement*, translated as "assemblage," which suggests that agency can be the product of various devices being arranged or adjusted to one another (Callon, Millo, & Muniesa, 2007). According to such theorizations, an assemblage of devices with different meanings that do different things, can together produce new (market) formations that do "economic" things. Market devices utilized by Bridge International Academies, for example, perform satellite imagery, erect architectural forms, perform administrative duties, transmit curricular data and information, evaluate product efficacy, and make "scientific" statements, which although seemingly mundane and uneconomic by themselves, together, involve a set of processes that are "economic" insofar as they assemble markets for low-cost schooling.

Markets created by Bridge involve a "thoroughly heterogeneous ensemble" (Foucault, 1980, p. 194) of objects, tools, and technologies that perform standardized and replicable processes, which function together to construct markets for schooling. Building upon the works of Preda (2009) this paper studies the ways in which market devices utilized by Bridge: (1) create spatial and temporal *boundaries* for market transactions; (2) provide *backstage support* for market transactions, in the form of organizational infrastructures; (3) provide *epistemic objects* for market transactions, in the form of data generation, circulation, memorization, and retrieval; (4) *mediate transactions*, and; (5) *generate new transactions* (2009, p. 142–143). In turn, this approach to market-making is concerned with the role "…played by market devices in configuring

economic calculative capacities and in qualifying market objects" (Callon, Millo, & Muniesa, 2007, p. 5). Market devices used by Bridge include: GPS tools and surveys that configure market relations through boundaries; ICT, smartphones, and tablet computers that provide the organizational infrastructure for market transactions, and; different forms of data that are generated and circulated to qualify market objects. Together, these instruments will be presented and examined to show the ways in which they form a systematic creation (and advancement) of markets for low-cost schooling.

7.3 Establishing Boundaries

Instruments, tools, and technologies utilized by Bridge set up boundaries for market action and transactions. Boundaries are important not just in the strict geographic or spatial sense, but in the ways in which they constitute new social and political relations, identities, categories, claims, depictions, and enactments (Robertson, 2011). In turn, boundaries must be seen as both "constituting spaces, and as forms of power" (Robertson, 2011, p. 283). For Bridge, boundary-setting involves geographical and cartographical considerations that define, delimit, and place edges around economic practice and categories envisaged for market transactions for schooling.

Various instruments and devices are utilized by Bridge to determine the placement and spatial configuration of their for-profit schools. "Market research" is conducted to calculate population density, age distribution, income levels, education consumption, the price and location of competing schools, and other household and demographic characteristics, compiled from more than 30,000 household surveys and other data collection methods, which are used by Bridge to measure, map, and classify low-income areas in the global-South and begin charting boundaries for market transactions (BIA, 2016a). Bridge claims it "…has more information on people living on less than $2 a day per person than any other organization in the world" (BIA, 2016c). Surveys of communities throughout Africa and Asia are carried out by Bridge to determine

where schools are most likely to be commercially successful. Bridge "…analyzes where an academy should be built based on the needs and price points of local families, using mobile surveys, GPS devices, satellite imagery, and more" (BIA, 2016c). As illustrated in the figure below, the firm collects satellite imagery using GPS (global positioning system) devices in order to "scout" suitable land for constructing private storefront schools in areas considered to be commercially viable. In the process, boundaries begin to take shape that establish zones for economic transactions.

Figure 8. Satellite imagery and GPS technologies used by Bridge International Academies. Source: http://www.bridgeinternationalacademies.com/approach/lifecycle/.

Market devices aim at rendering places, whether it be slums or other low-income communities with a history of dispossession, as "things" that are to be "…more 'economic' or, more precisely, at enacting particular versions of what it is to be 'economic'" (Callon, Millo, & Muniesa, 2007, p. 4). Surveys, GPS devices, and satellite imagery enable Bridge to envision places and populations as consumeristic markets. As commercial establishments set up by Bridge begin to emerge in various locations so too does "…a set of boundaries in the topologically strict sense, boundaries that define an inside and an outside" (Abbott, 1995, p. 872). Fees charged by Bridge

entrench social boundaries that mediate who is in and who is outside the market order; that is, who is able to participate in market transactions and who is not. Hence, the formation of "market boundaries" is a socio-technical process that often reflects "…the ability of firms to segregate their markets" (Fligstein & Dauter, 2007, p. 111). Segregation in education caused by market boundaries is even more acute for societies given the role that education plays in social reproduction. And yet, Bridge has built for-profit schools in communities without following the necessary legal requirements, standards, and procedures. In Uganda, for example, Bridge rapidly rolled-out a chain of 63 for-profit schools between 2014 and 2016 which had to be closed since the Ministry of Education determined these commercial establishments were "…operating outside the confines of the law that regulates provision of education services." Hence, the desire to construct markets can result in transnational corporations deliberately bypassing the laws of sovereign states as the operations of Bridge demonstrate in Uganda.

7.4 Backstage Support – ICT, Smartphones, and "Teacher-Computers"

Objects, tools, and technologies deployed by Bridge provide the backstage support for market transactions, in the form of organizational infrastructures. In particular, web-enabled devices including smartphones and tablet computers are utilized by Bridge to automate, program, pre-set, and perform all instructional (i.e., pedagogical) and non-instructional (i.e., managerial) activities involved in operating a large chain of schools. It is referred to by Bridge as an "Academy-in-a-Box" model, which has "… re-engineered the entire lifecycle of basic education, leveraging data, technology, and scale" (BIA, 2016d) in order to improve cost-efficiencies and deliver low-fee schooling as a commodity of mass market exchange.

New technologies used by Bridge are meant to cut costs while ensuring market accountability through calculative devices that supply uniform, consistent, and standardized services. As the company states:

> Using technology and data, Bridge drives enormous efficiencies both in terms of the overhead costs required to run an academy and in terms of increasing the quality of the output. For example, at the academy level, a Bridge International Academy has only one employee involved in management – the Academy Manager. The vast majority of non-instructional activities that an Academy Manager would normally have to deal with (billing, payments, expense management, payroll processing, prospective admissions, and more) are all automated and centralized through a combination of our Academy Manager's smartphone application and our Teachers' tablet application, all interconnected to a custom backend ERP [enterprise resource planning system]. (BIA, 2016d)

On the non-instructional side, therefore, smartphones connected to cloud-based networks are handled by "Academy Managers" that contain custom applications which automate all aspects related to administration, including student admissions, tracking student performance, distributing curricula, monitoring teachers, making payments, and collecting school fees.

"Teacher-computers" represent another market device utilized by Bridge that provide integral support to teachers and their role in the division of labour. Teacher-computers are tablet e-readers that convey "…step-by-step instructions explaining what teachers should do and say during any given moment of a class" (BIA, 2016d). They instruct teachers, for example, when to "Rub the board" when to "Pause" when to "Circulate for 30 seconds" when to "Praise 2 pupils who are writing quickly" when to tell pupils to "Close your textbooks" as well as an infinite amount of other encrypted phrases and axioms that algorithmically configure every pedagogical interaction in the classroom through scripted instructions (Riep & Machacek, 2016). It is what could be referred to as a type of *techagogy*: a technology-directed form of pedagogy in which instruction is led by machines.

By design, the role of the teacher has been rendered programmable and automatable; performed through the operations of a calculative device. In turn, the vast majority of "teachers" employed by Bridge are not licensed since "…teacher scripts are delivered through data-enabled tablets" (BIA, 2016e) that require different knowledge and skills to be operationalized. Yet, the company is able to drastically cut operating costs and increase profit margins by employing (predominantly) unqualified individuals and paying them severely low wages in exchange for

their low-skilled labour. By replacing autonomous and qualified teachers with teacher-computers, this method of touchscreen teaching reflects a type of "calculative trust" by which the economic processes involved are seen as efficient because of the tools and technology which constitute them (Preda, 2009). Trust, therefore, is placed "…in the artefacts and machines themselves in close connection to the trust in specific procedures of using them, without knowing much (if at all) about the engineers who have designed them, or about the technological detail of their functioning" (Preda, 2009, p. 13). In Bridge classrooms, teaching is performed through instructions provided by tablet computers. And without these devices, low-cost education markets created by Bridge would not exist.

The notion of a device implies a relationship between objects and agency: "whether they might just help (in a minimalist, instrumental version) or force (in a maximalist, determinist version), devices do things. They articulate actions; they act or they make others act" (Callon, Millo, and Muniesa, 2007, p. 2). Yet, the notion of device can also suggest "a bifurcation of agency" as cautioned by Callon, Millo, and Muniesa (2007, p. 2) which risks an undue separation: "the person on one side and the machine on the other" or the teacher on one side and the teacher-computer on the other. Instead, devices should be conceptualized as entangled parts of an assemblage or *agencement* where agencies "…are made up of human bodies but also of prostheses, tools, equipment, technical devices, algorithms, etc." (Callon, 2005, p. 4). Based on the thinking of Deleuze (1989), this way of understanding the relationship between objects and agency suggests that the subject is not separate from the device; but rather "…s*ubjectivity is enacted in a device*" (Callon, Millo, and Muniesa, 2007, p. 2; *emphasis added*). In the case of Bridge, human agents (i.e., teachers, mangers, and pupils) have been interwoven with devices (i.e., tablet e-readers, smartphones, and scripted instructions) to assemble markets for low-cost schooling – see Figure 9 below. Market devices employed by Bridge, therefore, represent socio-technical assemblages that do things, put things into motion, and converge agencies; while providing the

backstage support at various points and junctures that facilitate the creation and expansion of markets for low-cost schooling.

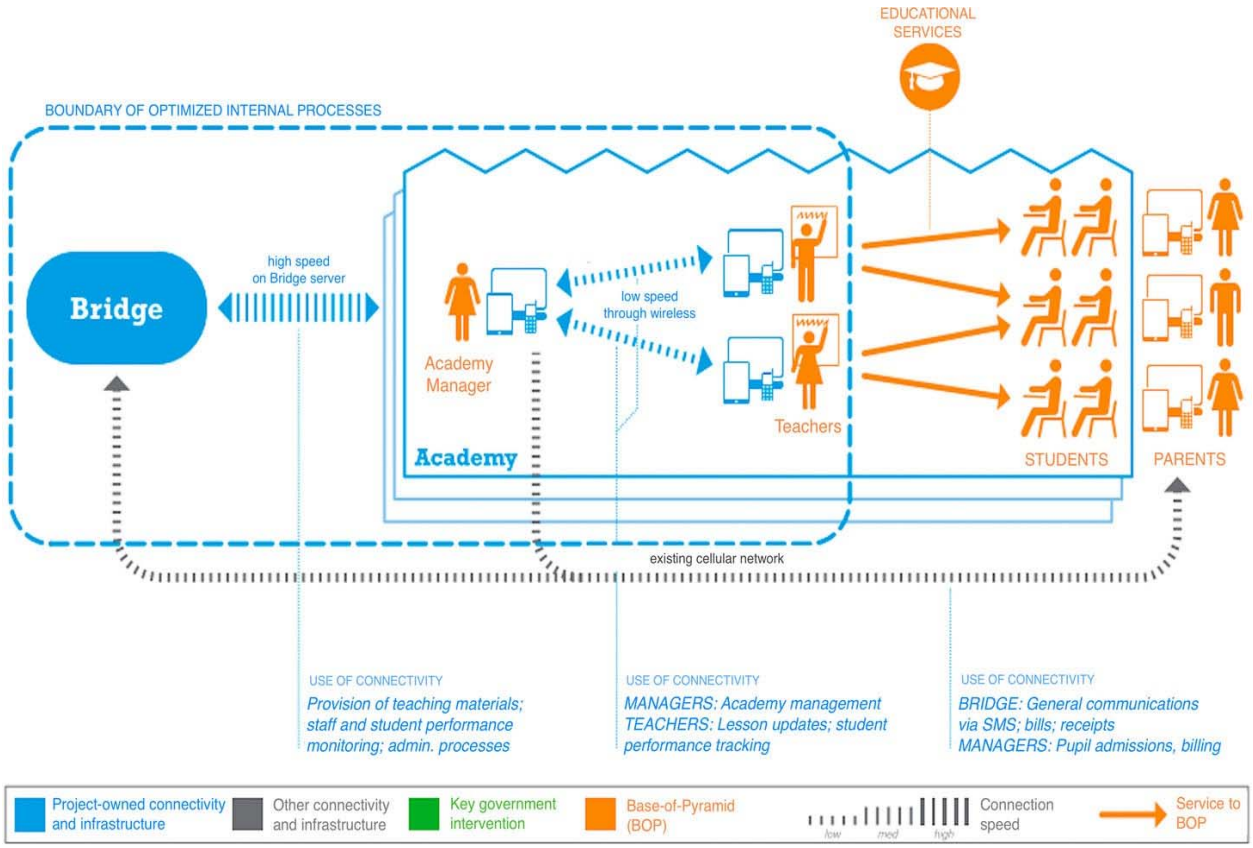

Figure 9. Systematic configuration of Bridge International Academies. Source: Kayser, Klarsfeld and Brossard (2014, 42.).

7.5 Epistemic Objects – Performance Metrics, Branding, and Knowledge Datafication

As Preda (2009) points out, devices supply epistemic objects, in the form of data generation, circulation, memorization, and retrieval, that are used for market transactions. The case of Bridge demonstrates this in three ways: (1) the generation of performance metrics showing product efficacy are circulated as "scientific" fact to qualify market objects; (2) epistemic discourse and meanings related to "International" are attached to the firm through processes of naming, framing, and branding, and; (3) knowledge datafications are generated and distributed, in the

form of digitally scripted pedagogy and curriculum – which, at the most basic level, represents the commodity under exchange.

In 2013, Bridge released a study entitled, *The Bridge Effect: Comparison of Bridge Pupils to Peers at Nearby Schools*. It sampled 26 Bridge schools and 2 nearby public schools in 2011, 2012 and again in 2013 using the Early Grade Reading Assessment (EGRA) and Early Grade Math Assessment (EGMA) evaluation tools (BIA, 2013b). On the basis of this analysis, the "Bridge effect" (the change in pupil performance on EGRA/EGMA as a result of attending Bridge) was calculated to result in 252 additional days of reading education, while the Bridge effect on mathematics was estimated to result in over 288 additional days of education, in relation to their public school counterparts (BIA 2013b). Presenting "…metrics for the description and the assessment of products is a crucial ingredient of the performative processes that shape markets" (Callon, Millo, & Muniesa, 2007, p. 9). Metrics portraying the quality of the product as scientific "fact" are meant to shape the parameters by which the commodity is seen, described, perceived, imagined, and judged. Quantifiable data and statistical measures purportedly proving the "Bridge effect" are (re)produced, (re)packaged, (re)purposed, and (re)stated in various contexts and situations among investors, state managers, prospective consumers, critics, and other stakeholders to justify the commercial activities of the firm. Performance metrics act as a form of legitimation for market interventions by Bridge that help secure multimillion-dollar investments and try to persuade governments of the benefits of unfettered liberalization.

