DIGITAL IDENTITIES, EDUCATIONAL INEQUITIES:
INVESTIGATING SOCIAL CLASS AND NEW LITERACIES
OF MIGRANT FILIPINO YOUTH IN THE KNOWLEDGE ECONOMY

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Abstract

Drawing on data from an 18-month case study of migrant Filipino youth of various social class positions, this dissertation examines the socialization of L2 learners into different digital practices, and the implications of these differences in educational contexts where digital literacies are unequally valued. Through interviews of 18 focal participants from three high schools in Vancouver, teachers and parents, and observations of digitally-mediated interactions, the study investigated how the volume and composition of the learners’ economic, cultural, and social capital (Bourdieu, 1986) shaped the material conditions of these interactions, and the ways learners were positioned in online and offline spaces (Darvin & Norton, 2015). Findings demonstrated how material conditions of migration, home environments, spatial configurations and access to tools and social resources can shape diverse digital dispositions and investment in relational, informational, expressive, recreational, and operational digital practices. As learners moved across online spaces of language acquisition, power operated not only through human actors, but also through the non-human interactants of physical and digital contexts. Digital repertoires, cultures-of-use (Thorne, 2003), sociotechnical structures and algorithmic processes had power to shape the distribution of knowledge, compartmentalize identities, and segregate social networks, constructing modes of exclusion online. Uncritical interpretations of what constitutes digital literacy, perpetuated by educational policies and teacher beliefs, can also contribute to a neoliberal agenda in learning that reproduces social inequalities. By establishing connections between learners, tools, and contexts of use, this dissertation demonstrates how social class is an increasingly germane construct to examine these inequalities, particularly if understood as fluid, relational, and subjectively experienced. Drawing on these findings, the dissertation concludes that as learners move across linguistically diverse online spaces,
the way they strategically negotiate relations of power shapes how they assert their identities as legitimate speakers, and invest in and divest from these spaces and their corresponding communicative practices (Norton, 2013). By shifting the focus from the integration of educational technologies to the teaching of an online communicative competence, language educators can empower L2 learners to navigate digital spaces more strategically, to imagine more equitable futures, and to transform the knowledge economy.
Lay Summary

Based on a study of recently immigrated Filipino students at three high schools in Vancouver, this dissertation demonstrates how youth of various social class backgrounds can use technology differently and develop contrasting conceptions of its purposes. Through interviews of students, their teachers and parents, and observations of how they used different devices and platforms, this study examines how these diverse digital literacies are unequally valued in schools, privileging some students while marginalizing others. Findings revealed how class-based differences in parental involvement, home environments, and access to tools and resources shaped digital inequalities. The features and algorithmic processes of digital platforms, including the conventions of their use also determined access to and participation in online spaces. To address these inequalities, this dissertation proposes that schools and teachers focus on not only integrating educational technologies but also teaching a communicative competence that helps students navigate online spaces in critical and transformative ways.
Preface

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PART A. INTRODUCTION

1.0 POSING THE QUESTION

1.1 Technology, the knowledge economy, and educational equity

More than three decades after Heath (1983) published her groundbreaking ethnographic study comparing the literacy practices of black and white working-class communities and mainstream townspeople in the U.S., the world has drastically changed. Technology has not only facilitated the rapid transnational flow of people, capital, and ideas (Appadurai, 1990; Basch, Schiller, & Blanc, 1994), but also reshaped both the meaning and practice of literacy (Cope & Kalantzis, 2012, 2013; Lankshear & Knobel, 2006, 2012). By enabling the growth of diverse semiotic modes, cross-language interaction, and new forms of social interaction (C. Luke, 2003; Warschauer, 2009), it has permeated all aspects of human life and constituted new identifications, allegiances, and relations. In a knowledge economy where production and services are largely based on information processing and knowledge creation (Powell & Snellman, 2004), technology has become the critical factor in generating and accessing power (Castells, 2010). Structuring a new work order where classes of knowledge workers emerge, it has warranted the acquisition of new literacies that have become necessary for upward social mobility (Jones & Hafner, 2012). Responding to this current landscape, education is confronted with new challenges as it prepares students to fill the labour needs of this knowledge economy. As schools proceed to build digital infrastructure and integrate technology into curricula, recent studies have shown however that the achievement gap between rich and poor children in the U.S. has been increasing to twice that of white and black children (Jones & Vagle, 2013). How this class-inscribed trend is linked to the convergence of
technology and education demands further examination. In this increasingly digitally-mediated world, we need to ask who are developing the literacies that matter and who are at risk of being left out? It is precisely these issues of educational equity that this dissertation investigates.

To signify this technological upheaval, scholars have operationalized constructs such as the ‘fourth industrial revolution’ (Harnad, 1991), ‘the information age’ (Castells, 2010; 2011; Castells, 1999), and ‘the network society’ (Castells, 2011; Van Dijk, 2006) to highlight various epistemological concerns. Indeed, technology has instigated a revolution that has disrupted industries and transformed systems of production, management, and governance. New ways of creating, storing, and transmitting information have propelled this revolution, creating information networks that redefine structures and activities within a society. The choice to contextualize this study in ‘the knowledge economy’ (Powell & Snellman, 2004; Smith, 2002) however is intended to highlight several ideas. In the transition from industrial to post-industrial capitalism, the harnessing of information and knowledge replaces the infusion of capital and labour (Warschauer, 2009). As an economy is a system of making and trading things of value, information needs to be transformed into knowledge for it to become valuable, and such transformation is at the core of education. At the same time, this dissertation recognizes that the digital revolution occurs within an economy, a larger ecosystem of institutions, policies, and structures of power that respond to the production and consumption needs of a society. To investigate educational inequity, a political economic lens can be particularly useful to examine the unequal distribution of knowledge and acquisition of literacies. These tropes of value, power, and inequality are woven into this analysis of what it means to be ‘literate’ in the knowledge economy. As educational technology
becomes an integral part of education, with schools forging partnerships with industry and business, this dissertation also recognizes that the knowledge economy itself is a contested term, implicated in the neoliberal discourses of the self-interested individual and the free market (Olssen & Peters, 2005).

At the turn of the century, Castells (2001) posited that technology, as the fulcrum of the knowledge economy, can lead to “one of the most damaging forms of exclusion” (p. 3). Across global and local spaces, there are those who are able to participate fully in technological networks, and those who are not. While earlier understandings of the digital divide were limited to access to devices and connectivity (Epstein, Nisbet, & Gillespie, 2011; Stevenson, 2009; Vehovar, Sicherl, Husing, & Dolnicar, 2006), concepts of the digital divide now extend to differences in digital use (Selwyn, 2004; Warschauer, 2009). To participate in this digital world, access needs to be matched with the development of relevant competences (Smythe & Breshears, 2017). Individuals may have access but not necessarily the ability to harness fully the power of technology and to navigate and evaluate resources available online. As schools continue to integrate these new literacies in curricula and pedagogy, how learners perceive technology and its potential shapes different digital practices, and these differences can contribute to unequal learning outcomes (Warschauer & Matuchniak, 2010).

To represent the changing practices of literacy brought about by digital media, a number of terms like digital literacies (Buckingham, 2010; Lankshear & Knobel, 2006), 21st century literacies or skills (Eisen, 2003; NCTE, 2007; P21, 2015), multiliteracies (Cope & Kalantzis, 2009; The New London Group, 1996), and information literacy (Eisenberg, 2008) have been constructed to foreground various epistemological concerns, values,
and agendas. As an umbrella term for all these constructs, new literacies (Coiro, Knobel, Lankshear, & Leu, 2014) assimilate different perspectives regarding the practices of producing and exchanging meanings through digitally mediated processes of encoding and decoding. Whether it is to articulate new social practices and conceptions of reading and writing (Street, 2003), new strategies and dispositions required by the internet\(^1\) (Leu, Kinzer, Coiro, & Cammack, 2004), new discourses (Gee, 2003), or new semiotic contexts (Kress, 2003; Lemke, 2005), new literacies provides a broad theoretical framework to harness the various epistemic and political aspects of these literacies, including issues of access and equity. In this dissertation, I engage with all the aforementioned terms to reflect the perspectives of various researchers, policymakers, and practitioners, and to highlight what I find most relevant in specific sections. While all these terms recognize that these new technologies involve new social practices, skills, strategies, and dispositions, one particularly relevant point that ‘new literacies’ highlights is that these practices are deictic (Coiro, Knobel, Lankshear, & Leu, 2008). They are always new in the sense that they continually evolve as defining technologies change, and this deictic nature of technology is a significant factor not only in designing curricula and pedagogical strategies, but also in tackling issues of digital equity.

1.2 Migrant Filipino youth in the context of globalization and mobility

To investigate issues of technology, equity, and education, this study examines the digital literacy practices of secondary school students in Vancouver, particularly those

\(^1\)Throughout this dissertation, “internet” or other technical terms like “wifi” are not capitalized. While most publications capitalized these words when they first came into widespread use, the lowercase form has been more common in recent years, and this stylistic choice signals how these technical artefacts have moved past their nascent state.
who have recently migrated from the Philippines. The rationale for these choices represents various theoretical, political and personal stances, which I outline here.

Secondary education and digital natives. Secondary school represents that juncture in the educational trajectory of individuals where they begin to make decisions that impact their social futures. Whether they join the workforce or pursue postsecondary education, the skills and dispositions they acquire during this period will greatly shape their position in the knowledge economy, and thus, how schools conceptualize and teach these new literacies becomes particularly critical. In Canada, where 85% of students would have their own mobile phones by Grade 11 and where 99% are able to access the internet outside school (Steeves, 2014), issues of digital access and connectivity may not appear to be a significant issue. As a study of digital equity however, this dissertation recognizes that differences in digital use also constitute the digital divide (Selwyn, 2004; Warschauer & Matuchniak, 2010), and that even in a wealthy post-industrialist nation like Canada, there are segments of the population who may not have the opportunities to realize the full potential of technology.

Secondary school students today were all born in the 21st century, and to refer to this generation that grew up with digital technology, Prensky (2001) coined the term “digital natives.” He defined this generation as “‘native speakers’ of the digital language of computers, video games and the internet” (p. 1). It was a term that achieved currency in both academic and journalistic discourse, constructing the notion that young users are naturally adept in operating digital tools like computers and mobile phones. As a study of the diverse digital practices of youth, this study resists this label for various reasons. The idea that there is one “digital language” that users need to master to encode and decode
meaning is greatly limited. Jones and Hafner (2012) assert that when people engage with the digital, they are establishing relationships and enacting multiple identities, and thus there are different practices of thinking, communicating, and relating through digital media. Individuals at different life stages use technology in ways that serve specific purposes, and the notion of a digital native essentializes age as the single and most important determinant of “digital fluency” (Hsi, 2007; Miller & Bartlett, 2012). To ascribe this fluency to a whole generation of users erases the fact that these youth come from very different social positions, and the extent to which they acquire and are socialized into these new literacies is largely shaped by these positions.

**Migration and globalization.** Recognizing how these “digital natives” occupy unequal social positions, this dissertation looks at how social class shapes such differences, particularly among immigrants who constitute a fifth of Canada’s population (Picot & Lu, 2017). In wealthy post-industrialist nations like Canada, globalized production relations and local market demands create labor and investment needs (Larner, 2000) that require the flow of people, technology, money, information, and ideas across boundaries (Appadurai, 1990). Not only does migration provide employers with workers who perform jobs native-born workers avoid, it depresses wages and enables the employment of educated and skilled migrant workers, whose cost of training and development has been shouldered by another country. To improve their status and remuneration, migrants pay the material and psychological costs of such a transition, and need to invest further in their country of settlement by acquiring new credentials and certification (Satzewich & Liodakis, 2013). In Canada, immigration is often accompanied by deskilling and deprofessionalization, and rates of low income among immigrants continue to be high relative to the Canadian born population (Picot & Lu, 2017). In an earlier study, Picot,
Hou, & Coulombe (2008) found that about two thirds of immigrants experienced at least one year of low income during their first ten years in the country, and that a quarter of the low income spells lasted five years or more. In British Columbia where income inequality has increased dramatically\(^2\), the economic implications of migration is reflected in the most recent census. First Call (2017) reports that 45% of recent immigrant children\(^3\) in BC live below the poverty line, and that one in four of visible minority children are poor. Approximately 85% of poor children in BC come from urban areas, which include Metro Vancouver.

Different types of migration, whether permanent or temporary, contribute to Canada’s diversity. Driven by diverse goals and equipped with varying levels of capital, migrants arrive in the country through different admission classes: Business, Skilled Worker, Live-in Caregiver, Family, or Refugee. Addressing the various labour needs of a nation-state, these migrants occupy significant yet segmented spaces (Zhou, 1997), and earlier studies of this segmented assimilation often use ethnicity as a lens to examine particular ethnic groups and the structural contexts they encounter in the receiving society (Portes, Fernandez-Kelly, & Haller, 2005; Zhou & Kim, 2006; Zhou & Portes, 2012, to name a few). More recent studies of intergenerational mobility however link the socioeconomic outcomes of childhood immigrants\(^4\) to their admission classes and differences in capital. Studies showed that immigrants in different admission classes tend to come from countries with different levels of socioeconomic development and values towards

\(^2\) In 2015, the richest 10% of families with children shared 24% of the total income of all families with children, while the poorest 10% received only 2%.
\(^3\) In the BC Child Poverty Report Card published by First Call, “children” is defined as those from 0 to 17 years of age.
\(^4\) According to Hou and Bonikowska (2016), childhood immigrants who arrived in Canada at age 17 or younger comprise Generation 1.5.
education, and such differences can be transmitted through the socialization process (Blau, Kahn, Liu, & Papps, 2013; Fleischmann & Dronkers, 2010). Economic immigrants such as business investor immigrants and skilled workers usually have a relatively high economic status and social capital in their source country and are likely to have high educational aspirations for their children (Hou & Bonikowska, 2016; Ichou, 2014). The educational level of parents (Bonikowska & Hou, 2011; Picot & Hou, 2011), together with their official language ability (Bleakley & Chin, 2008), influences the language proficiency and educational outcomes of their children. While the official language proficiency of parents does not matter to pre-school aged arrivals, its effect is substantial on adolescent arrivals (Hou & Bonikowska, 2016).

In a study of the educational and labour market trajectories of the children of immigrants, Hou & Bonikowska (2016) report that family environment and social capital can differ by admission class. Childhood immigrants in the business class and skilled-worker class have the highest high-school graduation rates, university completion rates, and annual earnings, whereas those in the live-in caregiver class had the lowest average earnings, and a university completion rate that was a third of the rate for the business class. Screened for their potential to contribute to the labour market, skilled workers have the highest educational attainment and proficiency in English and French, while long-term family separation tends to be more prevalent for live-in caregivers than for other classes. Childhood immigrants from the live-in caregiver class were overrepresented in low-paying occupations such as sales and services, and the males from this group experienced large gaps in high school graduation.
Generation 1.5 Filipinos. According to Statistics Canada, the Philippines has become the country’s largest source of immigrants in recent years (Morency, Malenfant, & Maclsaac, 2017). With a population of more than 800,000 spread out in different major cities, Filipinos are the fourth largest visible minority in Canada, and in 2012, Tagalog (or Filipino) was cited as the fastest growing language in the country, with a 64% increase in speakers in Canadian households in a period of five years (Statistics Canada, 2012). What makes Filipinos a particularly interesting case for an examination of migrant youth is how issues of class and equity are amplified by this group that has often been described as ‘under the radar’, ‘overshadowed’, and having a ‘disturbing invisibility’ (Canadian Press, 2012; Coloma, McElhinny, Tungohan, Catungal, & Davidson, 2012). In a 2011 immigrant labor force analysis by Statistics Canada, Philippine born immigrants have the highest employment rate in Canada at 86%, and post-secondary education attainment at 79%, even higher than those of Canadian born at 83% and 64%, respectively. That Filipinos are easily absorbed into the Canadian workforce has been attributed to the fact that English is the medium of instruction in the Philippines and also because of the cultural legacies and educational system inherited from the United States that colonized the archipelago for half a century (Yssaad, 2012). Across ethnicities, however, Filipinos in Canada are the most proletarianized, that is, they have the biggest percentage of working class at 70% and the smallest percentage of petty bourgeoisie and employers combined to a meager 4% (Satzewich & Liodakis, 2013). Being from

5 In this dissertation, I use “Tagalog” and “Filipino” interchangeably for several reasons: i) Filipino is largely based on the Tagalog language, ii) research participants use these terms interchangeably during interviews, and iii) while “Filipino” is the national language of the Philippines, it is identified in Statistics Canada documents as “Tagalog.”

6 While these statistics are reported by Satzewich and Liodakis in their 2013 book, they are based on the 2006 census. The succeeding censuses no longer provide data on income or occupational differences across ethnicities.
the Philippines has been taken to imply an aptitude or suitability with a certain class, that is, being in service or healthcare, working as caregivers, restaurant, or customer service workers (Kelly, 2012). Indeed, a large number of Filipinos migrate as temporary workers through the Live-In Caregiver Program (LCP), which has grown as the demand for caregivers has risen with the increased privatization of the health care industry, and the need for childcare. More than 90% of those in the LCP are Filipinos, mostly women, and by accepting temporary migrant worker arrangements, they are not allowed to bring their family with them, and need to wait for several years until they can apply for permanent residence for themselves and their family. Because of these restrictions, the mothers are separated from their children a mean of eight years, and the median age of children when they are finally able to move to Canada is 13 (Pratt, 2012).

Consistent with research discussed in the preceding section, the material conditions of migration and lived realities of this cultural group impact patterns of intergenerational mobility. While there is generally upward mobility among the children of immigrants, Filipino immigrant children have been singled out as an exception as they lag significantly behind their East Asian and South Asian counterparts in completing university education. This difference can be attributed to socioeconomic factors and migration circumstances that make Filipino children particularly vulnerable (Hou & Bonikowska, 2016). In Toronto, 37% of first-generation Filipinos possess a university degree, while only 24% of second-generation do so. In studies of Generation 1.5 students in Canada, Filipino youth were singled out to have lower grade point averages than youth in other groups, and had a low likelihood of graduating from high school (Farrales & Pratt, 2012; Gunderson, 2007; Toohey & Derwing, 2008). A study of Filipino secondary school students in east Vancouver describe them as “quietly drift[ing] off”, as
a third of them appear to be dropping out of high school (Farrales & Pratt, 2012). Kelly (2014) attributes youth educational trajectories of Filipino immigrant children to several factors: family resources of money and time, networks and information flows, and constructions of Filipino identity.

While this study focuses on the digital practices of migrant children from a specific ethnic group, it does not seek to draw deterministic conclusions about ethnicity and digital literacy. Instead, it demonstrates how there are internal hierarchies within ethnicities, and that it is through a more nuanced understanding of class that we can derive a better understanding of educational equity in the digital age. In this study, I refer to the participants as migrants rather than immigrants to highlight how they remain itinerant through the affordances of technology, and how the unidirectionality and permanence that the prefix im- suggests have been destabilized through transnational movement. This lexical choice also serves as a reminder that the mothers of a number of these participants came to Canada as caregivers under temporary migrant worker arrangements. By instigating long-term family separation, these arrangements not only impact the lives of parents but also foment durable repercussions on the social trajectories of these Filipino children.

1.3 Statement of the problem

Focusing its analytic gaze on an under-researched migrant group, this study examines, in the context of the knowledge economy: i) the intersection of technology, literacy, and social class—the latter being a construct inadequately theorized in language and literacy education (Block, 2012; Block, Holborow, & Gray, 2012); and ii) the impact of this
convergence on educational theory, policy, and practice (Cummins, Mirza, & Stille, 2012; Hornberger & Johnson, 2007; Norton, 2013). As technology seeps into classrooms and becomes an integral part of the educational system, this study ultimately seeks to understand how such innovations can develop new literacies while reproducing certain inequities, and ineluctably altering the social trajectories of learners in the 21st century.

To understand the educational and social ramifications of the different ways digital literacies are developed and valued, this research poses the following questions:

1. How do social class differences of Generation 1.5 Filipino migrant youth shape their investment in digital literacies?
   - Are there class-based views on the purpose of technology and the relevance of specific digital literacies?
   - How is the development of digital literacies shaped by the possession of varying levels of economic, cultural, and social capital?
   - In what ways do different digital literacies provide learners with varied contexts for second language acquisition?

2. To what extent do personal devices, home settings, and mentors shape these digital literacies?

3. To what extent are digital literacies developed at home recognized and valued in educational policy and pedagogical practices?

By addressing these questions, this study seeks to understand the digital literacy practices of migrant youth from diverse class positions, the ways in which they are socialized into these practices, and how these practices can position them in school.
Part A, which includes this introductory chapter (Chapter 1), is comprised of the theoretical framework (Chapter 2), review of literature (Chapter 3) and methodology (Chapter 4). Part B presents the findings of this research in four chapters that discuss how the social positions of the learners, particularly their possession of economic capital provides material conditions and access to resources that structure their dispositions towards technology (Chapter 5), how these learners negotiate their social and cultural capital in digitally-mediated spaces (Chapter 6), how their linguistic capital helps them navigate these spaces (Chapter 7), and how ideologies circumscribe digital instruction policies and classroom practices (Chapter 8). Part C provides a comprehensive analysis of these findings, and discusses the deployment of social class as a construct for language education research (Chapter 9), the distribution of power in digital contexts (Chapter 10), and the operation of neoliberal principles in digital curricula and teaching beliefs (Chapter 11). Part D concludes the dissertation by weaving together issues of social class, digital literacy, and educational equity, and providing recommendations for practitioners, policymakers, and researchers (Chapter 12).

2.0 LAYING THE FOUNDATIONS

As an examination of digital equity and the acquisition of digital practices, this study proceeds from an ideological model of digital literacy (Heath & Street, 2008; Warschauer, 2009) and draws primarily on theories of New Literacy Studies (Street, 2003), investment (Darvin & Norton, 2015; Norton, 2013; Norton Peirce, 1995), and social class (Block, 2012; 2014; Bourdieu, 1987). To elaborate on these key constructs, this chapter begins with a definition of digital literacy and a description of the mindset, skills, tastes, and genres of participation that have become associated with the
It then proceeds to discuss how digital literacy as a social practice is constituted by identities, social contexts, and relations of power, shaping the way youth invest in their learning. Recognizing how social class circumscribes these factors, this chapter then explores how this construct has been theorized in post-industrialist contexts particularly in reference to Bourdieu and as social class impacts not only the lives of learners, but also the educational system.

**Digital literacy.** Recognizing literacy as both a cognitive process and a social phenomenon, digital literacies refer broadly to “the practices of communicating, relating, thinking and ‘being’ associated with digital media” (Jones & Hafner, 2012, p. 13). As such, it involves: 1) the ability to operate digital media tools and to adapt their affordances and constraints in particular circumstances, 2) the process of encoding and decoding meaning through multimodal digitally mediated texts, and 3) the capacity to construct and maintain relationships and identities through digital practices (Jones & Hafner, 2012; Snyder Angus, L., & Sutherland-Smith, W., 2002; Warschauer, 2009). To develop these literacies, Knobel and Lankshear (2006) speak of the need to develop a digital mindset, a post-physical and post-industrial paradigm that recognizes how cyberspace operates on assumptions and values that are different from those of the physical world. In the digital world, space is open, continuous, and fluid, and value is placed on dispersion and non-finite participation. Through social media tools that focus on mediating and relating, expertise and authority are distributed and collective. The conventional epistemological emphasis on what is true or justified belief is slowly being replaced by digital epistemologies that emphasize how to gain or structure attention, and how to break or invent rules and conventions through novel moves or innovations. Because of this shifting paradigm, C. Luke (2003) argues that knowledge acquisition has
become even more contextual, situational, contestable, deconstructable, and criticizable.

Meaning making and knowledge have become more unbounded and plural, requiring not only simultaneous decoding, production, and interaction but also constant negotiation and contestation. In this new communication order marked by intertextuality, transculturality, and intermediality, learners need to develop greater lateral thinking to move across disciplines, genres, modalities, and cultural zones.

Because of Web 2.0 and social media, consumers have become active creators, resulting in a multiplicity of texts, and making knowledge and authority more contingent and provisional. Society has evolved from being one of command and compliance to one of reflexive co-construction, enabling new forms of subjectivity and relations of power. Through greater agency afforded by technology, one becomes more capable of differentiating one’s self through ways of speaking, seeing, thinking, or acting, and participating in more divergent discourse communities (Cope & Kalantzis, 2010).

Learners also develop different digital tastes or preferences for technology use. Formed from the values linked to one’s social background, one’s taste can be expressed in preferred cultural forms when interacting with technologies. Technology may be seen as a form of entertainment or as a repository of information, structured around notions of knowledge consumption or active participation (North, Snyder, & Bulfin, 2008).

2.1 New Literacy Studies and an ideological model of digital literacy

Drawing on New Literacy Studies (NLS) (Gee, 2005b; Street, 2003), Warschauer (2009) calls for an ideological model of digital literacy that asserts how digital literacies develop not in a vacuum but within broader social, political, and economic contexts.
Understanding literacy as a social practice, NLS recognizes how multiple literacies exist, varying across time and space, and contested in relations of power. The ways in which people address reading and writing are constructed by conceptions of knowledge, identity, and being. Rooted in a particular worldview, versions of literacy are always ideological (Street, 2014) and are constituted not only by culture but also by power structures. Circumscribed by issues of epistemology, power, and politics, the acquisition of literacy involves “challenges to dominant discourses, shifts in what constitutes the agenda of proper literacy, and struggles for power and position” (Street, 1993, p. 9).

While an autonomous notion of digital literacy recognizes it as a neutral, technical skill, and assumes that it has a general applicability regardless of local configurations, an ideological model (Heath & Street, 2008; Warschauer, 2009) recognizes how power influences the development, practice, and valuation of diverse digital literacies (Prinsloo & Rowsell, 2012; Snyder & Prinsloo, 2007). This framework highlights the “differentiated, situated and enculturated ways in which digital practices happen” (Snyder & Prinsloo, 2007, p. 173), and locates these practices within broader societal dynamics of race, class, and language. Prinsloo and Rowsell (2012) point out that when technologies migrate particularly to the spaces in the globalized periphery, there are specific constraints that determine if and how these resources will be taken up. They are, just as Blommaert (2010) views language, placed resources, and the specificity of place, its material conditions, and social practices, largely determine the means and ways through which these resources are activated. Even within local contexts, there is a variety of ways in which technology can be taken up. Technology use is always positioned not just in a particular classroom, school, or pedagogy, but also within the social and cultural
conditions of out-of-school contexts (North et al., 2008; Prinsloo & Rowsell, 2012; Snyder & Prinsloo, 2007).

Social factors shape digital access and use. Studies have shown that computer mastery depends on social support from peers and family members, and that the way computers are used at home to develop academic competences can be dependent on socioeconomic status (SES). Low-income or immigrant youth, for instance, tend to have fewer friends or relatives who are sophisticated users of digital media, while higher SES learners most likely have more mentors at home to guide them, as compared to their low SES counterparts (Warschauer & Matuchniak, 2010; Warschauer, 2007). Home socializes learners into understanding, accepting, or resisting digital practices that are valued in other settings like school, and this socialization involves the appropriation of technology into existing family norms, values, and lifestyles. Families who value education and knowledge acquisition may value technology for consumption of information, while those who are not directed towards traditional academic success, may view new media and technologies as entertainment tools (North et al., 2008). J. Anderson, A. Anderson, Friedrich, and Kim (2010) point out that migrant families may regard the internet as a tool primarily to maintain contact with friends and relatives, and as a tool for culture, identity, and language maintenance. While homes can shape the ways people perceive and use technology, Thorne (2003) argues that there are values or practices that come to be identified with certain tools. He refers to these as cultures-of-use, which he defines as “the historically sedimented characteristics that accrue to a CMC tool from its every day use” (p. 40). This construct recognizes that digital tools are cultural artefacts and carry with them, “historical traces of usage, preferred and dispreferred uses, and expectations of genre-specific communicative activity” (Thorne,
Different individuals and cultural groups attach different meanings to digital tools, and develop certain norms and conventions around their use.

In recent years, there has also been great interest in a materialist approach to examining the production of various language and literacy practices (Pennycook, 2016; Smythe et al., 2017; Toohey, 2018). In this new order, technology has become an extension of the human, intermeshed and interdependent, amalgamating into “a material-informational entity whose boundaries undergo continuous construction and reconstruction (Hayles, 1999, p. 3). Braidotti (2013) asserts that this posthumanist subject is “materialist and vitalist, embodied and embedded” (p. 188), interacting within a material environment and with physical objects, while navigating online spaces in disembodied ways. For Bennett (2010), there is a “vital materiality” running through human and nonhuman bodies, and agency emerges from the transient configurations of these forces. In a posthumanist order where the boundaries of human and non-human are destabilized (Barad, 2003; Smythe et al., 2017; Toohey, 2018), the world out there is no longer separate from humans and represented in language, but is “a dynamic interrelationship between different materialities” (Pennycook, 2016, p. 2). The semiotic practices of everyday are borne of the dynamic relations between resources, activities, and artefacts, and this interaction that is constantly in flux has implications for understandings of what it means to be socialized into specific digital practices.

2.2 A model of investment

While the ideological model of digital literacy foregrounds the situatedness of these new literacies, this study turns to Norton’s (1995, 2013) conception of investment to highlight
the significance of identity in literacy acquisition and to dissect further how power
determines the legitimacy and value of these new literacies. As a theoretical tool that
signals the socially and historically constructed relationship of learners to a target
language or literacy, *investment* can be defined as the commitment to the goals,
practices, and identities that constitute the learning process and that are continually
negotiated in diverse relations of power (Norton, 2013). Learners navigate the fields of
home, school, and community, perform different identities, and exchange forms of
capital. Ideological conceptions of what constitutes digital literacy vary across these
spaces, and how learners are positioned as digitally literate can shape their investment
in learning.

As a tool of communication and socialization, digital media enables the construction and
performance of *identity*, which Norton (2013) conceptualizes as multiple, fluid, and a
site of struggle. When learners occupy different contexts, they constantly organize and
reorganize a sense of who they are, and through the digital, learners are able to
represent themselves using constantly evolving modalities. Because of instant
messaging, SMS, and social media, they are able to speak by writing (Cope & Kalantzis,
2012; Warschauer & Matuchniak, 2010), and such affordances make literacy even more
critical in asserting their identities as legitimate speakers of English. When learners
move across online and offline spaces, unequal relations of power amplify the voices of
some while silencing others. Dominant groups are able to impose linguistic norms and
standards, and what is considered appropriate in a communicative event is determined
through the dynamic relation of power between interlocutors. To navigate these power-
laden contexts with a greater sense of agency, learners thus need to be recognized by
others and by themselves as legitimate L2 speakers. How they use their linguistic and
non-linguistic resources will shape their access to and participation in various digital contexts. Not only should they learn existing rules of use, they also need to understand how these rules have been constructed by powerful others. A critical awareness of this constructedness can engender their agentive capacity to transgress these rules and to claim the right to speak. Drawing on Bourdieu's (1977) notion of “the power to impose reception” (p. 75), Norton (1995) called attention to the conditions of communication: that “those who speak regard those who listen as worthy to listen and that those who listen regard those who speak as worthy to speak” (p. 18). To claim the right to speak is therefore to also claim the right to be heard, and in the digital age, the assertion of these rights increasingly requires the acquisition of relevant digital literacies.

To expand the understanding of investment in this new world order, Darvin and Norton (2015) have constructed a model that locates investment at the intersection of identity, capital, and ideology. Designed to examine how specific communicative events are indexical of the macrostructures of power, this model draws attention to the institutional processes and systemic patterns of control that construct communicative practices in the 21st century.
Recognizing a more polylithic and porous conception of power, Darvin and Norton (2015) refer to ideologies as “dominant ways of thinking that organize and stabilize societies while simultaneously determining modes of inclusion and exclusion” (p. 72). This pluralized formulation highlights how ideologies are constructed by different structures of power and reproduced by both institutional conditions and recursive practices. As learners are socialized into the practices technologized around specific tools, not only do these media shape the way learners behave and communicate with each other, they can also promote particular versions of reality and make possible some kinds of relationships more than others (Jones & Hafner, 2012). At the same time, learners in a more mobile world are able to move fluidly across spaces where ideologies collude and compete, shaping their identities in more complex ways.

By understanding ideology-at-work, one can also examine more closely the nature of capital. Equipped with their own material resources, linguistic skills, digital practices, and social networks, learners possess capital that is valued in different ways. When
people move across borders, for instance, the linguistic capital they bring with them is subject to what Blommaert (2010) calls different orders of indexicality; that is, their styles and registers are measured against a value system that reflects the orientations and assumptions of the larger sociocultural context. Functions that are valid in local settings are imposed on the ways of speaking of L2 learners, and discourses only gain value when those in power grant them value. For Rojo (2013), how learners are recognized as legitimate or non-legitimate participants in the educational system is linked to how their capital is valued or not valued in the classroom. The extent to which teachers recognize the identity and capital of learners as legitimate can impact how they invest in the language and literacy practices of a given classroom.

2.3 Social class

While the theory of investment provides a lens to examine the unequal relations of power and the ideological processes of language and literacy learning, this study uses the construct of social class as a means to dissect this inequality further. In Canada, the class dimension of social inequality has not been adequately examined despite it being a capitalist society. The myth that Canada is a classless society or predominantly middle class, together with the nation’s official policy of multiculturalism, have led to an overemphasis on the ethnic/racial dimensions of social inequality and constituted a dominant research tradition. Demographic profiles and policies provide the empirical and ideological evidence to assert and reproduce this multiethnic frame (Satzewich & Liodakis, 2013), despite the fact that ethnic groups are themselves internally stratified in terms of class. Similarly, in language and literacy research, social class has been an under-examined construct in recent years (Block, 2012, 2014; Kanno & Vandrick, 2014).
Understanding how learners fall within the spectrum of social advantage and disadvantage has become more difficult as social class differentiation in a post-industrial context becomes even more complex (Crompton, 2008; Kelly, 2012; Savage et al., 2013). Learners can no longer be neatly categorized into ‘working class’ or ‘middle class’, as Heath (1983) and Willis (1978) did decades ago in examining social and cultural reproduction. A generally accepted model of class structure that reflects the new global order has not been established, especially as poststructuralist approaches to class have made schematization challenging (Block, 2012, 2014). In some educational research, class is employed as a corollary inscription of identity as subjects are identified as “white middle-class male” or “black working-class woman” to reflect positions of privilege or marginalization, but not to theorize class alone. Those studies that do examine class often rely on neighbourhoods to identify socioeconomic status (SES), or sometimes these class positions are conflated with immigration categories and ethnolinguistic identities (Garnett, Adamuti-Trache, & Ungerleider, 2008; Toohey & Derwing, 2008; Valdes, 1998).

In an OECD (2015) report on equity in education, social advantage is measured not only by parental income, education, or occupation, which are the traditional variables of socioeconomic status, but also cultural resources, family structure, and immigrant status (McGaw, 2006). As a construct more complex than ‘socioeconomic status’, social class can no longer be understood as simply one’s relation to the means of production. While it is an economic position, it is also a cultural process, marked by consumption patterns, identity formations, and bodily performance (Kelly, 2012). It reflects relationships between economic and cultural inputs, integrated best by Bourdieu’s theorization of social class (Crompton, 2008), and his conceptual tools of habitus, field, and capital.
**Habitus** is “a system of durable, transposable dispositions… principles which generate and organize practices and representations” (Bourdieu, 1990, p. 53). As disposition, habitus is both structured and structuring: it is an organized system of what is deemed reasonable or possible, shaped by one’s history and social position, and it is a tendency to perceive and perform things in ways that correspond to these structures. What people judge and internalize as reasonable for people of their class comes from habitus, providing them “a sense of one’s place” (Bourdieu, 1987, p. 5), and also a sense of the place of others. Acquired by real structures of social advantage and disadvantage, it is constituted by the volume, composition, and trajectory of their capital. **Capital** is power in its different forms: economic capital refers to wealth, property, and income; cultural capital is knowledge, educational credentials, and appreciation of specific cultural forms; and social capital is connections to networks of power (Bourdieu, 1986). These forms of capital are circulated and competed for in arenas of struggle or structured spaces called **fields** (Swartz, 1997). As people struggle for position within fields and enact different social practices, commonalities surface, and people unconsciously align themselves with those that share similar dispositions and tastes, forming groups or social classes. Agents are positioned in the social space based on the volume, composition, and trajectory of their capital. What is valued in different fields continually evolves, and the value of one’s capital also shifts as it travels across time and space. The form the different types of capital take “once they are perceived and recognized as legitimate” (Bourdieu, 1987, p. 4) is what Bourdieu calls symbolic capital, and it is through this conceptualization that we can understand how capital itself is fluid and dynamic, and that its value shifts across time and space.
One inductive class schema that employs the different axes of economic, cultural, and social capital has been proposed by Savage and others (2013). In this Bourdieusian model of class stratification, while two classes that conform to older sociological models—middle class and working class—continue to exist, “new affluent workers” and “emergent service workers” have emerged from the ranks of the working class as products of deindustrialization and immigration. Relatively young, and usually in relatively insecure occupations in restaurants, customer service and call centres, the emergent service worker class has a high proportion of ethnic minorities. What also marks this multidimensional analysis is the polarization of society marked by an “elite”, which has the lowest proportion of ethnic minorities and a “precariat”—the unemployed, cleaners, care workers, carpenters—that comprise 15% of the population, marked by lack of economic, cultural, or social capital.

The segmented assimilation of migrants (Zhou, 1997) is also characterized by differential access to resources and social networks. The material conditions of migration of temporary migrant workers like live-in caregivers are markedly different from those of business immigrants or skilled workers. Migrant youth, as they live in specific neighbourhoods and with different family arrangements, pursue diverse educational trajectories in public and private high schools and other learning institutions. Within the globalized world, there exists a global class hierarchy where the location of a migrant’s country of origin can position him or her in a country of settlement. Those from so-called ‘Third World’ countries may adopt a discourse that views their positions as linked to the underdeveloped, sometimes exploited, plight of their country of origin. Experiences of being racialized or marginalized are thus seen as corollary to the inferior position constructed by mechanisms of colonialism and global capitalism (Kelly, 2012). In a
study of immigrant ESL students, for instance, Gunderson (2007) observed how the
assignation of socioeconomic status to certain ethnolinguistic groups was linked to the
world economic order. Many Mandarin and Cantonese speakers were considered to be
from affluent, entrepreneurial families while Vietnamese speakers were understood to be
refugees with limited economic capital.

As a study of digital inequality, this dissertation resists the conflation of ethnicity and
social class in educational research. It recognizes that ethnicities are themselves
internally stratified by class, and would argue that in the context of digital access and
use, social class is a more salient marker of inequality. At the same time, this
dissertation does not intend to arrive at deterministic conclusions about technology use
and social class by making generalizations regarding “middle class” or “working class”
learners. Rather, it seeks to demonstrate how differences in the markers of class—
economic, cultural and social capital—shape both habitus and lived existence of
learners, and that these class differences in turn can shape the literacy practices they
acquire. It is the dissection of what constitutes capital that opens up agentive
possibilities for learners of different class positions and resists the social determinism
that Bourdieu has been associated with. How learners are able to negotiate the capital
that they possess will enable them to acquire new forms of capital, and achieve greater
social mobility. Structured by their classed disposition but also fuelled by individual
desires (Darvin & Norton, 2015), learners may be predisposed to think in certain ways,
but are also able to imagine and work towards other social futures.

By investigating social class, this dissertation seeks to explore the inequalities that can
manifest themselves in new ways in the 21st century and as technology becomes an
increasingly integral part of education. It examines teacher assumptions, educational policies, and pedagogical strategies that address the development of new literacies, and attempts to find gaps and contradictions that can contribute to the reproduction of class inequality. As new digital literacies are identified, learned and valued in the context of the knowledge economy, an understanding of how power operates in these processes can contribute to greater educational equity and mitigate Castell’s (2001) prediction that technology can lead to the most damaging forms of exclusion. By calibrating the triptych lens of identity, capital, and ideology, this research adopts a situated, critical, and political economic view of learning, not only to examine the reproduction of digital and educational inequalities, but also to explore transformative possibilities in education.

3.0 POSITIONING THE RESEARCH

To demonstrate how this study can provide a new dimension to research on technology and educational equity, this chapter provides a review of literature that examines similar issues and concerns. It begins by describing previous research whose purpose most closely resembles what this study seeks to achieve, then proceeds to discuss other studies of digital equity and digital literacies of youth that can inform the analysis. The chapter concludes with an articulation of the significance of this study, and its potential implications on educational policy and research.
3.1 Research on the intersection of social class and digital literacy

At the turn of the century when the integration of technology in education was still at a relatively inchoate stage, Warschauer (1998) investigated the relation among new literacies, pedagogical practices, and relations of power by examining in depth four classrooms of culturally and linguistically diverse students in Hawaii. The study indicated how the background and socioeconomic status of the students shaped the kinds of digital literacy introduced in the classes. Working class and immigrant students in a community college were taught vocational skills, such as how to design brochures, whereas international students in a graduate program used technology to apprentice into academic discourse. This stratification of digital literacy instruction parallels Anyon’s (1980) observations of how five elementary schools in contrasting social class communities had differing curricular and pedagogical practices that prepared them for specific occupations, constructing a hidden curriculum that reproduced social inequalities. Warschauer asserted that how students played a role in influencing their learning environments reflected broader issues of politics and power, and concluded that students of diverse cultural, linguistic, and class backgrounds needed more than just access to the internet, but access to and mastery of a variety of media, and an understanding of how rhetorical structure and media interact, a need that remains relevant today.

In a study called “Educational Consequences of the Digital Divide”, Attewell and Winston (2003) observed children aged 11 through 14 from two groups. The first were African-American and Hispanic students in a public middle school in New York City who came from poor or working-class families and scored below their grade level in tests of
reading. The second came from more affluent families who attended private schools. By correlating low literacy levels to working class positions, the researchers show how students from the first group found difficulty navigating the internet, as they missed semantic signposts and hit dead-ends. Misspelling terms in their search engine queries yielded poor results. The affluent children were more likely to adopt an active style of computer use where they organized voting systems, expressed their artistic skills and edited home videos, whereas their less privileged peers engaged in more passive practices: visiting shopping sites, downloading music lyrics, and playing games. While the study did not observe any remarkable differences in family influence, the researchers noted how the educational disadvantages of the poorer children were exacerbated by the kind of technology instruction they receive at school and the poor quality of equipment available to them.

Drawing on the findings of case studies that examined the digital practices at home and in school of 25 Australian 15-year olds, North, Snyder, and Bulfin (2008) asserted that there is a strong link between technology use and class, and put forward the idea of “digital tastes” which they define as preferences for technology use. The participants were from ten schools that represented the sectors of the Australian education system: government schools, Catholic schools and independent private schools and were located in neighbourhoods that reflected the full range of socio-economic areas. By employing a Bourdieusian framework, they argued that markers of class such as parents’ level of education and occupation shape the habitus of young people. Home socialized learners into understanding, accepting or rejecting digital practices, and this socialization involved the appropriation of technology to fit existing family norms, values, and lifestyles. The level of education, occupation, and geographic location of parents
shaped their dispositions regarding digital practices. Whereas some families valued technology for consumption of information, those who were not directed towards traditional academic success often viewed new media and technologies as entertainment tools. Even when certain cultural forms were made available through ICT, some students still ignored or resisted acquiring such cultural capital. As young people made technologies their own, their different life circumstances shaped beliefs and expectations regarding technology (Kvasny, 2006). New experiences, objects, actions, and accomplishments using digital technology were either valued or rejected depending on how they fit with already existing expectations, contributing to the development of different digital tastes.

Conducting a study of social media usage in the U.S., boyd (2012) observed that teenagers from different class backgrounds were engaging with social media in fundamentally different ways. Middle-class users, she noted, were more likely to choose Facebook over MySpace because of design and functionality, while more working-class users remained in the latter, which began to develop a reputation for being sexualized and “ghetto”, that is, lacking sophistication or taste. In tracing these patterns, she demonstrated how friendships and aesthetics in social media were inherently intertwined with taste, education, and class. She noted how early adopters of MySpace, which came out before Facebook, were those who were attracted to indie rock and hip hop music culture. Facebook on the other hand started at Harvard and spread to Ivy League schools before it was distributed more broadly. Teenagers from wealthier, more educated backgrounds would choose to participate in online environments popular with adults rather than those preferred by youth of less privileged backgrounds. Those who used MySpace would refer to Facebook users as “stuck-ups” or “goodie two shoes”, but
teens who preferred Facebook were more likely to be harsher and condescending towards users of MySpace. The contrasting digital tastes of these teens ushered them into separate online environments, and patterns of their social media adoption reinforced divisions of class. In this stratified public sphere, those who gained access to spaces of power were able to establish networks and set norms of use that excluded others. boyd forewarned that social media could contribute to a modern day “second class citizenship” where those who did not possess media literacy skills would not be able to participate in critical aspects of public life.

In an ethnographic study of the digital practices of children from contrasting social positions in Cape Town, South Africa, Lemphane and Prinsloo (2014) demonstrated how differences in digital access and use across social classes produced “different imaginings of self, social ambitions and investments” (p. 738) and language practices. With access to a desktop and a PlayStation and unlimited broadband connectivity, the middle class children were able to gain access to more English language resources, allowing them to develop topic-specific vocabulary and meta-awareness of language. By adapting avatars, they were able to experiment with different accents and become familiar with global middle class cultural references, while developing class-specific dispositions. Their online reading and writing practices using English gave them tacit knowledge and practical skills that could be drawn on and adapted in school. The working class children, on the other hand, had only mobile phone access, and the games they were able to play on these devices provided no language development opportunities. They spoke mostly a colloquial version of the local language isiXhosa, indexical of their working-class status and not valued in school. The children also had limited access to the phones because their parents believed that prolonged play would
cause the battery to run down and that there was no educational value in their children’s
digital play. While the middle-class children were learning to be legitimate participants in
a globally connected, online, middle class English language-based culture, the working
class children engaged with digital literacy practices that limited their acquisition of
linguistic and cultural capital that can be bridged to school literacies.

In a comparative case study of two adolescent migrant Filipino learners, John and
Ayrton, from different social class positions in Vancouver (Darvin, 2018; Darvin & Norton,
2014), Norton and I examined how differences in economic, cultural, and social capital
could shape divergent digital literacies and language use. Raised solely by his mother,
John struggled with learning English when he first arrived in Canada. His social network
online was almost entirely Filipino and his family spoke only Tagalog at home. The
family shared one desktop computer, which the mother used to do Facebook and to
watch Filipino soap operas. Mirroring his mother’s preferences, John saw technology as
an entertainment tool and used it primarily to play games. In contrast, Ayrton, who lived
in a wealthy neighbourhood and went to a private high school, saw technology as a rich
source of information. He spoke English almost exclusively at home, and published a fan
fiction novel online where he was able to meet and communicate with English speakers
from other countries. Taking after his entrepreneurial father, he enrolled in an online
course on currency trading, which allowed him to interact with professionals from
different parts of the world, and also profit for making investments online. In this case,
his digital practices allowed him to gain greater economic, cultural, linguistic, and social
capital. While Ayrton was able to develop a global social network through his
engagements online, John, on the other hand, whose digital practices were limited
mostly to playing games, did not have many opportunities to speak English and connect
with other people. Their contrasting social class positions, including the resources and
mentors available to them, shaped diverse digital literacy practices, which in turn
produced unequal economic, cultural and social capital.

3.2 Research on digital equity

While research on the intersection of digital equity and social class within the K-12
educational system has been quite limited, there has been ample research on the digital
dividend, its nature and implications across different aspects of life. Some research that is
particularly relevant to this dissertation is summarized here.

In an in-depth review of issues of technology and equity for youth in the United States,
Warschauer and Matuchniak (2010) examined the digital divide through a tripartite lens:
access, and how it was supported or constrained by technological and social factors;
use, particularly the way youth engaged with digital media for education, social
interaction, and entertainment; and outcomes, as measured by academic achievement,
21st century skills acquisition and participation in technology-oriented careers. In terms of
access, the researchers discussed quantitative studies that showed percentages of
households in the US with internet access, differentiated according to family income and
the race and educational attainment of the head of the household, types of connectivity,
and ratio of computers to household members and students. They also summarized
studies of out-of-school uses of digital media, including a comparison of social patterns
of gaming between high and low socioeconomic status users. They showed how low-
SES schools usually delivered drill and practice programs that focused narrowly on basic
literacy and numeracy skills, while high-SES schools deployed simulations and
applications that enabled greater critical thinking and problem solving skills. In terms of outcomes, while studies have shown that homes with computers had a higher rate of high school graduation, Warschauer and Matuchniak stated that there was insufficient data to assess differential learning of 21st century skills by race, socioeconomic status, or gender. The stratified uses of educational technology that were reflected in other studies however required a more comprehensive response that involved individual access, curriculum, and instruction, standardized assessment, out-of-school media programs, and research.

Like Warschauer and Matuchniak, Selwyn (2004) recognized that the digital divide needed to be examined on the levels of access, engagement, and outcomes. He further classified these outcomes, whether they were actual and perceived, in terms of production, political, social, consumption, and savings activities. Using a Bourdieusian framework, he recognized that the most immediate form of capital underlying engagement with technology was economic as it enabled the acquisition of devices and connectivity. Technological skills and socialization into technoculture were technological forms of cultural capital that enabled meaningful use of technology. The success of this engagement was also highly influenced by users’ social capital, the size and nature of an individual’s network of technological connections and relevant social contacts who helped develop and sustain an individual’s use of technology. Selwyn called for further research on what types of social, economic, and cultural capital people draw on when using technology, and how people’s access, engagement, and outcomes are patterned according to inscriptions of identity such as age, gender, class, and ethnicity. The mitigating factors and circumstances that shape different social groups’ propensity and motivations to engage with technology need to be understood, particularly in the context
of the capitalist driven development of technology, where commercial and non-commercial interests shape the content and delivery of technology education.

Recognizing the different ways people engage with technology, Haight, Quan-Haase, and Corbett (2014) suggest that level of online activity and social networking site (SNS) usage are important dimensions of the digital divide. Drawing on the 2010 Canadian Internet Use Survey, they investigated differences in people’s access to the internet, level of online activity, and SNS adoption. They noted that individuals in the highest income category were five times more likely to access the internet than the lowest, and that people in the highest income quintile performed nearly two more activities online than those in the lowest income quintile. University graduates performed 4.6 more online activities than people who had less than high school education. Differences in usage levels between these groups become concerning since significant positive associations between web use and earnings growth have been found (DiMaggio & Bonikowski, 2008), an indication that some skills and behaviours associated with Internet use were rewarded by the labour market. Haight and others also observed that recent immigrants to Canada were less likely to have internet access, but those who were online had a higher level of activity online and SNS usage than Canadian born residents. The researchers attributed these high levels to the substantial increase in the number of Canada’s economic immigrants and to the observation that they were most likely to use the internet to communicate with family back home.
3.3 Research on the digital practices of youth

There have been a great number of studies that examine the digital practices of youth, and a number of them (Black, 2008; Gee, 2003, 2004; Hull & Katz, 2006; Hull & Nelson, 2005; Lam, 2006, 2009) tended to highlight the creative and agentive nature of these practices, which included fan fiction writing, gaming, digital storytelling, and instant messaging. To understand the different ways youth engaged with technology, Ito and others (2010) categorized their digital practices by examining different motivations, and identifying genres of participation with new media that reflected youth culture, social network structure, and modes of learning. Friendship-driven practices were dominant and mainstream practices that involved everyday negotiations with friends and peers in one’s local social worlds. Instant messaging, social network sites, mobile phones were ways to negotiate these friendships. Youth looked to their peers for affiliation and competition, and the digital practices became a form of socialization; the equivalent of hanging out. Interest-driven practices, on the other hand, were those where learners engaged with a different network of peers, participating in specialized activities that revolved around particular interests. By focusing on topics of interest, hobbies, and career aspirations, these practices involved communicating, exploring, and extending understanding that allowed participants to collaborate with people of diverse ages and backgrounds.

In the Canadian context, Media Smarts (Steeves, 2014) examined trends in the digital engagements of youth and observed that while gaming more than ten years ago occupied half of the ten most popular sites, social media has now become the most popular motivation for digital engagement. YouTube remains the single most popular site
across all age groups, while one third of students in Grades 4 to 6 have Facebook accounts despite the platform’s policy for users to be at least 13 years old. More students now congregate on the same sites, and Wikipedia has become a favorite source of information. While over half of students surveyed report that they have learned about searching for and authenticating information online from at least one source, they still had a poor understanding of these topics, and were only likely to apply these skills in the contexts in which they learned them, that is, in school.

While some studies have highlighted the creativity of the digital practices of youth, some have also highlighted differences in digital use. Drawing on data by the Programme for International Student Assessment (PISA), the Organisation for Economic Co-operation and Development (OECD, 2015) has pointed out that in countries where the socioeconomic gap in access to the internet is small, the time students spent online did not differ much across groups, but what students did with computers, whether using email, reading news, participating in online communities, or developing a career plan, is related to students’ socioeconomic background. How students used new media depended on level of skill, basic literacy skills, and social support, which vary across socioeconomic groups. A small direct association between socioeconomic status and digital reading performance was observed, and this link was attributed to differences in navigation and evaluation skills. Students from the top quarter of socioeconomic status read and searched online for practical information more than their disadvantaged counterparts. While there have certainly been many innovative digitally-mediated teaching practices, the findings of this OECD study also suggested that on a more global scale, technologies had not yet been widely adopted in formal education, and that the foundation skills required in a digital environment including the evaluation and task-
management skills necessary for online navigation needed to be taught further. This gap in digital literacy education has become particularly critical given the observation that students from socioeconomically disadvantaged backgrounds may not be aware of how technology can help raise one’s social position.

By examining earlier studies of digital equity and the digital practices of youth, this review of related literature demonstrates how research on these issues in the past two decades has moved from discussions of unequal access to unequal use. In these studies, patterns and comparisons were established in terms of discrete categories: 1) access, use/engagement and outcomes, 2) home vs. school contexts, 3) dispositions vs. practices, and 4) language and literacy acquisition processes. In many cases, studies tended to separate the materiality of the physical and digital worlds in which these literacies operate. Those studies that used social class as a construct to discuss digital equity usually engaged with class as an economic position, attaching patterns of usage to groupings such as “working class” or “middle class”, and extending this classification to designations of communities or schools. Studies of the digital literacies of youth on the other hand tended to classify practices as either academic or personal (interest vs. friendship) and to examine usage of specific platforms with defined uses or purposes.

What this dissertation seeks to do is to examine the rhizomatic connections between these distinct categories, using an expanded notion of social class to understand how these categories converge and diverge in digitally-mediated spaces, across the layers of users, tools, and physical and digital contexts.
3.4 The significance of this study

This study does not want to reduce the link between social class and digital literacy to a simplistic determinism, nor does it subscribe to a digital utopian view that the acquisition of a wider set of digital literacies will ineluctably enable upward social mobility. What it does provide however is a multi-scalar analysis of how issues of equity arise from the integration of technology into education, as digital literacies are acquired and valued unequally across the spaces of home, school, and other educational institutions. While there have been studies on the unequal ways in which youth acquire digital literacies in out-of-school contexts, research on technological applications in education has remained largely celebratory, interpretive or prescriptive. As new digital literacies are identified, learned, and valued in the context of the knowledge economy, much work has been done to highlight how digital production in school is an agentive act, describing the transformation of language and identities through digital media, and articulating strategies for using digital tools (Cope & Kalantzis, 2010; Hull & Katz, 2006; Kendrick, Chemjor, & Early, 2012; Rowsell, 2012). Because the integration of digital literacies in the educational system is still in its relatively inchoate stage, many educators are still in the process of discovering the instructional affordances of technology and acquiring new literacies themselves, and so discussions of inequality in digitally mediated teaching practices have been largely limited to binary understandings of access.

To intercept Castell’s (2001) prediction that technology can lead to grave forms of exclusion, this research illumines how the inequalities of digital access and use can impact the social and educational trajectories of learners today. It theorizes digital literacy as a social practice by examining how power operates in the convergence of
physical and digital contexts. By proposing theoretical tools that draw attention to the class-inscribed differences of digital practices, it hopes to contribute to further research on issues of equity within K-12 contexts, identity and investment in the digital age (Darvin & Norton, 2015; Norton, 2013). By examining the ideological constructions of digital literacy in curricula and teaching beliefs, it challenges policymakers to rethink the difference between digital tool use and digital literacy instruction, and encourages teachers to develop more inclusive digital pedagogies.

While debates on the “end of class” and assumptions of a “classless” or substantially middle class society (Crompton, 2008) have shifted attention away from this construct in the past few decades, class inequality compared to race and ethnicity continues to emerge as a more powerful determinant of school performance. Steering research in language and literacy education towards an examination of social class allows us to reflect on how we have understood or made conclusions about migrant learners of different ethnolinguistic backgrounds. Recognizing how a global class hierarchy has become naturalized and embedded in our understanding of migration and countries of origin, this study challenges us to rethink the conflation of socioeconomic status with ethnicity in educational research, and the frames through which we have understood social inequality in Canada.

By addressing these issues, this research will draw conclusions that can reshape educational policy, curricula, and pedagogy. Establishing that learners of different backgrounds come to school with diverse digital practices and levels of competence deconstructs the myth of the “digital native.” It challenges teachers to question their assumptions of what youth know and are capable of when it comes to technology, and
how these tacit expectations when embedded in assignments and classroom activities can privilege specific learners. In the same way that teachers build on the languages, knowledges, and modalities learners come to class equipped with, a deeper and more strategic understanding of their home-grown digital literacies can facilitate information sharing and construct a more inclusive classroom. By diagnosing this emergent yet still considerably invisible form of educational inequality, this research seeks to be more than just an intellectual pursuit. Driven by the goal to reshape policies, curricula and pedagogy, it is an intensely personal and political project in its imagination of a just and equitable digital future.

4.0 DESIGNING THE STUDY

This case study is grounded in the experiences and the various economic, cultural, and social resources that migrant learners draw on. As an iterative process, I move back and forth between data and interpretation, between fieldwork and writing. Much of how I proceeded with this study has been shaped by a pilot study I conducted in October and November 2013 for a course on multimodality by Dr. Maureen Kendrick who secured a blanket ethics approval for her students. In this pilot study, I interviewed John and Ayrton, two 16-year old Filipino students who recently migrated to Canada, and came from contrasting social backgrounds. I observed how they used technology at home, examined different digital artefacts they produced, and interviewed their parents. Several of my publications (Darvin, 2017, 2018; Darvin & Norton, 2014) have been based on this study, and some parts of my analysis will refer to data and insights from this earlier study. While the pilot examined more closely the practices of two focal participants, this dissertation research has a much wider scope, investigating the connections between
the spaces of home and school, the perspectives of teachers, and the links to policy and curriculum design. Because of its breadth however, the methods I could employ and the amount of time I could spend with each participant were more limited. The research goals of the two studies however are similar: to understand issues of digital equity by examining how the social class positions of learners can shape their digital literacies and social futures.

4.1 Case study research

For Duff (2012), *case study* is a form of inquiry and theory building that focuses on the behaviours, performance, knowledge, and perspectives of participants to address questions or topics in applied linguistics. As an interactive, emergent research design, it examines a phenomenon of interest and seeks connections among the components of the research. Apart from being exploratory, descriptive, or explanatory (Yin, 2003), case studies can be confirmatory or disconfirmatory, in the way they either corroborate or challenge previous findings, and their goal is to particularize and provide depth in order to discover insights of wider relevance. The greatest strength of this methodology is “its ability to exemplify larger processes or situations in a very accessible, concrete, immediate, and personal manner” (Duff, 2012, p. 96). While some case studies may be *positivist* in their search for cause-effect relationships, many can be *interpretive* in that they try to understand the experiences, abilities, and performance of learners, including their own perceptions of these experiences. Some are more *critical*, as they integrate sociological and sociocultural theories and examine larger social issues related to power and oppression (Duff, 2012). This approach examines notions of identity and agency,
and the developmental pathways of learners as members of particular communities, constituted by structures and relations of power.

The unit of analysis is *digital literacy practices*. Drawing on Street’s (2003) conception of literacy practice, “digital literacy practices” here refers to both events and patterns of use and meaning, where the digital is integral to the interaction or process. The study examines the digital literacy practices of the participants that serve both academic and personal purposes, including but not limited to researching online, producing digital media texts, and participating in social media like Facebook or Snapchat. While these practices are sometimes observed, they are also derived through interviews where learners reflect on and report their own practices. In this dissertation, “digital literacy practices” is often contracted into “digital practices”.

This research is a critical, comparative, connective, multiple case study that examines the digital literacy practices of migrant youth. It is *comparative* because it compares and contrasts how migrant learners from different social class positions acquire and negotiate these practices. As a *multiple* case study, it identifies each student as a case, and in the discussion of the findings, two cases of students with contrasting social positions or digital practices may sometimes be presented together to highlight their differences. In the sense proposed by Leander (2008), this study is *connective* because it collapses the binaries of online/offline and virtual/real, and recognizes that we occupy these spaces simultaneously, and move fluidly to and from these different sites. Hence, the study examines how different participants engage with the digital within physical spaces, produce digital texts using a variety of devices, and communicate with others in virtual spaces. At the same time, as a study of literacy practices, the study also pays
attention to the connections between print and digital literacy practices, and how participants shift from one to the other, shaping each other in different ways. While the analysis of the data begins with an interpretivist perspective, the analysis of these cases is critical in that it examines the relations of power among students, teachers, and institutions, as they navigate the educational field and negotiate the meaning and value of different digital literacies.

On an interpretivist level, this study seeks to grasp the subjective meanings of people’s literacy practices, recognizing that their behaviour is based on their interpretation of reality using their own common-sense constructs (Bryman, Teevan, & Bell, 2009). In trying to derive the point of view of these social actors, it attempts “to catch the process of interpretation through which [actors] perform their actions” (Blumer, 1962, p. 188). In this sense, the researcher is providing an interpretation of others’ interpretations, in the context of certain concepts, theories and literature from a specific discipline. In examining how digital literacy practices are valued differently across the spaces of school and home and ideologically inscribed in provincial curricula and school policies, this study also adopts a critical stance to understand how structures and relations of power shape what is legitimated across these fields. Using Norton’s (1995, 2013) conception of investment and Bourdieu’s (1986) forms of capital to frame this analysis of power, this study recognizes that norms, conventions, practices and genres, including what is valued as digital literacy are constructed through the negotiation of power, and the interplay of structure and agency.

By interpreting individual cases of participants from contrasting backgrounds, the researcher seeks to theorize to what extent social class shapes the development of
these literacies. However, because one can only observe from the vantage point of one’s own class position, the researcher has to acknowledge the limitations of such interpretations. Triangulation and reflexivity are necessary not so much to confirm a single, definitive conclusion, but to express the asymptotic nature of one’s set of claims. At the same time, as a critical examination of how specific literacies are developed and valued in different contexts, this study subscribes to an ideological model of digital literacy (Warschauer, 2009) that recognizes how relations of power shape digitally mediated practices.

4.2 Research context

I conducted this research over a period of 18 months, from January 2016 to June 2017 in three high schools in Vancouver, Canada. They were chosen not only because they represented different types of neighbourhoods and educational systems indexical of social class, but also because they each had a sizeable number of Filipino students. The names of the schools and students that appear here are all pseudonyms I have chosen.

James MacMillan is a public secondary school located in the east side of Vancouver where there are a great number of immigrants, and where the neighbourhood is predominantly South Asian and Filipino. 275 of its 1,023 students are Filipino, making it the school in the district with the biggest population of Filipino students. For two years, I served as a mentor for an after school program for Filipino students that met every Friday and included tutorials in Math, English and Science. In the first four months of

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7 The statistics of school population and number of Filipino students were provided by the school district and are based on the school year 2015 – 2016.
2014, I conducted digital storytelling workshops with three ESL classes, meeting them once a week, and letting them develop 5-minute migration story videos, using English or their mother tongue (Darvin & Norton, 2014). For six months in 2015, I taught reading comprehension skills for Grade 8 Science to Filipino students with low literacy levels. Held every Monday, this after school session was bilingual, and I trained two other volunteer teachers to facilitate these tutorials. It was through this extensive relationship with James MacMillan that I began to conceptualize the nature of my dissertation and develop the research problem.

William Campbell is a public secondary school located in the west side of Vancouver and in a particularly wealthy neighbourhood. With over 2000 students who come from more than 50 countries, it has a great number of tuition-paying international students and is more ethnically diverse than James MacMillan. It has gained an international reputation for its highly successful International Baccalaureate Program, and also has a popular French Immersion program. While only 5% of its students are Filipino, it is the school in the west side with the greatest number of Filipinos. Compared to east side schools where there are hundreds who come from the Philippines, their population drops significantly in the west side, where some schools will only have a handful of Filipino students. The school actively promotes individualized learning and is committed to a “technology education curriculum” that helps students develop the skills necessary to live and work in a changing technological world.

Saint Gabriel is a private Catholic secondary school near the boundary of what divides Vancouver into east and west. It caters to the 19 parishes of the Vancouver Archdiocese, and has an average of 500 students each year. Tuition can range from
CAD350 – 1500 a month depending on whether a student is a member of the parish, a non-Catholic or an international student. With a graduation rate of 100%, it is also proud that 70% of its students graduate with provincial honours standing. Because the Philippines is 90% Catholic, there are a great number of Filipino students in Saint Gabriel, although most of them are second generation Filipinos, and only a handful of the students were born in the Philippines.

Focal participants of the study were chosen with the following criteria: Grade 8 to 11 Filipino students who immigrated to Canada in the past two years. While the original intention was to have equal representation of gender in each school, numbers depended on who accepted the invitation to participate. In Saint Gabriel, there were only three recently immigrated Filipino students, all of whom were male, and two Canadian-born Filipino female students were included in the study to provide other perspectives. Students were not contacted during the summer break (July to August, 2016), during exam periods, winter and spring breaks. The names of the schools and the students that appear here are all pseudonyms.