Yet, the study released by Bridge in 2013 providing statistical data and measurements that claim to show the "Bridge effect" must be seriously questioned. For instance, this study was not based on randomized controlled testing but rather Bridge selected which schools would be included in the sample. Also, the number of pupils initially assessed in July 2011 that participated again in February 2012 dropped significantly due to attrition (from more than 2000 pupils to 1359). Were these pupils who were "failing"? Were these pupils who were unable to pay? As renowned statistician Harvey Goldstein has pointed out in a detailed blog critiquing the efficacy

data provided by Bridge, some adjustment for the "ability to pay" is necessary since families have to pay to send their children to Bridge. Yet, this home-background factor is not accounted for in the study. Nevertheless, the generation and circulation of data, in the form of metrics (real or imagined) that describe and evaluate products sold by the company, are mobilized to qualify market objects.

The term "International" represents another epistemic object used by Bridge for naming, framing, branding, describing, and classifying the company. More than just a brand, it is a "meaning-making device" (Sum & Jessop, 2013, p. 305). It signals standards of superior quality and status by positioning Bridge's "international" academies in comparison to other similar institutions (competitors) that are categorized as "public" or "government" schools. Epistemic discourse and meanings related to "international" are attached to the firm, and the educational commodities it sells, through processes of framing. As Jens Beckert (2009) suggests "…the normative and cognitive framing of markets, anchored in social belief systems, is a constitutive element of their emergence because it shapes the assessment of the desirability and suitability of the products offered and thus reduces uncertainty in markets" (p. 255–256). Commodities are cultural objects instilled with particular meanings based on common perceptions that effect their desirability (Fligstein & Dauter, 2007). In turn, the attachment of "International" to the Bridge brand, its trademark, and what it represents, is an epistemic device appropriated for the purpose of expanding markets in the global South.

Market devices utilized by Bridge also provide epistemic objects in the form of knowledge datafications. For Bridge, the "commodity" in question is inherently about epistemic objects related to the "official knowledge" (Apple, 1993) within a given society. Scripted knowledge and curriculum imparted by Bridge through data-enabled devices, therefore, represents the epistemic commodity sold by the company. In the Bridge model, epistemic objects not only intervene to qualify market objects, but they also represent the commodity under exchange. Curriculum is manufactured by Bridge at corporate headquarters in Boston and Nairobi, converted into

algorithmic formulations and data, which is then transmitted using smartphones with broadband technology and communicated to customers using tablet computers. Epistemic commodities (i.e., the knowledge and curricula) provided by Bridge, therefore, undergo processes of calibration, standardization, and datafication to ensure the design of the product "fits" the technical mode of delivery through which it is transferred and exchanged. Tools and technologies used by Bridge "…have at their core data storage, tracking, and retrieval systems, market memories without which these operations would be impossible" (Preda, 2009, p. 143). It is through processes of data generation, storage, memorization, and systems of retrieval that "schooling" (or the transmission of knowledge) is rendered an alienable and marketable object of trade.

7.6 Mediating Transactions

Devices are also utilized by Bridge to mediate transactions. For instance, Bridge uses a mobile money system known as M-Pesa (M for mobile and *pesa* for money in Swahili) which allows customers to pay school fees through SMS text messaging. Mobile money is a "transaction-relevant technology" (Preda, 2009, p. xi) in which payments are made transferable and receivable through mobile phone devices that facilitate market transactions. Bridge "…uses a cashless system to run each academy, exclusively using mobile financial services to track pupil payments and pay academy bills, including staff wages," which amounts to more than 100,000 mobile money transactions per month (BIA, 2016c).

Devices utilized by Bridge also mediate transactions through price-setting. Bridge, for example, uses household surveys and other data collection tools to determine the socio-economic conditions and levels of education consumption in communities throughout Africa and Asia to determine what families can "afford" to pay for educational services. Prices charged by Bridge vary across geographical settings according to economic conditions and levels of income. Market devices used by Bridge, therefore, mediate transactions through price-setting and provide the means by which fees are made payable through mobile money systems.

7.7 Generating (New) Transactions

Market devices discussed above can themselves become objects of market exchange. Bridge, for example, has a vast collection of data and information on people living in poverty in the global South, which the company claims can be used for credit scoring, brokering financial loans, and developing other products for consumers at the bottom of the pyramid (BIA, 2016a). Textbooks and other learning materials developed by Bridge for schooling activities represent another avenue for potential growth in sales (BIA, 2016a). Market opportunities already embedded in the business model include the sales of school uniforms to Bridge pupils (which is estimated to grow to 15% of the company's revenues) and lunch programs for pupils outsourced to external vendors (which the company estimates have the potential for 10% revenue sharing) (BIA, 2016a). Bridge also intends to distribute other essential services and products through its network of schools, which can become the "[s]ales point for important community commodities (water, electricity, charging, etc.)" resulting in a business model based on "multichannel customer revenue" (BIA, 2016a). Bridge has also identified the "[c]reation and brokering of low-cost health insurance" as objects of market exchange that can be sold through systems and mechanisms already put in place (BIA, 2016a). Bridge, therefore, aims to refashion markets already occupied for low-cost schooling into new configurations and service arrangements that enable the company to provide other key services at the bottom of the pyramid – and thus generating new market opportunities and transactions.

Analyzing market devices demonstrates the ways in which markets are created through the material and discursive assemblage of "things." Yet, for those things to be produced, assembled, activated, and maintained, capital investment is necessary. Therefore, this next section will focus on the network of investors and investment that prop up Bridge, its devices, and hence, its market-making ambitions.

7.8 Market Investments

Market devices, and the market-making activities they represent and participate in, require steady flows of financial capital and investment. Without capital investment, billboards would never be erected, privately owned schoolbooks would never be produced, and thousands of e-readers providing pedagogical instructions would never be purchased. The entire supply chain of Bridge, made up of a vertically integrated system of objects, tools, and technologies, is predicated upon vast amounts of private equity deriving from investors. As the company claims:

> No small-scale, stand-alone operator can singlehandedly make the massive investments required to deliver quality education at a price point accessible to families living on $2 a day per person or less. The amount of money required to develop world class teacher guidelines [or scripts], rigorous training systems, technology to improve and automate core functions, and assessments and research to complete the feedback loop is profound. Such investments need to be amortized over a sufficiently large number of pupils and would come with astoundingly high risks. (BIA, 2016d)

Building markets that sell low-cost, mass-produced schooling demands significant capital. To date, Bridge has attracted more than US$100 million worth of investment from a relatively stabilized and coherent network of actors, including venture capitalists, philanthropic organizations, international financial institutions, and governmental agencies, which have enabled the company to rapidly scale-up its market-making activities in the global South.

Bridge claims that prior to them "…no one had put together a viable business model that demonstrated that educating the world's largest market was possible" (BIA, 2016d). In turn, an assemblage of investors has been quick to provide Bridge with the equity capital, know-how, and other technical means for kick-starting and expanding markets for low-cost schooling. Market visions and devices constituting the Bridge model have therefore only been made possible through capital investments.

The approach taken in this section follows a variation of "network ethnography" (Ball, 2016; Ball & Junemann, 2012; Hogan, 2015) concerned with articulating flows and mobilities of capital, ideas, and investors that have coalesced to push forward the market-making ambitions of

Bridge. Social relations and networks of actors from business, philanthropy, and government represent the formation of strategic alliances backing Bridge that share similar interests and conceptions of global development and education. Together, this assemblage of investors has enabled the precipitous spread of markets for low- cost schooling created by Bridge.

In 2008, Bridge received its first significant investment from the Clinton Global Initiative, before even having built one school, which included financial contributions from Deutsche Bank America's Foundation, Grey Ghost Ventures, and the Kellogg Foundation. It was an US$8 million investment over two years that provided the start-up capital necessary to "test" the Bridge model of low-cost, for-profit schooling in Kenya. Shannon May, the co-founder of Bridge, claims that "[e]verybody wanted us to have built one school first" to demonstrate the viability of the model before investing (Buchanan, 2014). Yet, the founders of Bridge had market ambitions to scale-up rapidly from the onset. Flexible investment, undeterred by risks associated with an unproven model, has been vital to the market experimentations carried out by Bridge. "This meant it was not whether Bridge had settled on a proven model, but rather whether Bridge's leadership could persuade investors that the company had the ability to innovate, to replicate its model, and to scale its intervention" (Kwauk & Robinson, 2016, p. 23).

Momentum continued in 2009 when the Omidyar Network, established by Pierre Omidyar the billionaire founder of eBay, invested US$1.8 million in venture capital into Bridge. Omidyar Network describes itself as "…a philanthropic investment firm dedicated to harnessing the power of markets to help people improve their lives" (Omidyar, 2016). Beyond leading initial investments (Series A), the Omidyar Network has participated in successive rounds of investment in 2010 (Series B) and 2012 (Series C). However, the total amount invested in Bridge by Omidyar is undisclosed. Omidyar Network states that:

> Bridge International Academies is an attractive investment opportunity to Omidyar Network because it is a compelling example of a high-impact, scalable, and entrepreneurial solution that addresses one of the most urgent demands of the developing world: low-cost access to quality education. Bridge demonstrates how for-

> profit innovation can drive social change by employing a unique business model that can be easily replicated in other emerging markets. (GIIN, 2016)

Equity capital invested in Bridge by Omidyar has therefore been leveraged to support the company extend its reach into emerging markets.

Pearson plc, the largest education company in the world, has also invested private equity in Bridge. Like Bridge, Pearson is a market-maker, enabler, and leader in the advancement of low-cost private for-profit schooling throughout Africa and Asia. In 2012, Pearson established the Pearson Affordable Learning Fund (PALF), which is a "for-profit investment fund" that "…makes significant minority equity investments in for-profit companies to meet the growing demand for affordable education across the developing world" (PALF, 2016). PALF, therefore, invests in a number of low-cost school companies with similar market models and ambitions as Bridge. Before the launch of PALF, in 2010 Pearson invested in Bridge via Learn Capital – a venture capital firm with a focus on educational technology ("EdTech") start-ups. Pearson is the largest limited partner of Learn Capital and Learn Capital is the largest shareholder of Bridge with a 15% stake in the company. Additionally, because low-cost schooling is an emergent market requiring further investment and "innovation," Bridge and Pearson are not competitors but rather strategic partners that have joined forces to advance the market, more-generally and globally.

Bill Gates, the co-founder of Microsoft (a US-based multinational technology conglomerate and one of the most valuable companies in the world) as well as a prolific philanthropist, has also invested in Bridge. Gates purportedly saw "…innovation in the approach and wanted to support it personally" rather than through his non-profit charity, the Bill and Melinda Gates Foundation (Stevis & Clark, 2015). The total capital invested into Bridge by Gates is undisclosed.

In addition to Bridge, Pearson and Bill Gates (via Microsoft) have also invested in Nook Media limited liability company (LLC). Nook Media is the subsidiary company of Barnes & Noble responsible for producing Nook e-readers, which are the tablet computers used in each and every

Bridge classroom to transmit scripted lessons to pupils. In 2012, Microsoft, which was co-founded by Bill Gates who still owns 4% of the company (a stake worth US$13.3 billion), invested US$300 million into Nook Media for a 17.6% stake in the company. In the same year, Pearson also invested US$89.5 million into Nook Media for a 5% stake in the company. This network of investment represents a partial yet entangled form of vertical integration since investors of Bridge are also limited equity investors in the products that make-up the supply chain of Bridge. In turn, interlocking investors, or rather "board interlocks," influence the spread and design of strategic innovations (Fligstein & Dauter, 2007, p. 117). Commercial linkages between Pearson, Bill Gates (Microsoft), Nook Media, and Bridge represent an assemblage of socio-material relations, which piece together capital investment and market tools and technologies (i.e., tablet e-readers) to strategically design new education markets.

Zuckerberg Education Ventures, a for-profit investment fund launched by Facebook founder, Mark Zuckerberg, has also invested US$10 million into Bridge. Zuckerberg's education investment firm provides equity capital to EdTech enterprises and is listed as a LLC, not a charitable foundation, which allows the firm to invest in for-profit companies, make political donations, and engage in partisan political campaigns or lobbying efforts (Cam, 2016). This demonstrates the ways in which networked investors can exercise political influence in order to (re)shape policy infrastructures that are conducive to commercial interventions and entrepreneurship in sectors such as education. On the Facebook page of Zuckerberg Education Ventures, it claims the firm was drawn to "Bridge's innovative business model and technology." Like Bill Gates, Zuckerberg is an influential leader and entrepreneur in information technology that is backing Bridge to test how technology and markets can be designed to educate the world's aspirational poor, profitably.

New Enterprise Associates (NEA), one of the largest venture capital firms in the world with over US$13 billion in committed capital, has also invested in Bridge. Jon Sakoda, a partner at NEA, claims that:

> Today's education crisis calls for more than politics and policy changes, but for revitalization and re-imagination of our education system for the twenty-first century. At New Enterprise Associates (NEA), we see a unique opportunity to invest in entrepreneurship and technology in this education crisis and believe that now is the time for our industry to step up and do its part. [...] We see amazing opportunity in this education crisis. And, after all, a crisis is a terrible thing to waste. (Sakoda, 2012)

Equity investment from a range of other actors has also been funneled into Bridge, including: LGT Impact Ventures, a venture philanthropy firm; PanAfrican Investments, an investment company in the US focusing on business opportunities in sub-Saharan Africa; Rethink Education, an investment firm providing equity to business ventures aspiring to remake education through technology; Pershing Square Foundation, a private foundation investing in social enterprises, and; Khosla Ventures, a venture capital firm that seeks to invest in "...large problems that are amenable to technology solutions" (Khosla, 2016).

Bridge has also attracted investment from government bodies in the US and UK as well. The US Government has provided equity capital to Bridge in the form of a US$10 million long-term loan made by the Overseas Private Investment Corporation (OPIC), which is the governments development finance institution. OPIC "...mobilizes private capital to help solve critical development challenges and in doing so, advances US foreign policy" and because OPIC "...works with the U.S. private sector, it helps U.S. businesses gain footholds in emerging markets' while also "...providing investors with financing, political risk insurance, and support for private equity funds" (OPIC, 2016).

The UK's Department for International Development (DFID) has also invested in Bridge through its "Impact Fund." Established in 2012, the aim of the Fund is to "...invest in enterprises which serve the poor as consumers, suppliers or employees" (CDC, 2016). The fund is managed by CDC, which is "DFID's principal mechanism for leveraging private sector investment in poor countries" (DFID, 2016, p. 20). The first investment made by DFID's Impact Fund was a £15 million investment in Novastar, which in turn, was used to invest in Bridge. According to DFID,

"Novastar seeks to develop fully commercial businesses that adapt and deploy innovative business models to profitably serve proven demand for basic goods and services" (DFID, 2014). In 2014, it was announced that CDC would provide an additional US$6 million equity investment to support Bridge's expansion efforts in viable markets throughout Africa (CDC, 2014).

Beyond commercial investors, venture philanthropists, and government agencies, one of the world's leading international financial institutions have also taken an interest in Bridge. Congruent with the World Bank's history of promoting the private sector in public service provisions, including education, in 2014 the World Bank's IFC announced a US$10 million investment in Bridge (IFC, 2016). According to the IFC, "…the capital will be used to expand the network of schools in Kenya and enter 3 new markets" (IFC, 2016). In addition to providing long-term capital investment the IFC and World Bank "…can use its reach and experience in emerging markets to assist the company in analysing expansion targets, selecting appropriate markets and supporting market entry" as well as "…navigating regulations and government policies in new markets" (IFC, 2016). Shannon May, the co-founder of Bridge, states the firm had "…chosen the International Finance Corporation as an investor because it can play a large role in engaging government leadership in discussing issues that are key to our business" (Kayser, Klarsfeld, & Brossard, 2014, p. 51). In turn, the World Bank/IFC can leverage both their financial and political capital to help meet the interests of Bridge.

Markets, market devices, and market-making missions undertook by Bridge are financed through venture capital, venture philanthropy, and private equity supplied by an interlocking network of actors. Those providing investment to Bridge also offer technical assistance in the form of market entry strategies, legal/regulatory maneuvering, political liaising, and other practical knowledge and information. Material resources such as tools and technologies are also supplied which facilitate production processes. Moreover, agents from investment firms also act as Board Members for Bridge. In turn, Bridge represents an assemblage of investors and devices that come together to systematically create and advance markets for low-cost schooling.

Deleuze once referred to an assemblage as

> … a multiplicity which is made up of many heterogeneous terms and which establishes liaisons … Thus, the assemblage's only unity is that of co-functioning: it is a symbiosis, a 'sympathy'. It is never filiations which are important but alliances, alloys; these are not successions, lines of descent, but contagions, epidemics, the wind. (Deleuze and Parnet, 1987, p. 69)

Assemblages, therefore, reflect associations of various figures and elements that function together in fluid, dynamic, and unpredictable ways to spread and advance their collective (material) interests. Assemblage thinking, like actor–network theory, demonstrates the ways in which "…action results from linking together initially disparate elements" (Müller & Schurr, 2016, p. 217) such as investment and investors, tools and technicians; from which "new spaces of entangled possibilities" (Ong, 2006, p. 409) can emerge, such as markets for low-cost schooling. Hence, if it was not for the capital attached to Bridge through a network of private financiers, market devices would not be assembled, nor would the markets they intend to make be possible.

7.9 Conclusion

This paper explores the material and discursive assemblages of Bridge International Academies, which consist of objects, tools, technologies, investors, and investment that inject the will, capital, and performativity to construct low-cost markets for schooling. A "pragmatic turn" in economic sociology, preoccupied with the devices that make markets work, is applied to this case study of Bridge. Research specific to market devices in education has largely been absent. Like other industries, education relies on a range of objects, tools, artefacts, and apparatuses that render the sector marketable. Yet, social scientists in the field of education often underplay these seemingly mundane and commonplace devices and their market-making tendencies. The aim of this exploratory paper was to make visible the effects of market devices in education by examining the case of Bridge. From the GPS devices that map low-income communities to determine suitable academy sites, to the smartphones that automate administrative functions at each academy, to

the computer devices that perform the duties of a teacher, this paper argues that Bridge International Academies makes use of a variety of tools that intervene in the construction of markets for low-cost schooling. This study suggests that markets formed by Bridge represent socio-technical assemblages: requiring investment and inventories, tools and technicians, machines and mechanisms. Therefore, low-cost markets for schooling that Bridge represents and participates in are not an inevitability, but rather they are made. As are all the other education markets that constitute the global education industry. In turn, market-making devices and the actors that exploit them, invest in them, and the spaces they occupy in educational settings, demand serious attention in order to expose them to critique, action, and transformation.

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Chapter 8

The Psychopolitics of Digital Game-Based Learning with *Minecraft*

This unpublished chapter marks the final instalment of my doctoral research conducted between 2019 and 2020. Following my study of Bridge International Academies in which I deductively arrive at the concept of "techagogy," referring to the industrial automation of pedagogy and pedagogical practices via technological machinery, I began to explore the world of EdTech industries more thoroughly and critically. Global technology companies comprise an important part of the expansion and intensification of the global education industry. In turn, this paper explores the strategic activities and "innovations" of Microsoft, and specifically, Microsoft's acquisition and development of the digital game-based learning platform, *Minecraft: Education Edition*. This research examines new frontiers of the global education industry, including the "psychopolitical" dimensions involved in digital game-based learning engineered by tech companies, which signals some of the possible implications of *techagogy*. Moving from the semiotic-discourse of Pearson to the materiality of devices and investments behind Bridge International Academies to the psycho-political and socioemotional tenets of Microsoft's *Minecraft*, this dissertation samples a variety of techniques and strategies employed by global edu-businesses to develop empirical generalizations, interpretive understanding, and speculative hypotheses regarding the operations and impact of global education industries. In doing so, this paper-based dissertation constitutes three distinct studies that examine different angles and dimensions of the global education industry, yet together, form a thematically-linked body of work interrogating the capital accumulation strategies of some of the world's leading edu-businesses.

The Psychopolitics of Digital Game-Based Learning with *Minecraft*

ABSTRACT

Minecraft: Education Edition (*M:EE*) is one of the most successful educational technologies in the world, currently licensed by over by 35 million teachers and students across 115 countries. Owned by Microsoft, it is an educational version of the cultural phenomenon, *Minecraft*, one of the most popular video games of all time. *M:EE* is promoted as a way to help students gain the necessary skills for future careers and life through an "immersive digital game." This paper focuses on the "psychopolitics" and economic logics of *M:EE*, and specifically, its connection to the future of work, 21st century skills, social-emotional learning, and post-industrial innovation and consumption. Methodologically, this paper draws on network analysis to follow the organizational, institutional, cultural, and technical relations translated in the discourse and techniques of *M:EE*. Ultimately, this paper aims to explore new frontiers of corporate education reform linked to digital technologies, through the lens of Microsoft's *Minecraft*.

8.1 Introduction

Technology companies and their "technological innovations" move faster than government's ability to understand or follow them. As the former CEO of Google, Eric Schmidt states, "High tech runs three-times faster than normal businesses. And the government runs three-times slower than normal businesses" (Cunningham, 2011). It is in this context that technology companies are advancing new innovative technologies that are disrupting all aspects of life, and certainly not least, the education sector. Global markets linking information technology and learning have created new commercial opportunities for "big business" and "Ed-Tech" ventures to shape and influence what the future of education may look like. Companies such as Google, Amazon, Microsoft, Apple, IBM, Pearson, and Facebook are developing new products and technologies for artificial intelligence (AI), machine learning, smart machines, smart games, augmented intelligence, augmented reality and virtual reality platforms that have the potential to radically reshape the nature and meaning of education in society—whilst creating profound opportunities and deep challenges—related to digitization, datafication, automation, personalization, and commodification. This marks a dramatic phase towards the "*unauthorized privatization of the division of learning in society*" meaning that "powerful private interests are in control of the definitive principle of social ordering" (Zuboff, 2019, p. 192; *original emphasis*)—that is, knowledge and learning, transmitted through digital technology.

This paper focuses on the digital learning technology, *Minecraft*: Education Edition (hereafter *M:EE*). *M:EE* is an adaptation of *Minecraft*, currently the second most popular video game of all time, only behind Tetris, with more than 154 million copies sold worldwide (Corden, 2018). It is a first-person perspective, "sandbox" style video game; resembling a virtual Lego-like environment in which blocks of different compounds are mined and arranged by users to craft digital environments (Duncan, 2011). Released in 2016 by Microsoft, *M:EE* is at the forefront of the gamification trend in education—representing "a kind of fashionable superficiality" in the education sector (Buckingham, 2007, p. 98). However, the aim of this paper is not to discuss how

Minecraft "could" or "should" be used in the classroom; nor is it an evaluation of *Minecraft* based on technical standards of practice. Educators around the globe have already provided "how-to" guides and reviews for practical use demonstrating the utility of the game (see Callaghan, 2016; Ellison, Evans & Pike, 2016; Karsenti, Bugmann, & Gros, 2017; Nebel, Schneider & Rey, 2016; Pusey & Pusey, 2016). Academic literature on educational technologies, however, is too often reduced to instrumentalist accounts that overlook the social, cultural, political, and economic nature of the educational technology in question. In contradistinction, this paper focuses on the socio-political forces and dynamics of *M:EE* and how this educational technology is contributing to corporate education reform and unequal relations of power elsewhere in society.

In turn, this paper focuses on the economic rationalities and psychopolitics of *M:EE* and its connection to the future of work, 21st century skills, social-emotional learning, and post-industrial innovation and consumption. A *psychopolitical* account, drawing from political theorist Bernard Stiegler, aims to show the ways in which education technologies like *Minecraft* involve "attention capturing techniques" that work to "rewire" psychomotor behaviours and skills for continuous innovation and consumption (Stiegler, 2010a). Methodologically, *networks* are employed to trace the organizational relations and connections to power that have shaped the discourse, techniques, and logics of *M:EE* into an apparatus of rule. This paper, therefore, is concerned with the ways in which *M:EE* represents a device that may be used to control, organize, calculate, and maximize the cognitive and emotional functioning of children. Thus, this paper critically asks: how is *Minecraft* remolding learners? For which purposes? What are the political, social, and ideological underpinnings of this molding? And, what is to be done? Hence, the aim of this paper is to re-establish a critique of political economy of educational technology that focuses on the institutions of power and wealth connected to educational practices, the role of commerce and commercial actors in the field of educational technology, and how these processes shape and influence workforces, consumers, and thus, functioning marketplaces.

8.2 Crafting Learners with *Minecraft*: Psychopolitics and Networks

This paper sets out to explore the ways in which *M:EE* represents a "psychotechnology" that participates in crafting the behaviours, skills, and dispositions of learners through cognitive and emotional techniques. It is presupposed that psychotechnologies *come from somewhere* and are codified: politically, socially, culturally, and economically. That is, they are devised, organized, and mobilized on behalf of someone or some group to serve some sociopolitical and/or economic objective. *M:EE*, for example, is constituted by a network of actors including different programming and IT industries and resources linked-up with the purpose of creating new digital learning platforms that can instill the "21st century skills" that serve the interests of capital and capitalism. Thus, this inquiry aims to interrogate dynamics related to corporate education reform by analyzing the psychopolitics of education technologies and the network of actors that materially produce and discursively frame them.

8.3 (Psycho)politics of Education Technology

All tools and technologies are designed, created, and implemented to produce a certain outcome or resolve a dispute. They are embedded with their own values, hierarchies, and agendas; designed to influence and shape our thinking, actions, and behaviours while preventing others (Latour, 1987; Bijker, & Law, 1992; Monahan, 2005). Hence, the use of digital tools and technology in education should not, and cannot, be considered "neutral" or apolitical. They constitute a complex arrangement of public and private actors in the education sector, including EdTech designers and developers, multinational corporations that supply new tools, and the consultants and "experts" that promote them, along with new generations of young people that are taught as "digital natives" for the purpose of social reproduction (Selwyn & Facer 2013). It is in this context then, that

> …educational technology needs to be understood as an intense site of negotiation and struggle between these different actors. These are struggles that take place

> across a number of fronts—from the allocation of resources to the design of curriculum, from the maximizing of profit and political gain to attempts to mitigate patterns of exclusion. Put bluntly, as technology-based education and 'e-learning' continue to grow in societal significance, it follows that the use of digital technology in education needs to be understood in distinctly political terms of societal conflict and struggle over the distribution of power. (Selwyn & Facer, 2013, p. 5)

Digital technology in education can be understood, politically, as a type of *psychotechnology*. Theorized by Bernard Stiegler, "psychotechnologies" elucidate the ways in which digital technologies engage, stimulate, and motivate production and consumption by "capturing attention" (Stiegler, 2010a). By design, the industrial politics of digital technologies in education are concerned with capturing and forming the attention of learners. In turn, psychotechnologies represent a form of "psychopower" that "consists in the tendency towards the displacement of 'attentional' techniques, which produce 'deep' attention, by industrially mass-produced 'attentional technologies' that are designed to generate one particular kind of attention – to consumption" (Crogan & Kinsley, 2012, p. 12). New media technologies that now construct the day-to-day environments of children directly engage in the "hypersolicitation of attention through increasing collaboration among the programming industries to capture audiences, to the detriment of deep attention…very probably correlating with attention deficit disorder and infantile hyperactivity" (Stiegler, 2010a, p. 94). *M:EE*, for instance, is the culmination of programming, gaming, and education industries collaborating to create a tool that can capture the attention of learners, and in so doing, motivate their production and consumption behaviour. In the second half of this paper, the "21st century skills" and "impassioned learning" purportedly instilled through *M:EE* will be analyzed as they relate to sociopolitical and economic pressures for post-industrial innovation and consumption.

Boundaries of power in society have also become blurred as psychotechnologies are created by de-territorialized market forces (that is, "big business") and institutionalized by local administrators and cultural practitioners. In turn, "a 'biopolitics' that has become a psychopolitics no longer emerging from the nation-state (and its programming institutions) but from

deterritorialized economic forces (and their programming industries); these forces construct new discursive and nondiscursive relationships, that is, new apparatuses" (Stiegler, 2010a, p. 126). In turn, a psychopolitics is transmitted through psychotechnological apparatuses that are produced by unaccountable, non-state corporate actors and networks. More than just a game then, *Minecraft* is an apparatus. Since, it:

> ...has its major function at a given historical moment that of responding to an *urgent need* [and that] has a dominant strategic function....It is a matter of a manipulation of relation of forces....The apparatus is thus always inscribed in a play of power, but it is always linked to certain coordinates of knowledge which issue from it but, to an equal degree, condition it. (Foucault cited in Agamben, 2009)

Minecraft was designed, developed, and distributed by de-territorialized market forces and embedded in educational institutions and programs worldwide in order to respond to an "urgent need" to equip learners with skills for digital careers and life. Yet, as an apparatus it also represents a manipulation of forces and relations of power linked to certain coordinates of knowledge that also condition the "general intellect" and knowledge transmitted through it. Thus, emerging from de-territorialized forces and driven by global capital, new digital psychotechnologies in education are a part of the new frontier of power in society.