**Recruitment.** Recruitment was conducted through convenience sampling, and was staggered across the schools (James MacMillan, January 2016; William Campbell, April 2016; St. Gabriel, October 2016). Dr. Bonny Norton accompanied me to initial meetings at each of the three schools in order to explain the role of the University of British Columbia in the research process. After securing ethics approval from UBC, approval from the Research Committee of the Vancouver School Board, and permission from the principals of the three schools to conduct research, I was allowed to go to either the homeroom or ESL classes of Grades 8 to 11 students to deliver a 5-minute talk to the
class about the research project. In this introduction, I discussed the nature of the project, the tasks participants would be expected to do, and tokens of appreciation for participation, that is, a $50 gift card from a local bookstore after the first interview, and another $50 gift card after the final interview. In James MacMillan, where there are a great number of Filipinos in the ESL classes, I was encouraged by the teachers to address my invitation particularly to the Filipino students in class, and to speak in Tagalog. In William Campbell and Saint Gabriel where there was a more diverse mix of students, I was asked by the principal to address the whole class to avoid excluding non-Filipino students. In this case, I described the research project as one that focuses on literacy practices of high school students, and the invitation to express interest in the project was extended to the whole class with the disclaimer that only a few would be invited to join. After my brief talk, I passed around a sign up sheet that requested students’ names, languages spoken at home, year of immigration to Canada, if applicable, and phone number. Upon collecting these sign up sheets, I proceeded to identify six students who fit the criteria in each school, splitting it equally between genders, and attempting to have representation from different grades. This mix could not be achieved however in Saint Gabriel where only three Filipino students, all of whom were male, had migrated to Canada in the past two years. For this reason, I recruited two female Filipino students who were born in Canada to participate in the study. After identifying the students, I contacted each one of them to arrange for a 1:1 meeting where I could discuss the project in greater detail and get their consent. In most cases, after securing consent, I proceeded to conduct the first interview.

Once the focal participants were identified, the teachers of the classes where I did the recruitment talks were invited to participate. After the first interview of the students, I
requested them to ask their parents if they would be willing to be interviewed, and preferably at home. Because the students were minors, I could only request to observe them at home if one of their parents or any other adult family member was present.

4.3 Data collection and analysis

This study follows an iterative research process, where the questions, data collection tasks, and data interpretation are continually refined as the research progresses. Working within a series of interlocking circles, I acknowledged original hunches, and looks in multiple directions, from emic and etic perspectives, from my own data to existing theories, in order to arrive at justifiable claims (Duff, 2012; Heath & Street, 2008). After recordings were transcribed, codes were developed from the data by examining repetitions, metaphors, and other patterns. These codes were mapped out through NVivo, a computer-assisted qualitative data analysis software (CASQDA), and then combined into categories and sub-categories, based on certain exemplars. This process included classifying “capital” into economic, cultural, linguistic, and social, and “digital practices” as communication, consumption, entertainment, knowledge consumption, and operation. As these codes were categorized, I documented the coding processes and choices in coding memos, while posing questions and making connections in theoretical memos. It is through this recursive analytic reflection informed by etic knowledge that themes useful for theoretical explanations emerged.

In using a thematic analysis to identify, analyze and report patterns within the data (Braun & Clarke, 2006), I recognize that the description that appears here is a product of my own perspectives and the participants’ memory and interpretation of these practices.
How participants articulated such practices is also guided by their own motivations: whether it is to provide what they think the researcher wants to hear or to represent themselves as good students or skilled users of technology. As self-reports, the interview data does not ascertain these practices did occur exactly as they describe and is therefore not treated as absolute (Tupas & Salonga, 2016). However they do enable an understanding of participants’ relationship with technology and language, and their ideological beliefs regarding new literacies and language learning. In the study, specific digital literacy events initiated by the researcher (e.g. asking the participants to evaluate websites or to look for the meanings of words) were observed, and the assumption that needs to be made here is that there are patterns that can be inferred from these singular observed events to recognize them as representative of more consistent practices.

**Data collection methods.** After participants signed consent forms, data was collected through the following methods:

1. **Participant observation,** which included observing how participants would use digital devices at home, in the classroom, and in virtual spaces. Low inference descriptions of these observations were recorded in field notes, where I also reflected, raised questions and theorized on what was being observed.

2. **Questionnaires,** where learners provided demographic information, including details about the devices, apps, and programs they use (See Appendix A).

3. **Interviews** of students, teachers, administrators, and parents. These interviews were semi-structured e.g. asking students about the devices or apps they use, or narrative e.g. asking students to recount their migration experiences or their educational trajectories (See Appendix B for the preliminary questions). Some interviews were conducted as students demonstrated and explained their digital practices. In this case,
their own social media profiles, pictures, etc. served as elicitation devices during these interviews. Each interview took 45 to 60 minutes, and were recorded using Voice Memos on iPhone, and then transcribed using Express Scribe.

4. **Group discussions**, where focal participants from a particular school gathered together to discuss and exchange ideas regarding their digital practices. In this situation, the students were gathered in a circle, and I would begin by asking a specific question, and students responded as they pleased.

5. **Journals**, where learners jotted down their own experiences and reflections on their own digital practices, with guide questions (See Appendix C) provided at the beginning of the research period. In some cases where participants were not able to keep a journal, they wrote on journal sheets (See Appendix D) where they answered questions regarding their technology use.

6. **Digital artefacts**, which include digital texts produced by the focal participants (e.g. photos or social media posts), or screen captures of websites or apps that the focal participants were using while being observed. In many cases, I took pictures of the artefacts themselves, and would ask for the permission of the student each time. Taking a picture of the digital artefact as it appeared on a particular device served both practical and methodological purposes: I would not have to rely on the participant to connect with me online and send the artefacts, and these pictures allowed a visualization of these artefacts in both their digital and physical contexts. I collected more than 150 photos of these artefacts, including those of teachers.

While the original target was to have six students from each school, with gender equally divided, the availability of students who fit the criteria did not make this possible. In the end, there was still a total of 18 students, but unequally distributed across schools and in
terms of gender. The following table is a summary of the number of participants from each school, and the data that was collected:

<table>
<thead>
<tr>
<th></th>
<th>James MacMillan</th>
<th>William Campbell</th>
<th>Saint Gabriel</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td>6 (3 male, 3 female)</td>
<td>7 (4 male, 3 female)</td>
<td>5 (3 male, 2 female)</td>
<td>18</td>
</tr>
<tr>
<td><strong>Student interviews</strong></td>
<td>11</td>
<td>13</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td><strong>Focus Group</strong></td>
<td>1 (4 participants)</td>
<td>1 (5 participants)</td>
<td>1 (4 participants)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Class observations</strong></td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Parents</strong></td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 4.1. Breakdown of interviews and observations

There was also one interview with a Multicultural Liaison Worker of the school board. All of the student participants migrated from the Philippines in the past two years except for the two female students from Saint Gabriel.

In the past year I have had the privilege of being able to conduct professional development workshops on digital literacy in six school districts in BC. While not part of my formal research methods, my conversations with the teachers corroborated the insights, concerns, and opinions that teachers in my study shared, providing me with additional insight regarding the challenges of digitally-mediated instruction, and enabling me to triangulate my findings.
4.4 Challenges and limitations of research

On a conceptual level, the greatest challenge in conducting this research is that social class, as discussed in the theoretical framework, is itself a complex construct. Because the theorization and schematization of class in the new world order is still limited, identifying the class positions of learners for empirical research entails a more complex and less definitive process. To operationalize social class, I rely less on using identifiers such as “middle class” or “working class”, and instead provide more detailed descriptions of the backgrounds of the participants to provide readers with a better understanding of their social locations. The conceptual challenge in both labeling class and identifying class markers also contributes to a methodological challenge. I continually needed to negotiate and reflect on the questions that I could ask my participants, ensuring that they were comprehensive enough for me to infer their class positions, while remaining within the boundaries of ethical and class-sensitive inquiry.

With regard to methodology, conducting observations of the students’ digital practices in a more natural environment was difficult to achieve because of limited access to the spaces of home and school. While there were observations of the students in class where they may or may not engage with digital practices, most of the observed digital practices were those during interviews where I would ask them how they would use a particular app, search for information or authenticate a website. Because of this limitation, the observed practices are mostly those that were enacted because of a prompt that I provided, rather than naturally occurring. At the same time, asking high school students to write even a brief journal entry every week proved to be quite challenging given their own schedules and preoccupations. While there were a few who
did submit their journals, I had to resort to journal sheets that required less investment of the students’ time.

On a more logistical level, securing an interview with parents was particularly challenging because a number of them had two jobs and were out of the house practically the whole day. Whatever free time they had was used to run errands or spend quality time with the family. Some students also expressed how their parents refused the request to be interviewed at home because they thought their home was either too small or too messy for them to entertain visitors. On several occasions where I did gain access to the homes of the participants, parents would welcome me by apologizing for how messy their home was, even if it was clearly tidy. Because not many parents were able to accommodate me, this also made it difficult to conduct observations at home because without any parent or adult sibling at home, I could not arrange to be alone with the students. On the few occasions that I was given access to their homes, I had to do it quickly because they either had to head out to work or do chores. Because these apartments or basement suites had living rooms that connected to dining areas and kitchens with no partitions, other members of the family would have refrained themselves from doing chores, while I talked or observed the participants. Some students were difficult to track down after the first interview because they had work, usually as servers in fast food outlets, right after school. Some had to go home to take care of younger siblings, or participate in after school programs.
4.5 The researcher and issues of reflexivity

From a social constructivist perspective, the researcher is an active participant in the study, shaping the way ideas are constructed and exchanged during the collection of data. By choosing to study the digital practices of Generation 1.5 Filipino youth of contrasting social class positions, I recognize that my interaction with them as a researcher raises questions regarding the boundaries that delineate emic or etic positions. My Filipino identity has certainly helped me build a network of Filipino students, families, scholars, and school board workers that have helped me pursue this research. This shared Filipino identity helped me build rapport with the participants and understand specific cultural references that they make. By inviting them to respond in Tagalog, a great number of them were able to articulate their ideas more easily. At the same time, particularly because this research is a study of social class, I recognize that my own class position shaped the dynamics of these interviews, and my participants’ own perceptions of how they need to perform during these interactions. In interacting with migrant students and parents from less privileged backgrounds, for instance, the moment they learned I am a full-time graduate student at UBC, I was immediately regarded as sosyal (posh) or mayaman (rich). On a few occasions, some of the Filipino students did not recognize me as Filipino, or did not think I spoke Tagalog, because my fluency in English positioned me as not Filipino. This non-recognition of my distinctly Filipino accent that bears the mark of my being a Manileño (from Manila) and middle class can also be attributed to the fact that the students were from different parts of the
Philippines and social classes, spoke another Philippine language as a mother tongue, and therefore knew Tagalog as a second language.

My identity as researcher from UBC could also have shaped the language in which participants choose to speak to me. While I indicated to all my focal participants that they could speak in Tagalog or English, or a combination of the two, some participants, while clearly more comfortable in the former would choose to respond to me in English. One possible interpretation for this choice is that a number of the participants had both Tagalog and English as an L2, and choosing English might have been an easier option. They may have resolved that English was the appropriate language for a research interview, or wanted to position themselves as legitimate speakers of English. Such a choice however leads to an observer’s paradox (Labov, 1972), limiting what the participants want to express, and what I understand about their linguistic capital. That I am considerably older than my participants also compels me to think about how comfortable they are to share some digital practices that they may assume I would find trivial or improper. The age gap is also reflected in the different ways we use language and other modalities. The new expressions and acronyms that have risen from textspeak, the specific meanings youth attach to emoticons, and the popular images they upload or use in memes—these differences had to be continually negotiated so that I do not miscommunicate with them and misinterpret the statements or the multimodal choices they make. While I can say that I have acquired a certain level of skill in navigating digital spaces, the engagement of youth with the digital can be very different from mine, from the online games they play, the social media platforms they participate in, to their capacity to multitask. Our contrasting literacies require that I engage a more thoughtful, reflexive approach to the way I examine and draw conclusions from their
digital practices. I recognize that my own views of what constitutes digital literacy and which digital practices require more attention is shaped by my own habitus as a middle aged, middle class male graduate student.

PART B. FINDINGS

While Part A presents the theoretical and methodological considerations of this dissertation, Part B analyzes the data derived from the students, parents, and teachers who participated in this 18-month study. Using Darvin and Norton’s (2015) model of investment to frame this analysis, this part is divided into four chapters that correspond with the components of the model. Chapter 5 focuses on identity and discusses how the social positions of learners, family relations and the material conditions of their lived existence can structure their dispositions towards technology. These class-inscribed conditions include home environments and technological access, and are discussed as economic capital. This chapter also takes into consideration how learners can be socialized into different cultures-of-use, shaping how they understand the norms and conventions surrounding digital media. Operating with different dispositions towards technology, students invest in diverse digital literacies as they negotiate their identities and forms of capital. Chapter 6 examines how learners negotiate social and cultural capital in the digital processes of sociality and knowledge consumption, while Chapter 7 focuses on the significance of linguistic capital in navigating online spaces. It also demonstrates how the new digital landscape requires a broader communicative competence or sens pratique that draws on more complex linguistic and semiotic repertoires. After an analysis of the digital practices of these learners, Chapter 8
proceeds to a discussion of ideology, particularly how ways of thinking around the nature and composition of digital literacies are embedded in educational policies and classroom practices. Drawing on interviews with teachers from the three schools, this chapter articulates how these ideologies can construct conceptions of digital literacies in schools that can marginalize learners in unexpected ways. By using the model of investment as a way to frame the findings, Part B demonstrates how investing in digital practices is shaped through the intersection of identity, capital, and ideology.

5.0 IDENTITY AND THE STRUCTURING OF DISPOSITIONS TOWARDS TECHNOLOGY

This chapter examines how the class positions of transnational Filipino learners, inscribed in the material and social contexts of home and the conditions of their lived experiences can shape their dispositions towards technology. It discusses how the digital practices of parents, together with variations of digital access and spatial configurations, can structure learners’ perceptions of technology as tools that serve recreational, informational, or relational purposes. As learners develop varying dispositions towards technology, they are also interpellated into cultures-of-use that shape their digital practices.

5.1 Transnational identities, positionality, and the inscription of class

While Heath (1982) compared the language practices of white and black working class communities, this study seeks to understand the language and literacy practices of Filipino immigrants from different class positions. By switching the lens to social class, it examines how learners sharing an ethnic identity but equipped with varying levels of
economic, cultural and social capital, can develop different ways of interacting within a
digital environment. The transnational identities of the learners become indexical of the
mobility and fluidity that technology itself has enabled, and this section discusses how
class inscribes itself in the lives of these immigrant learners, in ways that shift as they
move across geographical and virtual borders. How class is interpreted in the Philippines
is different from Canada, and these differences shape how these immigrant learners
position themselves and others in diverse contexts.

All of the 18 focal participants, except for two native born Canadians, had immigrated to
Canada within two years prior to the study (ten in 2015, two in 2014, four in 2016). The
number is equally divided between male and female, and the average age is 14.5.
Because the study lasted for 18 months, the students from James MacMillan and
William Campbell were interviewed in the course of two school years, and would have
been a year older by the time the study was concluded. Of the 16 who were born in the
Philippines, nine were from urban areas, while seven were from rural areas. This
assignation needs to be classified further however, as cities in the Philippines are
designated as urban by default, but are categorized into six classes, depending on their
annual income and level of urbanization. Three of the participants for instance come
from cities that are listed as third class and less urbanized. All of those who lived in cities
in the Philippines went to a private high school except for Penny and Mario (seven out of
nine), while the majority of those who lived in rural areas went to a public high school
except for Nancy and Sheila (five out of seven). Three of the seven students who lived in
a rural area went to James MacMillan.
<table>
<thead>
<tr>
<th>NAME</th>
<th>PARENTS’ OCCUPATIONS</th>
<th>MIGRATION CATEGORY</th>
<th>HOMETOWN (Rural/ Urban) SCHOOL IN THE PHILIPPINES (Public/Private)</th>
<th>LANGUAGES SPOKEN AT HOME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F: No father at home</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F / 13 / Gr 9</td>
<td>F: Factory worker</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>F / 15 / Gr 10</td>
<td>F: Factory worker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M / 16 / Gr 9</td>
<td>F: Cleaner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIMMY</td>
<td>M: Cleaner</td>
<td>Live-In Caregiver / Family (2015)</td>
<td>Rural Public</td>
<td>Filipino</td>
</tr>
<tr>
<td>M / 13 / Gr 8</td>
<td>F: Custodian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M / 13/ Gr 8</td>
<td>F: Welder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F / 13/ Gr 8</td>
<td>F: Construction worker</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>WILLIAM CAMPBELL</td>
<td></td>
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</tr>
<tr>
<td>FREYA</td>
<td>M: Accounting Admin</td>
<td>Skilled Worker (2014)</td>
<td>Urban (3rd class) Private</td>
<td>Filipino, English, Ilocano</td>
</tr>
<tr>
<td>F / 14 / Gr 8</td>
<td>F: Engineer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M / 17 / Gr 10</td>
<td>F: deceased</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MARK</td>
<td>M: Nanny / vegetable packer</td>
<td>Live-In Caregiver / Family (2015)</td>
<td>Rural Public</td>
<td>Ilocano</td>
</tr>
<tr>
<td>M / 16 Gr 10</td>
<td>F: (occupation undeclared)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M / 15 / Gr 10</td>
<td>F: Supermarket stocker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>Gender / Age / Grade</td>
<td>PARENTS’ OCCUPATIONS</td>
<td>MIGRATION CATEGORY (Year of arrival)</td>
<td>HOMETOWN (Rural/ Urban) SCHOOL IN THE PHILIPPINES (Public/Private)</td>
</tr>
<tr>
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</tr>
<tr>
<td>Penny</td>
<td>F / 16 / Gr 10</td>
<td>M: Caregiver (was a nurse) F: present, (occupation undeclared)</td>
<td>Live-In Caregiver / Family 2015</td>
<td>Rural Public</td>
</tr>
<tr>
<td>Sheila</td>
<td>F / 16 / Gr 10</td>
<td>M: Caregiver, Dietary Aid F: Detailer</td>
<td>Live-In Caregiver / Family (2015)</td>
<td>Rural Private</td>
</tr>
<tr>
<td>Steve</td>
<td>M / 14 / Gr 9</td>
<td>M: Caregiver/ Admin F: Supermarket stocker</td>
<td>Live-In Caregiver / Family (2014)</td>
<td>Urban Private</td>
</tr>
<tr>
<td>SAINT GABRIEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carol</td>
<td>F / 14 / Gr 9</td>
<td>M: Nurse F: Machine operator</td>
<td>n/a</td>
<td>(native born Canadian)</td>
</tr>
<tr>
<td>Chrissie</td>
<td>F / 14 / Gr 9</td>
<td>M: Care aide F: Truck driver</td>
<td>n/a</td>
<td>(native born Canadian)</td>
</tr>
<tr>
<td>Eric</td>
<td>M / 14 / Gr 9</td>
<td>M: Nurse F: No father at home</td>
<td>Skilled Worker (2016)</td>
<td>Urban Private</td>
</tr>
<tr>
<td>Kris</td>
<td>M / 14 / Gr 9</td>
<td>M: Nurse F: Deceased</td>
<td>Skilled Worker (2016)</td>
<td>Rural Public</td>
</tr>
</tbody>
</table>

Table 5.1 Demographic information of focal participants

**Conditions of migration.** When I began the interviews by asking the students when they moved to Canada, most of them replied with the exact date, signalling to me how momentous this occasion was in their lives. All of them, except for Frank who lived in the United Arab Emirates, had never traveled outside of the Philippines before, and for
most of them, landing in Canada meant reunification with their mothers after more than five years of separation. Some of the mothers in the study left to work abroad when their children were less than a year old. The majority of the families came to Canada through the Family Class, with the mother coming to Canada at least four years ahead through the Live-in Caregiver Program. The mothers of Chrissie and Carol, the two native-born Canadians, also came to Canada as caregivers in the 1990s. Only four of the 18 participants had parents who came to Canada through the skilled worker category. The parents of Freya from William Campbell are an accounting administrator and an engineer, while the mothers of the three boys from Saint Gabriel, Kris, Eric, and Frank, are all nurses. While most of the mothers came to Canada as caregivers and continued working as nannies or care aides, some became cleaners or factory workers, while their husbands worked as construction workers, welders, truck drivers or machine operators. Four of the participants had no father at home, because the father was either deceased or separated from his wife. Not all who came to Canada as caregivers were in a similar occupation in the Philippines: Penny’s mother was a nurse, while Carol’s and Sheila’s were teachers. The majority of the parents, whether they came to Canada as caregivers or skilled workers, have post-secondary education. In this regard, the processes of deskilling and depreservation that accompany immigration make the typical indicators of class like occupation and immigration categories insufficient in determining the class positions of these families. While some parents may have limited economic capital because of their occupations in Canada, they do not necessarily have limited cultural capital in terms of educational achievement, but because their education credentials from the Philippines are not valued similarly in their country of settlement. To acquire greater cultural capital, these migrant families are expected to gain “Canadian
experience” that provides them with more local knowledge and an awareness of cultural norms and conventions.

**Apprehending class.** The original intention for choosing the two public high schools for the study was that they are situated in two neighbourhoods that have been traditionally differentiated by class. William Campbell is in the more affluent West Side, while James MacMillan is in East Vancouver, historically regarded as a more affordable area and home to more lower-income working class immigrants. Although the rapid increase in housing prices and the gentrification of East Vancouver is changing the composition of its residents, the two neighbourhoods have always been positioned as having contrasting demographics. What soon became evident in the course of the study however was that while neighbourhoods have been useful for categorizing students according to socioeconomic status (SES) in past educational research (Garnett et al., 2008; Maggi et al., 2004), this demarcation of space could no longer provide clear distinctions between the demographics of the students. While those in James MacMillan were all from more working class backgrounds, those in William Campbell were not necessarily from more middle class backgrounds. Only Freya’s parents were in white-collar occupations, while the rest of the parents of the William Campbell participants worked as caregivers, or supermarket stockers. It is also important to note that while some families may be considered lower income in Canadian contexts, they may have been enjoying more middle class lifestyles in the Philippines when the mothers would send home remittances from Canada. In recent studies of class in the Philippines (Albert, Gaspar, & Raymundo, 2015), middle class is set to annual household incomes of PHP378,000 to PHP947,000 (CAD9,300 to CAD23,000), a fraction of British Columbia’s median income of CAD70,000 (Statistics Canada, 2017). This difference in terms of what
constitutes the middle class across geographical spaces needs to be considered in understanding how the class positions of students shift with the process of immigration, changing not only their lifestyles but also the way they position themselves and others in their country of settlement.

Because the Vancouver school district allows cross-boundary registration, some of the students in William Campbell do not necessarily live in the West Side, and some live in the less affluent periphery of the catchment where there is social income housing, or in more affordable basement suites, like Steve’s family. The teachers themselves acknowledge this diversity of social classes in the school. As Ms. Halloway observes:

> Within the ELL classroom, there’s a big difference between your Chinese international students, who are here usually with Koreans who have a lot of money, then your Filipino families, who are here together, working. And a lot of the Filipino children, because they come from, first of all, larger families, but they understand that family works together, they support each other and they help each other. So we have a lot of Filipino students that may have jobs, especially the older ones, because if they want a phone, if they want something, they know you do not ask your parents. You get a job, you get the money, and you support yourself. Some of them actually have jobs and give the money to the family to help.

Sheila, Jasper, and Nino worked at McDonald’s, requiring them to balance their time between work and school. There were three participants who eventually withdrew from the study because they had to go to work right after school and had no opportunity to
meet. Some had to go home and take care of younger siblings while both parents were at work. Ms. Flanders corroborates Ms. Halloway’s observation by saying

Filipino students, a lot of them, they would come to school because they’ve been working for hours until midnight at part-time jobs, you know, to help the family, or they had to stay up and they had to take care of their little brother or sister while their parents were at work, while these are issues that the other students don’t need to worry about.

Jack who goes to James MacMillan shares why he wants to work at A&W. “Kasi gusto ko pong tumulong sa family ko. Para makabawi, para makabawas ako sa mga gastusin. (Because I want to help my family. To repay them. So that I can help out with the expenses.)” While some of the participants at both public schools worked, none of those from Saint Gabriel expressed the need or intention to work. Located in the boundary of the east and west sides, Saint Gabriel appears to be predominantly middle class. The families of the three boys, Eric, Frank, and Kris, came to Canada through the skilled worker program, and their mothers, together with Carol’s, work as nurses. Chrissie’s mother and father on the other hand works as a care aide and a truck driver respectively, seven days a week, making it impossible to schedule an interview. Indeed, one of the challenges in recruiting Filipino parents to be interviewed, particularly those in more working class occupations, is that they were often too busy. Some of them would have two jobs, working seven days a week, more than ten hours a day. Whatever free time they had was spent doing household chores and running errands like going to the grocery or the bank. Two mothers, Carol’s and Nancy’s, were able to grant me half an
hour, by taking a break from their home duties, while Mario’s and Kris’ mothers were on work leave.

**Urban vs. rural.** The distinction between having rural and urban hometowns is highly relevant in discussions of class among Filipinos because it indexes certain tastes and preferences. In discussing why some Filipino students hesitate to recite in class, Carmela who grew up in Manila says:

> Because even though our second language in Philippines is English, some of them came from the -- what do you call it -- the *probinsya* (rural area) and then they don't really use Tagalog and English; they use Tagalog and their language.

The reason Carmela shifts to Tagalog and says “probinsya” indicates that she is aware that the meaning of “province” in the Philippines is not the same as in Canada where provinces are administrative divisions of the country. In the Philippines, province or *probinsya* refers more to parts of the country outside of the capital, Manila, and whose inhabitants are regarded as lacking in sophistication or culture, that is, “provincial”. The Filipino slang word “promdi” is short for “from the province”, a stereotype of those coming from the countryside being unfashionable and speaking with a rural accent. Ms. Collier who teaches at James MacMillan expresses her confusion regarding these distinctions that Filipino students make.

I still have kids that come in and they have zero skills and the other students say ‘Oh, he's from the mountains or provinces.' I don't know what that means right? Or ‘Oh, he went to public school versus private and for me it's still like I don't
really know.

In the Philippines, apart from referring to those from the countryside as “promdi”, some would also refer to them as from the “bundok” or mountain (the origin of the term “boondocks”), and thus again referring to being backward or unsophisticated.

When these students immigrate to a developed country like Canada, however, they accrue symbolic capital in the Philippines as upwardly mobile Filipinos, whether they come from urban or rural areas, or work in middle or working class occupations in Canada. While those from urban spaces in the Philippines may position country dwellers as unsophisticated, when they immigrate to Canada, they may in turn be positioned by second generation Filipinos as not possessing the cultural or linguistic capital of native-born Canadians. Second-generation Filipino Canadian Chrissie says, “When they (her native-born Canadian friends) hear someone from the Philippines speak, and they have an accent, they’d be like, ‘Oh, they’re FOB’”. FOB or “fresh off the boat” is a term that remains current in many high schools (Shin, 2012; Talmy, 2004), and although Chrissie attests that she and her friends would not use this term in front of immigrant Filipino peers, she admits that she would use the term her with native-born Canadian friends in private to refer to immigrant students.

Public vs. private. Apart from these rural/urban identity markers, another common indicator of class in the Philippines, mentioned also by Ms. Collier, is whether one goes to a public or private school. Because the public education system is poorly resourced, public schools in the country are usually regarded as below standard, with under-qualified teachers and huge teacher-student ratios. Although a number of private schools
may not necessarily have much higher standards, they are regarded as markers of prestige that hold symbolic value. When I asked Jasper where he studied, he replied with the name of the school and immediately followed it up with “It’s a private school.” It was the same for Annie who responded with “It’s a private school” even before giving the name of the school. Jimmy on the other hand who comes from a rural area, refers to his school as “Public lang po (Just public)” These markers of prestige extend to these transnational families even when they move to Canada. Asked why his mother chose that he go to Saint Gabriel, Eric says, “High reputation daw po itong school na ito. At saka sikat din daw po. (They say this school has a high reputation. And well known, they say.)” It becomes clear that even as they migrate, this marker of class remains relevant in the way parents choose schools, and also in the way students position themselves and other immigrant Filipinos.

**Summary.** Recognizing the fluidity of class positions of Generation 1.5 Filipino students, this section discusses how the indicators of class and the value of one’s capital shift as transnationals traverse geographical boundaries, positioning them in different ways. Whether they are regarded as “promdi” or “FOB”, private or public school students, whether they need to work or not, these students negotiate fluid class identities as they engage with both local and transnational networks. Bourdieu (1984) expresses the significance of this positionality by asserting that “A class is defined as much by its being-perceived as by its being, by its consumption—which need not be conspicuous in order to be symbolic—as much as by its position in relation to production (even if it is true that the latter governs the former).” (p. 483). Traditionally, class has been treated as a nationally constituted phenomenon (Wright, 1997), bound within territorial spaces. It is central to understanding the migration process, but becomes unexpected and
sometimes contradictory when seen through this transnational lens (Kelly, 2012), and so understanding class as it operates at the level of the individual subject becomes particularly relevant (Parreñas, 2001). In this approach, there is no need to aggregate class groupings and assume common interests, processes and outcomes (Kelly, 2012); rather, class is understood as overdetermined by other forms of difference (Gibson-Graham, Resnick, & Wolff, 2000) and implicated in power relations in specific situations.

For this reason, this study does not attempt to make generalizations about how digital practices are associated with certain class identities, in the same way that scholars like boyd, Snyder, and Warschauer have done. While such an approach is valid and serves particular research purposes, this study focuses on demonstrating how the material conditions of class, through the operation of economic, social, cultural, and linguistic capital, shape the language and literacy practices of learners. To achieve this purpose, the study presents focal cases at certain sections to provide detailed descriptions of one or two participants, to discuss the findings, and to provide supplementary evidence from other participants in the discussion.

The central point that this section makes is that in examining identity as multiple and a site of struggle (Norton, 2013), we are able to understand how social class, as an inscription of identity, is fluid and complex. As learners navigate transnational spaces, they position themselves and are positioned in different ways, and an awareness of these positionalities is pertinent to a discussion of capital, the second component of the model of investment.
5.2 Economic capital and the variability of access

While it is the following two chapters that focus on the different forms of capital, this section discusses economic capital to provide a more immediate understanding of the context of home for the participants. Economic capital is interpreted as access to material resources that shape various social practices, including one’s use of technology, and this section demonstrates that while all learners may have connectivity and access to devices at home, the kinds of devices, the ratio of users per device, and the physical location of these devices shape the conventions of home use. This does not necessarily mean however that access to devices is solely a function of one’s purchasing power. Some parents, for instance, may choose not to purchase a phone for their child for ideological rather than financial reasons. Economic capital however is needed to make agentive decisions regarding home environments and the acquisition of digital resources.

Variable access. All students had access to technology and connectivity at home, and at the start of the study, only two students, Nino and Eric, did not have their own phones, although by the end of the study, Nino already had one. All the students from Saint Gabriel had their own laptops, because of the school’s Bring Your Own Device (BYOD) policy, while students from James MacMillan and William Campbell shared laptops or desktops with the rest of their family. Mario shared a laptop with two siblings and his parents, setting the user-computer ratio at 5:1. His siblings dominated the use of the laptop, and he said that when he needed to do a report for school, he would use the desktop at the school library. The use of this desktop is of course subject to availability and limited to the time that the library is open. This presents a sharp contrast with Kris
who has a phone, a tablet, a laptop for his sole use, and a desktop that he shared only with his mother. In this case, his access to a computer (a desktop or laptop) was uninterrupted as he moved across the space of school and home. In contrast, Jimmy, whose laptop is shared with four other people in his household, said he hardly got to use the laptop because his older brother used it. When I asked him about his use of a computer, he immediately corrected me and said, “Cellphone.” He said he only used the laptop when his phone’s battery level is low, and if he needs to search for something. Steve, on the other hand, has an iPad but no computer at home. He relied on his tablet to do schoolwork, but that “Sometimes they (his parents) just want me to go somewhere I can do it if my iPad couldn’t do it (the assignment).” In this case, like Mario, he works at the school library. What is interesting though about the way Steve described this arrangement is that he imbued his device with agency, as if it is his tablet rather than himself who could do the assignment.

For Freya, having to share the laptop with his brother shapes what shows she is able to watch. She ends up watching The Filipino Channel (TFC), a cable channel they subscribe to on their TV, more than Netflix, because she says her brother always has the laptop. While Netflix and other streaming services can be viewed on TV, this requires a casting device such as Google Chromecast or Roku. Only a few participants had data plans on their phones, and if so, they were prohibited from consuming too much. Carmela talks about how she is only allowed ten minutes of data every month, and that her friends don’t have any data because their parents wouldn’t pay for it. While she has limited mobile connectivity, she says she doesn’t feel encumbered by this limitation because “everywhere in Canada has wifi anyway.”
Katz (2017) asserts that an understanding of constrained access to the Internet and devices is critical to examinations of digital inequality. If connectivity is a continuum, then some lower-income families may be “under-connected” (Rideout & Katz, 2016) because of inconsistent and low-quality connectivity, limited functionality of devices or opportunities to use them. In a study of 170 Mexican heritage families in three school districts in the US, Gonzalez & Katz (2016) noted that while 94% who took the survey said that their family had some kind of internet access, 26% said that too many people share the computer to have enough time on it. Referring to this issue as “autonomy of use”, Hargittai and Hsieh (2013) observed how those who had more uninterrupted computer use would produce greater digital skills and participate in capital enhancing activities. When learners have limited opportunities to use a laptop or desktop shared by their family, their opportunities to research and experiment with different modes of production are also limited, even if they have cellphones. Robinson (2009) argues that this limitation makes it more difficult to develop more sophisticated information-seeking skills, and an “informational orientation” that allows them to recognize technology as a tool for acquiring knowledge.

**Spatial configurations.** While the availability of shared devices can determine the frequency and breadth of use, where they are located also determines the conditions of use. Jack who goes to James MacMillan lives in a basement suite with his parents, his younger brother, aunt and nephew. While he has his own phone, he shares a laptop with the whole family. There is a table in the living room that has been a designated study space, and even though the laptop is mobile, there seems to be a rule that the laptop should stay on this table so that it would remain easily locatable as a shared device. Because the living room is at the center of the house, family members would be
constantly walking by the study table to get to the kitchen, the bedrooms, or the entrance of the house. It is also in the living room that the TV is located, and so any time of the day there would be multiple distractions for anyone who would be working on the laptop. Although Jack recognizes that the laptop’s screen is better for doing schoolwork, he says he would just use his phone in his room to do his assignments to minimize the distractions. This practice thus limits further Jack’s desire to use the laptop, which he believes is particularly useful for researching information like job opportunities and guidelines for driving.

Jasper who goes to William Campbell talks about how he plays games on the desktop late at night. Because he and his mother and brother live in a one-bedroom apartment, he sleeps on the couch in the living room where the desktop is located. To avoid being detected by his mother, he waits for when she goes to bed at 11PM before he starts playing.

Ron: Quiet ka lang maglaro? (So you just play quietly?)
Jasper: Oo. Naka-headphone ako. (Yes. I use my headphones.)
Ron: But when you talk, hindi niya ba naririnig? (But when you talk, doesn’t your mom hear you?)
Jasper: Pero yung earphones ko lang nandito. Tapos yung music, sa cellphone ko. Tapos hinahayaan ko lang. Parang wala nang sound yung desktop ko. (I have my earphones. And I play music on my cellphone. Then I just let it be. Like there’s no sound coming from my desktop.)
Ron: But when you talk to your friends, doesn’t your mom hear you?
In this situation, the limitation of space determines how he uses the desktop. Because the bedroom is right next to the living room, he learns to speak softly to not wake his mother. It's also because of this reason that he would often stay up really late and end up missing school. He mentioned that occasionally his mother would catch him still playing in the middle of the night when she would go to the bathroom, and she would tell him to go to bed after the game that he was playing. Jasper however would just continue playing long after she returned to the bedroom.

**Summary.** What these findings reveal is that shared device use including spatial configurations at home have to be taken into consideration when it comes to understanding the inequalities of digital access. Consistent access to a computer could provide opportunities for digital exploration and experimentation, and if learners have limited access, then they will have to restrict themselves to accomplishing required tasks like school projects or research as quickly as possible, developing what Robinson (2013) calls “a taste for the necessary.” For Robinson, those with greater autonomy of use are able to develop a more exploratory stance towards technology, while those with low-autonomy are limited to using the computer to accomplish specific tasks. Limited access to quiet and more private spaces for digital use also shapes how digital practices evolve at home.

The significance of these material conditions is reflected in patented technology that Facebook has filed recently to categorize users in terms of social class (Sullivan et al., 2018). In this scheme, educational levels, home ownership, and travel history replace the traditional indicator of social class: family income. To identify the class of users, the
algorithm of this patent also takes into account the number of internet connected devices people have and their internet usage. The patent states the average number of internet connected devices owned by the middle class user is 2.2, and 4.2 for the upper class (US 2018/0032883 A1, 2018). While the construction of such an algorithm is based on ideological conceptions of what constitutes a middle class or lower income class in the US, these approximations also affirm how both access to and use of these devices have become significant forms of capital that index class in the digital age.

5.3 Dispositions towards technology

By discussing the significance of identity, positionality, and the material environment in the construction of digital literacies, the first two sections of this chapter set the stage for a discussion of how learners can develop different dispositions towards technology. For Bourdieu (1990), habitus is a set of dispositions structured by one’s life circumstances, family background and educational experiences. Through case studies of Nancy, Kris and Eric, this section examines how these social conditions shape the identities of the participants and structure a particular disposition towards technology, revealing the learners’ conceptions of the fundamental value of technology or the primary purpose it serves.

CASES A AND B. NANCY AND KRIS

Nancy, 13, Gr. 8, James MacMillan

Nancy immigrated to Canada in 2015 with her father, older brother, older sister, and twin, from a rural town in Tarlac province, where she studied in a private Catholic school. Her first language is Filipino, but she also speaks Ilocano with her father and
grandmother. Before they arrived, her mother had been working in Vancouver as a nanny for eight years, and more than ten years before that working in Hong Kong and Israel. Her father used to work on a farm in the Philippines, and now works as a construction worker. The family lives in a three-bedroom apartment in East Vancouver, where Nancy shares a bedroom with her two sisters. Her parents occupy the master bedroom, while her brother has his own room, and their grandmother stays in the living room. In the living room, there is a TV and a designated study table where the shared laptop is placed. Beside the table is a small shelf with about ten books, including an English dictionary.

A few months after Nancy was born, her mother had to go back to Hong Kong for work, and it was her grandmother who took care of her. The only times her mother was able to go back home was when Nancy was in the first and fourth grades. They used to talk on the phone, until the family got a computer so that they could chat using Yahoo video. In fact, the first time Nancy saw her mom since she was born was on a Yahoo video call.

Ron: Gaano kadalas kayo mag-usap? (How often would you chat?)

Nancy: Araw-araw po. (Every day.)

Ron: Ano yung pakiramdam non nung sabi 'Ito yung nanay mo' at nandun siya sa computer? (So what did it feel like when they said ‘Here’s your mom’ and she was there on the computer?)

Nancy: Masayang-masaya po kasi nakikita ko siya araw-araw. (Very happy because I got to see her every day.)
Nancy talks about how she was happy to move to Canada to be reunited with her mother, but soon discovered that she could be quite short-tempered and would often scold her and her twin. Asked what her mother would scold her for, she replies: “Kasi po minsan hindi po kami nagbabasa t’as nagfeFacebook lang po t’as yun po nagagalit siya. Sabi niya po ‘Magbasa muna kayo! Puro Facebook!’ (Because sometimes we don’t read then we’re just using Facebook so she gets angry. She says ‘Read first! It’s just all Facebook!’) Nancy is indeed very invested in Facebook. She mentions that she spends an average of 15 hours on her phone every day (most likely an estimate of her waking hours) and that the majority of this time is spent on this social media platform. When she gets home from school, the first thing she does is check Facebook on her phone while resting in the living room. Nancy shares a top bunk bed with her twin, while her older sister sleeps on the bottom bunk. They go to bed at eight but spend an hour on Facebook before falling asleep.

Asked how many friends she has on Facebook, she replies that she has a thousand, the majority of whom are in the Philippines. She only has a few friends from Vancouver on her Facebook, and she rarely uses Instagram, which she says more local students use. “Yung mga friends ko dito hindi po sila ata ano sa Facebook. Sa ano lang sila, Instagram. Pero yung mga sa Pilipinas po, mga Facebook po. (My friends here are not really into Facebook. They only use Instagram. But my friends in the Philippines, they’re all into Facebook)”. When I asked her what she would use the laptop for, she replied with: “Pag may piniprint po. Yung importante lang po. (Only when something needs to be printed. Only the important stuff.)”
Helen. Nancy’s mother Helen agreed to be interviewed on a Saturday morning in between errands she was running. Both parents are so busy with work to be able to support a family of seven that the only time they’re able to see each other is late at night. Sometimes, she needs to work during the weekends as well. When I asked her if she used the laptop at home, she said yes “pero hindi ko na siya nabubuksan. Siguro two months ko na siyang hindi binukas (but I rarely get to switch it on. It’s probably been two months since I last switched it on.) Interestingly, she does not use the verb gamitin (to use) to refer to the laptop, and instead uses buksan (to turn on), which one would use for more passive media like a TV or a radio.

Ron: Saan mo siya ginagamit? (What do you use it for?)
Helen: Wala, kung meron lang talaga kailangan tingnan, kung may online form, pero wala nang time. (Nothing really, only if I need to look at something, if there’s an online form, but I really don’t have time for it.)

Helen does not elaborate what these online forms are, but it becomes clear that she would rarely be seen at home using the laptop. She talks about how she brings her phone to work, but rarely uses it. “Sa trabaho kasi hindi mo na hawak cellphone mo. Syempre bawal yung hawak mo palagi yung cellphone lalo na kung bata ang alaga niyo. Mahihiya din ako sa amo na gawin yun. (At work, you wouldn’t use your cellphone. Of course it’s not right if you’re always holding your cellphone especially when you’re taking care of a child. I wouldn’t want to do that to my boss.” Asked what she would use her phone for, she says

Helen: Facebook, calls, messages.
Ron: Mga kaibigan, pamilya sa Pilipinas, paano mo kinakausap? (How do you get to talk to friends and family in the Philippines?)

Helen: Yung sa Facebook call lang. (I just call them on Facebook.)

What becomes more apparent in the course of the interview is how Nancy’s digital practices mirror her mother’s use of technology. Having grown up communicating with her mother every day using the computer, she has been socialized into seeing technology as a means to communicate, and continues to see the value of maintaining ties with friends and family in the Philippines. Although Helen reprimands Nancy for always being on Facebook, Helen admits herself that the only time she would use technology is to use her cellphone, particularly for keeping in touch with friends and family using Facebook as well. Because there is no need for her to use the laptop for work or any other official business, she practically does not use the device. Similarly, Nancy says she would only use the laptop to print. The laptop is thus positioned as a device for word processing i.e. online forms, printing. Helen says she gets home past 6:00 PM, and the kids would go to bed by 8:00 PM. With dinner and chores to be done, there would be no time to supervise her daughters’ studies, and although she continually reminds them to read, there is no mention of providing more concrete steps in terms of developing good study habits. It becomes clear also that when she exhorts her children to read, she means to read print books. She assumes that when her daughters are looking at their phones, that they could only be using social media (and accurately so, it seems). What her statement reveals though is that she views the devices not as tools for learning, but as distractions that take them away from learning.
**Kris, 14, Gr. 9, Saint Gabriel**

Kris immigrated to Canada in 2016 from a rural town in the province of Iloilo, where he studied in a public high school. His mother tongue is Ilonggo, and he learned Filipino at school growing up in his hometown. His mother migrated to Canada in 2008 through the skilled worker program, and works as a nurse in a major hospital. She owns an apartment in a wealthy part of Vancouver, where Kris has his own room. There is no father at home, and Kris does not have any siblings. He has a phone, tablet, and laptop for his sole use, and shares a desktop with his mother.

**Hilda.** Before coming to Canada, Kris’s mother Hilda had worked as a nurse in Oman, Singapore, and the UK for 11 years. Her parents were teachers, while her brother is a Physics teacher. Compared to Helen, Nancy’s mother, who spoke mostly in Filipino during the interview, Hilda demonstrated greater confidence and fluency in speaking English. When Kris moved to Vancouver, she took a nine-month leave to focus on helping him adjust to the new environment, and familiarizing herself with the school system. She had researched about the public schools in the catchment, and had decided that Kris would be better in St Gabriel because “maybe, when he sees a lot of Filipinos, it’s much easier.” Having learned that Kris was assessed as Level 2 English, she successfully negotiated with the principal to let him take ESL classes in lieu of French. Hilda displays great awareness of digital affordances, and teaches him how to use them for educational purposes. She uses her desktop for online banking, writing letters, reading the news, and storing work notes about clinical procedures. When she lived in Singapore, she took a course on Microsoft Office that taught her to use Word, Excel and Publisher. Her brother, Kris’ uncle, is also very familiar with computers, and taught her how to arrange privacy settings. Her nephew recommended Khan Academy, a website
with online tools to help educate students, for Kris to understand his school lessons better, and told her that he “always got all [his] solutions on the internet.” Hilda recognizes the value of research online.

I would teach him how to make notes, or when you get something online, then put it in Microsoft Word or a note, and then you just click and then like—some sort of a diary that, I kinda like teach him how to do that.

While Hilda is aware of how the computer can be a powerful tool for learning, she recognizes how it can also be a major distraction, particularly for Kris who is very fond of anime.

Hilda: Even in going into technology, it’s so hard for me cause it’s a conflict of interest with regards to disciplining your kid.

Ron: How is it a conflict of interest?

Hilda: Cause you wanna discipline your kid with the internet. And sometimes it distracts him. Cause I have a way to actually check if he’s online. Going into FB while having a class.

Hilda clearly knows how to monitor and supervise Kris’ use of technology. When he is at school, she occasionally checks his status on Messenger to see if he is online and accessing Facebook. She checks the history of the sites he has visited on the laptop and desktop. She switches off the wifi at home so that when Kris gets home, he is not able to access his anime websites through his laptop. The desktop remains connected to the internet for him to do his assignments, but she has activated parental restrictions so that
he could not go to Facebook or other sites that she regards as counterproductive. While the value of such digital surveillance methods requires further discussion, what becomes clear is that Hilda knows how to use technology to suit her needs, and recognizes it as a source of knowledge that she and Kris benefit from.

When Kris is asked what his mom uses the desktop for, he immediately replies, “For her work”, signalling how he believes his mother uses the desktop for informational purposes. Socialized by his mother in digital use, when he is asked what he uses his laptop for, he says, “For the research. All of my subject is in the internet.” When they are given assignments at school, he says he gets all of the answers on the internet by searching for them. Kris knows how to synchronize his accounts across devices, search for information, and upload files on different platforms. Aware of his mother’s surveillance techniques, he knows of certain workarounds. He downloads his anime stories at school, so that he can read them while at home. To play games with friends, he goes to the nearby community centre with his laptop and accesses the wifi there. In contrast to Steve and Mario who need to go to the library to do their schoolwork, Kris goes outside of his home to engage in more recreational digital practices, while home is constructed as an extension of school, where academic digital practices are performed. Whether this arrangement translates into stronger educational outcomes for Kris is of course contingent on many other factors, but what it makes possible is for Kris to track better how he structures his time, and to maintain greater control of an environment conducive to study.

**Structuring dispositions.** The cases of Nancy and Kris demonstrate that parents’ digital practices and dispositions can shape the way learners perceive the value and
purpose of technology. They also illustrate how parents’ engagement with technology is
not just a product of educational achievement, but is shaped by their own networks and
the circumstances of their occupations and life trajectories. The occupation of Nancy’s
mother does not require her to use the computer, and having lived away from the
Philippines for so long, fuelled by her desire to maintain transnational family ties, has
made technology primarily a means of communication. As a nurse, Kris’ mother is able
to use technology during work (e.g. taking down notes) and at home, to do research.
While both children have access to devices, these devices are positioned differently in
their homes, and thus different cultures-of-use are built around them.

Parents serve as guides and regulators of how their children participate in the media
ecology (Ito et al., 2010), and particular expressions of parental responsibility are
intertwined with cultural, social, and economic capital that reflect class positions.
According to Lareau (2003), working class parents believe in the accomplishment of
natural growth, a more hands-off approach to parenting, grounded in the understanding
that children will grow and develop naturally as they engage with the world and thus
provide them greater autonomy. Middle class parents on the other hand practice more
concerted cultivation where they are more involved in supervising and advocating for
their children in institutionalized settings. These differences are apparent in the ways
Nancy’s and Kris’ mothers supervise their children. Kris’ mother has very strict rules
about how he can stay on task when it comes to his studies. She monitors his digital
practices, and advocates for him at school, getting him enrolled in an ELL class instead
of having to take French. Although Nancy’s mother does reprimand her daughter for
always being on Facebook, she does not actively supervise Nancy’s performance of
school tasks at home, nor provide her more specific guidance regarding her digital
practices. In the earlier example of Jasper who plays computer games till 3:00 AM (section 5.2), we see how his mother goes back to bed without forcing him to shut down the computer, most likely because after working the whole day, she is too tired for confrontation.

These class differences appear to be consistent with the other parents in the study. Eric, a student from Saint Gabriel, shares how his mother, a nurse, searched online to learn more about the different brands of laptops, and read the reviews so that she could decide which laptop to get him for school. "Nakita niya po yung Mac na one of the best po, kaya binili niya po. (She saw that the Mac was one of the best, so that’s what she bought.)" His mother and her partner, both nurses, would role model using the computer as a tool for information. They have their own laptop, and when asked what they use the laptop for, Eric says, "Research din po. (Also research.)" He talks about how when they had an exam for their dialysis license and they couldn’t find a copy of a book they needed to review, they just researched all the answers to their questions on the internet. They also actively supervised Eric’s technology use, by putting away his laptop when they got home, so that he would remain offline, and interact with them. They have not given him a cellphone. A student from William Campbell, Freya whose father is an engineer says that when she has difficulty with her homework, she goes to her father, and if he didn’t know the answer himself, “he searches it up on the internet” and then explains it to her. In contrast, two of the students from James MacMillan describe how their parents do not have sufficient digital literacy to use the devices they have. Annie, whose mother is a nanny, says

Yung mga buhay noon, like there’s no gadgets back then. So para po ngayon,
She talks about how her mom would only use her phone particularly for Facebook Messenger. Because her brother dominates the use of the laptop at home, she uses mostly her cellphone. Asked what she would use it for, she says “Texting my mother and my brother and my friends.” Another student, Carmela expresses how when it comes to the desktop, her parents, who are both factory workers, “know the basic, and like Skype, but they don’t know how to search things. They usually use tablets instead.” Her parents purchased an iPad for the particular purpose of Skyping with each other when Carmela was still living in the Philippines. Asked what it was like with her mom living in another country, she says “It feels the same because everyday, we Skype. We do Skype everyday before going to school and then when I go home, like “Hi Carmela” and then she’s in Skype talking to my dad.” Carmela does not believe her parents would have the digital literacy to use the desktop to search for information, and shares how they occasionally expect her to be a digital broker, even if the task at hand is something she herself is not familiar with.

Like a document you have to fill online because they can’t fill it up personally. They’ll ask “How do you fill this up” and I’ll say “I don’t know” and they’ll say “Well you have to know because we don’t know” and then I’ll say “I don’t have a single idea” and they’ll just ask their friends.
Carmela had asked her parents for a desktop so that she could work on her school projects, although later she admits that more recently she would use it only to download things that she could save as files.

What appears to be a theme in the findings is that parents’ dispositions towards technology tend to index their class positions, and influence their own children’s views of technology. In the interviews, all learners demonstrated clear views of the patterns of digital use of their parents, and these patterns often reflected what the learners would articulate about their own dispositions towards technology. Parents in more middle class positions like Kris’ mother demonstrated greater confidence in using digital tools, while Nancy’s mother expressed how she rarely “turned on” the computer. Parents in occupations that do not necessitate any kind of digital use may view technology as primarily a relational or recreational tool, while those whose occupations may involve the use of computers articulate and role model the informational purpose of technology. For families who did not have the economic and cultural capital to be able to migrate to Canada as an intact unit, and for whom platforms like Skype, Yahoo or Facebook have played a central role in the maintenance of transnational family ties, the perception of technology as a tool for communication is particularly potent.

These findings are consistent with Rideout and Katz’s (2016) study of the digital practices of low- and moderate-income families, where parents who are not comfortable using computers would not feel as confident engaging with their children on these devices. Parents’ perceptions of the affordances and concomitant risks of technology shape how they encourage their children to explore different interests and develop new skills using these tools (Clark, 2012; Livingstone, 2009). In the study, internet use and
computer use appear also to correlate with income levels: 76% of those above the poverty line used the internet compared to the 60% of those below the poverty line. Half the number of parents above the poverty line used computers, while only a quarter of the parents below the poverty line would. Parents who report more frequent technology use also have children who go online more, allowing them to explore their interests and express themselves in new ways.

Lareau and Horvat (1999) assert that parents’ cultural and social resources become forms of capital when they facilitate compliance with dominant standards in school interactions. In the same way, parents’ digital repertoires and practices become capital when they can encourage technology use among their children that would be valued in school. The significance of this generative disposition towards technology is aligned with what van Dijk (2005) calls motivational access. For this scholar, some people remain on the “wrong” side of the digital divide because their attitude towards technology does not motivate them to use it productively, that is, to find uses that will allow them to gain cultural and social capital. Katz (2017) asserts the value of parental mediation and family dynamics in gaining confidence and new skills around technology. By sharing technology experiences, parents and children are able to facilitate intergenerational digital engagement where more fluid exchanges of expert and learner roles facilitate their investment in productive digital practices. For Bourdieu (1990), dispositions are transposable in the sense that they guide actions across different contexts. In the same way, these dispositions towards technology that learners are able to cultivate at home with their families can extend to the context of school. Limited dispositions produce limited digital practices, making it more important for schools to identify and address the specific digital literacy needs of students. Chapter 8 discusses how the dispositions of
teachers towards technology in turn structure teaching beliefs and practices that may or may not respond to these needs.

5.4. Cultures-of-use

While learners can develop diverse dispositions towards technology because of the ways they are socialized into digital practices at home, they are also socialized into different cultures-of-use that are associated with certain devices or platforms. These norms and conventions evolve through the collective practices of different social groups, and are negotiated with the individual purposes of users. Following a materialist perspective, the sociotechnical structures of these devices and platforms also have the capacity to structure digital practices. This section focuses on how learners position different devices with regard to the purposes they serve, while findings regarding the cultures-of-use associated with different platforms will be discussed in Chapter 6, which examine sociality and knowledge consumption online.

Laptops and desktops. What appears to be consistent with all participants is how laptops or desktops are positioned as devices for schoolwork. Carol of Saint Gabriel explains this preference as follows

Laptop, I would use for school stuff, because it’s more easier, since there’s a keyboard. And on your phone, the screen is so little, and you can’t really control stuff. I’d use my laptop for school. And my phone for non-school stuff.
Penny shares the same idea and says she uses the laptop only to write essays or do projects that need to be printed.

I just feel like, I can understand stuff when I’m using my laptop, right. And then you can directly put…I mean, you can copy and paste it immediately, and the Microsoft Word, right? Instead of using your phone, it’s too hard to copy and paste.

In both cases, the keyboard and the screen of the computer are viewed as affordances that facilitate the consumption and production of knowledge. Users are able to see more information on a computer screen, and to make connections between clusters of information. The keyboard enables easier manipulation of information (“copy and paste”) and encoding, as opposed to the touch screen of a phone or iPad. While all these functions are also available on a phone and a tablet, using a computer for academic purposes has become a culture-of-use around this device where the tactility of a keyboard and the size of a screen matter. The material differences between these features shape practice, and for many students like Carol, there is a clear line that separates laptops and phones as devices for school and “non-school” purposes. For Kris who has both desktop and laptop, there are also clear distinctions between the two. He uses the laptop for doing work in school, including taking down notes, and then uses the desktop to work on his assignments. Because the educational resources and assignments at Saint Gabriel are all available online through platforms like Moodle and Google Classroom, Kris is able to move fluidly across the different devices. “My Gmail, my Google Drive, it’s like in the same account, because they’re in sync.”
**Tablets.** The popular uses of a tablet among the students appear to be primarily recreational: games, videos, and leisure reading of fan fiction novels, anime, and other literary genres. Annie says she uses her iPad solely for games, and it is the same for Kris who prefers to use his tablet to play games like Transformers or Asphalt because of its touch screen features. With Asphalt, a racing game, one steers the car by holding on to the iPad and rotating it like one would an actual steering wheel, and for Kris, being able to grasp this material device simulates a more authentic driving experience. At the start of the study when he had no phone or computer at home, Steve relied on his iPad for everything: to do schoolwork, to watch videos, and to do social media. When he eventually got a phone, he would continue to watch videos on the iPad because the screen was bigger. For Carmela, she uses her iPad to read stories from Wattpad, a platform that publishes user-generated stories. When she was still living in the Philippines, they purchased the iPad for the primary purpose of being able to Skype with her mother.

**Phones.** Just like Carol, many of the students view the phone as a device for “non-school stuff”, particularly for communication and social media. Such a view is reinforced when students in some classes will be allowed to bring out their laptop but not their phone. In most cases, the phone is seen as a distraction rather than an affordance, and a tool that serves a primarily relational and recreational purpose. It is this perception that convinces Nino at the start of the study that he does not need a phone. “I'm not that important. No one will call me.” A phone is necessary to be able to do Snapchat and Instagram, and its size and mobility make it easy for students to access these social media platforms in multiple spaces. Nancy who is always on Facebook says she spends 15 hours a day—all her waking hours—on her phone. The phone becomes an
extension of herself, and the only time she mentions she uses her phone not for social media is when she searches for words on Google Translate. This appears to be consistent with all the other students who say they would use their phones either to find a definition or a translation of a word they are not familiar with. Apps that they would download particularly for this purpose are Merriam-Webster Dictionary and Google Translate. For Kris who enjoys reading manga, the phone is his preferred device for reading, "Because I can read everywhere with my cellphone." While he enjoys watching videos on his laptop so that he can see things more clearly, the mobility that phones provide is what makes reading through this device more enjoyable for him.

What the abovementioned data on the uses of laptops, tablets, and phones demonstrates is that the materiality of devices, their cultures-of-use, and users' dispositions towards technology are greatly intertwined. The differences in screen size, technical components, portability, and haptic features of these devices offer contrasting affordances in terms of content visibility (i.e. the amount of information that fits into the 15" screen of a laptop vs. the 5" screen of a phone), the movement of information (e.g. being able to drag and drop with a laptop trackpad vs. the multi-step cut and paste function of a phone), or the typing process (e.g. tapping on the physical keyboard of a laptop vs. pressing the touch screen keypad of a phone). While the features and corresponding affordances of laptops and phones can differ, most everyday functions that these devices serve such as searching for information on a browser or typing a document remain similar. The material differences however do shape perceptions of the purpose of these tools, generating “preferred and dispreferred uses” (Thorne, 2013, p. 199), which in turn sediment into cultures-of-use. These norms and conventions shape dispositions towards specific devices in mutually constitutive ways.
Apart from the material differences of devices, personal histories of use can also shape the way learners perceive their devices. Data from the study for instance show that the transnational experiences of the learners underscore the position of the phone as a tool primarily for communication. Whether it’s to communicate with a parent who works abroad through texting, or to maintain ties with family and friends back in their home country through social media, much value is placed on the phone as a means to negotiate distant relationships, and their historical experiences with this tool shape the culture-of-use around it.

**CASE C. ERIC**

**Eric, 14, Gr. 9, Saint Gabriel**

Although Eric’s mom came to Canada through the skilled worker program in 2008, Eric did not immigrate until eight years later when he was 13 and would have been old enough to stay at home without adult supervision. His parents separated when he was three, and he lived in Olongapo City with his two older siblings and a household helper. He used to go to a private school in the Philippines, and to help him with his studies, his mother hired a tutor that would help him with his schoolwork every day (his father did not appear to have an active role in his life.) A former instructor at a nursing college, his mother works as a nurse at a dialysis unit in Vancouver. During the eight years they were apart, Eric’s mother would fly to visit him and his siblings every year, either Christmas or some other holiday. She maintained communication with them by making long-distance phone calls every month. Now that he lives in Vancouver, he calls his dad in the Philippines during birthdays and special holidays, also long-distance. Asked why
he wouldn’t call using FaceTime or Skype, he said, “Mas prefer po naming nag-uusap talaga (We prefer that we really talk.)”

Ron: Anong difference noon, yung pagtawag sa phone at saka yung Facetime or Skype? (What’s the difference between talking on the phone and using Facetime or Skype?)

Eric: Parang mas nakakagana po magkausap. (It’s like more stimulating for conversation)

Ron: Pag phone? (Using the phone?)

Eric: Opo. (Yes)

Ron: Do you know why?

Eric: Live po kami nag-uusap. Naririnig ko po yung voice niya. (We’re speaking live. I could hear his voice)

Ron: Pero kunyari, Facetime, live din naman yun diba? (But Facetime, for instance, that’s also live, isn’t it?)

Eric: Opo. (Yes.)

Ron: At saka naririnig din naman yung voice niya, di ba? (And you can hear his voice too, right?)

Eric: Opo. (Yes.)

Ron: Pero ano yung difference noon? (But what’s the difference?)

Eric: Mas feel mo mas close po sa kaniya. (I feel I’m closer to him.)

In this situation, the years he spent talking to his mother on the phone develops a culture-of-use where voice phone calls for him take on a certain authenticity and intimacy (“I’m closer to him”). Even if video calls would allow him to see his father, it is through
voice calls that he feels more connected (“more stimulating”/”speaking live”) and that they could “really talk” (italics added). It is possible that this arrangement persists also because the father is not familiar with using digital devices. Nonetheless, the personal significance that Eric attaches to the phone extends to his concept of maintaining relations with his peers.

Pag may cellphone ka po kasi, kahit nasaan ka, kahit anong oras, nakakausap mo po sila, kahit nasaan sila. Hindi na po kailangan humarap sa kanila. (Because when you have a cellphone, wherever you are, whatever time, you can talk to them, wherever they may be. There’s no need to be with them face to face.)

Eric recognizes the advantage of the phone’s portability, and its ability to compress time and space. At the same time, he develops this culture-of-use where he prefers hearing his interlocutors rather than seeing them, constraining opportunities for him to develop the skills of decoding meaning from other multimodal signs like gesture and facial expressions, which are important components of face-to-face interactions. It is not surprising that Eric compared to the two other boys from Saint Gabriel is the quieter one, and Carol at one point mentions how Eric rarely initiates conversation. His aversion to Skype reflects his own hesitation to speak in face-to-face interactions. In this case, the material device, a phone, is able to assert the power to shape not only a specific practice i.e. doing voice calls, but also the meanings and value that he attaches to specific modalities i.e. voice, and the ways in which he negotiates his relations with others.

**Summary.** Transnational family communication plays an important role in immigrant families’ adopting and appropriating technology. It serves as a motivating factor for
purchasing and introducing technologies at home, enabling “virtual intimacy” (Gonzales & Katz, 2016, p. 2691), emotional support, and transnational caregiving. In a study of internet usage in the Philippines, Labucay (2014) reports that internet usage rate is twice as high among households with family members working abroad compared to those without. For these transnational families, technology serves a primarily communicative purpose. It provides an immediate and cost-efficient way to maintain social ties with relatives and friends in their country of origin.

The findings in this section show how the learners position devices in different ways, developing certain cultures-of-use around them. Laptops and desktops are seen as serving primarily informational or educational purposes. While some use tablets to do school requirements, they are more popularly viewed as serving recreational purposes. Phones are valued as tools for relational purposes: for communicating with family and friends through social media platforms, calls and SMS. These cultures-of-use surrounding different devices are similarly reflected in Rideout and Katz’s (2016) study of lower-income families where specific purposes were attached to specific devices. Families purchased phones to stay in touch with friends and family while they purchased desktops and laptops for their child’s education. While tablets were also recognized for their educational purpose, a great number also expressed how it was intended for entertainment. The challenge with these specific purposes being attached to devices is that not all learners, as we have seen, would have the same level of digital access. If a student from a lower-income household perceives laptops or desktops as educational devices but has no access or limited access to them, then the opportunities for this student to engage in more exploratory practices and to consume knowledge online would be significantly limited.
CHAPTER CONCLUSION. The findings in this chapter demonstrate how the identities of these learners as transnationals shape the ways in which they invest in different digital practices. Being able to communicate with each other across geographical boundaries is a significant motivation for the adoption of technology, and one that shapes all other digital practices. While they share a transnational experience, the differences of their social positions however shape the material and social contexts of their homes, providing different levels of access to devices and spaces in which digital practices take place. Because of these differences, learners can develop contrasting dispositions towards technology or ways of perceiving its fundamental value, positioning it as serving either informational, recreational or relational purposes. At the same time, different purposes can be attached to specific devices, constructing cultures-of-use that in turn shape the digital practices of learners.

6.0 INVESTING IN DIGITAL LITERACY PRACTICES

While Chapter 5 focused on identity, and used economic capital as a means to understand the material conditions and histories of the learners, Chapters 6 and 7 focuses on the role of capital in the ways learners invest in specific digital practices. Rather than provide an essentializing portrait of the digital practices of youth, the objective of this chapter is to demonstrate how youth of different social class positions negotiate social and cultural capital in ways that shape their investment in diverse practices. It contextualizes these practices within the broader social and cultural terrain, and demonstrates how differential access to resources shapes students’ opportunities to expand their social networks and acquire legitimate knowledge. In this sense, the capital they possess not only enables them to invest in digital practices, but these digital
practices in turn provide opportunities to gain new forms of capital (DiMaggio & Hargittai, 2001; Hargittai & Hinnant, 2008; Zillien & Hargittai, 2009). How certain digital practices both require and help acquire social and cultural capital is the subject of the following sections.

6.1 Sociality online and the negotiation of social capital

The relational purpose of technology has always been a significant motivation for people, driven by a desire to associate with or interact with others. For Ito and others (2010), “hanging out” is an essential component of the digital practices of youth, and for Filipinos, sociality appears to be of prime importance. In We Are Social’s (2018) Digital Report, the Philippines for the third year in a row is the country that spends the most time on social media, with the average user spending almost four hours a day, compared to Canada’s one hour and 48 minutes. It is the second country in the world, after Thailand, in terms of time spent per day on the internet at 9 hours and 29 minutes, compared to Canada’s six hours. This pattern can be attributed to a number of factors. Filipino culture is often regarded as highly sociable, and friendships are maintained through constant communication. Because of heavy traffic in many major cities in the Philippines, people spend hours on various modes of public transportation, and pass the time by engaging with various social media platforms. Messaging online is cheaper than making voice calls or texting, and because the internet in the Philippines is also extremely slow compared to that of other countries, more time is spent online waiting for items to download or buffer. In any case, this high degree of sociability that is often associated with Filipino culture is reflected in Jordan who expresses this distinct need to socialize when he talks about playing games. “Ayoko kasing maglaro ng mag-isa lang
ako. Gusto ko kasama ko lang kaibigan ko maglaro. (I don’t want to play alone. What I want is to be with my friends when I play.)” Kris confirms this preference by saying that playing games offline is boring. Even if one plays against a computer, there is greater satisfaction that comes from engaging with other people online.