8.4 Networks and Translations

Educational technologies are an integral component of new governance arrangements in education; often acclaimed as efficiency-maximizing tools that create new avenues for learning based on digitalization, personalization, standardization, and datafication. Digital technologies, therefore—represented by their de-territorialized producers and distributors—occupy new positions of authority and power in the governance of educational institutions. With the functions and services of government increasingly carried out through "strategic alliances, joint working arrangements, networks, partnerships and many other forms of collaboration across sectoral and organizational boundaries" (Williams, 2002, p. 103), a methodological approach based on

network analysis is therefore relevant to examine such education reforms. As a new modality of governance, networks also raise critical "questions about the associated internationalization of authority as national educational authorities cede control and power over educational technology arrangements to regional alliances and [non-state, private] authorities" (Selwyn & Facer, 2013, p. 14). Network analysis, in turn, is concerned with the relations, interconnections, and exchanges between actors and organizations that link-up their efforts and resources to formulate programmes of rule that advance a "shared" vision and set of interests (Ball, 2012). As Barry (2001, p. 87) states, however, "Networks do not so much reflect social, political and technological reality; they provide a diagram on the basis of which reality might be refashioned and reimagined: they are models of the political future." For this inquiry, "network ethnography" (see Hogan, 2015; Junneman & Ball, 2012) is employed to trace the commercial, institutional, and ideational involvement of a variety of actors and organisations – representing a type of an "epistemic network" and vision for the future of education – which is giving rise to *Minecraft* as an educational "innovation" and type of "fast policy."

Officially released in 2011, *Minecraft* was originally created by Swedish game developer, Markus Persson, co-founder of the company Mojang AB. By 2012, there was widespread adoption of *Minecraft* by educational gaming enthusiasts who independently found ways to implement the game into their classrooms. As a result, educators in Finland launched the company TeacherGaming LLC and entered into an agreement with Mojang to develop *MinecraftEdu*: an educational modification of the game designed for teachers. TeacherGaming co-founder and CEO, Santeri Koivisto, explains that: "One of the biggest issues in classrooms today is the lack of engagement. Meanwhile at home, students are spending more and more time with video games. And games also happen to be one of the most engaging ways to learn."[6] So, "I figured I could build a business out of something so uniquely engaging, and did just that with *Minecraft*. That's how

[6] https://techcrunch.com/2018/01/24/teachergaming/

TeacherGaming came to be," explains Koivisto. In turn, *MinecraftEdu* was "specifically designed" by TeacherGaming "with the goals of educators in mind" so the technology could be used to teach subjects including STEM, history, language, art, and computer programming, which "eventually reached over 15000 schools" worldwide.

In 2014, *Minecraft* and all of Mojang's assets were acquired by Microsoft Corporation for US$2.5 billion (Mojang, 2014). Furthering its investments in *Minecraft*, Microsoft subsequently acquired *MinecraftEdu* from TeacherGaming for an undisclosed amount in 2016 to invest in the development of an expanded version of *Minecraft* for the classroom called *Minecraft: Education Edition*. With the acquisitions of *Minecraft* and *MinecraftEdu* by Microsoft, the global tech giant was able to further expand the digital game as a cultural phenomenon as well as a learning platform by leveraging the company's resources, connections, channels, and influences. At the time of the acquisition of TeacherGaming in 2016, Microsoft claimed that "more than 7,000 classrooms in more than 40 countries around the world are already using *Minecraft*." Now under the ownership and guidance of Microsoft, *Minecraft* has spread to more than 115 countries, and growing. In turn, *Minecraft* represents a technology of "fast policy" that "cannot be reduced to a measure of mere velocity" but rather refers to the "intensified and instantaneous connectivity of sites, channels, arenas, and nodes of policy development, evolution, and reproduction" taking place transnationally (Peck & Theodore, 2015, p. 223). For example, Microsoft has aligned *Minecraft* with its other software packages including Microsoft Office 365 so that if an educational institution purchases Office 365 from Microsoft a subscription for *Minecraft*: *Education Edition* is included. This intensification and instantaneous connectivity linking the products, software packages, channels, sites, and nodal connections provided by Microsoft—representing a kind of "one-stop" shop for educational technology and software—creates "fast policy" conditions in terms of development, transfer, and implementation which is expanding the audiences, networks, and consumers of *M:EE*. Hence, the rate at which *Minecraft* represents a type of "fast policy" in education is the result of commercial activities and acquisitions starting with Mojang then

TeacherGaming then Microsoft, which has expanded the reach and impact of this educational technology with each phase of capital investment.

Concurrently, the growth of *Minecraft* as an educational technology has expanded at the same time as it has come to represent the norms and standards of other influential actors and organizations engaged in global education policy. As this paper will discuss, *Minecraft* has appropriated and been encoded with hegemonic values and discourses related to "21st century skills" that are also reflected in the educational priorities and visions of global organizations including Microsoft, the Organisation for Economic Co-operation and Development (OECD), World Economic Forum (WEF), and national governments and ministries of education worldwide. "Translation" is used to describe the processes whereby an actor or social force work to "translate the values of others into its own terms, such that they provide norms and standards for their own ambitions, judgments and conduct" which can also establish a network "that enables rule 'at a distance'" (Miller & Rose, 2008, p. 65). In turn, digital technologies adapted for education and created by large IT companies are translating their activities and purposes in ways that are also constructing the discursive priorities for education systems in post-industrial societies. Yet, as Williamson (2013) notes, this "is not to claim such programs are realizations of a dominant corporatist or neoliberal agenda or other hegemonic attempts to enclose the future of education" but rather, reflect a set of "shared vocabularies, theories, and explanations"—that "crosses and bisects sectoral, disciplinary, and ideological boundaries"—whilst formulating programs that "make the future of the curriculum intelligible, thinkable, and practicable" (p. 47). In turn, this paper focuses on the (psycho)politics, economic rationalities, and values that are galvanizing *Minecraft* into a globally popular educational technology, so to understand the prospective identities, actions, and forms of learning that are to be shaped and crafted through such systems.

8.3 Crafting Learners for Which Purposes?

In this second half of the paper, I examine the ideological and discursive parameters by which *Minecraft* is mobilized as an educational technology and the ways in which this is molding the prospective identities of students in order to "deal with cultural, economic and technological change" (Bernstein, 2000, p. 67). First, 21st century skills are analyzed as a hegemonic rationality guiding education reforms globally to align with post-industrial innovation and consumption. Appropriated by Microsoft, 21st century skills are advertised as a learning outcome of *M:EE* that can inculcate the skills and dispositions necessary for future workforces. Secondly, social and emotional learning (SEL) is another outcome said to result from *M:EE*, which is framed as an important element of innovation and economic competitiveness since it can help prepare students for social uncertainties, change, and other work-life challenges. Thirdly, it is claimed that *Minecraft* inspires "impassioned learning" and "deep engagement," however, these aspects are discussed as "attention capturing techniques" that are now exercised as a type of capital in the context of an "attention economy." Hence, this inquiry aims to open-up educational technologies like *Minecraft* to a critical political economy account that reveals the ways in which prospective identities are shaped and molded by such systems of learning.

8.4 21st Century Skills and the Future of Work

The educational utility of *Minecraft* is marketed in connection to future skills for work and life. Globally, it has been estimated that about half of all work activities have the potential to be automated by existing technology in the next decade and "in about 60 percent of occupations, at least one-third of the constituent activities could be automated, implying substantial workplace transformations and changes for all workers" (Manyika et al., 2017, p. 2). Governments and industries around the world are attempting to plan for such impending changes by equipping youth with the skills, competencies, and behaviours deemed necessary for future work and life

conditions. In this context of technological automation and computerization in which the future of work has become more and more precarious, *Minecraft* therefore is advertised as a game-based learning technology that can be used to educate for a digital future. As *Minecraft* states:

> Most of today's students will have to succeed in future jobs that don't yet exist. Educators around the world are working hard to equip their students with skills to meet this challenge. Minecraft: Education Edition is a powerful tool they are using to achieve significant student outcomes. (Minecraft, 2019c)

In turn, future work and "successful" workforces are principally about educational futures, and conversely, the future of education—according to this perspective—is really about the future of skills. Take, for example, traditionally non-education companies around the world, from ExxonMobil to Cisco to Wal-Mart, increasingly establishing and participating in education initiatives designed for re-skilling and up-skilling—advertised as "corporate social responsibility"—yet, premised on a business imperative to sustain future workforces and productivity. Similarly, *M:EE* represents a corporate-led "solution" marketed to help train and prepare youth for the (determined-indeterminate) future of work and technological changes in society through an engaging digital game.

M:EE is sold as an educational technology and "powerful tool" for imparting "21st century skills" to future generations. Considered increasingly "necessary" for success in the workplace and society, 21st century skills represent a particular vision concerning the integrated futures of work, technology, and learning. From international financial institutions to consultancy "experts" to global corporations to national governments, 21st century skills have been mobilized (discursively and materially) as "a virtually global standard for innovation" (Selwyn & Facer 2013), and therefore, a technical imperative for administrators and patrons of education alike: essential to future careers and life.

For its part, Microsoft (the parent company of *Minecraft*) is a corporate leader pushing a 21st century skills agenda, globally, through strategic initiatives and networks of association. For

example, Microsoft is a key partner within the Partnership for 21st Century Learning (P21) initiative, which is a US coalition of the National Education Association, US Department of Education, AOL Time Warner, Apple, Cisco, Dell and others, with the mission of promoting 21st century skills in K-12 education in the US and abroad to prepare students for the global knowledge-based economy. Microsoft has also established the Partners in Learning (PiL) programme, which merges philanthropy and business sustainability models to provide finance, products, technical service, and training to steer public education systems around the globe. As the company states:

> By partnering with schools and government we aim to set a new high standard for digital inclusion for students and work with schools to prepare students for the digital workplace; empower educators to raise the level of ICT literacy in their institution and support teachers and schools in developing innovative cultures. (Microsoft cited in Bhanji, 2012)

By 2013, the PiL initiative had reached 12 million educators and more than 207 million students in over 20,000 schools across 134 countries—with the goal of reaching "20 million of the 75 million teachers worldwide by 2018, and to continue preparing students for the changing global workforce" (Microsoft, 2013).

An important part of Microsoft's leadership in the area of 21st century learning is naming and defining, specifically, what are 21st century skills, and in doing so, standardize their meaning so they can be made into pre-packaged lessons, curricula, and tested for universally. The six common dimensions of 21st century learning are collaboration, communication, self-regulation, real-world problem-solving, knowledge construction, and use of ICT for learning (Microsoft 2012). With an established "consensus" of what 21st century learning entails, *M:EE* has translated this into a marketing model that sells its own technological consumption as 21st century skills development. With its open-ended sandbox style platform that is customizable to fit almost any lesson, *M:EE* is promoted as a new digital medium for instruction that emphasizes teamwork, cooperation, communication, self-regulation, problem-solving, and ICT skills and knowledge.

M:EE is therefore marketed as a new learning platform that "helps prepare students for the future workplace, building skills like collaboration, communication, critical thinking and systems thinking" (Minecraft 2019a). On the point of collaboration, however, some researchers studying *Minecraft* have highlighted that "Despite observations made about the ability of games to generate teamwork, collaboration and cooperation, 'gamers' are usually the same 'kids' they were before they entered a game environment and this needs careful and close attention" (Beavis et al., 2014, p. 578). Hence, *Minecraft* should not be viewed as some sort of "black box" that can deliver a prescribed set of specific learning outcomes without negotiation, mediation, and resistance among teachers and students.

As part of the 21st century skills agenda promoted by Microsoft and others, *M:EE* is also advertised as a tool that "offers an engaging platform for computer science education, with features designed to help students learn to code" (Minecraft 2019b). *Minecraft* provides a range of resources for teaching youth how to code: from a one-hour introduction to the basics of coding for grades K-5 which has already reached over 100 million sessions to a 30-hour curriculum designed for students aged 11-16 that includes premade "lesson plans, student workbooks, assessment guides, and *Minecraft* worlds to help students build computational thinking skills" (Minecraft, 2019b). Code-literacy skills are increasingly seen as a core element for STEM (Science, Technology, Engineering, & Mathematics) subjects and foundational for "computational thinking." Proponents argue that the push to teach students how to code "is not primarily about equipping the next generation to work as software engineers, it is about promoting computational thinking" (Crow, 2014).

However, teaching children to code does not automatically translate into computational thinking skills. Someone with code-literacy skills can read and write in programming languages, whereas computational thinking refers to the underlying problem-solving and cognitive abilities that enable such knowing (García-Peñalvo et al., 2016; Wing, 2006). In turn, computational thinking "is more about developing a set of problem-solving heuristics, approaches and 'habits of

mind' than simply learning how to use a programming tool to create computational artefacts" (Grover and Pea, 2018, p. 34). *M:EE* has the potential to do both depending on how it is used. As it can train learners' psychomotor behaviours and habits of mind while also transforming them into digital makers of cultural artefacts and consumers of digital ways of knowing—both of which are vital to the "new" economy.

Learning how to code is considered an effective way to immerse children and countries in the digital economy (García-Peñalvo et al., 2016). Yet, teaching computational thinking with coding programmes in *Minecraft* can also be seen as an expression of the overuse, overconsumption, and overexposure to digital technology and screens currently engulfing childhood and schooling (see Clement and Miles, 2018). Indeed, computational thinking can be taught without a computer through offline, hands-on activities that promote problem-solving, systems thinking, and logic (García-Peñalvo et al., 2016).

Citing research by neuroscientists on the exposure to new media objects, Nicholas Carr (2010) argues that such exposure is rewiring neural pathways within the brain. The attention of users is said to be rewired by Internet-based activities such as multi-tasking and reading hyperlinked texts that would produce a shift of neuronal activity from the hippocampus (where brain scientists usually locate activities such as focused reasoning and long term memory) to the prefrontal cortex (which would be occupied by rote tasks and short term memory). As Terranova (2012, p. 5) explains: "Exposure to new media would thus cause a remodelling of different types of memory within individual brains, making individuals faster at carrying out routine tasks, but at the same time less efficient in the ways they carry out those tasks and weaker at deep comprehension and understanding (Schwartz, 2011)."

M:EE is promoted globally as an essential tool for educators to teach computational thinking by coding simulated worlds. In Australia, for example, Microsoft is helping to reform the New South Wales Department of Education—the second largest school jurisdiction in the world

only behind New York City—which chose to invest in a Microsoft platform to introduce STEM learning to 800,000 students across roughly 2,250 schools (Microsoft, 2019).