**Cultures-of-use.** As learners use social networking sites for their own purposes, different cultures-of-use emerge from these practices. In explaining why she has more friends on Facebook than Snapchat, Annie shares what she believes are acceptable norms in friending people on Facebook.

Annie: Because some people, whenever they see someone, like the person who added you is a mutual friend of yours, so some people would go, oh, I should add this person, because he’s the friend of my friend, so yeah.

Ron: Ah, ok. So even if you’ve never met that person, that person could add you?

Annie: Yeah.

Ron: And you’d accept that?

Annie: Yeah, because I see my friend is a mutual friend of that person.

Ron: How about you, do you ever add mutual friends?

Annie: No.

Ron: Why not?

Annie: Maybe it’s kinda weird. Baka po pagkakamalan kang stalker sometimes (Sometimes, they might think you’re a stalker).
Interestingly, while Annie believes it is suitable for her to accept friend requests from strangers with whom she has a mutual friend, she would not add strangers herself for fear of being positioned as a “stalker”. What becomes apparent is that for many of these students, having a lot of friends on Facebook provides symbolic capital, allowing them to position themselves as popular or well-connected. In a group discussion in James MacMillan, the students unanimously agreed that while they do “meet” people on Facebook—friends of friends who have added them and with whom they may chat with online—these were people whom they would not meet face-to-face. In the same vein, some shared that their Twitter account is mostly for following celebrities whom they had interest in but would have no opportunity to meet in real life. In both cases, the practices of friending and following in these social platforms can provide social capital that remains limited to the online world.

While users may have the freedom to choose who to friend or follow, the architectures of social networking sites like Facebook program sociality in different ways, constructing certain cultures-of-use around them. Embedded in sociotechnical structures are ideologies that structure the practices surrounding these platforms. Facebook profiles, for instance, highlight the number of friends that one has, and this feature, together with the system of generating likes, supports Facebook’s objective of attracting more people into their system and for these people to continue to participate actively within its ecosystem to generate sellable data. This system in turn shapes an ideology that promotes the value of having a great number of friends. When asked how many friends or followers they have on the different social media platforms, almost all students could immediately reply with an exact number. This way of thinking is embedded in Penny’s statement where she explains why she adds people she doesn’t necessarily know on
Facebook. “Cause you want to have a lot of friends. Because if you have a lot of friends, you double up the likers, right?” This quantification of sociality shapes the practice of adding people whom she does not know in real life, to acquire the symbolic capital of having hundreds of friends.

While it appears some students would add people they don’t know on Facebook, it is quite the opposite on Snapchat, where they only add their real friends. This culture-of-use around Snapchat can be attributed to the fact that on this platform, conversations (“chats”) are usually initiated by users sharing more personal pictures (“snaps”) of themselves or other friends. Exchanges occur more synchronously, as the snaps disappear after 24 hours, and users receive notifications not only when a message has been delivered, but even while friends are in the process of writing their replies. Facebook, in contrast, allows people to post a wider variety of texts, including links to articles or videos that the users did not necessarily produce themselves, and can hence be shared with a wider audience, with exchanges occurring more asynchronously. For Penny, the measure of success on Snapchat is the number of views of her stories or posts and the number of people she has streaks with. Maintaining a “streak” is a practice in Snapchat that has become popular with youth, where users send direct snaps back and forth with a friend for consecutive days. Users with long streaks like Chrissie who says she has a record streak of 560 are rewarded with special emojis like the 100 emoji for streaks that last 100 days, and a mountain emoji for streaks that lasts even longer. Penny demonstrates how she begins a streak with someone by taking a picture and drawing an S on it (Figure 6.1) then sending it. To maintain a streak, both users need to snap each other within 24 hours.
Figure 6.1 Penny demonstrates how one begins a streak on Snapchat

By gamifying the exchange between users, the platform ensures that people continue interacting with another. It contributes to a culture-of-use among youth where streaks become both a means to nurture friendships between people and a proof of long-term friendships, and the length of a streak becomes a measure of intimacy or closeness. Because the exchange must involve snaps and must occur before they expire, the streak also promotes more communication through images rather than words, and there is a certain urgency to respond. While talking about streaks in a group discussion at Saint Gabriel, differences in cultures-of-use between myself and students also emerged. When Chrissie explained how streaks worked, I said, “So is it the equivalent of a thread?” and the students stared at me blankly. I ask if they ever used the word “thread” and they said no, and when I explained that it was a term for email exchanges, Chrissie
said, “Oh, I’ve heard that before”, although it became quite apparent that the vocabulary that accompanied our different practices also varied across cultures-of-use.

For Annie, Snapchat is particularly useful for expressing different emotions. “Yung Snapchat po, doon mo malalabas yung feeling niyo po... mas maganda po yung Snapchat kasi mas masentimiyento. (With Snapchat, that’s where you can let your feelings flow... Snapchat is better because it’s more expressive.)” She explains that the filters in Snapchat allow her selfies to display what she feels. “Parang for example po, sad po kayo, may filter po na sad po doon. (Like for example, when you’re sad, there’s a sad filter there.)” Asked how using filters is different from using emoticons, she says “Pero sa mukha mo talaga malalabas yung [feelings] po. (But it’s when it’s on your face that you can really show your [feelings].)” This articulation highlights several aspects regarding the power of social media for self-representation. In this case, not only does the semantic resource of the filter provide multiple opportunities for personal expression, but the superimposition of the filter on the face serves as a fusion of the digital and the physical—a hybrid self-representation that is even regarded as a more authentic expression of self (“you can really show your feelings”) (emphasis added). The sociotechnical structures of the platform fulfills the expressive intention of the user, but by selecting from a finite set of filters that Snapchat offers, the user is hailed into occupying predetermined identities, the range of which is determined by ideological understandings of what constitutes “popular” emotions.

**Online/offline.** While the sociotechnical structures of platforms play a significant role in shaping different cultures-of-use around them, there are other factors at work that shape the conditions of sociality, enabling or limiting the growth of one’s social network. To a
certain extent, the networks students have on social media mirror the networks they have in their offline world. While almost all participants say that the majority of their friends on these platforms are Filipinos both in Vancouver and the Philippines, they also consistently observe differences in the popularity of these platforms in the Philippines and in Canada. Nancy who spends most of her time checking Facebook, says

Yung mga friends ko dito hindo po sila ata ano sa Facebook. Sa ano lang sila – Instagram pero yung mga sa Pilipinas po, mga Facebook po. (My friends here, I don’t really think they’re into Facebook. They’re more into Instagram, but those from the Philippines are more into Facebook.)

Freya echoes this distinction. Asked how she distinguishes the use of her top three social media apps, she says

Freya: Facebook—to check what my friends or family in the Philippines do because they use mostly Facebook. Instagram—mostly just pictures, my friends or family or celebrities. Snapchat—friends only.

Ron: So Snapchat for friends where?
Freya: Mostly here because my friends in the Philippines don’t really use it.

Freya says she is not able to interact with very many friends from the Philippines on Instagram because of the difference in time zones. Because her friends in the Philippines would be posting when she would be asleep, their posts would already be buried in the feed when she does get to check Instagram. The popularity of Facebook in the Philippines can also be attributed to the fact that telecommunication service
providers in this country often offer “free” Facebook usage to pre-paid subscribers who are on a more limited budget. In this scheme, users are able to access Facebook without consuming data although what they see is restricted to plain text, and photos and videos only appear if they consent to use data. Free access thus serves as a marketing tool to entice lower-income customers to pay for more data, and because Instagram is designed primarily for the sharing of photos, free access is never offered for this particular platform.

This difference in platform preferences in the Philippines and Canada is corroborated by We Are Social’s (2018) Digital Report that shows the penetration of Facebook in the Philippines at 63% of the population compared to Instagram’s 9%, which is less than a third of Instagram’s penetration in Canada at 30%. Originally launched only for iPhone users, Instagram is often perceived as a middle or upper class platform, where Instagrammers publish photographs of luxury products, holidays, landscapes and exclusive dining experiences (Abidin, 2014). According to the Pew Research Center (2018), almost 40% of those in the US who earn an annual income of $75000 are on Instagram, compared to only 20% of those from the lowest income bracket earning less than $30000 a year. In a study of social media inequality, Indaco & Manovich (2016) point out how wealthier neighbourhoods appear most frequently on Instagram while lower-income neighbourhoods are not considered worthwhile and photogenic, constructing modes of exclusion on social media in terms of class-inscribed representations. Penny recognizes that there are images that are considered more “Instagrammable” than others. “On Instagram, I always post pictures that are more high quality. Because, yeah, you want your feed to be beautiful, right?” She shows the pictures on her Instagram account (Figure 6.1), which has photos of beautiful
landscapes and artistic shots of leaves and sunsets. In a focus group discussion in James Macmillan, the students unanimously agree that Instagram is “sosyal (posh)” and that it was a platform for posting beautiful views, food, or OOTDs (outfit of the day). The aesthetic value of posts is of particular importance to Annie who says she would only keep people on Snapchat if they have beautiful “stories”, which are posts that are shared with all of those on one’s friends list. Asked what would make a story beautiful, she says “views ng parang scenes po, like mountains (views like nice scenery, like mountains.)” She says she would block people whose stories are not beautiful enough, and who send bad “snaps”. Asked what constitutes a bad snap, she says “yung parang may ginanagawa po silang pangit (like when they’re doing something ugly.)” When I ask her for an example, she hesitates and says she could not talk about it, because it is “bawal (off limits)” and I drop my line of questioning.
What becomes apparent in the discussions is that to be able to participate meaningfully in Instagram, users need to have access to material and spatial resources that meet certain aesthetic standards. By using Instagram, Penny develops a digital taste (North, Snyder, & Bulfin, 2008) that reflects more middle class aesthetics, and creates a portfolio of pictures that would be considered cultural capital online. Because Instagram posts are by default accessible to the public unless the user changes the privacy settings, she also creates more opportunities to gain social capital by meeting new people who appreciate a similar aesthetic. Although certain algorithms on Facebook can at times allow posts to be shown to friends of friends or even made public, Facebook posts are private by default, and can only be shown to those on their friend list.

Carol talks about the dynamics of meeting new people on Instagram.

Like for example, when you post a selfie, and they say, you’re so pretty. And you say thank you. And if you want to know the person better who complimented you right? I guess that’s how everything starts.

She says she proceeds to comment back, and they may message each other privately. Because the profile would indicate the location of the user, she would know if the person was local or not. After chatting, they may do a video call on Oovoo or Facebook Messenger. Asked what would make her choose to befriend a stranger on Instagram, she says

It’s when you have a lot in common. And if you have like, things that you do
together, like things that interest in each other, I guess we both like a TV show, then we’ll talk about our likes and dislikes about that TV show.

In this case, having similar tastes or cultural capital is what facilitates the development of new friendships. The youth are able to recognize the social location of the other, and deem if he or she is worth befriending. What these examples illustrate is how the cultures-of-use surrounding these social media platforms can either expand or limit students’ social networks. Those who are more active on Facebook are more likely to maintain relations with those in the Philippines, while those who are on Instagram have greater opportunities to grow their local network in Vancouver, and develop digital tastes that would be considered cultural capital by more middle class users in their country of settlement. The architecture of Instagram encourages users to design their pictures by cropping or adjusting contrasts or saturation levels, enabling them to develop a wider repertoire for expressing different moods and intentions. In contrast, Facebook, which has limited editing affordances but allows users to store entire albums of pictures, serves more as a repository of both created and borrowed content rather than a design tool that showcases artistic representations.

This form of digital segregation in social media was observed by boyd (2012) who did a study of middle class teens in charter schools and poorer students in traditional schools in Boston. In examining their social media practices, she discovered how middle class students became early adopters of Facebook because they perceived it as “cool” and “more exclusive”, while poorer students remained in MySpace. Facebook began as a Harvard-only social network before it started expanding to Ivy League schools, and eventually to other universities and colleges. Positioned then as an elite social network
site, it became known to middle class high school students who would have ties with people in university. On the other hand, MySpace, which initially attracted hip-hop and indie rock enthusiasts, eventually became positioned as “ghetto” by users of Facebook. In another study of the two platforms, (Hargittai, 2012) traces this digital segregation to race and ethnicity. Based on quantitative data, this researcher observed how white students were more likely to use Facebook, while Hispanic students preferred MySpace. While these preferences may have changed in time, what these data reflect is how online communities can mirror people’s social networks in the real world, and while the popular discourse of social media has highlighted its capacity to connect diverse people from all over the world, real life constraints are reflected in online behaviour, limiting the possibilities of students from specific backgrounds to interact with those who are not like them. While boyd’s and Hargittai’s studies examine racial and class differences in social media usage in one country, the findings of this dissertation consider transnational differences, understanding how immigrant students negotiate new social ties within a country of settlement, and maintain old ones from a country of origin. How immigrant students of different class positions maintain their social media preferences or invest in new ones has implications for how they are able to expand their cultural and social capital in their new local community.

Modes of exclusion. Chrissie whose friends are predominantly local says she hardly uses Facebook, and that the platforms most popular with her and her friends, are Snapchat, Instagram, and iMessage. Curious about the third choice, I asked her if this meant most of her friends have iPhones, and she said yes. If someone didn’t have an iPhone, she says the group conversation would be moved to Instagram or Messenger. What this demonstrates is that while personal preferences or time zone differences can
matter in social media practices, access to specific devices can also determine inclusion in some social spaces. Carmela also demonstrates how differences in internet speeds can cause friction in relationships. She shares what it would be like chatting with her friends in the Philippines where the internet is much slower than in Canada.

Like for example my friend and I are chatting and then I'll get bored because she's so slow when returning the message and then I'll get bored and I'll just get distracted by other things and then I'll forget that we're chatting and then she'll just get angry at me for not replying back but because she's so slow at replying… They'll be like "Oh, you reply so slow too. That's why." And then I'll be like "No, you reply so slow. That's why." And then we'll get angry at each other.

The Philippines has been identified as being in the bottom rung when it comes to internet connection speed, which averages at 15.2 mbps, compared to the worldwide average of 40.7 and Canada’s 69.6 (We Are Social, 2018). In this case, the quality of the connectivity affects the dynamics of the online interaction, causing friction between those with access to high internet speeds and those without such access. While 66% of middle to upper classes in the Philippines are internet users, only 35% of the “poor class” and 18% of “very poor class” have access to the internet. Forty-one percent of urban dwellers use the internet, while only 22% of those from rural areas would have such access (Labucay, 2014). While these numbers may have changed in the past four years, they demonstrate the significant gap between urban and rural digital access, which has implications for how participants are able to maintain transnational ties with friends and family in the Philippines. Ninety-five percent of mobile connections in the Philippines are pre-paid (We Are Social, 2018), and so if a lower-income user is not able to top up
regularly then he or she may not be able to receive or reply to messages on social media.

Apart from social media platforms, exclusion because of access to devices and connectivity also happens when it comes to playing games. Annie talks about how she doesn’t play Mobile Legends with her friends in the Philippines because the majority of them wouldn’t have a touch screen phone. Asked why she wouldn’t play the game with friends who did have a touch screen phone, she said, “No, kasi po like in the Philippines po, wala po masyadong wifi. (No, because like in the Philippines, there’s not much wifi.)” While she means that her friends in the Philippines have intermittent connectivity, I ask her what would happen if they do have wifi but it is not fast enough. She says, “Your game is gonna be, like matatalo ka po (you would lose). It’s gonna be like hanging a lot.”

Differences in access to other accessories can also shape interactions online. Eric who does not have a phone nor a headset has to type on the keyboard to communicate strategies to his friends when they play League of Legends. He says if he could talk to them rather than type, he would be able to play a better game because he could multitask better. On a more macro level, the segregation of gamers also occurs more systematically based on their geographical location. League of Legends, for instance, uses multiple servers around the world, and divides users into more than ten zones to address network latency issues and “to avoid language barrier issues” (League of Legends Wiki, 2018). There are no servers in Africa, which puts players from this continent at a disadvantage because they would not be able to match the buffering speed of those players who live in the countries where the servers are located.
Summary. Findings show how the participants maintain, expand, and limit their peer networks through social networking and gaming platforms. While these platforms are available to everyone, their popularity, adoption, and cultures-of-use vary across different groups of young users. Filipino students like Nancy who maintain a sense of affinity with the Philippines and continue to nurture ties with family and friends from her home country would be more immersed in Facebook. Those like Carmela and Freya who have been able to expand their local peer networks to include non-Filipinos may find themselves using Instagram more frequently, where more local Canadian youth would connect. Studies of social networking sites have suggested that they primarily support pre-existing social relations (boyd & Ellison, 2008), and on Facebook, users solidify offline connections and socialize with friends who would otherwise not be able to connect through unmediated situations (Ellison, Steinfield, & Lampe, 2007). The culture-of-use that has developed around this platform can be attributed to its default privacy settings that restrict the viewing of a user’s post to his or her list of friends. Instagram, on the other hand, because its settings default into public access, provides more opportunities for young users like Carol to meet new people and expand their networks. At the same time, posting on Instagram requires access to spatial and material resources, and the knowledge of a certain aesthetic that would make a photo “Instagrammable.” Users who may not have the semiotic resources to produce such results may not be able to participate in the same way as those who do. While everyone can join these social networking sites and gaming platforms, their access to other technical resources such as internet speeds or accessories can shape the dynamics of their interactions, and construct modes of exclusion. In this sense, the economic and cultural capital they possess shapes both their capacity for meaningful participation in
these spaces and their investment in specific digital practices—practices that in turn can help them acquire new social capital.

6.2 Cultural capital and the consumption of knowledge online

While certain digital practices can both require and help acquire social capital, the same reciprocity applies to cultural capital. For learners to invest in digital practices that allow them to consume legitimate knowledge, they will need diverse resources to help them navigate online spaces. In her seminal work, *Ways with Words*, Heath (1983) asserts that we need “to provide descriptions of the ways different social groups ‘take’ knowledge from the environment” (p. 74). These ways of taking can be understood in terms of types of literacy events like looking things up in books where children are able to make sense of the meanings embedded in these books and relate their content to knowledge about the real world. Through modeling and specific instruction, school-oriented parents provide their children with ways of taking from books, which seem natural in school and in other institutional settings. This section examines ways that participants from different social locations “take” knowledge from their online and offline environments and thus acquire cultural capital that is valued in educational settings. Apart from their different ways of taking, it also examines the ways they are able to validate this information and determine the legitimacy of the knowledge they find online.

**CASE D. JIMMY**

**Jimmy, 13, Gr. 8, James MacMillan**

Jimmy immigrated to Canada with his older brother in 2015 from a rural part of the Philippines where he studied in a public school. His mother is a cleaner, and his
stepfather is a custodian at a casino and a warehouse. His biological father died when Jimmy was barely a year old. Jimmy has a one-year old half-brother at home whom he takes care of when his parents are at work. At home, his family has a shared laptop, and everyone, except for his younger brother, has a mobile phone. He says he almost never uses the laptop, and only uses it when his cellphone has run out of battery. His mother uses the computer only to watch movies on YouTube, and uses her cellphone to do Facebook and to Skype with family and friends in the Philippines. With his parents always at work, Jimmy does his assignments without any supervision. Jimmy says that his lowest grades are in Science. Asked why he’s not doing well, he says “Parang di ko mamemorize yung mga pag nagrereview ako. Nakalimutan ko. (It’s like I can’t memorize things when I review. I forget them.) His Math teacher also shares that Jimmy is not performing well in her subject area, and may need a tutor or to go to a Kumon centre, although she is not sure if his parents could afford these services.

“Ways of taking” from online spaces. While different cultures-of-use can evolve around different kinds of devices, online platforms can be positioned differently by learners as well. For some students, YouTube clearly serves an informational or educational purpose. Annie describes how she learned to make a presentation using PowerPoint by watching videos on YouTube. Asked what YouTube is useful for, she replies, “For example po, di mo po alam kung paano po gawain yung mga ganyan, like yung iba po may nagawang kakaiba, so like po, I search for it, like how to do that kind of thing po, then ayun po, it will show me how. (For example, if you don’t know how to do things, like some who have done something really unique, so like I search for it, like how to do that kind of thing, then presto, it will show me how.)” Carmela also says that she accesses YouTube for her studies. “If I don’t get how my teacher taught us, I’ll look for a
video that teaches it.” Jimmy, on the other hand, has a different view of what purpose this platform serves. He shares how he and his friends, if they’re not playing basketball, would hang out at school after class, sit around and watch funny YouTube videos on their phones. I asked him if he ever uses YouTube for school, and he gives me an incredulous look.

Jimmy: Ano naman po ang gagawin ko doon? (What could I possibly do there?)
Ron: Hindi ba yon nagagamit sa pag-aaral? (It’s not useful for studying?)
Jimmy: Hindi naman po. (Not at all.)

What we see here is a stark contrast in terms of how one platform is positioned by different users. While Annie and Carmela recognize the informational value of YouTube, Jimmy positions it as a purely recreational tool. In the following section, Jimmy is compared to middle class students Eric and Kris, who have demonstrated a primarily informational disposition towards technology and greater autonomy of use.

**Eric.** At home, Eric’s mother and stepfather who are nurses use technology for both entertainment and research. When they were preparing for their dialysis license exam, they would use their laptop regularly to review and research information online. When it comes to figuring things out on the computer, Eric feels confident that his parents would be able to help him, although he says he would rather learn things on his own. “Pwede naman po ako magtanong, pero preferred ko po na hindi. Mas sanay po ako na nagdi-deal sa sarili ko pong problems na lang po. (I can ask them although I prefer not to. I’m more used to dealing with problems on my own.) He says he learned how to use iMovie,
for instance, by watching tutorials on YouTube. He demonstrates how he searches for useful videos by entering “iMovie tutorials” into the search bar of YouTube (Figure 6.3).

![Figure 6.3 Search results on Eric’s laptop when he enters “iMovie tutorials”](image)

A number of videos appear on the search results, and Eric explains below which one from the list he would choose to watch (Note: “po” is an honorific form in Tagalog to convey respect for elders).

Eric: The first one po.

Ron: Why the first one?

Eric: Yung may most views and longest length po. (The one with the most views and longest length.)

Ron: Why the longest?

Eric: In depth po.

Ron: Why would you choose the one with most views?
Eric: Yun yung parang bago po na madaming nakanood. (It would be the one that's new and popular.)

What Eric reveals here is knowledge of how YouTube’s algorithms arrange the video results, from the one with the most to the least views. He checks the length of the video to decide which would provide him more insight, rather than choosing the short ones. Eric also appears to know about the credibility of sources, and says that he would rather search for information on Google Scholar than on Wikipedia. Asked to explain this preference, he says

Eric: Kapag nagsearch ka, yung mga ano, walang Wikipedia. Yung mga researches talaga (When you search for stuff, it shouldn’t include Wikipedia. You should look at actual research.)

Ron: Bakit (Why), what’s wrong with Wikipedia?

Eric: Editable po yung nakalagay doon, by ibang people… Kasi po, pag naghanap ka, taps, inedit ng iba, taps no hindi pala iyong hahanap mo. (Because what’s in there is editable… Because if you search, and then others have edited it, then it might not be what you’re looking for.)

Eric is aware of not only what constitutes legitimate research but also how Google Scholar is the appropriate platform to locate such information. He understands the genre of Wikipedia as a crowdsourced platform and its potential pitfalls. While the claim that Wikipedia is not a reliable source requires further discussion, what becomes clear here is Eric’s ability to navigate and “take from” the online environment, recognizing the different online genres that serve as sources of knowledge. With his parents role
modeling the practice of researching information online and his sense of learner autonomy, he is able to invest in ways of taking from online environments that allow him to discover useful information.

**Kris.** In his journal, Kris acknowledges how the internet can be a source of knowledge.

Sometimes reading is fun and I enjoy reading with fantasy stuff and something cool. And if I don’t know what’s the meaning of the word I research it in the internet. I'm always reading in the social media and if I read something challenging, the devices help to learn new words.

Kris acknowledges that all the information he needs is online, and has developed the habit of searching for the definition of words on Google. Apart from being able to download manga stories and read them off his phone, he also understands that consuming social media is a form of reading ("I'm always reading in the social media"), and that his devices serve this informational purpose. With regard to locating information, Kris knows how to enter the right key words in Google to find the page that he is looking for. For example, to find the link for the Virtual Museum of New France in the Canadian Museum of History website (historymuseum.ca), he enters the key words “virtual museum” and “social groups” and the link to the page he needs appears at the top of the search results. His assignment is available on Google Drive, and because he is already online when he accesses it, he looks for the answers on the internet, rather than in his books. By accessing his Science textbook online, he is able to search for topics much faster within the book. He shows the assignment he has for Science 9 on
ion charges (see Figure 6.4), which instructs him to write the names and formulas of ionic compounds.

![Figure 6.4 Kris’ Science 9 assignment](image)

Kris goes to Google and enters the topic listed on top of the worksheet, “one common ion charge” in the search field. At the top of the search results is a link to a PDF from endersscience.weebly.com, which is a tutorial site called Ms. Enders’ Science Website. This site has been designed particularly to help students with the prescribed Grade 9 Science textbook. Having developed the habit of clicking the first item on the search results, Kris clicks on this link that leads him to a PDF, which actually contains all the answers to the worksheet (Figure 6.5).
When Kris’ teacher sends assignments to his email, he is able to get a notification on his phone. Because assignments are sent and submitted through Google Drive, he is able to stay on task regardless of what device he is using because all the files are synced. “It’s like I use this (my laptop), like do my homework in class, or save my assignment and then I could edit it on my desktop.” Not only does Kris continually have access to devices, he is able to move seamlessly across these devices to consume and produce knowledge.

Jimmy. While Kris usually searches on Google for definitions of words he’s not familiar with, Jimmy usually turns to Google Translate. For instance, when he was studying science and did not understand what “immune” meant, he took his phone, entered the word in the app and asked it to translate into Filipino. What appeared in the blue box for the translated word however was still “immune” (Figure 6.6). The absence of a proper
translation for “immune” is most likely because there may be insufficient translation corpora to base Filipino translations on. In contrast, translations from or into European languages are more complete and accurate because the European Parliament translates their proceedings into 21 languages, providing a corpus that helps build translation systems such as Google Translate. When Jimmy sees that there is no translation into Filipino, he does not attempt to find other ways to search for the meaning of the word. Fixated on the blue box that provides the translation, he overlooks that below the box are “alternative translations” in Filipino, and scrolling down further would also have led him to English definitions of immune.

![Google Translate app layout](image1)

![Google Translate website layout](image2)

**Figure 6.6** (left) Mobile phone layout of the Google Translate app and (right) laptop browser layout of the Google Translate page

In this case, the layout of the mobile phone app causes him to focus on one particular area, the blue box, and discourages him from looking elsewhere for other information. In
contrast, the web browser layout where the box for the translation is a light gray, could have led him to the other pieces of information. Because of the affordances of the wider screen, the English definitions and the alternative translations appear more prominently. In this case, the platform’s sociotechnical structures that are arranged in the material space of the screen have the power to direct attention and line of sight, and shape the process of locating information, or the way of taking from this online environment.

Jimmy’s Math teacher says that he is weak in Math, and struggles not only with the differences in the way Math is taught in the Philippines and in BC, but also with his English. Remedial classes are recommended, but come with a cost. When Jimmy is doing the review of Chapter 10 on his textbook (Figure 6.7), I ask him to describe how he would answer the exercise that requires him to choose the right word for each blank from a list.

Figure 6.7 Chapter 10 Review from Jimmy’s Math textbook
When Jimmy tries to answer question number two ("A mathematical statement with two expressions that have the same value is called a(n) _____ "), he searches for the answer in Chapter 9, even though the top of the page clearly indicates that this is a review for Chapter 10. After some guidance, he eventually finds Chapter 10.1 Modelling and solving one-step solutions (Figure 6.8). The answer to the question is in the right column marked Literacy Link (Figure 6.9).

Figure 6.8 Full spread of Chapter 10.1 of Jimmy’s Math textbook
1. Draw a graph with Force on the horizontal axis and Distance Stretched on the vertical axis. Plot the values from the table.

2. a) How much more force is added for each trial?
   b) How much greater is the distance stretched each time force is added? Is the difference in the distance stretched the same for each consecutive trial?

3. What is the ratio, \( k \), for the amount of force to the spring distance?

Reflect on Your Findings

4. What is a **linear equation** that models the relationship between force and distance stretched?

5. a) If you use a force of 60 N, what is the distance the spring would stretch?
   b) How did you get your answer?

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**Figure 6.9** The location of the answer (in red box) to question 2 in Jimmy’s Chapter 10 Review.

Because I do not have eyetracking technology, I asked Jimmy to simply trace with his index finger, which part of the book he was reading as he scanned for the answer, and I took down notes while he did so. I recorded the sequence as the following (Figure 6.10).

While this is of course an approximation of how Jimmy reads the full spread from his textbook, what becomes clear is that he does not read the columns that appear on the left and right sides of the textbook, including comments and questions that appear in thought bubbles on the right page of the spread. These unread sections are grayed out in Figure 6.10, while the red arrows trace the areas that Jimmy paid attention to.
Figure 6.10 Notes on the way Jimmy scans the full spread of Chapter 10.1 to search for the answer

The pattern in which Jimmy scans the spread from his textbook seems to follow the F-shaped pattern that Nielsen (2006) and Pernice (2017) attribute to reading content on the web. In this pattern, users read in a horizontal movement across the upper section of the content area, then in a mostly vertical movement on the left side of the content area, usually ignoring the leftmost section where the navigation bar is located, or the right column in which ads are usually placed. In this particular situation, Jimmy missed the answer to the question in the exercise, which was found on the top of the right column in his book. This pattern raises the question of the extent to which online reading practices can shape those offline. If reading strategies for print and web can converge, and Jimmy reads his textbook like his website, he is more likely to miss critical details in the printed text, which has a different layout. Shaped by the sociotechnical structures of digital
platforms, online reading strategies may influence the way learners read print material, potentially obscuring the location of desired information. More research however needs to be undertaken to develop more definitive conclusions regarding this convergence.

**Knowledge of online genres.** Apart from examining the different ways of taking from online environments, the study also examined how learners took information from these online sources and determined their legitimacy. To achieve this, the participants were shown several webpages on an iPad and were asked questions about them. Accessed through the Safari browser, these webpages were chosen because they were either satirical or deceptive, and the objective was to observe the capacity of the learners to use certain linguistic and non-linguistic clues to determine the legitimacy of these webpages, including their knowledge of credible sources. Students were told that they could use the iPad as they pleased; that is, they could scroll down, open new windows, click on links and type in searches if they chose to do so. The cases of Penny and Frank have been chosen to illustrate the differences in how participants evaluated these sites.

**CASES E AND F. PENNY AND FRANK**

**Penny, 16, Gr. 10, William Campbell**

Penny immigrated to Canada with her father and two siblings in 2015 from a rural area of the Philippines, where she studied in a public school. When she was two, her mother left the country to work as a nurse in Saudi Arabia and then Singapore. She moved to Canada four years before, but had to work as a caregiver in Canada because her nursing qualifications were not recognized. Penny’s first language is Ilonggo, and she learned to speak Filipino and English at school. She has her own phone, while the family
shares a laptop, which they use primarily for watching The Filipino Channel (TFC), a
cable subscription company that showcases programs from television networks in the
Philippines. Penny’s family also has a PlayStation 4 at home, and she says her favourite
pastime is playing NBA games. She says she almost never uses the laptop, and would
only do so when she has an important project at school. She uses her phone regularly to
do Facebook and Instagram and to read stories from Wattpad, a site that publishes user-
generated stories in different genres. She reads mostly sci-fi and romance stories in
Filipino, and began this habit in the sixth grade when she was still living in the
Philippines, where Wattpad has become so popular that some stories have been
published in paperback and even adapted into TV drama series. Her friends would share
on Facebook the stories that they were reading, and she would read what they
recommended. When it comes to researching for school assignments, Penny says she
would usually search for information in the online encyclopedia prescribed by the school
and that usually requires a log in. She says her teacher Ms. Flanders discourages them
from using Google because some of the information they would find by searching on
Google is “not really real” or unreliable.

**Frank, 15, Gr. 9, Saint Gabriel**

Frank immigrated to Canada in 2016 from the United Arab Emirates (UAE) where he
lived for six years with his mother who worked as a nurse while his father worked on a
ship. In the UAE, he went to a private school, just as he did when he was still living in
Manila. Through the skilled worker program, his mother immigrated to Canada together
with Frank, his father and two older brothers, with whom he has an age gap of around 12
to 15 years. Frank’s older brother was a Spanish instructor at a prestigious university in
the Philippines, while another studied to become a nurse in an equally prominent
university. Although he does not consider his parents particularly digitally knowledgeable, his much older brothers served as role models in terms of using technology. They taught him how to operate different devices and search for information online. Even when they stayed behind in the Philippines when Frank moved to the UAE, Frank would continue to consult with them online if he had any questions about technology.

Frank says his favourite hobby is reading, and considers himself a “historical and geographical nerd” who always searches for information online. He talks about how he began searching for information on Google when he became interested in discovering the origin of his name, and this allowed him to discover French and German history. He recognizes the importance of cultural capital for interpreting texts, including jokes. Even when referring to 9gag, a site for posting different memes, he explains, “you need to know what they are referencing to get the joke, and everyone else has a different type of referencing point.” As early as five, he would tinker around with his brother’s laptop, and discover different games. When he moved to the UAE at age nine, his parents got a laptop, which he had almost exclusive use of. In Vancouver, he has his own cellphone and iPad, and at school, he is able to borrow a Chromebook when he needs it. Because all the materials and lessons are uploaded on Google Classroom and the learning platform Moodle, he is able to access his schoolwork across all the devices, and move across them with great ease to read and answer assignments and prepare presentations.

In the following section, the different responses of Penny and Frank to questions regarding four different webpages are shared.
Figure 6.11 Article from the satirical website, *The Onion*

**Webpage A** (Figure 6.11). When Penny is asked what she thinks is the purpose of this particular webpage, she says, “If you’re actually really interested about science it may be good to have knowledge about this one, right?... If like people is actually, yeah, interested in satellites and stuffs, then they can actually relate.” Because of the nature of the article, she assumes that *The Onion* is a science website. She talks about the content of the article the way she would fictional stories, that is, if people who were interested in satellites would read it then “they can actually relate.” Asked how she could learn more about this website, she clicks on the menu bar. “I’m going to search it. I’m going to find out what it is all about and stuff. So like this…Oh, there’s a lot actually. Entertainment, science and technology.” What she finds are the other categories that are
available in the satirical website, and she recognizes them as familiar headings and concludes that this site is a source of legitimate information.

In contrast, Frank is quick to recognize how outrageous the story is and identifies the website as a “joke site”. “Sa tingin ko po, nagpa-parody po siya at nagko-comedy… Pang relief po siya at saka entertainment (In my view it’s a parody and comedy site… it’s for [comic] relief and entertainment.) Asked how he knows about this kind of website, he says

Paminsan-minsan po kasi, pag nagsu-school po ako sa YouTube at saka sa Google, may makikita po akong ridiculous headliners po, tapos paminsan-minsan po, tinitingnan ko. Tapos nakikita ko po, comedy o kaya parody siya ng pang mga media (Because sometimes, when I school myself through YouTube and Google, I see these ridiculous headliners, then I check it out. Then I see that it’s a comedy or parody form of media.)

Frank’s reference to “schooling” himself on YouTube and Google is indicative of how he recognizes the educational purposes of these sites. Asked how he is able to learn about these different media platforms, he says “Nakita ko po yung content niya, tapos nireresearch ko po yung brand niya (When I see this content, I research its brand.)” He refers to “The Onion” as a brand, and he demonstrates what he would do to find out more about it. He goes to Google and enters “What is The Onion news all about?” By looking at the search results which indicate it is a satirical website, Frank is able to confirm that the site is a “joke site.” In contrast to Penny who tries to find out more about
The Onion by just searching within the site itself, Frank knows how to go outside the site and check other sources to determine its legitimacy.

![Image from Imgur](image.png)

**Figure 6.12** Deceptive content from the website Imgur

**Webpage B** (Figure 6.12). This particular photograph posted on the image sharing website Imgur is labeled as “Fukushima Nuclear Flowers” with the caption, “Not much more to say, this is what happens when flowers get nuclear birth defects.” It falsely attributes the genetic mutation of daisies to the Fukushima nuclear disaster of 2011, and is posted by someone with a dubious username.

 Asked what the purpose of the post was, Penny says, “Maybe to give knowledge about nuclear defects and stuff. Or nature.” She remembers hearing about Fukushima and says, “This was probably after what happened maybe. Like the effects.” She does not search further to confirm the legitimacy of this claim, and assumes that it is true. Frank,
on the other hand, takes one look at the image and says it is an exaggeration and does not believe it is true. He recognizes Imgur as just a site for photos, GIFs (graphics interchange format) and trending content, and immediately dismisses the claim as dubious. Although he does not recognize the peculiar username under the title, he does continue to search for “Fukushima nuclear flowers” on Google and finds the articles that confirm that the post is fake.

Figure 6.13 Deceptive content on “News 4” website

Webpage C (Figure 6.13). Presented with this story about the HIV virus being injected into bananas, Penny says that she had actually read this before. She assumes this news is real, and says “it’s gonna have a great impact, like on the economy.” Asked what kind of website News4 is, she says “News. Like, national.” Again, her basis for determining the legitimacy of the site is based on what she sees on the page. “I can tell it was news because I can tell about the headline here. From News 4, right? And you can actually tell in here that it’s a news.” In this case, Penny assumes legitimacy because she had
encountered the story in the past. She recognizes genre conventions of news: the headline, the news ticker at the bottom of the image, and the logo. Her way of determining the legitimacy of this page however remains localized, and she does not go beyond the page to verify the information it proffers.

While Frank initially thinks that the story is true, he continues to search on Google for it, the way he did with all the other sites. He enters “hiv bananas to usa from india” and discovers articles by Politifact and Snopes that explain how the story is fake. He explains the thinking behind this process of lateral reading: “Tinitignan ko po kung reliable yun. Open ka ng bagong website, tapos magresearch po ako. Tapos titingnan ko po kung totoo. Eh nakalagay po dito eh, fake news eh. (I see if it’s reliable. You open a new website, then I research. Then I see if it’s true. But what’s written here is that it’s fake news.)”

Realizing that the information is not legitimate, he later explains how he developed the habit of searching for more information about what he reads.

Yung tatay ko po kasi, at saka nanay ko, wala po silang mga technolohiya dati sa kanila. Yung mommy ko naman, marunong po siya, pero hindi yung pang complicated stuff po. Yung dalawa kong kuya, wala po silang time na turuan ako kaya it fell on me na magresearch ng sarili ko. Magself-study po (Because my father and my mother, they didn’t have the same technology when they were younger. My mommy, she knows about these things, but not the complicated stuff. My two older brothers, they don’t have time to teach me that’s why it fell on me to research on my own. To do self-study.)
While he claims a sense of initiative, this disposition has been nurtured by his much older brothers who have served as role models in the use of technology. Even though they were not always physically at home and were often busy, this disposition allowed him to experiment with technology on his own. Having had access to a laptop even at a young age, he developed a learner autonomy that enabled him to develop a more critical approach to his consumption of knowledge online. He explains why doing this research is important to him.

Para I can formulate my own opinion po kaysa sa let the others decide for me. Para malaman ko po talaga kung gusto ko po iyan o hindi, kung masama po o mabuti. (So that I can formulate my own opinion instead of letting others decide for me. So that I would know what I really like or not like, if it’s bad or good.)

Through this critical disposition, evaluating sources of information becomes part of his digital practices. Unlike Penny who limits herself to the local parameters of the text, and to the linguistic and semiotic features of the text in question Frank actively searches for new knowledge on Google, and enters the appropriate words to be able to find useful information. He develops a more “practical sense” of online environments, a communicative competence (Darvin & Norton, 2015) that enables him to navigate online spaces with great fluidity, opening new tabs, recognizing platforms and genres, and discovering legitimate knowledge.

**Summary.** The findings in this section demonstrate how students of different social locations, socialized into digital practices at home, may develop contrasting “ways of
taking” information from online environments. Students like Kris, Eric and Frank who have greater autonomy of use and role models who demonstrate the informational purpose of technology, exhibit competences in discovering and validating knowledge online. In contrast, Jimmy and Penny, who have limited computer use and have not been socialized into more information-oriented digital practices, may have limited repertoires that will allow them to carry out such tasks. These differences point to a knowledge gap, which Bonfadelli (2002) notes has become more severe in the domain of digital media. Because meaningful internet use requires new skill sets such as refined searching strategies (van Deursen & van Diepen, 2013) and critical approaches to evaluating content credibility (Eszter Hargittai, 2010; Menchen-Trevino & Hargittai, 2011), students who do not have access to the relevant resources at home may not be able to invest in competences that will allow them to gain valuable cultural capital, an issue that schools can address through a more refined understanding of these differences. Although the production of knowledge is also important in the process of acquiring cultural capital online, there was not enough data from the study to derive patterns in this area, and neither was it a focus in the interview protocols. Many of the students would talk about writing papers and preparing PowerPoint presentations where they would discuss specific subject area topics. It did not seem however that they have had many opportunities to produce other kinds of media content or present new knowledge about their local environments or lived experiences.

**CHAPTER CONCLUSION.** Variable access to economic, cultural and social capital can shape one’s entry and participation in online spaces. Whether it is for the purpose of expanding social networks or acquiring new knowledge, different factors play a role in being able to achieve such objectives: consistent access to devices, dispositions
towards technology, exposure to home-based digital practices, and awareness of existing cultures-of-use. Learners have to negotiate all these resources for them to invest in digital practices that will enable them to successfully acquire new social and cultural capital. Examining these dynamics requires an understanding of the practices within the broader social and cultural terrain, and the ability to negotiate different identities.

7.0 NAVIGATING DIGITAL SPACES THROUGH LANGUAGE

While the previous chapter examined how students negotiated processes of sociality and knowledge consumption online, this chapter recognizes that as students navigate digital spaces as disembodied identities, the negotiation of their linguistic and semiotic repertoires become particularly significant. Language is the means through which they are able to perform their identities and enact such processes. Decades ago, Heath (1982) acknowledged the inadequacy of the prevalent dichotomy between oral and literate traditions, and the instability of this dichotomy has become even more evident in the digital age where speech and writing have converged, and where digital media enable flexible and dialogic written language. In this context, linguistic capital as a form of cultural capital becomes a means to perform one’s identity and to gain access into these diverse digital spaces. How learners communicate in online spaces indexes their class positions and reflects the dynamics of social relations offline. Thus, their possession or lack of linguistic capital, their levels of linguistic confidence or insecurity, and the ways in which they position themselves or are positioned as legitimate speakers, can shape their investment in specific digital practices. As learners imagine communities for themselves, a mastery of the different “rules of use” (Bourdieu, 1977) in these digital
spaces, and the strategic deployment of linguistic and semiotic resources, becomes more critical.

7.1 Linguistic capital in online and offline contexts

To examine the role of language and power in the development of digital literacies, the linguistic capital of English is particularly relevant. English holds a privileged position not only in the global economy but also in the online world, and remains the dominant language of the internet in terms of the number of users and content. There are 1.46 billion users who use English on the web (Internet World Stats, 2018), and English is used by 53% of websites (W3Techs, 2018). While the ranking of other languages after English is contested in different ways, the dominance of English in the production of information online remains undisputed. In a study of a Chinese immigrant teenager’s online practices, Lam (2000) notes how his use of “the global English of adolescent pop culture” enables “a sense of belonging and connectedness to a global English-speaking community” (p. 476). Kress (2003) also observes how the production of English through digital media becomes more natural. In an economy where information is increasingly important, the negotiation of the linguistic capital of English thus becomes critical in the distribution of power through sociality and knowledge consumption online.

During the study, my initial impressions of the students’ relation with English were drawn from the language they chose to use during the interviews. Each interview was prefaced with a reminder that they could choose to speak in Filipino or English, and patterns of language choice became immediately apparent in my interactions with them. Students in the two public high schools had been in Canada for one to two years, but in James
MacMillan, the four students who come from rural or less urbanized cities spoke almost entirely in Filipino during the interviews, while Annie and Carmela, both from highly urbanized cities, spoke predominantly English. In William Campbell, all seven participants spoke mostly in English, regardless of whether they came from urban or rural areas, although two of the boys, Mark and Jasper, who come from rural and less urbanized areas, would switch to Filipino more than the others. My immediate interpretation of this is the relative size of the Filipino speaking community in the two schools. Based on data provided by the Vancouver School Board, James MacMillan is the secondary school in the district with the most Filipinos, with 27% of the student population being Filipino, while Filipinos in William Campbell only constitute 5% of the student population. With 275 Filipinos in James MacMillan, it becomes easier for students to maintain an exclusively Filipino network of friends, and indeed all participants from this school have expressed that their friends are mostly Filipino. In contrast, the 100 or so Filipino students in William Campbell, which has twice as many students as James MacMillan, would have limited opportunities to interact with other Filipinos. This is corroborated by the fact that students from this more diverse school acknowledged that they have Vietnamese, Chinese, or South Asian friends. In Saint Gabriel where the three boys are the school’s only recently immigrated Filipino students, Earl and Frank spoke mostly in Filipino. This can be attributed to the fact that they had only been in Canada less than a year. While Filipino is Earl’s and Frank’s first language, it is only Kris’ second language, and so it is not surprising that Kris, while very new to Canada, chose to speak in English during most of the interviews. In parts of the Philippines where the mother tongue is not Filipino, it is common for locals when speaking with someone from another region to choose between English or Filipino to serve as lingua franca.
Whether in an interview or in class, how these students develop confidence in speaking English in local contexts has implications for how they use the language to negotiate online spaces. The exercise of power through English “is embedded into the material and symbolic relations on the local level” (Park & Wee, 2013, p. 5); local networks of actors and subjects and their own language ideologies shape the inequalities of these relations (Salonga & Tupas, 2016) and their investment in their identities as legitimate speakers. To examine such differences, we now turn to Case G and H, comparing Carmela and Jasper.

CASES G AND H: CARMELA AND JASPER

Carmela, 15, Gr. 10, James MacMillan

Born and raised in Manila, Carmela immigrated to Canada in 2015 with her father and younger brother. Her first language is Filipino. When she was eight, her mother left to work in Saudi Arabia as a nanny, and moved to Canada five years after. During that time, Carmela’s father stopped working in construction to become a stay-at-home parent while her mother visited every two years. Today, both her parents work at a factory that produces fragrances. When Carmela was still living in Manila and studying in a private school, she explains that when it came to schoolwork she would rely on her peers rather than her parents for support. Even though her parents come from more working-class occupations and speak to her in Filipino at home, Carmela is very comfortable speaking in English. Asked to compare English in the Philippines and Canada, she says she “can’t compare it because it feels like it’s the same… the way they teach and I guess the way they speak.” She adds, “I’m kind of used to English.” As discussed in Chapter 5, she positions herself as urbanite who is able to speak English confidently compared to the ones from the probinsya (rural area) because she had more opportunities to speak
English. In Vancouver, she continues to speak English with her peers. Even though there are many Filipino immigrants in James MacMillan, her social network provides her a space where English serves as their lingua franca, and she feels confident enough to speak even if she is aware of her own lapses in grammar.

One of my friends speaks in English and some of her friends are from another country too and then they speak in English all the time. So I have to speak English too and I have to do my best even though my grammar is wrong and I know they'd understand 'cause I know it's just our group. They're the only one that's going to know that my grammar is wrong so I'm kind of not afraid for it.

When Carmela refers to Filipino immigrants who aren't very fluent in English, she refers to them in the third person. She says that if they don't develop the confidence to speak in English, “They won't really have like friends, and they won't have enough experience for the future.” It is through this statement that Carmela expresses indirectly her own investment in this L2: social capital and the imagination of a social future.

Carmela likes to read stories from Wattpad, a site that publishes user-generated stories in different genres. When it comes to her social media practices, she uses English when she posts things on Facebook, but usually comments on pictures of her friends in Tagalog. She says she uses her L1 to comment because “when you speak in English, they'll be like ‘Si Carmela Inglisera na! (Carmela's an English speaker now!)’” In the Philippines where English is attributed to the upper class, the term “Inglisera” is more than just the Filipino equivalent of “English speaker”; it comes with connotations of being posh or elitist. This switching between languages is something she does often on
Twitter, which she says she uses to express herself. Her followers on this platform are mostly friends in the Philippines, and she posts in both English and Tagalog, but now she is more active on Instagram where most of her followers are from Vancouver, and where she posts pictures with captions in English. The way Carmela switches between languages in a series of tweets reflects how she performs different identities online (Figure 7.1).

![Image of Carmela's tweets]

**Figure 7.1** An excerpt of Carmela’s tweets

In this excerpt which includes a succession of tweets in one day and one tweet the following day, Carmela expresses her own thoughts (“Life is so unfair” and “Why do I have to be a goody-two-shoes?”), retweets a tweet by Alan Garner, a parody account based on a character in the movie *The Hangover* (hence, the Twitter handle @AlanHangover), replies to a tweet from a friend (“hindi ko alam. Bala sya [I dunno. It’s...
up to him/her"), and sends a “shout out” tweet (“Sinong may printer sa bahay? Pa-print ako. Nasira ko ata ung samin [weary cat face emoji/ :scream_cat: ] [Who has a printer at home? Need to print something. I think I broke ours {weary cat face emoji/ :scream_cat:;}]”). This excerpt demonstrates how Carmela possesses the cultural capital to appreciate the tweets of an account that parodies a popular Hollywood movie and contains a number of North American references. She has the linguistic confidence to express her feelings publicly in English, but is able to shift to Tagalog, and in a more informal register, to reply to her friends, and to ask for a favour that is directed at her Filipino friends in Vancouver. Through language, she is able to negotiate her identity as a transnational youth who possesses not only the cultural and linguistic capital to participate in this online space, but also the communicative competence to shift codes and registers to address different audiences.

Carmela’s favourite TV show is the Ellen Degeneres show. She says that even in the Philippines, she didn’t really watch local shows and would rather watch shows like Sherlock Holmes and Doctor Who. Her Twitter profile includes many posts about Totoro, an animated character from a critically acclaimed Japanese film, which she watched with English subtitles. Asked about how she developed this preference, she expresses an awareness of the class distinctions of her taste. “My friends at Philippines because they got used to like English, like since they were babies, they were watching English shows. And then their sisters, they’re like rich so they like use English.” Carmela recognizes English as linguistic capital associated with the elite classes of the Philippines (“they’re like rich so they like use English”), and that having rich friends is a form of social capital that in turn allows her to acquire the cultural capital of “English shows”. By acknowledging her preference for watching English shows and her confidence in
speaking English, she positions herself as part of an urban-dwelling middle class, and links the acquisition of this capital to digital access and use. “I guess it's because of the internet. Because in Manila, Internet is a must so I guess they got the idea like 'Oh, I like this show. It's English.'” For her, the more widespread connectivity of an urban centre like Manila provides greater access to these forms of cultural capital, while those from rural areas would have poorer connectivity and thus acquire different social media tastes.

Like their social media and their experiences, it's really like different from Manila. Like yung uso sa Manila and then yung uso sa kanila, magkaiba like ibang-iba… minsan yung mga words nila, hindi ko maintindihan. And then minsan yung mga sinasabi ko—yung mga in sa Manila—parang hindi nila maintindihan. (Like what’s trendy in Manila and then what’s trendy with them is different, like really different… And then sometimes their words, I don’t understand. And then sometimes what I say—the ones that are from Manila—it's like they don’t understand.)

Apart from differences in tastes and social media preferences, Carmela also distinguishes differences in lexical choices between urban and rural speakers in the Philippines that lead to mutual unintelligibility. Through these statements, Carmela weaves together ideas of social class, language use, and digital practice. Class is understood as linked to geographical location, language preferences and cultural tastes, and that access to and use of technology provides linguistic, social and cultural capital that constitutes one’s class position.
Jasper, 17, Gr. 10, William Campbell

Jasper immigrated to Canada in 2015 with his younger brother. His first language is Ilonggo. When he was in the third grade, his mother left the Philippines to work in Hong Kong as a caregiver, and two years later, his father passed away. He and his brother moved from their home in a rural part of the Philippines to live with their grandmother and uncle in a less urbanized city of the island Iloilo, where he studied in a private school. To help contribute to living expenses at home, he works in McDonald’s after school. When Jasper moved to Vancouver, he was designated as Level 2 ELL. He expresses how he was very hesitant to speak when he just arrived. “At first, I wasn’t talking. Like I barely talk English ‘cause I don’t know.” He says he was ashamed of having a strong accent. “Sa isip ko, ang pangit kasi pakinggan yung may accent (In my mind, having an accent sounds terrible.)” Because his first language is Ilonggo, he also does not feel very confident about his Filipino, and admits to being tongue-tied even when speaking with fellow Filipinos. He also explains that the pace at which locals would speak English made it hard for him to follow them. “Pag kumausap ako ng ano, ah, yung dito pinanganak, mabilis sila mag-ano, magsalita. So parang hindi ko naiintindihan minsan. So doon na ako may problema. (When I speak to uhm, those who were born here, they uhm speak so fast. So it’s like I don’t understand them sometimes. That’s what my problem is.)”

Jasper does not consider himself academically proficient, and does not have the confidence to speak up in class. “I’m not fast learner. If I read a book, I need to read it twice or three times.” He says that when he was younger, he would have to hide in a quiet place or shut the door to his room if he had to read because “When we were a kid, when someone’s gonna read, someone’s gonna tease him.” He said that peers would
say, “Oh, you’re reading a book. Good job for you’ and give like a fake laugh.” Just like the way Carmela is afraid of being mocked as an “Inglisera”, Jasper does not want others to see him read because of fear of being teased. In more working class families, the act of reading can be positioned as an elitist practice, and this view has shaped Jasper’s investment in literacy practices. His teacher told him that if he read books and spoke English more, she would be able to move him to the next ELL level. He does express his desire to read more, but the extent to which he is able to find private spaces in which he can read can determine the duration and frequency of this literacy practice.

Asked what he would want to be better at in school, he replies, “My grammar and vocabulary. If I could talk fluently, maybe I could meet new friends.” He recognizes the importance of language for him to be able to develop his local social network, and this desire motivates him to learn English. Because of his linguistic insecurity however, Jasper is not able to expand his peer network at school and invest in digital practices that would allow him to use English. His closest friends are all Filipino, and his social media practices are limited to those that will allow him to connect to fellow Filipinos. He uses Facebook to chat with his friends in the Philippines via Messenger. He Skypes with his aunt and speaks in Filipino with her. He finds no use for Snapchat and Instagram, which many local non-Filipino students use, and he spends hours each night playing League of Legends on his laptop with his fellow Filipino friends. When he has spare time at school, he plays Dragon City on his phone, rather than talking to people or making new friends. His fascination for games started when he was growing up in the Philippines. Because he did not have a computer at home then, he and his cousins would go to an internet café and play online games like Crossfire, Special Force, and Counter-Strike. Going to the internet café was a way to hang out, and it served as his
initial socialization into technology, and even after moving to Canada and having access to a laptop at home, he remains greatly invested in playing games.

Jasper’s mother appears to have socialized him into these digital practices. He describes what she typically uses her cellphone for.

Minsan kinakausap niya yung mga pamilya namin sa Pinas. Nag-skype or nag-Messenger. Tapos, naglalaro siya ng games pag may spare time siya. Kunyari break time niya sa work, naglalaro siya. Or pag may pupuntahan siya, kahit sa bus, naglalaro siya (Sometimes she talks to our family in the Philippines. They Skype or do Messenger. Then she’d play games when she has spare time. For example, when it’s her break time at work, she plays. Or when she’s going somewhere and she’s on the bus, she plays).

Because of the nature of her work as a caregiver, there is no need for Jasper’s mother to use technology for research or work requirements. Limited to the use of her cellphone, she uses it for entertainment in between jobs, when she is moving from the home of one client to another. While parallels can be drawn between the digital practices of mother and son, what becomes apparent with Jasper is that he has a desire to gain a sense of belonging, and this need to connect with others drives his digital practices. His lack of linguistic confidence however dissuades him from building local social networks.

Because he does not believe he possesses the resources that will position himself as a legitimate speaker of English, he is not able to invest in digital practices that will enable him to acquire this particular linguistic capital.
7.2 Linguistic confidence and legitimate speakership

Feelings of linguistic confidence or insecurity stem from the “sense of place” (Bourdieu, 1987, p.5) of different speakers. By recognizing that they occupy a legitimate place in a target language community, they are able to assert their legitimacy as speakers of an L2 (Norton, 2013). In the Philippines, Carmela sees herself as a legitimate speaker as she understands herself as part of an urban middle class, a student in a private school who has wealthy friends and is able to acquire the tastes and media preferences that enable her to promote her competence in English. Even though the conditions of her migration and the occupations of her parents might not necessarily position her as middle class in Canada, the social and cultural capital she has acquired in the Philippines has helped her develop a transportable linguistic confidence. While her English is not perfect, she is able to use the language to expand her social network and position herself as a migrant with a legitimate place in Canadian society.

As she maintains transnational ties with friends and family in the Philippines, Carmela negotiates the linguistic capital she has to avoid being positioned as an elitist, an Inglisera. She recognizes that she is able to speak English comfortably, but has the agentive capacity to choose not to use it in her social media exchanges when she does not deem it fit. This negotiation of one’s English competence is also demonstrated by Eric, who, like Carmela, comes from an urbanized area of the Philippines and went to a private high school. He believes that English in the Philippines is not very dissimilar from that in Canada, and says that he did not have to go through much adjustment speaking English when he immigrated. In the Philippines, he had a group of friends that he would speak English with, in and out of school contexts. “Tingin po kasi naming mas madali
mag-English kaysa Tagalog minsan…Yung mga words kasi ng English mas madaling mapronounce kaysa sa Pilipino (In my view, it's easier to speak English than Tagalog sometimes… Because English words are easier to pronounce than Filipino.)” He acknowledges that his group of English speaking friends was a minority in his school and that when they speak English “parang po silang nawi-weirdohan sa amin (others would find us weird)” and would call them “Inglisero”. Because language choice indexes social class, those who have the linguistic confidence to speak English have to find the right balance between choosing to speak the language, and not being labeled as elitist. Nonetheless, it is the possession of this linguistic capital that enables Eric to search for information online with ease, learn from YouTube videos, and acquire more cultural capital.

While both Carmela and Eric express linguistic confidence in speaking English, Frank, who lived in the United Arab Emirates and developed a more multicultural network of friends even before coming to Canada, positions himself not just as a fluent English speaker, but as a global citizen and a “linguist”.

Frank: Natuto din po ako magsalita ng ibang mga lenguaje. Linguista po ako. (I also learned to speak other languages. I’m a linguist.)
Ron: Tulad ng anong lenguaje? (Like what languages?)
Frank: Bilingual po ako. Pero ang una po ay yung dialect po, ung Aklanon, tapos Tagalog, tapos ung English. Ang natutunan ko po ay French, German, Russian, Spanish, Arabic at saka po Japanese. (I’m bilingual. Although what came first is a dialect, Aklanon, this was followed by Tagalog, then English. What I learned is French, German, Russian, Spanish, Arabic and Japanese.)
By identifying as bilingual, he asserts that he is a legitimate speaker of both Filipino and English, two languages that came after his L1, Aklanon. He adopts the identity of a "linguist" or multilingual and talks about being able to adopt different accents at will. His linguistic confidence enables him to participate actively in class and to navigate the internet with great ease, providing him with cultural capital in these offline and online environments.

While Carmela, Frank and Eric who come from more middle class and/or urban backgrounds express confidence in speaking English, students from less privileged positions like Jasper seem to find it more difficult to express themselves in English. In the same way that Jasper talks about his difficulty in keeping up with the pace of speech of locals, Penny shares her own challenges when she was new to Canada.

I think myself is really struggling. Because sometimes if English is not your language really, it's really hard to say language directly or something like that and then the way you say the words or like the way you pronounce it is really different right now.

During the interview, she raises a number of times the challenge of pronouncing things correctly and making sure not to stammer while she thinks of the right word in English. She expresses how speaking English is more difficult for someone like her who grew up in a rural area where they speak an L1 other than Filipino. Like Jasper, Penny’s L1 is Ilonggo, and she had to learn Filipino and English at school. For her, English “is not [her]
language” and although she is multilingual, she does not regard herself as a legitimate speaker of English the way Frank does.

What the cases above demonstrate is how differences in social position and conditions of migration can shape the acquisition of linguistic capital and the development of linguistic confidence. While Frank’s more privileged migration experience allows him to identify as a global citizen, the conditions of Penny’s migration makes her position herself as an outsider, a probinsyana English speaker who aspires for but could not achieve native speaker competence. Although Carmela came to Canada under migratory conditions similar to those of Penny and Jasper, her social network and urban identity allow her to claim English as her own. She asserts a linguistic confidence that allows her to be at home in Canada while positioning other less fluent speakers like Penny and Jasper as “immigrants.”

**Linguistic inequality and the positioning of speakers.** The hesitation of Penny and Jasper to recognize themselves as legitimate multilingual speakers indexes class dynamics in the Philippines. Their L1 is linked to more rural identities, the ones from the probinsya that Carmela regards as not possessing the linguistic and cultural capital of more privileged urbanites like herself. Similarly, Frank, who positions himself as a global citizen and skilled multilingual, assesses his peers who come from rural or less urbanized areas as less competent speakers based on their accents.

Kasi po si Kris at saka si Eric po, may accent po. Si Eric, parang may slight accent lang po. Pero si Kris, heavy accent po siya kasi galing po siyang Visayas… kahit nga po yung Tagalog niya, parang broken din kasi masyado
siyang nandoon sa Iloilo. (You see, Kris and Eric have accents. Eric only has a slight accent, but Kris has a heavy accent because he comes from the Visayas… Actually, even his Tagalog is broken because he’s been in Iloilo for so long.)

In this unsolicited assessment of his peers, Frank positions Kris who comes from a rural area of the Visayan region of the Philippines as one who has a heavy accent and is not able to speak Filipino competently. By expressing such a view, Frank suggests that he himself does not have an accent, and that he is able to claim legitimacy as a speaker of English. He also believes that Kris’ low English competence inhibits his learning of French, a language that Frank says he is able to learn with great ease.

Masyado silang nahirapan sa French, kasi po wala pa silang alam sa English, at saka po yung ibang French words, may reference po siya sa English words. (They really find French difficult because they don't know much about English, and because some French words have references to English words.)

What surfaces here is that while Filipino immigrants of different social positions can regard themselves differently as English speakers, they also position each other in unequal ways based on their class and linguistic backgrounds. Because those from rural areas speak Filipino with an accent dissimilar to those from urban Filipinophone areas, they are positioned as speakers with an accent. At the same time, those who speak English comfortably like Carmela and Eric are positioned by others who do not possess the same linguistic capital as Inglisera/o. This dynamic happens at home as well, and the mother of Mario shares how when Mario tries to speak English at home, his siblings react by saying “Natuto ka lang, nagi-English ka na dito sa bahay! (You just learned a bit
of something, and now you’re speaking English at home!” For those from a less privileged social class, speaking English is viewed as putting on airs, and this perception shapes their investment in such language practices.

While Filipino immigrants position each other in different ways, they are also positioned by native-born Filipino-Canadians. Referring to James MacMillan Secondary, Chrissie says, “A lot of people there, they speak Tagalog, so we call them FOBs (fresh off the boat).” Although she says that she would not use the term directly in front of these recent immigrants, she and her close friends would refer to them as such in more private conversations. The resistance of the immigrant youth to speak English is viewed as a failure to assimilate into Canadian culture and social practices, and an indicator of their class position. Within Saint Gabriel, Chrissie singles out Kris and Eric as newcomers who are not able to integrate fully in the school. “Because they just came, and they’re scared. They don’t know what other people are gonna say about them.” Asked what she thinks they would be scared of, she says,

Chrissie: Like our attitudes towards others? Because we don’t really know anything about them. So we might assume things.

Ron: What kind of assumptions?

Chrissie: Like, he’s weird. Like don’t hang out with him. Like his accent.

Even though Eric considers himself fluent in English, Chrissie positions him as a newcomer immigrant, and assumes that he would not be comfortable about his accent. She mentions how students in Saint Gabriel can make fun of the accents of immigrant students. “When they speak in class, yeah, when they have a presentation, and they
would start calling their name in the accent they have.” Mimicking accents becomes a way to exclude newcomer immigrants and position them as Other. She attributes Kris’ and Eric’s inability to integrate to their unwillingness to approach native-born Filipino Canadians like her. “They’re just in their personal bubble… They’re on their laptops and their phones.” This observation is particularly revealing in that she expresses how technology becomes an alternative social space for immigrant students like Kris and Eric. In situations where learners do not feel that they hold a legitimate place because they do not possess the cultural and linguistic capital of the dominant group, they may divest from the social practices of the local context. Instead, they may retreat into online spaces, communicating with family and friends back in the Philippines, where their cultural and linguistic capital would be recognized, and where their identities can be affirmed. The online world becomes an imagined community, in the sense that it is the opposite of the corporeal or the physical, and it is this imagined community that students like Jasper are able to find a sense of belonging.

7.3 Digital literacy and language learning

For the Filipino immigrant learners in the study, technology offers not only alternative social spaces, but different means of language learning. Frank shares how he trained himself to be more fluent in English even before moving to Canada by watching videos and reading English stories online.

Kaya nga po sabi ko kay Kris, punta siya sa mga pang websites, at saka videos, na magwatch, at saka para mag-improve yung slight, yung English (That’s why I
told Kris that he should go to websites and watch videos so that he could improve his English a bit.)

He mentions that when his teachers in Saint Gabriel ask him why his English is so good, he says it’s because he trained himself. Informal learning through online resources provides him with the cultural capital that allows him to position himself as an autodidact who operates agentively and with much learner autonomy.

In many cases, the affordances of technology also offered the learners more opportunities for translanguaging. Jack of James MacMillan shares how he uses Google Translate on his phone to understand unfamiliar words. When he encountered the word “orbit” in his Science textbook and inputted it in the app, the Filipino translation that appeared on the highlighted box was “orbita”, which was not particularly helpful. He scrolled down into the alternative translations and discovered “daangtala”, a compound word that translates literally into “path-star”, making it easier for him to understand the meaning of orbit. Every time Jack learns new English words, he takes notes in Filipino.

Pag hindi mo naintindihan yung nakasulat, kung may words ka na ‘di mo alam, yeah isulat mo doon then isulat mo sa papel then anong ibig sabihin nun in Tagalog (When you don’t understand what’s written, if there are words you don’t know, yeah, write it there [in Google Translate] then write on paper what that means in Tagalog.)