> Indeed, Microsoft is an active partner in the NSW DoE's efforts to improve STEM education, working with the teachers and administrators to develop future-ready technology based on schools' needs. For example, says Greig Tardiani, Schools Technology Innovation Lead, Information Technology Directorate, NSW Department of Education, "Minecraft: Education Edition features heavily in STEM, and our virtual reality kit is based entirely around the Windows mixed reality platform." (Microsoft, 2019)

Microsoft provides conveniently integrated packages and platforms including the technical infrastructure, machinery, tools, and know-how to help transform schools into institutions of "industrial innovation" that socialize students into users (and consumers) of digital technologies and ways of knowing. In 2018, it was announced that coding would become a compulsory, non-negotiable learning outcome in all primary schools across Australia; joining a growing list of countries which have also integrated coding as mandatory learning.

Thus, at the same time as Microsoft is promoting a 21st century skills agenda in association with a network of actors and organizations, it is also positioning itself as a market leader providing new software packages, technologies, and "solutions" for 21st century learning. It aims to govern 21st century learning on the basis of industrial expertise and knowledge using the tools it develops. *Minecraft*, therefore, is a device leveraged by Microsoft to sell 21st century skills to educational consumers. In this context, 21st century learning is to a consumer in the society of consumers what education was to the producer in the society of producers. That is, education systems are changing from social sites of production to markets for consuming new skills in a context of rapid technological change. In the process, the design, look, feel, experience, and leadership of modern schooling, and its affects, are rendered the product of certain market forces, logics, and technologies, which increasingly enter the classroom in the battle for attention, desire, and intelligence.

8.5 Socio-Emotional Learning

In a context of growing insecurity surrounding the future of work, social and emotional learning (SEL) is being promoted by governmental and economic forces (not unlike 21st century skills) to prepare future generations for uncertain times. "The ideal prospective learner for such a prospective future is to be psychologically armed and pedagogically prepared with the social and emotional competencies and skills required for innovation" (Williamson, 2013, p. 55). SEL refers to the process through which students acquire knowledge, skills, and mindsets required to effectively understand and manage emotions, set and achieve positive goals, build and maintain positive relationships, and practice responsible decision-making (CASEL, 2019). *M:EE* is marketed to governments, learners, and other customers as an educational technology for learning social and emotional skills through a digital-game based platform since it "is an open-world game that promotes creativity, collaboration, and problem-solving in an immersive environment where the only limit is your imagination" (Minecraft, 2019d).

In 2015, the OECD released the report "Skills for Social Progress: The Power of Social and Emotional Skills" aiming to guide educational policy, practices, and programs internationally, according to SEL objectives (OECD, 2015). Correspondingly, in 2016, the World Economic Forum released the report "New Vision for Education: Fostering Social and Emotional Learning through Technology" emphasizing how digital technologies can facilitate "social and emotional proficiency [which] will equip students to succeed in the swiftly evolving digital economy" (WEF, 2016, p. 5). In 2018, Microsoft, in collaboration with the consulting giant McKinsey & Co, released a report entitled, "The class of 2030 and life-ready learning: The technology imperative" claiming that "soft skills, those fostered by social and emotional learning (SEL)" will be needed as much as technology skills for students to be successful in future careers but technology will be integral in teaching and learning social-emotional skills (Microsoft, 2018). Microsoft's class of 2030 research maintains that cognitive abilities in areas such as problem-solving, creativity, and critical thinking will be in high demand in the future, but that "social-emotional skills such as relationship

building, self-awareness, and self-recognition" will be increasingly important since they support not only academic learning but also "self-care" (Microsoft, 2018, p. 4). As the report states: "Social-emotional skills provide students with the perspective and flexibility necessary to function at a high level even when faced with uncertainty, change, pressure, stress, and other work and life challenges" (Microsoft, 2018, p. 11).

It is in this context that *Minecraft*—like other educational technology—represent material expressions of a "technocratic political outlook" in ways that "reinforce the emerging governmentalization [and economization] of psychological concepts regarding social and emotional learning" (Williamson, 2017, p. 442). In turn, *Minecraft* represents a set of psychological techniques meant to control, organize, predict, and maximize the cognitive and emotional functioning of children. Indeed, a "scientific and technical imaginary" has transformed the child into an "object-child," rendered as "manipulable, coded, materialized, mathematized, two-dimensional traces, which may be utilized in any procedure of calculation" (Rose, 1996, p. 112). Although such processes have an enduring past, they are now enacted through new digital technologies such as *M:EE* that are designed for entertainment and consumption, then re-purposed as a tool for teaching certain attitudes, behaviours, and mindsets. *Minecraft*, therefore, represents a type of calculative-apparatus through which youth are molded: cognitively and emotionally.

Just like any other instructional apparatus, however, "success" is defined by *how* and *why* it is used. The role of the teacher is therefore paramount (Callaghan, 2016; Ellison, Evans, & Pike, 2016; Karsenti, Bugmann, & Gros, 2017; Nebel, Schneider & Rey, 2016; Pusey & Pusey, 2016). Just as *Minecraft* could be used as a technology to teach cooperation, collaboration, empathy, and responsible action, it could also impart individualism, resource hoarding (see Hanghøj et al., 2014), inequality, oppression, and action without responsibility. Hence, Selwyn and Facer (2013) argue that the "deterministic assumption that technologies possess inherent qualities and are therefore capable of having particular predetermined and predictable 'impacts' or 'effects' on

learners, teachers, and wider society" requires critical interrogation (p. 8). Instead, any educational technology should be "seen as being subjected continually to a series of complex interactions and negotiations with the social, economic, political, and cultural context that it emerges into" (Selwyn & Facer, 2013, p. 9). So, while *Minecraft* is advertised as a tool for managing human psychology in line with social competencies and emotional habits of mind intending to drive innovation and global competitiveness in a knowledge-based economy, this should be viewed as a political-economic goal imbued with negotiation and resistance, rather than some kind of predictable certainty.

8.6 "Impassioned Learning" and the "Attention Economy"

Minecraft is touted as an "immersive," "engaging," "fun," and "motivating" tool for learning because students become "deeply involved in the game's ecology" (Dezuanni & O'Mara, 2017, p. 38). Since youth become so "intensely immersed" with *Minecraft*, Dezuanni & O'Mara (2017) suggest "It is useful to think about young people's *Minecraft* practices as a form of fandom because fandom implies a commitment to a media ecology that goes beyond casual interaction or occasional participation" (p. 38). A three-year research project across ten schools in Australia entitled, "Serious Play: digital games, learning and literacy for twenty first century schooling" found that by "capitalising on the passionate fandom" students have for *Minecraft*, teachers were able to connect coursework to student's lives and interests beyond the classroom in highly-engaging ways that enabled "impassioned learning" (Beavis 2017; Dezuanni & O'Mara, 2017, p. 41). "The teachers connected to key aspects of students' engagement in entertainment and learning outside the classroom to make connections to formal curriculum"—representing a type of learning through "fan-based participatory culture" (Dezuanni & O'Mara, 2017, p. 41, 38). Yet, this also represents a type of "cultural convergence" in which education is refashioned after popular culture and entertainment industries. Dezuanni & O'Mara (2017) point out that digital gameplay therefore can produce "learning in disguise" contributing to the problematic notion that

learning must be endured like some sort of "nasty pill" that must be "sugarcoated with fun and games" rather than "embraced and enjoyed" for intrinsic purposes (Papert, 1996, p. 50-51). But rather than dismiss youth fandom for digital games as something "trivial" that may cause "distractions to learning," Dezuanni & O'Mara (2017) argue that fandom for *Minecraft* should be embraced as a powerful engagement tool to drive "impassioned learning."

Yet, I would like to explore this notion of "impassioned learning" through "fandom" in the context of the "attention economy." The attention economy corresponds with "explicit commercial and business practices of organizing and managing attention" (Terranova, 2012, p. 13) so that "the wealth of attention can be wielded as a capital" (Crogan & Kinsley, 2012, p. 6). The "attention economy" represents a further development of the industrialization of a "knowledge society" organized and interconnected through media technologies (Franck, 2010). Crary (1999, p. 13) suggests that "the changing configurations of capitalism continually push attention and distraction to new limits and thresholds, with an endless sequence of new products, sources of stimulation, and streams of information, [which] then respond with new methods for managing and regulating perception." *Minecraft*, therefore, according to Simon (1971, p. 40), is a product delivering new sources of stimulation and multiple platforms and streams of digital information that "consumes the attention of its recipients," and in so doing, attempts to manage and regulate their cognitive and emotional functioning. The attention-capturing capacity of *Minecraft* is amplified through processes of "cultural convergence" since the popularity and mass consumption of this video game (outside of school) has been reimagined systematically into a new platform of mass learning. In the process, Stiegler (2010a, p. 36, 181) suggests these "attention capturing techniques" embedded in media technology like *M:EE* "work toward the capturing of consumer attention, causing them to adopt new psychomotor behaviors through which they help form the perpetual markets required by industrial innovation." Furthermore, capturing the attention of consumers also opens-up them up to personal data capturing and problems related to surveillance and new digital panopticons. Hence, attention-based economies involve a "process

by which value is produced as inseparable from the technological production of subjectivity" (Terranova, 2012, p. 13).

No doubt impassioned learning should be one of the ultimate goals of teaching. Making use of video game fandom to achieve student engagement, however, can also be to the detriment of deep attention. The popularity of psychotechnologies and technologies adapted for education like *Minecraft* that are designed to capture the attention of consumers are also rewiring psychomotor behaviours and mind-sets in ways that help drive market demands for continuous innovation. Hence, the attention-capturing techniques of *Minecraft* can be disguised as "impassioned learning" and it is this "subsumption of attention under capital" that this inquiry is concerned with. Byung-Chul Han states that "As a means of production, gamification is destroying play's potential to set free. Play should make it possible to use things in wholly different ways; it should liberate them from the theology of Capital" (2017, p. 52). The gamification of learning evident in *M:EE* is such an example—wherein freedom, discovery, and exploration are regulated by digital cultural processes and practices of "visual consumption" (Baudrillard, 2005, p. 77). In turn, *M:EE* could be seen as an educational gaming tool that controls that which it liberates. For example, the cognitive and psychological effects intended by *Minecraft*, including ambition, creativity, cooperation, achievement, and problem-solving are also embedded in the "theology of Capital" concerned with future productivity and economic growth. Thus, "*Minecraft* works on the psyche of the player in a much less fatalistic manner but at times in a more profound fashion, the player's thought process is supported and aided by the interface, ambitions, and outcomes of the game, itself" (Lenig & Caporusso 2019, p. 280). In turn, the gamification techniques encoded in *M:EE* attempt to mold the dispositions, desires, mind-sets, and ambitions of its users, although discretely through "fun" and impassioned gameplay, rather than overtly through discipline, towards the interest of capital.

8.4 Conclusion

This paper focuses on the economic rationalities and psychopolitics of *M:EE*, and its connection to the future of work, 21st century skills, social-emotional learning, and post-industrial innovation and consumption. Central to this paper is a line of inquiry that follows digital technology in relation to corporate education reform. It analyses the future of skills and learning in relation to commercialization and the ways in which *M:EE* is serving to reinforce and reconfigure education delivery as a process of technology consumption. Bernard Stiegler's conceptualization of psychopolitics illustrates the new ways in which power today is about the constitution of markets and market relations for consumption rather than purely exploiting populations for the purpose of production. The "goal is no longer to form and exploit producers (of things) but to control the behaviors of consumers (as such) through the rapid development of psychotechnologies" (Stiegler, 2010a, p. 131). Thus, "the means of production are subordinated to an increasingly complex and comprehensive 'means of behavioral modification'" (Zuboff, 2019, p. 8). *M:EE*, therefore, is understood as an example of the ongoing governmentalization and economization of psychological concepts that aim to control, organize, predict, and maximize the cognitive and emotional functioning of children. Psychopolitics highlight the attention-capturing dimensions of education technologies like *Minecraft* that are helping to "rewire" psychomotor behaviours to produce skills for industrial innovation (Stiegler, 2010a). In turn, the aim of this paper is to re-establish a critique of political economy in education technology studies by examining the logic of capital encoded in *Minecraft* as a commercialized tool and technology for learning. At the same time, this study has set out to explore new areas of critical educational research concerning the interconnected worlds of learning, technology, and the global organization of capitalism.

For "most educational processes, the object itself and the conditions for its realisation are subject to qualitative change" (Scott, 2015, p. 643). It is therefore the work of critical scholars to identify how objects of educational technology undergo change and evolution that reinforce and/or challenge existing structures and logics of capital. As Stiegler (2010a, p. 191)

acknowledges, there does exist the "the possibility of reconstructing [the state of contemporary minds] *out of* what has destroyed them—on condition of profoundly reversing the power that has become a psychopower." In turn, the powers entrusted within educational technology remain contested, reversible, and hence, flexible. Within the techno-scientific programmes of rule that are accelerating hyper-industrial society, then, opportunities exist for radical social transformation to arise and "produce counter-hegemonic events that are capable of transforming the acquisitive codes of the commodity form" (Abbinnet, 2018, p. 112). However, this resistance will take strategic interventions on the part of educators and students to reopen new education technologies like *Minecraft* to a future of possibility that raise socio-political awareness in ways that could alter cycles of inequality, alienation, and exploitation that remain a part of the global economy. Thus, if there is to be an effective counter-hegemonic response to the power of technocapitalism and its influence on education in society, which *Minecraft* represents and engages in, this must involve acts of self-reflexive and collective expression that transform technologies of rule into instruments of aesthetic and critical socio-political engagement, action, and transformation. At stake is an institutionalized form of mass learning from digital technologies that control us, while selling us the idea they do the opposite.

Chapter 9

Conclusion

This chapter provides a conclusionary discussion including the key findings, themes, and significance of this dissertation. It also specifies a set of research priorities and issues for ongoing scholarly work regarding the global education industry and related dynamics.

9.1 On Materiality and Discourse of the GEI

The capital accumulation strategies of global education industries involve newly imagined and material patterns of production and consumption, financialization, denationalization, and technological transformations in education sectors worldwide. Whilst this paper-based dissertation is by no means an exhaustive analysis of the capital accumulation strategies of the entire GEI, it does review some critical cases from which deeper insights can be drawn. In doing so, this research has set out to provide a theoretically-informed, empirically-grounded study of GEIs, and what their activities represent and signify in terms of educational change.

The GEI aims to economize and then commoditize education delivery and in the process extract as much surplus value from the educational commons as possible. Such processes involve calculative devices, tools, and technologies (material objects) deployed for industrial purposes and the hegemonic ideas and social knowledge (discourse/imaginaries) that give those objects meaning and value in society in dialectical interaction with institutions. By examining the material and the discursive aspects of capital accumulation strategies in education, this study focuses critically on the objects of trade and consumption and their social and cultural embedding. It does so to explain how GEI firms are reimagining and reshaping global education policy, practices, and processes along transnational corporatist lines, and how these developments contribute to, and (re)produce, certain relations of power in and across diverse social fields.