Jack says his notes are always a mix of English and Filipino, and that he prefers writing his notes on paper rather than typing or copying and pasting on his phone. “Kasi pag
nagsulat ka, galing sa isip mo. Kasi kung copy ka lang sa ano, walang mangyayari.
Wala kang malalaman. (Because when you write, it comes from your head. If you just
 copy things on the phone, nothing will happen. You will learn nothing.)” He associates
the retention of knowledge with the practice of writing things by hand, and so he moves
across media, from digital to print and back again.

While Jack prefers Google Translate to find the meanings of unfamiliar words, other
learners prefer online dictionaries, and in the study, a clear pattern of preference
emerges. Learners who have expressed greater linguistic confidence like Eric, Freya
and Carmela would rather search for definitions, while Jack, Jimmy and Nancy would
default to Google Translate. Using Google, Freya would enter the unfamiliar word then
add “definition” or “meaning”, while Carmela uses the Merriam-Webster app on her
phone. In contrast, the three students from James MacMillan who come from less
privileged backgrounds, Jan, Jimmy and Nancy, including Jasper from William Campbell,
choose to find Filipino translations. When they said they still could not get the meaning
from the translation, they would go and ask friends. The only exception would be Nancy
whose second step would involve searching it on Google. On one occasion when she
searched for the translation of “incandescent” on Google Translate and did not find
anything, she searched for it on Google, and instead of looking at the definitions, she
clicked on “Images” to look at pictures that represent “incandescent” (Figure 7.2).
Asking if the pictures are sufficient for her to understand what “incandescent” means, she replies, “Opo pag nandito po yung mga example yung parang gagawin ko lang pong example tapos babasahin po ulit yung nandiyan para maintindihan po. (Yes, when the examples are shown here, I would use these examples then read what’s there so that I could understand it.)” When she says that she reads what’s there, she refers to the headings of the images that show up at the bottom of the images (e.g. “Incandescent light bulb – Wikipedia” or “Shop Incandescent Light Bulbs”). Although Nancy does not explain further her interpretation of incandescent, what her practice demonstrates is how technological affordances enable learners to draw on multimodal resources to locate meaning. By examining images that physically represent ideas she wants to understand, Nancy is able to elicit meanings that assist her comprehension.

While technology provides affordances for informal language learning, it can also enable opportunities for language acquisition in gaming or social media contexts. When Jasper
plays League of Legends with his friends, for instance, they communicate strategies to each other via a group call on Messenger, and sometimes use English.

Kasi yung isa pong Filipino, yung fluent siya mag-English, pag nag- yung clashing, pag nag-away yung mga characters, parang nag-eEnglish siya. Kaya kami, nagi-English na din. Parang sinasabayan lang namin. (Because one Filipino, he’s fluent in English, during a clash, when the characters fight, he speaks in English. So we end up speaking English too. It’s like we just do what he does.)

In the context of a game, the use of English to communicate strategies becomes natural in that maps, artefacts, and powers have English names. When players assume the identities of certain characters or “champions”, communicating gameplays and strategies in English becomes more natural, especially if someone initiates doing so. Apart from using English while playing games, some informal language learning can also happen through social media. When Nino posted a meme on his Instagram account where the incorrect word “hear” was used instead of “here”, several people corrected him in the comments section (see Figure 7.3).
While such a mistake would not have been noticeable when spoken, the written post of Nino provides a context in which other users are able to correct him, and the exchange, while brief, becomes a language learning opportunity. Such learning can happen more intentionally, like in the case of Carol whose cousins in the Philippines ask her to comment on their Facebook posts in English so that they can practice the language. Asked if she would ever correct them when they made a mistake, she says:

Carol: Like when they make a really big mistake, then I would correct them. But if it’s like a small tiny mistake, then I wouldn’t.

Ron: How would you correct them?
Carol: Like if they spell “because” wrong, I put b-e-c-a-u-s-e and then a little star thingy (an asterisk).
Adding an asterisk to a correction of a typographical, grammatical or spelling error has become a common practice in communicating online, although this is usually a norm for self-correction. In this example, however, the desire of Carol’s cousins to practice their English gives her the license to correct them. The strangers who follow Nino’s Instagram account on the other hand grant themselves this license.

7.4 Communicative competence in digital contexts

While learners need to acquire the necessary linguistic resources to navigate online spaces, they also need to develop a broader communicative competence that allows them to negotiate the complexities of the digital age. Through practice, they can develop a sense of how to move fluidly across online and offline spaces, drawing on their linguistic and semiotic repertoires to negotiate sociality and the consumption of knowledge. Based on Bourdieu’s sens pratique, this practical sense enables learners to (a) master the rules, norms, genres, and multimodal features specific to different communicative contexts; (b) seamlessly shift codes, practices, and strategies while moving across spaces; and (c) use linguistic and nonlinguistic resources to gain access to, challenge, and transform these spaces (Darvin & Norton, 2015 p. 48).

By shifting strategies as they traverse these multiple spaces, learners are able to develop communicative competence until it becomes practical sense. In the eight cases presented here, I have demonstrated how learners like Kris, Eric, Frank, and Carmela,
are able to draw on their different forms of capital to gain greater autonomy of use and linguistic confidence, and to invest in more diverse digital literacies. Because of their access to digital resources, mentors and peer networks, they are able to develop broader dispositions towards technology that allow them to use their devices for the acquisition of knowledge and the expansion of networks. On the other hand, learners like Nancy, Jimmy, Penny and Jasper who have more limited resources may view technology as more of a recreational or relational tool, and are not able to develop digital practices that allow them to expand their networks and acquire knowledge. In the final case that follows, we look at Nino who does not seem to fit the patterns of any of the students mentioned earlier. Nino does not have the same level of access to digital resources or mentors like Kris and Eric, nor has he developed the linguistic confidence of Frank and Carmela. Through his imagined identity of becoming an app developer however, he is able to invest in interests and practices that allow him to gain economic, social, and cultural capital, and develop a “practical sense” or communicative competence for navigating the online world.

**CASE I. NINO**

**Nino, 15, Gr. 9, William Campbell**

Nino immigrated to Canada in 2016 with his younger sister and father from Baguio City, a highly urbanized city in northern Philippines, where he studied in a public school. Before Baguio, they lived in Manila and he used to go to what he refers to as a “small time private school.” His mother had been working abroad since he was one, and was in Taiwan before Canada, while his father worked as a cook in Spain when Nino was five. Nino’s grandmother served as his primary caregiver during this time both his parents were away, and they spoke Filipino at home. Growing up in the Philippines, Nino did not
have many opportunities outside of school to speak English. While he lived in the highly urbanized city of Manila and went to a private school, he did not have the social network like that of Carmela and Eric, who had friends they would speak English with. At home with his grandmother, Nino did not have any devices available, although his aunt brought him to an internet café once when he was seven, and this encounter spurred a great interest in computers. Referring to the internet café as a “computer shop”, he shares, “When it's weekend, I ask my grandma to give me ten pesos (25 Canadian cents) just to do one hour in computer shop. It's for learning.” While it was at the internet café that he learned to play League of Legends, he also recognized that computers can serve as educational tools. He says that it was at these shops that he watched a lot of movies in English, and when the characters used words he was not familiar with, he would Google them and memorize the definitions. When Nino was 11, his father moved back to the Philippines from Spain because of a stroke, and they bought a laptop for the primary purpose of communicating with Nino’s mother via Yahoo video calls.

In Vancouver, Nino's father works as a stocker at a supermarket, while his mother has two jobs—as a dietary aide and as a housekeeper in different senior care facilities. They get home at 11:00 PM and 9:00 PM, respectively, and work seven days a week. The family has one shared desktop in the living room, where Nino sleeps. When the study began, Nino did not have a phone because he told his mom that instead of buying him a phone, he would rather have two skateboards. Asked why he didn't want to have a phone, he says, “I’m not that important. No one will call me.” He would access Facebook from his desktop to communicate with his local friends. In some cases he would borrow his sister’s or his mom’s phone to “search something or watch YouTube and sometimes
I talk with friends back in the Philippines that I miss.” Asked what his parents use their desktop for, he replies

Nino: They watch drama, my dad likes to watch movies, yeah.

Ron: What kind of movies?

Nino: Action. My mom likes to watch Korean drama.

Ron: So that's what the desktop is for?

Nino: Yeah, for just entertainment because we don't use much our TV.

Because subscribing to cable TV comes with a cost and there are more freely available movies online, the desktop becomes their primary source of entertainment. When asked what technology is for him, Nino appears to be socialized into this view. He answers, “Anything. Videos, watching stuff, games, code.” Apart from “code” which he wants to learn how to do, he mentions practices that reflect the recreational value of technology, and he talks about spending around five hours each day playing games from the time he gets home from school to around 9:00 PM when his father arrives. During weekends, his parents are still at work, and so he plays from 9:00 AM to 11:00 PM, and his only break is when he goes to the kitchen and grabs food. Playing with fellow Filipino immigrant peers in William Campbell, he engages with technology to build his local network. Later in the year, he admits that gaming had become, using his own words, “an addiction”, and he missed class for weeks playing with friends who have also cut class or other gamers online.

While recreational purposes dominate his digital practices, Nino does demonstrate an understanding of how technology can be useful in terms of expanding his social
networks and discovering new knowledge. To play League of Legends, he says he intentionally chose a Filipino name for his summoner (or avatar) so that he could meet other Filipinos in North America. BiktimanG4Loli means “victim of a loli”, where loli is a colloquial term derived from anime referring to a young girl. Although it seems to suggest sexual undertones, this avatar name allows Nino to position himself as Filipino and as an anime enthusiast. He talks about how players from cities like New Orleans would recognize him as Filipino and ask him to Skype. Afterwards, they would add each other on Facebook and chat further there. Asked why he would want to meet Filipinos from the US, he says, “Gusto ko rin po malaman yung experience nila. (I also want to learn about their experiences.)” He asks them about what their cities are like in terms of climate or the size of the Asian or Filipino population. “I wanna know more about the difference of US and Canada,” he says. As an immigrant who traverses national boundaries, he seeks to foster new relations in North America, and imagines a community of transnational Filipino youth.

Because his parents are usually not home, Nino relies on the computer for information.

Ron: If you have questions about your assignment, who do you get to ask?

Nino: Google… Google knows everything now.

He continues to search for definitions of words online, a habit that he developed when he was younger. He displays great knowledge about the internet, and is aware of spaces like the dark web where underground activities occur, and .onion, a top level domain in the deep web that is accessible through the Tor network and allows anonymous communication. When he was shown the BuzzFeed article “9 things that have changed in
the last 20 years” (See Figure 7.4), he is the only student who recognizes how it is a sponsored article or a form of native advertising.

Figure 7.4 Native advertising on Buzzfeed sponsored by Motorola

Asked to identify what kind of article it is, he scrolls down the list all the way to number 8 labeled as “Cellphones” and which shows an old flip phone followed by a new smartphone. He says, “They’re really like ads. They want to advertise Motorola.” (Figure 7.5).
Nino detects how the features of the phone are conspicuously discussed in great detail in what is supposed to be just a depiction of how cellphones have changed, and recognizes the language used as advertising discourse. He does not mention this as something that was taught in school, but instead he elaborates that he has seen similar writing techniques before. He also correctly recognizes the article on bananas being injected with the HIV virus (See Figure 6.13) as fake. “I don’t really watch news, but it should be like big thing from news, like big news.” He understands that if this story were true, it would have circulated on Facebook or Reddit. While he admits that he does not watch news from traditional news outlets, his familiarity with other sources of information like Reddit allows him to cast doubts on the authenticity of this story. While Reddit itself can be a source of disinformation, what Nino demonstrates is the knowledge that platforms are connected in some way and that significant legitimate news should show up across multiple platforms. He says that the image of the needle injecting blood into a banana must only be some kind of red dye, and that there are no other pictures in the article that would corroborate the story. He scrolls down to the end of the article, finds

**Figure 7.5** No. 8 on the list of the “Then and Now” Buzzfeed article labeled as “Cellphones”.

Figure 7.5 No. 8 on the list of the “Then and Now” Buzzfeed article labeled as “Cellphones”.

No. 8 on the list of the “Then and Now” Buzzfeed article labeled as “Cellphones”. Cellphone batteries used to only last for about three hours.

With a 32-hour battery life, the DROID RAZR MAXX HD by Motorola is the longest lasting 4G LTE smartphone.
other recommended stories (Figure 7.6) that he regards as “way too unreal” and deduces that “News Four is not really a thing.”

By assessing the content, the images, and the other headlines that appear on the webpage, Nino is able to declare with conviction, “I’m one hundred percent sure that it’s fake.” He displays competence in determining the legitimacy of a website by examining its linguistic and non-linguistic features, and the wider context in which the story is posted.

What has become evident with Nino is that while he does demonstrate great interest in the recreational purposes of technology, he has developed a certain competence to use it for more relational and informational purposes. He also expresses a great interest in its more operational aspects, and says he wants to learn how to code. Asked why he is
interested in this particular skill, he says, “So I can make games out of it. Make something like Facebook to connect with each other. Make stuff that make you rich.” Consistent with his desire to meet with people from other countries, he talks about wanting to create a social media app “to connect with each other.” Because of his interest in games, he imagines a future where he is able to make a living out of it, and recognizes that he would need to develop technical skills like coding to build the necessary architecture. During a group discussion with other participants, he also expresses interest in becoming a YouTuber who talks about gaming “because there’s a lot of people getting rich because of YouTube” and talks about Pewdiepie, a popular YouTuber who has almost 65 million subscribers.

Realizing that a better equipped PC would deliver a more powerful gaming experience, Nino decided to assemble his own desktop. He started working in McDonald’s for twenty hours a week, and purchased two components every payday. He learned how to do the DIY desktop through YouTube and if there were issues he needed to troubleshoot, he would search for solutions on Google. Asked why he decided to assemble his own computer, he says, “Experience. And it’s a lot better if you buy your own stuff… you know what you’re doing because you know what you’re buying, the brand, you know what the quality is.” He was able to complete his DIY desktop in two months. He says he was very happy with its performance, and started editing gaming videos and memes that he posted on Facebook.

Nino appears very knowledgeable about different internet genres. He talks about “dank memes”, content that is either exceptionally unique or has lost value because of overuse, and “ear rape”, which is horrible sounds or music. Towards the end of the
study, when he eventually got a phone of his own, Nino started a meme account on Instagram with Steve. They would either repost memes from Reddit or create their own.

Explaining why he switched from Facebook to Instagram, Nino says:

> In Facebook I feel bad because I share a lot of memes. And I feel bad for those people who like see it, and they don’t get it, or they get offended. So I just put it on Instagram instead, because people will get it.

Because his Facebook account includes his family and friends, he realizes that it would be better to post memes on an anonymous Instagram account where he gets random followers. He says if he shared certain things on Facebook where his friends are, he would get into trouble. “They would be offended and like, bash me, I think. I’ve never tried it but I’ll never try.” In the bio section of his meme account (Figure 7.7), he states a warning: “DON’T FOLLOW IF EASILY OFFENDED”. He also describes the account as “Dank but sometimes dark/normie”, with normie meaning something more conventional or mainstream.
Nino’s own memes include various references to pop icons and internet sensations, indexing global youth culture. In one meme that he created himself (See Figure 7.8), he took a picture of Spongebob wearing a black hat, and adds the caption “When the vitamin gummies kick in”. He explains that because children like gummies, he chose a picture of Spongebob dancing to represent what young people would look like after taking their vitamins. His caption, “Ohhh yeeeeeaaah boiiii” is an allusion to a Spongebob meme called “*breath in* Boii” that became popular in 2016/17.
Nino expresses what he believes memes are for. “It’s creativeness. Yeah, memes, it’s more of an art. But people doesn’t like it, because most memes are like offensive and stuff.” He recognizes while the images that he uses may not be original, that creating a caption to go with an image involves a creative process. He is able to position himself not just as an artist (“it’s more of an art”), but also as one who is able to transgress norms and conventions. By creating an Instagram account for a specific audience, and selecting and organizing appropriate content, Nino participates in meaningful social curation (Snyder, 2015), and shifts from individualized content consumption towards consumption as a networked practice (Jenkins, 2006).

After the caption, Nino proceeds to provide 20 hashtags to link the post to other similarly themed content. His intention is for the post to reach many other people so that he could
generate more followers. In this shared meme account, Steve is the one who tries to create a broader base of followers. “He (Steve) follows people that would follow him back. And they kinda like follow him back. And then eventually, he’ll unfollow them.” Nino explains that the logic of unfollowing others is that “to be legit”, the number of people they follow should be much smaller than the number of their followers. “That’s how it works… They would think we’re famous.” He demonstrates an awareness of the mechanisms of an attention economy (Goldhaber, 1997) where attention is a resource that is exchanged with others. Consistent with his desire to become a game or social media developer, he wants to create something that would make him famous. He demonstrates a sens pratique, an awareness of how to play the social media game, its rules and strategies, that he develops through constant use and active experimentation. Through the imagined identity of “famous” Instagrammer, he becomes invested in a broader set of digital literacies, and wants to learn more about how technology works. Despite the absence of digital mentors at home, he develops a greater sense of learner autonomy and builds his own computer, learns about the deep web, and searches for information regarding hardware and software. He develops a communicative competence that goes beyond fluency in English, and that enables him to navigate the internet more strategically: recognizing genres (e.g. dank memes, native ads), describing cultures-of-use (e.g. Instagram, hashtags) and producing digital resources of his own (e.g. memes). While the content he is mostly familiar with may not be considered cultural capital in school or in workplaces, what he is developing is the mastery of the “rules, norms, genres, and multimodal features specific to different communicative contexts” (Darvin & Norton, 2015, p. 48), and the capacity to shift practices while moving across online spaces. Even though he does not necessarily have the linguistic confidence to speak up in class, Nino uses language creatively together with other modalities through
his production of memes, and receive affirmation in the form of likes and comments. Through this communicative competence online, he constructs a community of users who appreciate his humour, and recognize his cultural productions as valuable.

**CHAPTER CONCLUSION.** Findings in this chapter demonstrate how learners can position themselves and be positioned by others based on the linguistic capital they possess. As they navigate the online world in often disembodied ways, they need language to gain access to multiple spaces, perform their identities, and participate meaningfully in imagined communities. In the digital world, these communities are imagined in that they are comprised by dispersed online users who share a common interest or goal, or by family and friends who are in distant places and are thus present only in incorporeal ways. Whichever it is, the imagination of communities transcends national boundaries, and this boundlessness plays a role in how students invest in digital practices.

To negotiate their identities online, learners need not only linguistic capital but also linguistic confidence to gain a sense of agency and to be able to assert their legitimate place in these contexts. The class positions of these learners however can shape unequal access to linguistic resources, generating different levels of linguistic confidence or insecurity. Theorizing on the relation of language and power, Gumperz (1982) notes that language has the capacity to create and maintain the subtle boundaries of power, status, and role that make up the fabric of our social life. Assumptions about value differences associated with these boundaries form the very basis for the indirect communicative strategies employed in key gatekeeping encounters (Gumperz, 1982). Communicative events are sites of struggle where meanings are negotiated and
strategies are employed to assert the legitimacy of one’s statements. For Maryns and Blommaert (2002), linguistic inequality is not so much about explicitly stated rules or preferences but differences in how resources are distributed and evaluated, and how the right to speak is allocated (Norton, 2013). This logic applies not only to the offline world, but also in online worlds as speakers/users with diverse linguistic repertoires engage with one another and make themselves intelligible. Digital literacies offer opportunities for generating greater linguistic capital, but at the same time, the navigation of online environments requires broader linguistic and semiotic repertoires. Thus, for learners in the digital age to claim the right to speak in the digital world, they need to invest in developing a practical sense, a communicative competence that enables them to negotiate strategically their resources and existing cultures-of-use.

8.0 EXTRACTING IDEOLOGICAL CONSTRUCTIONS OF DIGITAL LITERACY

As learners navigate online and offline contexts, they have to continually negotiate the ideologies that govern the valuation and legitimation of various digital literacies. In the educational context, these ideological conceptions of digital literacy constitute and are constituted by mandated curricula, school policies, and classroom practices. While social and institutional contexts operate through competing and colluding ideologies in the production and legitimation of digital literacies, this chapter recognizes that ideologies are embedded in the technologies themselves. As demonstrated by discussions of cultures-of-use in previous chapters, the material features, sociotechnical structures, and algorithmic processes of devices and platforms can socialize users into behavioural patterns and communicative practices. This is how cultures-of-use evolve, and as they are sedimented by practice, and recognized as natural or common sense, these
cultures-of-use become ideologies themselves. Produced by technology companies and software developers often motivated by ideologies of profit, these tools shape practices that reflect the logics that undergird their production. As students negotiate different levels of economic, cultural and social capital and develop diverse digital practices, how ministries, schools, and teachers interpret digital literacy from their own ideological standpoints have implications for what is taught and what is overlooked.

8.1 Educational policies and school infrastructure

As schools experiment with blended and flipped classrooms and continue to incorporate technology in classroom practices, designing an inclusive digital curriculum remains a challenging task. Digital frameworks articulated in educational policies involve ideological assumptions of what constitutes digital literacy, and the ways it can be learned. Within these frameworks, students are often imagined as “roaming autodidacts” (McMillan Cottom, 2017) who are self-motivated, able learners “embedded in technocratic futures and disembedded from place, culture, history, and markets” (p. 214). This essentialized notion of a generation of learners persists despite the fact that Prensky's (2001) construct of “digital natives” has been greatly challenged (Bennett, Maton, & Kervin, 2008; Helsper & Eynon, 2010; Margaryan, Littlejohn, & Vojt, 2011, to name a few).

Referring to the generation that grew up with digital technology, Prensky (2001) coined the term “digital natives” to refer to “‘native speakers’ of the digital language of computers, video games, and the internet” (p. 1), and attributed to these young users, a natural adeptness in terms of operating digital tools. The idea however that there is one “digital language” out there that users need to master to encode and decode meaning is greatly limited. It essentializes age as the single and most important determinant of
“digital fluency” (Hsi, 2007; Miller & Bartlett, 2012), even though there is scant evidence to support the existence of a homogenous generation with technical expertise and a distinctive learning style (Bennett et al., 2008). The findings in the previous chapters confirm how attributing digital savvy to an entire generation of learners is untenable, and how the digital literacies they develop are not only diverse but also unequal in the way they are valued across fields.

In his later work, Prensky (2009) acknowledges that the rapid domestication of technology has made the binary conception of digital natives and immigrants less relevant, and proposes instead how users, regardless of age, must seek “digital wisdom.” Arising from the use of digital tools that extend and enhance cognitive capabilities, this wisdom, he asserts, elevates our capacity to make both pragmatic and ethical decisions, and educators can impart this wisdom by “letting students learn by using new technologies, putting themselves in the role of guides, context providers, and quality controllers” (n.p.). In the same way that Prensky’s assertion makes claims about the nature of technology and education, educational policies construct notions of digital literacy, which are reproduced through school practices and teacher beliefs. This section examines these ideological constructions by discussing the BC curriculum and the ways in which the participating schools interpret these policies.

**The new BC curriculum.** While the construct of the digital native has been challenged, schools and ministries however often still view digital literacy as a uniform set of skills, with clear stages of development that apply to all students. In the website of the BC Ministry of Education (Province of British Columbia, 2018), digital literacy is listed under “Teaching Tools” and is defined as “an important skill to have in today’s technology
based world.” This definition is expanded in the BC Digital Literacy Framework as “the interest, attitude, and ability of individuals to appropriately use digital technology and communication tools to access, manage, integrate, analyze, and evaluate information, construct new knowledge, create and communicate with others” (Province of British Columbia, 2015b, p. 1). Although this definition points out that performing digital tasks does involve “interest” and “attitude”—a disposition towards technology, it still asserts digital literacy as a singular “ability.” Based on the National Education Technology Standards for Students (NETSS) developed by the International Society for Technology in Education (ISTE, 2016), the framework breaks down this ability into six components: (1) research and information literacy; (2) critical thinking, problem solving and decision making, (3) creativity and innovation; (4) digital citizenship; (5) communication and collaboration; and (6) technology operations and concepts. Reflected in this conceptualization is an autonomous view of digital literacy (Heath & Street, 2008) that regards it as a neutral or technical skill operating in a general manner regardless of local configurations. By creating digital literacy profiles of four grade ranges (K-2, 3-5, 6-9, 10-12), the framework outlines experiences with technology and digital resources expected at these different stages. School district digital policies often adopt this autonomous model, ignoring the social class differences of their students, which impinge on their access to various digital resources.

Identifying the components of digital literacy is particularly crucial as BC implements a new curriculum that focuses on personalized, concept-based and competency-driven learning. Based on a “Know-Do-Understand” model where the areas of learning have been structured according to Content, Curricular Competencies, and Big Ideas, this curriculum expects students to explore their own interests through inquiry and question-
based strategies and technology-enabled learning environments (Province of British Columbia, 2015a). In this approach where key terms include “flexible” and “self directed”, students are positioned as “entrepreneurs of the self” (Foucault, 2008), who can customize education like a consumer product (Roberts-Mahoney, Means, & Garrison, 2016). Students pursue ideas that are within the limits of their individual interests, and teachers are expected to facilitate this customization, serving more as coordinators instead of expert sources of information that broaden the students’ range of concerns. The consumerist orientation of this approach, Hartley (2008) asserts, privileges the cultural repertoires of middle class families who already possess the capital that enables greater learner autonomy, while disadvantaging students who do not. Sen (2016) argues that by positioning this personalized approach at its core, the new BC curriculum advances a neoliberal ideology that valorizes flexibility, choice, and individual self-interest. It positions education within a reductive set of economic rationalities, where the acquisition of skills is linked to providing labour for the 21st century workplace. Such a view is reflected in the BC Education Plan (Province of British Columbia, 2015a), which declares that “the economic imperative is to ensure young people entering the workforce have the lifelong skills and competencies that employers are increasingly looking for” (p. 3). By asserting the centrality of technology in a personalized approach, as one that is “ICT-enabled”, the curriculum also promotes the exigency of educational technology and online learning platforms, discourse from which technology companies like Cisco stand to gain.

The focus on educational technology as a tool is reflected in many instances in the new BC curriculum. In the Digital Literacy Framework (Province of British Columbia, 2015b), the words “digital” and “technology” are often collocated with the verbs “use” or “apply”.


1. Research and Information Literacy: Students apply digital tools to gather, evaluate, and use information.

2. Critical Thinking, Problem Solving, and Decision Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

3. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

4. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

5. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

6. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems, and operations (emphasis added).

In the Applied Design, Skills, and Technologies (ADST) curriculum, which embeds ideas from the Digital Literacy Framework, the focus of the Information and Communications Technology component is “evolving processes, systems, and tools” for creating, storing, retrieving, and modifying information” (emphasis added), while that of Technology Education is “the design and fabrication of products” that involve everything from woodwork to robotics. What these documents consistently reveal is that digital literacy is often conflated with educational technology and is understood as the singular ability to use these tools to achieve their intended purpose. Insufficiently developed
however is an articulation of how digital literacies involve being able to examine online knowledge and processes more critically, present and address local issues, expand social networks, and represent diverse identities. This gap is addressed in Chapter 10 where a model of digital literacy as a social practice is proposed.

**School policies.** As the BC Ministry of Education promotes the new curriculum and its particular conception of digital literacy, how schools in the province interpret these expectations and how resources are made available to them shape the implementation of the curriculum. In professional development workshops I have conducted for teachers from various school districts, I often learn that less than a handful of teachers from a school would be familiar with the BC Digital Literacy Framework. Not only is there a lack of teacher training, but schools would rarely have comprehensive strategies in terms of how to integrate digital literacies across subject areas. They may offer ICT or Technology Education either as a modular rotation in Grades 8 or 9, or as an elective in the higher grades, but all the other components of digital literacy mentioned earlier such as research and information literacy or digital citizenship is left to teacher discretion. While the ideas may be modelled by the teacher in lower grade levels, what is expected is a “gradual release of responsibility” over the grades “depending on the level of expertise of the teacher and available equipment for the students” (Province of British Columbia, 2015b). Ms. Halloway, an ELL teacher of William Campbell, articulates her hesitation regarding these expectations of digital integration.

> How can we do justice to what’s being asked us to do when we ourselves don’t really know what it means? It's so vague. The coding, we all see the value of this, of what they’re bringing in, but it’s really the how.
Indeed, many teachers feel inadequate to implement these digital literacies because of a lack of concrete guidance and training. Ms. Halloway adds, “It’s kind of also putting emphasis on a direction that we have no support for, like, we can’t see how it’s supposed to look. It’s just words on paper to us right now.”

While all schools are responsible for the implementation of the new curriculum and its digital components, schools would have different interpretations of how to integrate technology in the classrooms. Saint Gabriel has a Bring Your Own Device (BYOD) policy, which requires students to have a laptop. Those who are not able to bring one can borrow one from the Media Resource Centre at the start of the day. Assignments and lessons are uploaded onto Moodle, a free and open-source learning management system, or Google Classroom. Both James MacMillan and William Campbell have computer labs, and have laptops and tablets available for use in the library. The Vancouver School District has a digital library where students can log in to access various books and encyclopaedias, and also a distributed learning program, called the Vancouver Learning Network, where students in Grades 8 to 12 can choose to take over 90 accredited courses online for free.

In James MacMillan, digital literacy is one component of a Grade 8 rotation, but Ms. Wells, a teacher-librarian, says that the lack of a more comprehensive strategy means that there is no consistent approach or content that will help teachers anticipate what the students already know.

It’s been depending year after year on whoever’s teaching that grade 8 tech part
and so that's often changing and with each year, a different teacher comes in and they haven't built kind of like an ongoing strategy so that it does get to every student every year. So it's been hit or miss.

In this case, the competencies outlined by the curriculum can only be covered if the teacher in that particular year has those skills, and there is no way to ensure that students have developed important digital literacies by the time they graduate.

**Summary:** The findings in this section demonstrate how curricula and school policies operate through ideological constructions of digital literacy and learning. By adopting an autonomous view, curricula position digital literacy as a singular ability, a set of skills, while disregarding the significance of sociocultural contexts in the construction and performance of these literacies. Embedded in a curriculum that valorizes individual needs and economic outcomes, this monolithic view of digital literacy does not take into account how diverse students adopt technology at home, and how these digital affordances can address more local needs of students and their families, and advocate for social change. Consistent with how the BC curriculum positions digital literacy, schools interpret the integration of technology as the adoption of educational technology, developing digital infrastructure and implementing policies like BYOD. In the flexible education path promoted by the new BC curriculum, the teaching of digital literacies that help students navigate personalized and self-directed learning is easily overlooked. It is a competence that is distributed to everyone, but not owned by any specific teacher. Without a more systematic approach to the teaching of these literacies, students, especially those from families who are not able to cultivate this cultural capital, can graduate from high school without developing these critical competences.
8.2 Teachers and teaching beliefs

As teachers engage with students and new technologies, they develop ways of thinking about the place of digital literacy in their own instruction. Their positioning of students with regard to existing digital competences, their conceptions of digital literacy, and cultures-of-use—all of these shape their digitally-mediated classroom practices, which may privilege or marginalize students with differential access to such literacies.

The positioning of students. Teachers seem to be aware that not all students will have equitable access to digital devices, but maintain assumptions about the digital literacies that digital natives should already be equipped with. Ms. Halloway, for instance, recognizes that there is inequitable access to technology at home.

We do not assume that every family has a computer. That’s why we have computers in our classrooms, even though they said they’re gonna take them away. We’re fighting for that because, no, not every family has a computer; not every family, every child has internet at home.

Because Ms. Halloway recognizes students’ unequal access to devices, she is very generous in terms of lending out devices to students, and letting them use the classroom printer. Her understanding of inequitable access however appears to be more binary: one either has a computer or does not, or has home connectivity or does not. However, as I have argued by drawing on the data, issues of digital access are rarely about this simple dichotomy. Families may have a laptop or desktop at home, but it is shared by a number of people. Students use their devices in different home environments with
differential access to digital mentors. Asked about her perceptions of how students use technology, she still defaults into a more homogenized view of the digital practices of youth.

Teenagers pick up things so quickly. And even if they don’t have computers and stuff at home, most of the kids now do have phones. And they learn from each other so quickly. So their base knowledge, I find, is the same.

Adopting a more “digital native” conception of high school students, Ms. Halloway believes that they do pick things up quickly. However, she does not have confidence that they will remain as invested in a digital project at home. “We don’t assume that it’s something they will work with at home. Never.” In contrast to Ms. Halloway, Ms. Wells who is a teacher-librarian at James MacMillan recognizes that the age of students doesn’t automatically translate to digital competence. “The assumption is because of the year they were born that they will just have these digital literacies down pat. And I’m surprised how, being in the library, how much time I spend troubleshooting digital literacy problems with young students.” She talks about how students are adept at texting and watching YouTube videos, but not necessarily adept at digital practices that would be valued at school.

While Ms. Halloway observes more binary inequities, Ms. Salvador associates the unequal competence levels of students with the kinds of devices they have, or do not have. For her, the ones with Macbooks are “very tech savvy.” They know how to research, and navigate the operating system, using keyboard shortcuts, preparing word documents and PowerPoint presentations, and working with Google Docs. Those with a
Windows PC like an Asus laptop or something that’s “slightly on the lower end”, she believes, may not be as skilled.

With their laptops, they don’t have many options and, you know, bells and whistles, so it’s kind of, I mean, they can do basic things like, you know, open up a Word document, but they’re, I don’t know, they’re quite limited too in what they’re able to do.