An integral factor in such processes relates to the discourse and ideas that frame our way of thinking about market-based activities in education. Representing a mechanism for legitimizing and normalizing these social configurations, certain language, meanings, discourse, ideas, and technological "innovations" are employed to help reconcile, or stabilize, the contradictory tensions that exist between capitalism and public education—so much so that the two systems are increasingly thought to innately serve one another, above all else. It is *ideas* and their *materiality* (in the form of educational tools, technologies, devices, programs, and so on), embedded in new institutional arrangements, that are organizing systems of teaching and

learning in ways that extract surplus value in three important ways by: (1) selling education in commodity forms; (2) socializing and reproducing labour forces, and; (3) advancing economic productivity.

In many ways, the drive to organize systems of mass education, historically, remain consistent with the reorganizing tendencies of capital, today. That is, to create the social conditions required for capital growth and accumulation. Industrialized schooling systems were first established to prescribe a certain moral code or condition upon children, promote literacy and mathematics, and produce the skills necessary for a certain division of labour. Private provisions, private interests, and privatized practices have always been involved in public systems of education. One may ask then: what exactly is *new* about contemporary capitalist developments taking place in education? What is new are the following dynamic and interrelated processes: (1) learning is about the production *and consumption* of skills and knowledge; (2) education industries reflect *denationalization* processes; (3) the *financialization* of education has commodified and modified the sector through commercial investments, and; (4) information technology (IT) innovations are creating new ways of teaching and learning that align technology initiatives with business aims, referred to here as *techagogy*. In the following sections I will reflect on these current trends and the ways in which they are revealed in the case studies covered in this dissertation.

9.2 Production *and Consumption*

Pearson's *Efficacy Framework*, covered in Chapter 6, represents a semiotic-calculative device that gages the "measurable proven impact on learners' lives" (Pearson, 2014) resulting from the consumption of Pearson's educational commodities. I argue that Pearson's *Efficacy Framework* is meant to "fix" (or temporarily resolve) social contradictions and crisis-tendencies related to education commercialization by illustrating the "measurable impact" that a commodity can have on the life of a learner. It signals the way in which education industries have flourished under evidence-based policy paradigms that characterize new public management models. Pearson's

Efficacy Framework is a meaning-making apparatus designed to show that by consuming *x*, consumers can expect outcomes *a, b, c,* and so on. It signals the way in which the GEI is re-appropriating education as a site of knowledge production to a site of knowledge consumption. Skills, knowledge, and intellect still remain a core factor of production but now they are increasingly a matter of consumption as well. Thus, Chapter 6 uncovers the ways in which the objective of Pearson's *Efficacy Framework* is to measure, calibrate, and show potential consumers the "efficacy" of its educational goods and services—and in doing so, steer consumer behaviour toward increased consumption. It is a discursive-semiotic technique meant to validate, legitimate, and expand the consumption of educational commodities through measurable outcomes and performance indicators, even though contradictions exist.

Today, economic power is about the formation of markets and market relations for consumption rather than purely exploiting populations for the purpose of production. "It is no longer a question, then—and today less than ever—of controlling the population as a producing machine, but rather as a *consuming machine*" and thus, the "goal is no longer to form and exploit producers (of things) but to control the behaviors of consumers" (Stiegler 2010a, p. 131). Bernard Stiegler argues that "biopolitics" has developed into a system of "psychopolitics" whereby disciplinary control is replaced by markets for consumption that involve "psychotechnologies" that shape human behaviours (Stiegler 2010a, 131). It is a form of political power in which the goal is to produce more and more consumption; aided by technologies that shape our desires. In Chapter 8 of this dissertation, Microsoft's learning platform, *Minecraft: Education Edition* (*M:EE*), is interpreted and examined as a psychotechnology. It shows how edu-businesses produce and sell digital technologies that are re-configuring educational practices towards a culture of technology consumption. *M:EE* is sold as a technology that can instill "21st century skills" including problem-solving and socio-emotional learning when consumed in a learning environment. Furthermore, the "impassioned learning" said to result from *M:EE* is analyzed in relation to the "attention economy" which illustrates the way in which digital gamified learning

technologies like *Minecraft* capture the attention of consumers causing learners to adapt new psychomotor behaviors and desires in line with market permanency and to the detriment of deep attention. Thus, as Byung-Chul Han (2017) observes, "consumer capitalism operates through the selling and consumption of meanings and emotions. It is not use value but emotive or cultic value that plays a constitutive role in the economy of consumption" (p. 44). In economies of educational consumption, however, such processes can represent a type of double-subjectivation since learners learn through practices of consumption that instill in them the general knowledge, skills, and emotive or cultic values to participate in modes of production, and of course, continuous patterns of consumption. The activities of the GEI, in turn, illustrate the ways in which their core business functions are transforming education from a site of production to a site of consumption.

9.3 Denationalization

The GEI is both constituted by, and constitutive of, the "shrinking" neoliberal state. As this dissertation has shown, transnational corporate activity in education is not only filling the "governance gap" in education (Bhanji, 2008) it is also reshaping the governance of education, territorially and administratively. Neoliberal reforms in public sector areas like education reflect a broader trend described as "denationalization" (Jessop, 2004; Sassen, 2006). Denationalization, according to Sassen (2006), refers to the ways in which nation-states provide the basis for globalization processes. In turn, globalization does not displace the state but rather is a product of institutions and networks operating deep within national states, such as the rule of law and respect for private authority, which are actualized in ways that alter the state to "face out to the global and embrace its logic" (Robertson, 2016). Thus, national states still maintain their position as the dominant regime through which people and territories are organized and controlled. Since they provide the capacity for people and territorial space to operate globally; they enable capital flows and investments to occur, and; they shape the political climate in which people and businesses conduct their activities. However, the emergence and expansion of the GEI

reflects changes in educational policy and governance structures that signal fundamental transformations to the state and denationalization processes.

Neoliberalism and its associated expressions such as "new public management," "new public governance" and "post-bureaucratic" indicate a reconstitution of the concepts of sovereignty and territoriality, and a fundamental shift in the historical relationship between public and private, local and global (Christensen & Laegreid, 2001; Kernaghan, 2000; Osborne, 2010; Ong, 2006). Contemporary issues in global educational policy and administration, with which this study is concerned, therefore, reflect processes linked to privatization and the shift to heterarchical diffusions of power in arenas of public governance. In his seminal book, *Global Education Inc.* (which, in part at least, provided the conceptual inspiration for this dissertation), Stephen Ball explains that:

> Arguably, the two main axes of global trends in education policy are those of parental choice and the role of "private" schooling, and the reform of state education systems along managerialist/entrepreneurial lines. The first rests on a set of neo-liberal arguments about more or less radical destatisation, subjecting state organisations to competition and/or the handing over of education service delivery to the private sector. The second is more postneo-liberal in the sense of reasserting the role of the state but in a new form and with new modalities involving a shift from government to governance; that is from bureaucracy to networks; from delivery to contracting. (2012, p. 11)

Such reforms facilitating privatization and marketization processes in education, therefore, signal fundamental transformations to the state that are brought to light through the activities of the GEI.

All three case studies of Pearson, Bridge, and Microsoft's *Minecraft* illustrate the ways in which GEI firms are responding to, and driving, neoliberal state transformations. Pearson, for example, is positioning itself as a globally integrated supplier of educational state functions, including policy and planning, textbooks and curriculum, testing and assessment, teacher training and administration, and IT platforms for learning that span early years to higher education. Through their products and services, sold to individuals, institutions, and state

managers via contractual agreements and public-private partnerships, Pearson is occupying the spaces left by the neoliberal state, whilst also validating the new roles of the state such as the contracting and facilitation of new providers. This is why GEI devices such as Pearson's *Efficacy Framework* are important explanatory objects that reveal much about neoliberal restructuring processes since they attempt to mediate (or reconcile) fundamental shifts between public and private interactions within changing systems of governance. The *Efficacy Framework* designed by Pearson, therefore, is instrumental in bridging the divide between public administration and privatization projects. Pearson has also emerged as a powerful policy actor occupying new positions in global governance arrangements (such as the Global Partnership for Education) through which it can further advance its business agenda in education sectors worldwide. It also enters territorial spaces to setup for-profit schools and universities that compete with the public sector. Thus, Pearson represents a global edu-business whose operations reflect processes of denationalization: that is, the simultaneous privatization and shift to heterarchical diffusions of power and authority taking place across various levels and territorial spaces of educational governance and delivery.

Bridge International Academies, a US-based enterprise, also works in "partnership" with governments in the global South to deliver basic schooling services that aim to help fill the "governance gap" through outsourcing models and PPPs. In Liberia, the national government has undertaken a program to outsource government schools to a range of private contractors, the largest of which is BIA (Riep & Machacek, 2020). In some contexts, like Uganda however, BIA has shown no concern for state sovereignty by entering the country and rapidly setting up business operations without any consideration or commitment to the local legalities regulating school establishment, as if operating in a state of exception or colonial territory. It is a transnationally-configured edu-business that manipulates private property holdings, capitalist state formations, and the limited capacities of local school authorities in the global South to establish markets for commercialized schooling. Its business operations are centralized in the US

but with satellite offices where it operates—and thus, signalling the ways in which education industries are reconstituting the ideas of sovereignty and territoriality in relation to education provisions. Moreover, they advertise their for-profit pursuits in education as a type of "social mission" meant to bring "world-class" schooling to communities where there allegedly was none before according to their own standards. Underlying such processes of denationalization and social welfare delivery based on private enterprise and entrepreneurialism is a strategy of "corporate social responsibility" which is central to the legitimizing efforts of GEI firms. As a result, processes of denationalization have facilitated massive extractions of capital from education states through new market formations and increased roles and opportunities appropriated by corporate actors.

9.4 Financialization

Financialization can refer to a number of things, including the liberalization of financial regulation, or the rise of shareholder value, or capital investment strategies, or financial practices related to securitization, or new forms of subjectivity linked to sociocultural and economic transformations (Birch & Muniesa, 2020). As the GEI illustrates, corporate investors and commercial banks are able and willing to invest in edu-businesses because of the assets they may own, control, or trade, and thus, the potential for profitable revenue streams to ensue due to newly liberalized financial environments. Take, for example, the case of Bridge International Academies. With ambitions to become the largest company in the world selling basic education services to families living on less than $2 per day, BIA represents a business strategy meant to tap into the "fortune at the bottom of the pyramid"—and thus, signalling a new investable opportunity for capital to grow in previously de-commodified areas and sectors of life. Commercialized provisions of "low-fee," for-profit schooling targeting low-income populations in developing economies represents, until recently, an untouched and undeveloped (or rather, unexploited) market for global finance to operate and reproduce itself. To attract financial investment, BIA has calculated

and advertised to investors the idea that schooling provisions in low-income countries represents an untapped US$243 billion "market opportunity" (BIA, 2016a). To date, BIA has attracted more than US$100 million from some of the world's largest venture capital firms, private investors, and international financial institutions, which has allowed the company to launch operations internationally and setup markets for commodified schooling based on an "academy-in-a-box" model. Global edu-businesses such as BIA, therefore, signal the increasing financialization of the education sector and the ways in which their activities open-up new potentialities for private investment to steer education reforms according to the interests of global capital.

Whilst private sector involvement and investment is not anything new in education, what is new is the financialization and new financescapes of the GEI. Venture capitalists, commercial banks, and private investors unbound by regimes of global trade and liberalization provide the capital investment for edu-businesses to expand their operations and maximize shareholder value. Again, the low-fee private school market that BIA represents and participates in is illustrative of such processes. One of BIA's earliest investments to kick-start its business operations in Kenya came from Pearson. The *Pearson Affordable Learning Fund* (PALF), established in 2012, is a venture capital investment fund that "makes significant minority equity investments in for-profit companies to meet the growing demand for affordable education across the developing world" (Pearson, 2016). To date, Pearson has invested in more than 40 companies that are building markets for "affordable" private schooling in contexts throughout the global South. The transnational business activities and investments of Pearson's *Affordable Learning Fund* also show the ways in which the GEI is promoting the denationalization of education by constructing privatized systems that compete with the public sector; further justifying a politics of austerity. Although Pearson advertises its investments in the low-fee, for-profit school sector as practices of "corporate social responsibility" vis-à-vis investments in "pro-poor" markets for basic education, ultimately, such activities are meant to extract wealth from these developing economies and maximize returns to shareholders. Pearson's *Affordable Learning Fund* and BIA,

therefore, demonstrate how GEI firms are propelling new patterns of education financialization and commercialization based on capital investment in order to build new markets for privatized education.

Another kind of financialization is related to the state prerogative to sanction "credentials" as a kind of property that has its own value as a kind of currency. This is prevalent with the proliferation of credential factories in the education sector, which Bridge International and Pearson's certificate-granting facilities are representative of. Here I follow an argument by Ole Bjerg (2014) in *Making Money: The Philosophy of Crisis Capitalism*. There are two ways to make money: make *money* and *make* money. Make *money*: the old-fashioned way and, *make* money is "the making of money" as governments do by increasing or decreasing the supply of "cash." Viewing credentials as a kind of cash means that when an education institution such as BIA or Pearson has the power to print credentials it is "*making* money" and the people who collect or hoard them to trade on the market make *money* in a different way.

Furthermore, the increasing risk that comes with financialization needs to be to be socially grounded in a broader part of the population that provides security for "consumers." For example, the real-estate market in housing gave broad support for the people's capitalism of Margaret Thatcher who privatized government housing and made a bigger swath of the population "new home owners" with a mortgage who were now invested in a house and the success of Thatcher's conservative policies. Similar policies for postsecondary institutions after the 2008 financial crisis made student loans one of the biggest debt-loads for consumers after mortgages, even surpassing car loans. In this way, education institutions play a crucial role in securitizing financial capitalism, as well as taking on many of the risks with market failure and supporting institutions "too big to fail." Financialization, therefore, takes on a variety of forms in education, many of which are highlighted by the common and routine activities of GEI actors.

9.5 Techagogy

The relationship between IT and learning is disrupting traditional methods of teaching and pedagogy in powerful ways. While new education technologies certainly represent compelling tools in achieving educational success and attainment—deeply interconnected with modern forms of communication and information-gathering and sharing—educational "innovations" are also reconditioning how education is practiced and performed, and in doing so, creating new market opportunities for technology producers. Innovations in IT are transforming methods of teaching and learning that align technology initiatives with business aims, which I refer to as *techagogy*. Pearson, for example, aims to lead the next generation of teaching and learning through the development and supply of new digital learning platforms including Artificial Intelligence in Education (AIEd) that aims to provide automated, real-time feedback to students in the form of a virtual tutor, much like Apple's "Siri" or Amazon's "Alexa" (Hogan & Sellar, 2019). Microsoft is also highly active in developing classroom level apps, tech-based learning platforms, and AI technologies that aim to "revolutionize" how global societies educate future generations. New education technologies have the capacity to contribute to teaching and learning in powerful ways but they also have the power to undermine teachers' labour and the teaching profession, more-systematically, which is creating new opportunities for capitalist firms to extract surplus value from education. Such processes, therefore, represent the contradictions of capital in the corporate design and delivery of education, which may be changing the very nature and meaning of education and its professions. The type of educational change I am referring to here is described as techagogy: that is, a form of artificial pedagogy steered by technology initiatives and business pursuits.

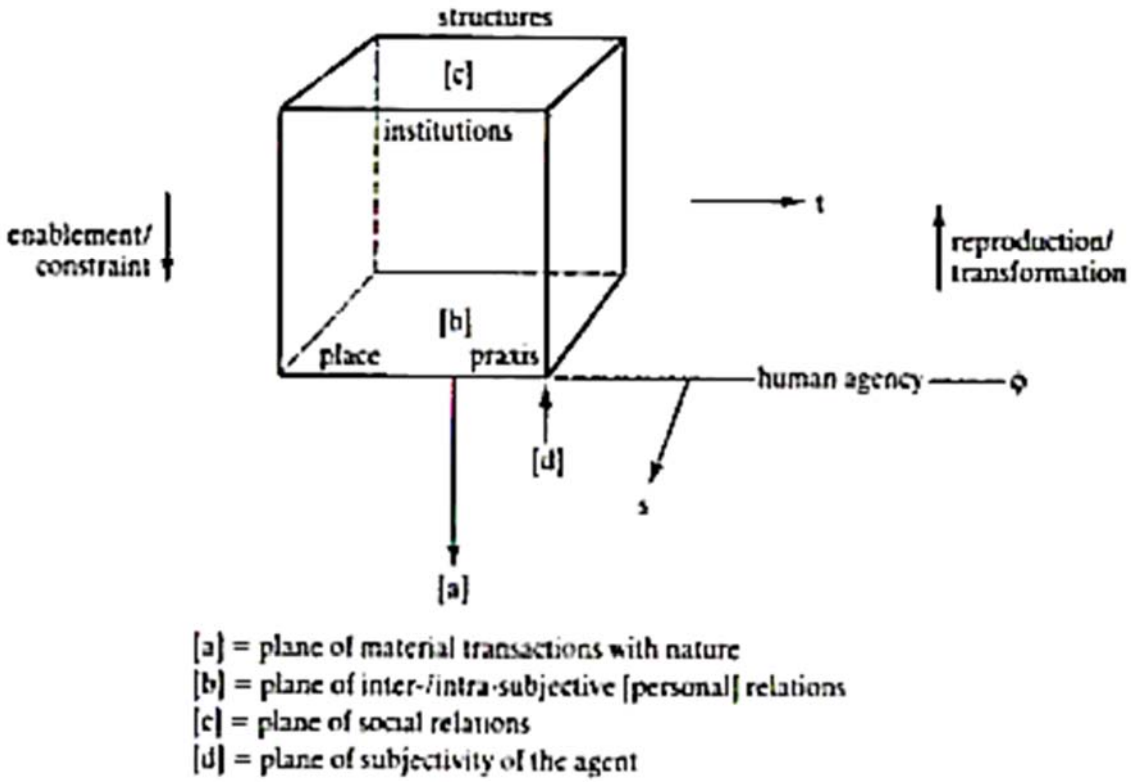
The "teacher-computers" characteristic of Bridge International Academies' low-cost model of for-profit schooling is a paradigmatic example of techagogy. By design, the role of the teacher has been rendered programmable and automatable by BIA; performed through the operations of a handheld tablet. Teacher-computers are tablet e-readers that convey "step-by-step instructions explaining what teachers should do and say during any given moment of a class" (BIA, 2016d). They

involve “teacher scripts” that are simply readout verbatim, word-for-word, using “data-enabled devices” (BIA, 2016e). In turn, these technologies mechanize and automate the work of teachers and, at the same time, de-professionalize teachers’ labour. It represents a capital accumulation strategy for commodified schooling in which qualified teachers are replaced (or reconfigured) by efficiency-maximizing, data-enabled technologies that are designed to cut costs and increase profit margins for the company since the most capital-intensive component of any education system is the cost of teachers’ labour. The activities of GEI firms, in turn, illustrate some of the ways in which the pedagogy of the future may be transforming into a type of techagogy of the oppressed produced in accordance with the logics and innovations of corporate rule. This is an area of the GEI undergoing a period of great transformation given the growing prevalence of, and investments into, EdTech industries, artificial intelligence in education, and so forth.

9.6 (Re)conceptualizing the GEI as a “Social Cube”

As this dissertation draws to a close, I would like to reflect on how we might (re)conceptualize the GEI. In their seminal work, *The Global Education Industry*, Verger et al. (2016) describe the GEI as a “social field” characterized by a structured social space constituted by its own set of rules, institutions, and social forces involving a range of actors, their forms of agency and practices of power, that struggle to expand, transform, and/or reproduce the field (p. 11). While I certainly agree with this account, given what I know now (and in an effort not to fall into the trap of a flat ontology) my conceptualization of the GEI further develops the “social field” comparison posited by Verger et al. (2016) and instead views the GEI as a “social cube”—inspired in part by the work of Roy Bhaskar—which I will outline now.

Figure 10: Bhaskar's Four-Planar Social Being Encompassing the "Social Cube"



Source: Bhaskar, R. (2008). *Dialectic: The Pulse of Freedom*. New York: Routledge. P. 160.

Bhaskar utilizes a "social cube" to explain his "transformational model of social activity" (2008). Conceptualized as a "space-time cubic stretch or flow" by Bhaskar, the "social cube" is used to distinguish between two types of *power*, that is, social or inter-subjective power ("the transformative capacity intrinsic to agency") and material power, which is power that is

> (possessed, exercised, mobilized, manifest, covert, indirect, mediated or their contraries; globally, nationally, regionally, sectorally, locally; economic, political, military, symbolic, etc.; more or less ideologically legitimated or discursively moralized, more or less resisted or opposed, more or less successfully, etc.) transfactually efficacious capacity to get one's way against either (i) the overt wishes and/or (ii) the real interests of others (grounded in their concrete singularities). (Bhaskar, 2008, pp. 153)

These hegemonic/counter-hegemonic differentiations in power can be thought of as a "cubic flow, differentiated into analytically discrete moments," that are "subject to multiple and conflicting

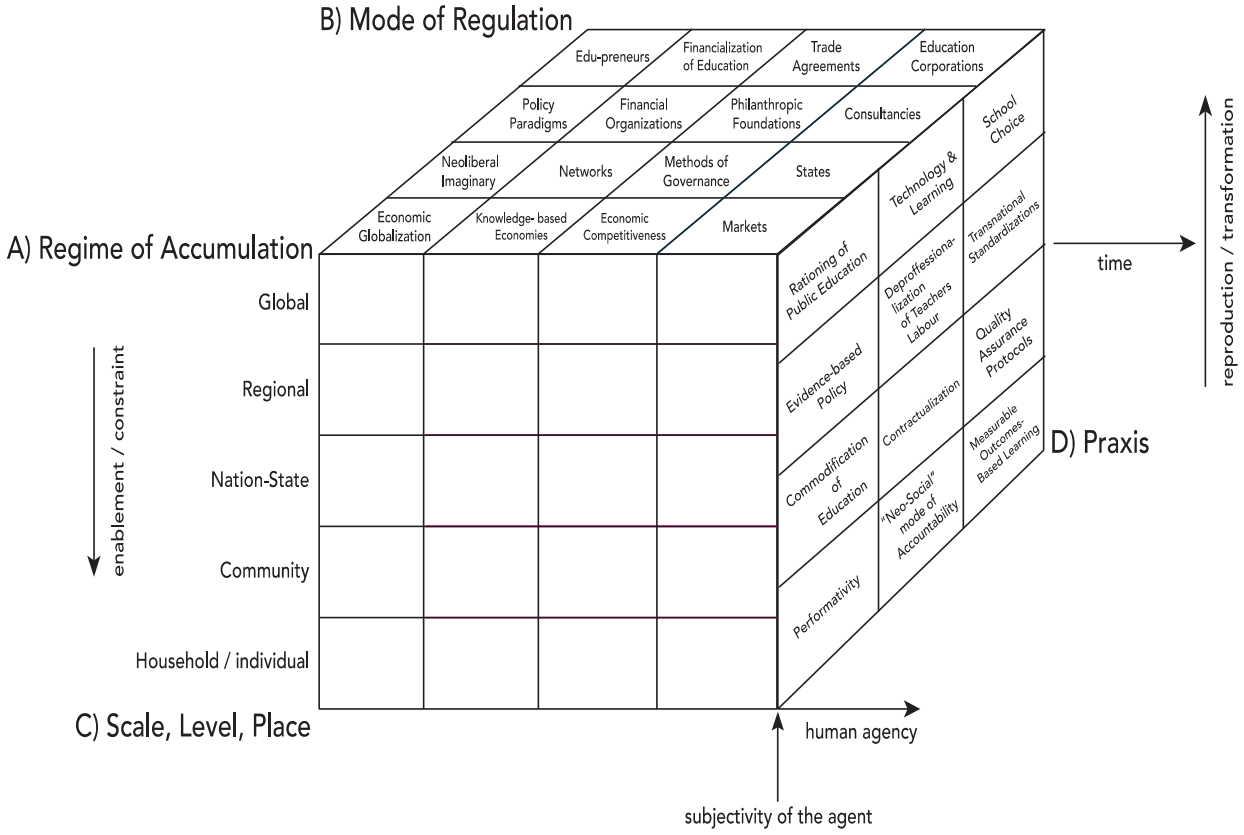
determinations and mediations and as displaying to a greater or lesser extent (more or less contradictory) intra-relationality and totality; more generally, as embodying all the moments of the concrete universal" (Bhaskar, 2008, p. 160). To capture the social activities encompassing the emergence and expansion of the global education industry, I introduce Regulation Theory (a predecessor of cultural political economy) into Bhaskar's conception of the social cube.

Regulation theory, is more or less, a distinctive theoretical orientation in evolutionary and institutional economics that explores the economic and *extra-economic* mechanisms (i.e., institutions, policy paradigms, modes of calculation, norms, etc.) that legitimate and secure capitalist reproduction. For this inquiry, the most important concepts from regulation theory include "regime of accumulation" and "mode of regulation" which replace, or expand on, the notion of "institutions" and "structures" presented in Bhaskar's social cube.

"Regime of accumulation" refers to macro-economic patterns of production and consumption that can be reproduced over a long period of time, which is more-suited to studies of industrial growth and transformation. "Mode of regulation" refers to "an emergent ensemble of norms, institutions, organizational forms, social networks and patterns of conduct that can temporarily stabilize an accumulation regime despite the conflictual and antagonistic character of capitalist social relations" (Jessop & Sum, 2006, pp. 42). Generally, modes of regulation have been analyzed via: the wage relation (labour market, wages); the enterprise form (source of profits, organization, capital networks); money (production, allocation, circulation); the state (institutional arrangements, interventions); and international regimes (trade, investment, political arrangements that link national and international economies) (Jessop & Sum, 2006). Here, my analysis of the GEI interconnects a number of these topics. For this inquiry, the mode of regulation encompassing the GEI involves institutions and institutional arrangements, changing methods of governance, patterns of economic globalization, financialization, social networks, transnationally-configured enterprises, financial/capital flows, and so on. Moreover, capital accumulation strategies in education depend on diverse and complimentary accumulation

regimes and modes of regulation that operate at different scales and places—across national, regional, and local levels in dialectical interaction with complimentary international structures and strategies—which arrange the economic and extra-economic mechanisms for capital to experiment, respond to new forms of crisis, and extend itself as the basis of social relations. Hence, a regulationist reading of the GEI as a "social cube" suggests that such processes involve a multiplicity of interactions at different scales and localities that mediate a range of corporate education reforms, in praxis. My conceptualization of the GEI is therefore depicted in Figure 11 below.

Figure 11: The Emergence and Structuration of the GEI as a Social Cube



Conceptualizing the GEI as a transformational model of social activity, represented by a social cube, in which multiple and conflicting determinations and inter-subjective and material

powers collide to enable, constrain, transform, and/or reproduce processes through which capitalist developments in education move forward, structured in time and space, provides a novel way of thinking about industrial advances in education. The GEI is not a spontaneous, predetermined, or naturally-occurring phenomena. It involves agency formations and practices of power organized in relation to regimes of accumulation that refer to the macro-economic conditions of production and consumption occurring over time as well as modes of regulation that involve institutional forms, governmental arrangements, networks, policy paradigms, social imaginaries, trade agreements, discursive patterns, and so on, that (temporarily) stabilize regimes of accumulation. The findings of this doctoral research provide empirical insights that illustrate how we may view the GEI in this way.

Chapter 6 focuses on Pearson's *Efficacy Framework* and the ways in which this semiotic-calculative device acts strategically in accordance with conditions of educational restructuring (such as commercialization, privatization, evidence-based policy paradigms, and new accountability regimes) to provide "evidence" of the measurable outcomes, social impact, and effectiveness of the products sold by Pearson in order to "fix" contradictions related to education in its commodity forms. Chapter 7 on Bridge International Academies elucidates the ways in which market-making devices, tools, and technologies are assembled in communities on the fringes of global capital through networks of financial investment that build markets for commercialized schooling; exhibiting the power and determination of transnationally-configured corporations to impose educational projects and programs of delivery in different localities through capital streams and IT innovations. Chapter 8 on Microsoft's *Minecraft: Education Edition* examines the way in which EdTech tool producers are creating digital game-based learning platforms that are packaged as "21st century learning," socio-emotional learning, and "impassioned learning," yet are restructuring the social relations of production required for the future of work through the mass consumption of (psycho)technologies. These dynamics take place at various scales, in a variety of locations and with varying levels of success, which both enable

and constrain the subjectivities of agents, while transforming and (re)producing social relations over time, including the position of global edu-businesses in newly imagined state-education-citizen configurations.

9.7 Research Significance and Future Priorities

To conclude this dissertation, I will reflect briefly on three key outcomes, or findings, from this doctoral research that are of *substantive*, *theoretical*, and *political* significance.

Substantively, this research addresses the question: what tools, devices, and ideas are produced and drawn upon by firms to re-contextualize, re-appropriate, and re-formulate education as an object of trade and consumption. Ideationally, and discursively, this research has shown the ways in which GEI firms select, re-appropriate, and/or re-contextualize specific words, language, and their meanings, such as "efficiency," "efficacy," "choice," "international," "innovation," and "21st century skills" to legitimate and expand their capital accumulation endeavours by *framing* their business activities in education. But it is not just ideas and language that give meaning to GEI objects of trade and consumption. Materially, the GEI is active in creating objects, tools, and devices that aim to extract capital from commodified educational processes. For example, Pearson's *Efficacy Framework* represents a semiotic tool meant to drive the consumption of educational commodities sold by the company by emphasizing the "measurable impact" they can have on the life of a consumer. Meanwhile, Bridge International Academies' low-cost data-enabled technology including e-readers and smartphones, as well as GPS technology and performance evaluations, illustrate the market devices utilized to maximize the firm's profitability. Finally, the case of Microsoft and *Minecraft* show the ways in which IT-based edu-businesses re-appropriate and re-contextualize digital games and digital platforms into newly commodified technologies for learning. Substantively then, this research has illustrated the ways in which global edu-businesses extract surplus value from systems of education through the commodities they produce, the devices they

employ, and the discourse and ideas they construct to serve the interests of private capital accumulation.

Theoretically, this study has set out to contribute to, and advance, our knowledge of the GEI by formulating a critical cultural political economy account of this social phenomena. Although there is a growing amount of important scholarly research concerned with the cultural politics (or discursive/semiotic) dimensions of capitalist restructuring in education in relation to GEI agents (Hogan, Sellar & Lingard, 2015; Hogan, Sellar & Lingard, 2016; Robertson & Dale, 2015; Steiner-Khamsi, 2016) it still remains largely overlooked as a field of sociological inquiry. This dissertation provides a critical cultural political economy account to illustrate the ways in which global education industries are transforming how systems of education are organized, delivered, and consumed (and for whom and what purposes) through ideational, discursive, and financial techniques and their materiality (in the form of educational tools, technologies, devices, and programs). A conceptual finding emerging from this research also relates to the theory of *techagogy*—which refers to the industrialization and mechanization of an evolving type of artificial pedagogy produced by GEIs. Of course, all theory is provisional and fallible, and as such, so too is this study a historically-specific reading of contemporary global cultural and political economy developments in education that will undoubtedly change, oscillate, mutate, and transform over time.

Finally, the political significance of this research resonates with century-year old debates concerning the aim and purpose of education in society, and the complex relationships between public and private, state and market, and local and global interests in educational policy and governance. By completing a paper-based dissertation, although less conventional, this approach has allowed me to significantly contribute to social and political debates concerning the politics of privatization and commercialization of education through my published works. Chapters 6 and 7 of this research have been read, cited, and shared, globally, among a growing network of academics and professional practitioners, which is adding to our collective knowledge of GEI actors and their

activities. According to article-level metrics to date, Chapter 6 on Pearson has been viewed 547 times and Chapter 7 on Bridge has been viewed 742 times. Although crude, analytics from my Academia.edu webpage also indicate these two papers have been read, to date, by an additional 225 people across more than 40 countries. Due to the dissemination and traction of this research, I have also been invited to public events, panels, and symposiums to present and share my work both domestically and abroad. In this way, my doctoral work represents active, living, cultural artefacts that are also political, and have political significance because of their nature and the contexts in which they have been shared. Ultimately, the political significance or insignificance of my doctoral work can be evaluated to the extent that it draws attention to the contradictions of capital accumulation in education – in order to expose them to critique, action, and transformation.

Yet, as this thesis comes to a close it is obvious that the dynamics of corporate education reform move much more quickly than critical social scientific studies of such topics. Using a critical cultural political economy lens, the preceding is merely a historical(-materialist) snapshot of case studies of such developments which will undoubtedly change over time.

Knowledge is like a river in that the water we find ourselves standing in, is always changing, always moving. No moment in the history of any river will stay the same. We can stand with our feet on a riverbed of rocks and silt, yet the rivers' water flows through us, by us, around us; it carries us. The nature of knowledge moves the same—we may stand still, but knowledge and our reality is constantly shifting. In this way, there is no ultimate "Truth" to our realities; only tributaries of passing, turbulent streams of knowledge that feed a broader, collective concourse ultimately carving out paths that are ever-changing.

In turn, as this dissertation draws to an end, a number of issues remain understudied that pose important research priorities to further explore global education industries and their impact on education and society, which I hope this study may help inspire:

- ***Corporate sector involvements in shaping policy agendas***

Analysis of country-specific policy evolution and change in relation to commercialization and privatization, including studies of key government priorities and corporate sector involvements in shaping policy agendas and links between education and the economy.

- ***New and evolving modalities of business operations in education***

  Research on emerging (re)configurations of the global education industry in different local and geographical sites, including new public-private partnerships, trade regulations, social entrepreneurialism, (venture) philanthropy, shifting modes of production, and new sources of influence and expertise in diverse educational contexts.

- ***Social Impact Bonds in education***

  Social Impact Bonds (SIB), also referred to as Pay For Success (PfS), have emerged as an "innovative" funding approach in which private investors finance social services such as public education and are repaid by government with interest, providing a profit to funders, if the project achieves predetermined success criteria. Private enterprises may also initiate a social bond to attract financial investment to pursue business strategies in social service sectors. Research on SIBs in education is necessary to examine the ways in which this new financing technique may be further privatizing education through government-funded business deals based on profit-driven investments by the private sector.

- ***Measurable outcomes, "impact" and indicators of "success" as a legitimation strategy for profit-making***

  The global education industry indicates the nexus between evidence-based policy paradigms and "corporate social responsibility" in which measurable outcomes, performance indicators, and "impact" are translated into legitimation efforts and

justification for the profit-making endeavours of corporate actors in education. Research on how such processes are reorganizing and transforming education, and with what consequences, require critical scholarly attention.

- ***De-professionalization and the changing nature of teachers' labour***

  How is the global education industry affecting central schooling practices and teachers' work including curriculum delivery, pedagogy, assessment, and learning management?

- ***Corporatization of higher education***

  How is the production (and consumption) of knowledge and advanced research at the level of higher education effected by corporate education reform?

- ***Coloniality of transnationally-configured, low-cost schools in the global South***

  How are "low-cost" chains of private, for-profit schools that are financed, established, and managed by transnational entities reproducing colonial situations in the global South, and how do these issues playout in relation to matters of international "development"?

- ***Resistance to commercialization and privatization of education***

  How are different actors, stakeholders, and groups resisting processes and pressures of commercialization and privatization in diverse educational contexts?

- ***Human capital contracts***

  New colleges offering online programs and courses that teach, for example, coding skills for "free" in exchange for a portion of the student's future earnings are growing in popularity. Silicon Valley-based Lambda School, and others like it, are based on a model of education referred to as an "Income Share Agreement."

Although students don't pay until landing a job that pays at least $50K annually, students end up paying exorbitantly higher fees than standard tuition costs, while the system itself resembles a type of indentured servitude, which requires scholarly investigation.

- ***The EdTech industry and public education***

  Studies investigating the increasing involvement of global technology companies (i.e., Google, Amazon, Microsoft) in public education and their competition for structural dominance of school infrastructure, data collection, and processing practices require critical scholarly attention.

- ***Artificial intelligence in education (AIEd)/techagogy***

  Global tech companies are developing new digital learning platforms, including AI technologies to provide personalized learning to students. While these technological developments aim to promote benefits in teaching and learning, they also involve disruptive changes regarding *how* and *why* education is delivered. These disruptions do not follow a set of coherent educational principles but are intended to serve the interests of company shareholders. These issues could be explored further in relation to the concept of *techagogy*.

- ***Capitalizing on educational change in the context of the COVID-19 pandemic***

  Private technology companies have played a significant role during the COVID-19 crisis working at local, national, and international scales, offering technical solutions and supplying EdTech products that can be embedded in public education systems and practices beyond the pandemic. In turn, COVID-19 has created a catalytic opportunity for commercial investors and the EdTech industry to capitalize on the abrupt switch to online education by growing markets for

digital learning technologies and platforms. Research is needed to understand how privatization and commercialization of education are being promoted as part of the response to the COVID-19 crisis in education by growing markets for educational technology.

- ***Corporate education reform and its impact on democracy, social justice and equity***

  How is corporate power and influence in educational policy, practice, and processes threatening democracy and democratic institutions as well as social justice and equity in various contexts?

Afterword

In what follows is a personal account that captures some of my professional experiences in the field of international education, which in many ways felt worlds apart from my doctoral experiences at the University of Alberta, yet ran parallel to it and at times intersected with it.

Every four years, Education International (EI) awards the Albert Shanker Education Award to a teacher or education worker in recognition of their outstanding activism or personal contributions to the field education. “The award celebrates the winner’s professional activity that reflects a commitment to educational excellence and the promotion of democracy, social justice and equality through education.”

On November 19, 2018 the Education International Executive Board, meeting in Brussels, announced that I was the winner of the Albert Shanker Education Award. Below is an excerpt from that announcement:

“The winner, Curtis Riep, is a PhD candidate and teaching assistant at the University of Alberta, Canada. In 2014 he conducted ground-breaking research that helped promote quality public education in Ghana by shining a spotlight on the increasing privatization of education in Ghana and the shortcomings of so-called private ‘low cost’ schools.

Riep’s work extended beyond West Africa when he conducted research on APEC schools in the Philippines. His research contributed to the success of EI’s global response against the privatization and commercialization of education.

In 2016, Riep conducted research into Bridge International Academies (BIA), a for-profit school chain operating illegally in Uganda. This research provided evidence for EI affiliate UNATU’s successful effort to convince the Ugandan government to act against BIA, announcing the chain’s closure.

During his field research Riep was arrested due to fabricated allegations made by BIA. Whilst allegations were dismissed, deemed to be ‘without merit’, BIA continued harassing Riep.

Despite the threats and attempted intimidation, Riep concluded the research. The information uncovered has been critical in the campaign to counter the privatisation of public education.

According to the organisations that nominated him, CTF (Canadian Teachers' Federation) and UNATU (Uganda National Teachers' Union), 'over the last half a dozen years Riep has made a contribution to quality publicly-funded public education throughout the world that most could not hope to make in a lifetime. His personal contribution to ensuring all children have access to quality, inclusive, public education regardless of their socio-economic status, gender, or the country they call home is outstanding.'"[7]

On July, 25 2019 I was honoured as the Albert Shanker Education Award recipient during EI's 8th World Congress in Bangkok, Thailand. Below is the acceptance speech I shared that day in front of a packed conference hall with nearly 2,000 of the world's education leaders, trade unionists, and social activists in attendance.

"It is an absolute honour to receive the Albert Shanker Award. With so many incredibly talented and dedicated people committed to social justice, democracy, and equality in education around the world, I am deeply humbled by this recognition.

First, I would like to thank Education International, and all its member affiliations, for the passion and commitment you put into your work to promote excellence, integrity, and equity in education. Educators truly are the backbone of our civilization.

Most importantly, I would like to thank my parents, Glen and Nancy Riep, who are with us here tonight. Parents are our first and most important teachers in life, and I have been blessed with two amazing parents that have encouraged my curiosities and ambitions throughout my life. I would also like to thank my incredible wife, Leanne, who pushes me every day to be a better person. If it wasn't for your support, I wouldn't be standing here tonight.

[7] https://www.ei-ie.org/en/detail/16037/ei-announces-winner-of-education-prize

For the better part of a decade, I have been researching and studying a growing trend in education. That is, the commercialization and privatization of public education. In particular, my research has focused on the growth of so-called "low-cost" private for-profit schools emerging in parts of Africa, Asia, and Latin America.

In 2014, I travelled to Ghana to research a chain of 'low-fee' private for-profit schools meant to target low-income families, which was one of the first of its kind in the world.

In 2015, I conducted research in the Philippines that exposed a powerful corporate entity that had also launched a large-scale chain of commercial schools. In order to cut costs and increase profit margins, these schools failed to meet basic regulations and standards meant to uphold quality education.

So, while many groups around the world are working hard to expand access to quality education that is freely accessible for all, my research in Ghana and the Philippines helped bring attention to the new ways in which other groups are increasingly attempting to profit from the commodification of this basic human right.

In 2016, I conducted research in Uganda to examine another low-cost private for-profit school company, Bridge International Academies. It is the largest chain of 'low-fee' schools in the world targeting families who live on $2 a day per person or less.

This research in Uganda helped to bring attention to a number of legal and educational problems posed by the company: these schools were found to be unlicensed, they hired unqualified teachers and paid them $2-3 a day, school facilities were not up to code and deemed unsafe for children, schools were using unaccredited curriculum, and lessons were delivered using 'teacher-computers'—that is, a method of instruction where teachers read step-by-step instructions from computer tablets explaining what they should do and say during any given moment of a class. It is a robotized form of instruction where every pedagogical moment is prearranged, scripted, and pre-set, and therefore, oppressive and highly restrictive for teachers and students. Despite these problems, Bridge International Academies charge a relatively high fee

for families living in economic hardship in Uganda, and elsewhere where they operate such as in Kenya and Nigeria.

In Uganda, my research helped to expose the illegitimate and exploitative activities of this company, and because of this, Bridge International Academies went to great lengths to personally attack me, pressure me, and censor my research findings, but to no avail.

I have to extend my deep gratitude to the Ugandan National Teachers' Union for their support on the ground and in helping to mobilize our research findings. As well, thank you to the Canadian Teachers' Federation for supporting me and this very important work. I also have to thank my comrade Angelo Gavrielatos from EI for his personal support and commitment over the past 5 years, as well as members of the Executive Board of Education International for their support and tremendous leadership in the world of education. Because of our efforts in Uganda, and the overwhelming evidence that Bridge International Academies was operating illegally in the country, the Ministry of Education and High Court of Uganda took action to block the expansion of this predatory company.

Still, the spread of commercialization and privatization in education are not isolated events only effecting certain parts of the world. It is a global phenomenon. In response, we need to adamantly defend public education worldwide that works *for the people*, rather than *for* profit-seeking elites, or the 1%. *We need an education system for the 99%.*

Finally, I would like to share a quote from a speech given by Albert Shanker addressed to the American Federation of Teachers in 1985, in which he said: 'It's dangerous to let a lot of ideas out of the bag, some of which may be bad. But there's something that's more dangerous, and that's not having any new ideas at all at a time when the world is closing in on you.' So, as the world seems to be closing in around us, let us find the strength, courage, and wisdom to implement ideas that will ensure the educational futures for generations of today and tomorrow are bright, empowering, and liberating. Teacher unions will undoubtedly play a central role in these efforts

because, to paraphrase Albert Shanker: 'It is as much the duty of the union to negotiate a good contract as it is to preserve public education.' .... *The 99% depend on it*."

So, as this doctoral journey comes to an end, in the next chapter I intend to find the strength, courage, and wisdom to progress ideas and enact change at a time when the world seems to be closing in around us: to protect the educational futures for generations of today and tomorrow, so they may be bright, empowering, and liberating.

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