In this case, the kinds of devices the students own become for Ms. Salvador a material artefact that signals both economic and cultural capital, allowing her to position them based on consumerist assumptions of ownership. She mentions how those who come to school without a laptop would have to get a Chrome book from the Media Resource Centre or use one of the computers in the classroom, and that this may take them longer to get situated and logged on. “It’s not that they’re digitally illiterate, it’s just that that whole process takes a lot longer. And maybe it’s because they’re not actively practicing it everyday.” In this case, the assumption is that if students do not bring a laptop to school, then they would not have these devices at home. Some families we have seen however may share one laptop or desktop at home, thus prohibiting the student from bringing it to school. While not having a computer does limit a learner’s range of digital affordances, what he or she is able to “actively practice everyday” that aligns with the teacher’s expectations needs further investigation. In Chapter 7.4, for instance, we encounter Steve who did not have a laptop, but was still able to accomplish his schoolwork using his iPad.
How teachers view these inequities has implications for how they themselves invest in
digital literacy instruction. Saint Gabriel implements a BYOD policy and expects teachers
to integrate educational technology into their teaching. William Campbell leaves it to
teachers to decide how they would integrate digital literacy. Observing a trend in William
Campbell where teachers would let students download apps and answer quizzes on
their phone, Ms. Fleming expresses her hesitation. “The reason why I've never done it is
because yes a majority of the students have a phone but one or two students who might
not have it, that’s where it gets glaringly apparent, and that’s where I don’t want to draw
attention to.” For Ms. Halloway, this inequity means limiting the assignment of digitally
mediated tasks. “We try and limit the amount of digital homework, because it highlights
who has and who has not.” She says in William Campbell they do not encourage using
laptops because once one has it, it becomes a “look what I have and you don't kind of
thing”, and that the sound of someone tapping on a keyboard would be distracting for the
others. “It changes the environment.” In this case, the awareness of digital inequities
among students leads to the avoidance of not only using educational technologies, but
also teaching digital literacies.

**Primacy of print.** Talking to teachers from the three schools, it becomes clear that print
and digital literacies are often seen through a dichotomous lens, where technology is
seen as a facile medium, a “crutch”, an “easy way out”, and that learning through the
digital is not real learning. Ms. Flanders for instance restricts students to using print
sources when it comes to researching a topic. “Some of my assignments, I say you must
use at least three books, and two encyclopedias and a journal, and no website for the
project.” She believes that students plagiarize more when they are online. “Sometimes
it's not even intentional but they just feel like, ‘Oh, hey that’s exactly what I'm looking for.’
Copy and paste, done. And that doesn’t happen as much with the other sources.” This view however contrasts with Jack in Chapter 7 who says that while he does search for information online, he still handwrites his notes, and uses both English and Filipino. He believes that merely copying and pasting information does not allow him to retain knowledge. Referring to students on the lower socioeconomic scale who may not have regular access to devices, Ms. Halloway says, “In one sense, it makes them better students than a lot of other students, because they don’t have that crutch.” Ms. Wells talks about how choosing to look for information on Wikipedia and Google is “the easiest way out.” In all these cases, rigor of learning and legitimacy of knowledge are attributed to print literacy. The privileging of print however is ideological, founded on certain assumptions of what constitutes authentic learning. While there are forms of disinformation online, the same can be true of print sources. Googling for information may be faster, but this does not preclude students from finding legitimate knowledge. Historically preceding the digital, print literacy is not only attributed with greater significance, but is also assumed as something that must be mastered before learning digital literacy. Ms. Wells admits that she has always viewed it as “build the print first and then bring the tech” but realizes how even in the last five years, the younger students are using all of these gadgets, and that “they already have this need for the digital literacy.” Recalling the example of Jimmy in Chapter 6, we have seen also how the way some students read digital texts can already shape the way they read print texts, and therefore the delineation of print from digital becomes increasingly irrelevant.

In some cases, the concern that technology does not promote authentic learning is valid. Ms. Halloway talks about how some students working on assignments would compose essays in their L1, and rely on Google Translate to just translate everything into English.
They just “give me these chopped up little things. And they will try to do everything without any word of English produced by them.” One other developing issue with regard to digitally-mediated learning involves the distributed learning system that is available to students in BC. In this system, students who meet certain criteria are allowed to take required K-12 subjects online, either through public or independent schools. Positioned by the BC Ministry of Education (Province of British Columbia, 2015a) “as a critical component to personalized learning”, distributed learning has become increasingly privatized, and the lack of regulatory procedures make it potentially harmful to the educational process. Described by the president of the BC Teachers’ Federation as “the wild west” (Steffenhagen, 2013), the system is not monitored in terms of student completion rates, teacher caseloads, and program quality. Enrolment in private online schools has overtaken that of their public counterparts (Steffenhagen, 2013), and while this does not involve Filipino students, one of the trends Ms. Halloway and Ms. Flanders have observed is that an increasing number of international students would sign up for English 10 classes in private online schools that are not authorized by the school board but are approved by the BC Ministry. These online classes become “an easy way out” according to Ms. Halloway because students tend to get inflated marks in these classes even though there is no distinguishable improvement in their language competence. Because these independent online schools are under-regulated, it becomes easy for students who are not invested in their learning to game the system. These failures and shortcomings of distributed learning, as a system that involves digitally-mediated instruction, inevitably shapes the way teachers perceive the value of the integration of technology in education.
Constructions of digital literacy. While teachers may have contrasting positions regarding the value of integrating technology into their teaching practices, they may also hold different understandings of what constitutes digital literacy, and what should be taught in classrooms.

Ms. Cross of Saint Gabriel who has taught for five years believes that the curriculum’s focus on digital literacy is online safety.

With the Applied Skills, the main requirement from the government website is online safety. So I’ve taken the course what I think is important to teach the students in terms of online safety. So, our main focus throughout the year is how to protect your identity, or what social media collects from you, and what kind of pictures are appropriate, and digital footprint.

This focus on online safety together with other topics like ethical use comprise what is known as digital citizenship, which is fairly widespread, and often articulated not only on school policies, but media literacy websites like Common Sense Media. In the “Digital Issues” section of Media Smarts, Canada’s Centre for Digital and Media Literacy, the topics listed are cyberbullying, cyber security, excessive internet use, online ethics, etc., all of which are components of digital citizenship. Only one topic, “Authenticating information,” is linked to the informational component of digital literacy. In a Media Smarts survey (Johnson, Riel, & Froese-Germain, 2016) of more than 4000 teachers in Canada, the top four digital literacy skills that were indicated as being very important were still focused on digital citizenship: staying safe online, appropriate online behaviour, dealing with cyberbullying, and understanding online privacy issues and settings.
Verifying the credibility and accuracy of online information came in fifth. The disproportionate focus on digital citizenship, on staying safe and secure in digital environments, can perhaps be attributed to how during the earlier years of technology adoption, this new and uncharted space generated fears among parents and teachers regarding its possible dangers. While these fears were not unfounded, they have contributed to a focus on digital citizenship that remains in many schools today.

In many cases also, there seems to be a tendency to conflate digital literacy with *educational technology*, which corresponds with the view embedded in the new BC curriculum that was discussed earlier. Ms. Cross of Saint Gabriel, for instance, describes herself as “pro-technology”, and asked why, she responds

> I love the fact that I find technology can really enhance your teaching and enhance the learning because technology is a huge part of our life, right? And so for them, it sometimes increases engagement level, especially if you can add some activities. Sometimes I have my kids play math games against each other online, you know? But I won't be able to do that without developed technology.

What becomes apparent in the interview is that for her, digital literacy is the integration of educational technology tools that “enhance” teaching and learning and “increases engagement.” Asked about where James MacMillan was in terms of integrating digital literacy into the curriculum, Ms. Wells says

> I think we jumped right in with two feet and we did that a few years back to such an extent that we kinda lost track of traditional literacy, that with a lot of
enthusiasm for new toys and gadgets, the literacy part was sort of left behind (thinking) that this technology could take care of it.

Two beliefs are reflected in this statement: that the integration of digital literacy is based on “toys and gadgets”, that is, educational technology that would “take care” of literacy issues they confronted. At the same time, this digital literacy is seen as distinct from, and even detrimental to “traditional literacy.” The devices become a distraction that lets them lose track of essential print literacies. She talks about how they created a Gr. 8 cohort of around 30 students and provided them with iPads, with the core subject teachers of Math, Science, English and Social Studies coordinating lessons and apps on the devices. “When they really looked at it, it hadn’t been the solution and that was dropped a few years after.”

Ms. Wells succinctly explains how technology integration didn’t deliver the results that were expected.

It went right to, well, these sort of apps would take care of all of that or we won’t have any more textbooks, we won’t need paper so it was all about replacing books with devices but not teaching students to effectively use those devices. There was a lot of time spent on digital citizenship—just things on how to not bully other students, how to keep yourself safe but it wasn’t a lot of actual teaching of digital literacy. It was just sort of kept in sort of a tech kind of thing where they could do cool things.
What Ms. Wells reveals here is an understanding that the acquisition and adoption of devices does not necessarily lead to the “teaching of digital literacy” and that the ethical component of digital citizenship still does not suffice as digital literacy instruction. She realizes that for technology integration to be effective, it must go beyond a device or platform centered approach to one that focuses more on developing the competence needed to navigate a digital environment. This perception of technology integration as limited to “new toys and gadgets” and doing “cool things” is reflected also in students’ views of what technology mediated learning should be. Ms. Halloway says

If kids are given the option to do something with technology, they will sign up for that and then when they realize that there’s work involved, they’re gonna drag their feet on it just like they would in any other class.

Apart from limiting how teachers construct their own digital pedagogies, the conflation of digital literacy with educational technology can also shape the investment of teachers in their own identities as teachers of digital literacies. Teachers who do not consider themselves “digital natives” may be less confident about incorporating digital literacy into their instruction, and feel poorly equipped to manage digital projects that can potentially undermine their authority. Ms. Flanders expresses the reason for her hesitation to integrate digital literacy into her classroom.

I’m not really good with technology. So if I’m not particularly good at encouraging students to do projects and things that involve a whole lot of new means, so if they decide they want to do it for a project, I’m happy to have them do it, but at the same time, I don’t feel that I have the skills to teach them.
Because Ms. Flanders adopts a more app-centered paradigm, one where digital literacy is interpreted as the adoption of education technology platforms, she does not consider herself as competent in teaching digital literacy even if she has more than seven years experience as a literacy educator. As one who does not consider herself good with technology, she recognizes how this shifts the power balance in the classroom.

It will be one of the, you know, the rare times where students, for the most part, are way ahead of the teachers. And how do we compromise that? Where usually in the past, you know, the teachers are the instructors, and now, with the kids ahead of us, it’s going to be interesting to see how that’s going to translate in terms of their learning.

In this case, Ms. Flanders upholds the belief in the full authority of the teacher, as one who must possess all the knowledge that can be circulated in the classroom, and views the digital literacies of her students as something that potentially disrupts the classroom order. This ideological standpoint also shapes the kinds of digital literacies that she would consider permissible in her classroom, and the way these literacies are taught.

One other issue that shapes how teachers perceive what constitutes digital literacy is differences in cultures-of-use. Because these conventions and norms emerge from individual life circumstances and practices shared with one’s own cultural groups, how teachers perceive the uses of devices and platforms may be different from how students view them. Ms. Wells, for instance, expresses disappointment over what she discovers her students are not familiar with.
There’s so many students in grade 8 that don’t even know what a file attachment is or how to use a picture and realize that’s maybe copyrighted, how to find things that aren’t copyrighted, how to send something by email.

Similarly Ms. Flanders expresses what she believes is an inadequacy of students today.

They don’t know how to indent using the tab button, so they see, so every single time that they do a paragraph, they go space, space, space, space, space, space, space, and they’ll start a new paragraph. A lot of students don’t know how to double space. And they keep going enter, enter, enter, enter to double space. And when I change something, all the work is just thrown off.

In both cases, what the teachers believe is a necessary competence that the students lack is really a function of differences in each other’s culture-of-use around these technologies. While Ms. Wells may think email is an essential component of digital literacy, it is not necessarily a platform that students view as relevant (see Thorne, 2003) because they may be more invested in instant messaging (IM) through Instagram or Snapchat, and exchanging files through different means e.g. sending them via Messenger or uploading them on Google Drive. At the same time, typing conventions like double-space or indentions are more reflective of conventions in the genres that Ms. Wells values, but not necessarily in the new genres that students are involved in. Using the tab button or setting spacing defaults are found in word-processing platforms on a laptop, but not when one uses a phone where one is more likely to press Space or Enter repeatedly. Because cultures-of-use tend to become natural or common sense to a user,
they become ideological conceptions of how technology *should* be used. By holding a position of power, the teacher is able to impose them as “rules of use”, shaping once again what digital literacies can be taught in the classroom, and what purposes they serve.

**Summary:** Findings in this section demonstrate how teachers, while recognizing that students can have differential access to technology, can still position them as “digital natives” who are naturally adept at using technology. By attributing this homogeneity to this generation of learners, it becomes possible to overlook the fact that digital inequity is not just a function of access but also of use. At the same time, the binary conception of native/immigrant can also be disempowering for teachers who, because of their age, may position themselves as “digital immigrants” and render themselves unable to adapt to these new technologies, and overlook their own competences in teaching literacy. Consistent with the logic that undergirds the curriculum and school policies, digital literacy is conflated with educational technology, reduced to the adoption and manipulation of digital tools, and often limited to notions of digital citizenship. This focus on tools and safety shifts the view away from the actual teaching of a communicative competence where learners are able to acquire the linguistic and semiotic resources needed to navigate the online world. The ideological position of the primacy of print preserves the view that the digital is supplementary and facile, rather than an integral element of the contemporary social landscape. While learners move across online and offline spaces with greater fluidity, the position that print precedes the digital relies on an artificial delineation that is no longer valid.
CHAPTER CONCLUSION: Focusing on the third component of the model of investment, this chapter examines how ideologies embedded in educational policies and practices can construct conceptions of digital literacy that potentially exclude learners who have not been sufficiently socialized at home into digital practices that schools find valuable.

In the previous chapters, we have seen how learners of different class positions can invest in diverse literacies because of their unequal access to capital. Students who grow up in households that do not have the cultural repertoires that help them recognize the informational value of technology can be socialized into digital practices that limit their acquisition of cultural, linguistic and social capital. By assuming an autonomous view of literacy however, schools can easily overlook these inequalities and promote a uniform set of skills that do not take into consideration these material differences. By focusing on the adoption of educational technology tools, schools can also construct a very limited conception of digital literacy, one that is confined to the teaching of how to operate these specific tools. It overlooks the development of a broader communicative competence, a “practical sense” that can allow learners to be more strategic in their own use of technology to achieve both personal and collective goals. This competence includes skills that we have seen some less privileged learners can lack: recognizing genres and cultures-of-use, discovering legitimate knowledge, and expanding social networks. These skills allow learners to navigate spaces more autonomously, operating with a broader knowledge of how online communication works, in a way that parallels Bernstein’s (1960) conception of an elaborated code. Operating within a curriculum of personalized learning where they are expected to be “self-directed”, learners who have not been socialized into this approach need this competence to navigate the online world and develop strategies to acquire legitimate knowledge. In a system where flexibility translates into individual interpretation however, it is easy not just for the teaching of this
competence to be overlooked, but for the understanding of what constitutes this competence to be lost.

**PART C. ANALYSIS**

After the discussion of the research findings, which has been framed through the construct of investment in relation to identity, capital, and ideology, respectively, Part C analyzes how these findings are particularly relevant in the areas of language and literacy research, policy and pedagogy. Chapter 9 asserts that **social class** has become an increasingly significant construct to examine inequalities in the digital world, and proposes different ways of understanding class to make it a particularly generative construct in education research. The chapter seeks to expand the notion of digital literacy as a social practice by proposing the constructs of **digital socialization** and **digital repertoires** that can highlight class-differentiated access to and use of technology. Recognizing how the online world creates new spaces of second language acquisition, Chapter 10 argues that current research does not sufficiently examine how **power** operates in these spaces, and determines modes of inclusion and exclusion of L2 speakers/users. To address this gap, the chapter proposes a **model of digital literacy as a social practice** that outlines the distribution of power across texts, contexts, and users. Recognizing how material and spatial resources shape online and offline communicative practices, it also recommends how **investment** and **imagined communities** can be recalibrated to reflect the realities of a digitally-mediated world. Drawing on findings that examine educational policies and teacher beliefs, Chapter 11 demonstrates how **uncritical constructions of digital literacy** can drive neoliberal mechanisms of marketization, self-regulation, and individualism. To respond to the
demands of a flexible, personalized and self-directed approach to learning, the chapter proposes a more explicit teaching of online genres, their purposes and forms, so that learners can navigate digital spaces with more strategic communicative competence. It also recommends how teachers can integrate a critical digital literacy that enables students to be more aware of how power operates online in the spaces of identity construction, sociality and knowledge consumption.

9.0 SOCIAL CLASS AND THE REPRODUCTION OF DIGITAL INEQUALITY

Recognizing how students who possess different levels of capital can develop unequally valued digital literacies, this chapter discusses how the construct of social class can be particularly generative for an analysis of these inequalities, especially when it is understood as fluid, relational and subjectively experienced. Drawing on Heath’s (1982) study of the culturally-differentiated ways of developing communicative competence, the chapter proposes the construct of “digital socialization” to highlight how learners develop “ways of taking” from both offline and online environments. By using a materialist lens, it examines how digital practices occur in physical contexts, and repositions the role of devices, platforms, and other artefacts in the socialization process. It also conceptualizes the construct of “digital repertoires” to highlight how differences in linguistic, semiotic, material, technical, and social resources shape unequal digital literacies and social futures.
9.1 The increasing significance of social class in the digital world

While social class has been under-examined in language and literacy education research in recent years (Block, 2012, 2014), data from this study has shown how it can be particularly useful in discussions of inequality in post-industrialist and technologized contexts. To analyze the findings, this study operationalized the Bourdieusian notion of social class that does not seek to assign individuals to objectively constituted groups, but focuses on identifying the various nodes of differentiation that exists among individuals that share a social space. This particular lens apprehends class by examining differences in the material conditions of existence, the possession of capital in its multiple forms, and the position people perceive they occupy relative to others. These differences shape their habituses, their dispositions, and sense of place that in turn shape their practices. In educational research in Canada, studies of inequality have often been based on race and ethnicity, and if they do examine differences of social class, they are often limited to socioeconomic status (SES), or conflated with ethnicity, neighbourhoods, and immigration categories. This section challenges the operationalization of class in these studies and proposes how this construct can be re-theorized to reflect the realities of the new social order and to analyze digital inequality.

The first issue that the study has illustrated is how limiting understandings of social class to the “socioeconomic” does not sufficiently capture status or social position. In the study, although Kris lives in a wealthy part of Vancouver, has a parent who is a trained professional, and owns multiple devices, he does not necessarily have the cultural and linguistic capital that allow him to develop a more privileged social network that could accord him a certain status. At the same time, Carmela whose parents work in a factory
and who lives in a rented apartment is able to speak English confidently and possesses
cultural knowledge that enables her to build greater local networks offline and online. In
this case, traditional class markers of family income, occupation and property ownership
are not enough to determine social positions, and a Bourdieusian model of class that
considers economic, cultural and social capital can help address this theoretical gap.

Second, while there is indeed value in using ethnicity as a lens to examine structural
inequalities, what the data clearly reveals is that within ethnicities, there are significant
class differences that impinge on the digital socialization of the participants. The
comparison of Cases A and B outlined the contrasts of the home environments, parental
occupations, and digital resources of Kris and Nancy, both recent Filipino migrants to
Canada, and how such contrasts shaped different dispositions towards technology and
digital practices. Despite such distinctions, some teachers in the study reproduce the
discourses that conflate class with ethnicity by making certain generalizations of
students. Ms. Halloway for instance says “there’s a big difference between your Chinese
international students, who are here usually with Koreans who have a lot of money, then
your Filipino families who are here together working” (emphasis added). When Ms.
Flanders talks about the class differences between Chinese and Filipino students, she
says “obviously, [Filipino students’] wallets are not filled with hundreds” (emphasis
added). What these utterances reveal is that these teachers, while definitely very well
meaning in trying to create an inclusive environment, rely on certain class
generalizations of the ethnicities present in their classrooms, that are not entirely
accurate, and may underestimate the capacities of the students they teach.
Third, data from the study also show how the categories of neighbourhood that used to guide studies of SES also no longer appear to be reliable. When Heath (1983) drew conclusions about how different communities developed different literacy practices, her observations belonged to a time when it was still possible to conceptualize a neighbourhood as homogeneous, where one can find communities that were distinctly “black” or “white”, and that can be classified as “mainstream” or “non-mainstream.” What we have seen in the data however is that “communities” can no longer be understood in such absolute terms. Geographically bound notions of “East Vancouver” or a “west side” school do not accurately represent the diversity not only in terms of race and ethnicity, but also of class. The long upheld class divide of the wealthy West side and the less privileged East Vancouver where there is a high concentration of immigrants has crumbled. In William Campbell for instance which is located in a what is considered an affluent neighbourhood of Vancouver, there is a great number of wealthy tuition paying international students from Mainland China sitting side by side with students like Penny and Steve, children of caregivers and supermarket stockers, who live in rented basement suites or in the less prosperous margins of the catchment, and students like Jasper and Nino who have to do part-time jobs after school to supplement the household income. While there are many East side neighbourhoods that are designated as vulnerable, certain areas of this part of Vancouver are also increasingly gentrified to accommodate the housing needs of the middle class.

Finally, we also have seen how immigration categories like “Family Class” or “Skilled Worker Class” is inadequate to identify whether families are from working or middle class backgrounds. Penny’s mother, for instance, may have come to Canada as a caregiver, and her husband and children came as Family Class immigrants, but this designation
overlooks how in the Philippines, she had a university degree and worked as a nurse, with their family enjoying a middle class lifestyle. The income threshold to become middle class in Canada is not the same in the Philippines, and because of the differences in exchange rates and costs of living, families in the Philippines who receive remittances from breadwinners abroad are able to access resources that they may not otherwise afford in Canada. While her mother worked as a caregiver in Vancouver, Carmela, for instance, was able to study in a private school in Manila and maintain a network of affluent friends.

By challenging the traditional ways in which class has been historically deployed in educational research, I draw on poststructuralist notions of class (Kelly, 2012; 2014) to propose three conceptions through which class can be continually relevant in post-industrialist and technologized contexts.

**Class as subjectively experienced.** It has been generally agreed that traditional class markers like middle class and working class no longer accurately represent the current social order, and I would argue that for class to remain relevant, the focus is not necessarily to discover new models of stratification, nor to contribute to an identity politics that focuses on a collective struggle, but to understand how class operates in the diverse situations of individual lived existence. As discussed earlier, social spaces have become more heterogeneous, and we can no longer trace patterns in terms of collective groupings such as neighbourhoods, schools, or online communities. Hence, in this study, my goal has not been to formulate generalizations of the digital practices of middle class or working class students or public or private high schools, but to understand how material contexts that *index* class shape the lived experiences of
different learners. For instance, by discussing how Jasper’s living in a one bedroom apartment with a caregiver mother who is a single parent, I do not try to draw conclusions about how children of parents with low-income occupations become addicted to gaming, but how certain living and working conditions can create circumstances that can lead to excessive recreational digital use. In the same way, discussing how Kris’ mother, a nurse, supervises Kris’ digital practices is not to make conclusions about the parental involvement of middle class parents, but to show how certain occupations may involve informational digital practices that contribute to the digital socialization of learners.

Crossley (2008) argues that Bourdieu’s conceptualization of social class precludes the formulation of a clear class typology, and what is more important is an examination of how one’s location in social space shapes individual experiences, life chances and habitus, giving rise to a tacit “sense of place” or class unconsciousness. Jasper moves to Vancouver from a rural area in the Philippines, and this shapes how he positions himself as a migrant from a developing country and an L2 speaker with an Ilonggo accent. He considers his accent “terrible” and gets tongue-tied even when speaking with other Filipinos whose L1 is Tagalog. As a caregiver, Jasper’s mother does not need a computer for work and because she has a busy schedule, her digital use is largely restricted to recreational and relational purposes, and happens during the free time she has when she commutes home. By examining how social class operates at the level of individual subjects, the analytic focus is on understanding the material conditions and relations that shape inequalities. In these transnational homes, the language and literacy practices of the learners, their linguistic confidence, their investment in digital practices bear the indentations of the larger global context: the circumstances of their migration,
the experience of long-term family separation, and the position of the Philippines in the
global class hierarchy. Recognizing class as subjectively experienced and focusing on
various individual subjects enables particularized and contextually grounded research
where complex personal histories and practices are understood both in terms of local
conditions and in terms of broader socioeconomic pressures. Through ethnographic
methods, researchers can have a better understanding of the nuances of how social
class impinges on the lived experiences of people.

Class as relational. What we have also seen in the data is that social class is relational
(Kelly, 2012), and that we need to examine how class inscribes itself and is enacted by
particular subjectivities in specific situations. In this sense, class has to be understood
through the lens of the research subjects themselves, that is, to recognize how they
position themselves and other people, rather than to just impose preconceived notions of
difference. In the study, the classed identities of the migrant Filipino youth are shaped by
their own conceptions of class (urban vs rural; public vs private school; native born vs.
FOB). Whether it’s Carmela saying that those from the “probinsya” do not have
sophisticated tastes, or Jimmy saying he went to “just” a public school, or Chrissie
referring to Kris or Eric as FOBs, what is revealed is the students’ own way of
categorizing who is above or below them in the social hierarchy. Parents bring such
valuations with them as well, as Eric shares that his parents chose Saint Gabriel
because they have attached a certain level of prestige with this private school. These
interpretations are confirmed by Ms. Collier who shares how students use these markers
(city/probinsya, private/public) to explain differences in language skills or academic
performance. It is by apprehending these context-specific conceptions of class that
educational researchers can draw conclusions about how these different interactants position each other, and shape their practices in mutually constitutive ways.

**Class as fluid.** By examining the digital practices of transnational learners, the study demonstrates how class is constituted in unbounded ways, constructed subjectively through the experiences of learners who traverse territorial boundaries with great fluidity. Class has traditionally been understood as a fixed location in a stratified structure that indicates wealth or economic power. Whether it is national, local, community or home, it has often been examined as constituted within bounded territorial spaces (Kelly, 2012). With the migrant families in the study, we see how class operates in more fluid ways, as they move across national boundaries and are positioned in different ways across these spaces. Their class positioning in Canada may not reflect their positioning in the Philippines, and needs to be understood through a transnational frame. In this case, while parents may be working as caregivers or supermarket stockers in Canada, they may have been office workers in the Philippines. This is true for Steve, for instance, whose mother works as a caregiver in Vancouver, but used to do administrative work in the Philippines.

While the migrant parents in the study may have been deskilled or deprofessionalized in Canada, their families, by virtue of migrating to a wealthy country, are viewed as gaining upward social mobility, and acquiring the cultural capital of living abroad. Aware of her elevated status, Carmela hesitates to use English in some of her social media that her friends back in the Philippines use, for fear of being labeled as an “Inglisera.” At the same time, those who were born and raised in Canada like Chrissie may position Filipino migrant students as FOBs who do not have linguistic or cultural capital, even if the
parents of these newcomers are professionals or skilled workers, and that these migrant students can speak English confidently. While traditional class analyses tended to assume a bounded national or local scale for understanding class, transnationalism requires a consideration of the multiple spaces and scales in which identities are constituted (Kelly, 2012), and therefore class has to be understood as fluid, as orders of indexicality (Blommaert, 2010) shift across these spaces.

**Technology and class.** As technology continues to be integrated in educational systems and classroom practices, I argue that social class is a particularly generative construct for examining inequality in the digital age. As users navigate digital contexts in usually disembodied ways, the modes of inclusion or exclusion in online interactions are not always determined by embodied categories such as race, ethnicity, or gender. In many cases, users access online spaces through material, technical, and social resources and negotiate their identities through linguistic and semiotic resources. The acquisition of these resources reflects economic, cultural, and social capital, and the volume and composition of this capital constitute class. When Nino creates his Instagram meme account, he chooses a username that is made up of an adjective and a common noun in English, and hence does not reveal his gender or ethnicity. What will enable this Instagram identity to thrive however is having a phone, wifi, memes he could upload, interesting captions, and followers. The availability of digital resources impacts Nino’s capacity to curate his online identities and participate in diverse online communities.

The greatest and most obvious reason that social class matters in discussing digital inequality is that technology requires substantial economic capital. The affordances one
is able to derive from different devices is linked to their costs, and devices continually
need to be upgraded. This is the market logic that cannot be separated from the
production of technology. Digital products and services are produced by companies
governed by ideologies of profit, and thus, access to various tools will always be
stratified. Annie explains that to play and win in Mobile Legends, one has to have not
only a good smartphone, but also superior connectivity. In Cases A and B, while both
Kris and Nancy had digital access, this access had to be qualified further in terms of
types of devices, the autonomy of use (or the ratio of users per device), and the spatial
configurations that determined the frequency and breadth of use. While Kris had sole
use of a laptop, tablet and phone, and shared use of a desktop at a ratio of 2:1, Nancy
only had sole access to her phone. Because the laptop has to be shared with five other
people in the household, and is located in a busy place where there are a number of
distractions, Nancy is not able to spend enough time on this device. Instead she resorts
to her phone, which she accesses while lying down in bed, and spends most of her time
on social media. In contrast, Kris who has practically uninterrupted access to a computer
is able to spend enough time to expand his digital repertoire: for doing his assignments,
reading his favourite anime series, and searching for information online. What these
cases demonstrate is that digital practices can be greatly shaped by class differences in
terms of access to material, technical, and social resources.

Because of the cultures-of-use attached to different devices, variations of access shape
the digital practices of these learners. Almost all students talk about how computers are
for schoolwork, while cellphones are for personal purposes. Because Jack is not able to
use the shared family laptop as much as he wants, opportunities for conducting online
researching is greatly limited. Freya ends up watching The Filipino Channel on cable TV
more than Netflix because her brother always uses the family laptop. Because his siblings dominate the use of the laptop at home, Mario needs to stay in school after class to use the library desktop, and this time-restricted context determines how much time he is able to spend on his assignments. Those whose access is limited to phones, like Nancy, have fewer chances to explore informational affordances. In these situations, the variations of use are inscribed by class and shaped by material differences in the home conditions of the learners. The occupations of Kris’ and Nancy’s mothers create different limitations and opportunities for digital use, and their own practices shape their children’s practices and dispositions towards technology. In some cases, like Ms. Cross, the possession of certain kinds of devices, index not only social class, but digital competence. Because she uses a Macbook, she develops a culture-of-use, a set of conventions and practices around such a tool, which becomes naturalized into competent use, and she positions those with “lower-end” devices as less than competent. We have also seen how Facebook positions its users in terms of class, based on the variability of their digital access. By constructing class groupings based on access and other online behaviour, Facebook controls how content is distributed to specific groups of people, adding another dimension to how social class shapes online activity and modes of exclusion.

While celebratory discourses of technology proclaim how it has the power to connect diverse sets of people, we have seen how social networks online tend to mirror those offline. Nancy’s friends on Facebook are mostly from the Philippines, while Jasper plays League of Legends with his Filipino friends from school. Without the linguistic and cultural capital that will provide them the confidence to expand their networks in the physical world, they might not easily be able to do so in the digital as well. We have seen
through Carmela however how her class position provides her with the linguistic confidence to expand her social circle in Vancouver. As an urbanite who went to a private school in Manila, she had affluent friends who spoke English, watched American TV shows, and helped Carmela acquire the cultural and linguistic capital that would eventually allow her to foster friendships with native-born Canadians and immigrants from countries other than the Philippines. We have also seen how online spaces can have cultures-of-use that reflect specific tastes, creating barriers of entry and class-inscribed conditions of participation. Penny talks about how posts on Instagram have to subscribe to a certain aesthetic, and showcase objects and practices that index a certain degree of privilege: fancy outfits, beautifully arranged dishes, and people on holiday in places with amazing landscapes. Annie will only keep friends on Snapchat who have “beautiful stories”.

To summarize, understanding how social class is subjectively experienced, relational and fluid not only makes it a generative construct to understand the lived existence of migrants in a post-industrialist context, but it also sets the stage for an understanding of digital spaces and online communicative practices. Digitally-mediated identities move across online and offline spaces, and as they negotiate their different forms of capital, they navigate through competing and colluding ideologies that position them in different ways. In this study, we have seen how a Bourdieusian model of class based on habitus, capital, and field lends itself to a to a more materialist and situational approach, where the researcher can examine the interplay of dispositions towards technology, and availability of resources to understand how digital practices evolve. By analyzing how learners operate their resources in various contexts, not only are we able to arrive at a more nuanced understanding of class at work in specific micro-interactions, we are also
able to examine instantiations of learner agency. By not limiting class to the possession of economic capital or material resources, educational researchers are able to understand how the successful negotiation of linguistic, semiotic, technical and social resources which learners possess in varying levels can be used to reframe contexts and relations of power, and provide them with greater agentive possibilities.

9.2 Digital socialization and repertoires

Recognizing that class differences shape material conditions and relations that in turn produce unequal digital literacies, educational research needs constructs that help articulate these differences and highlight their significance. It is for this reason that I propose two terms: digital socialization and digital repertoires.

**Digital socialization.** Duff (2007) has defined language socialization as

the process by which novices or newcomers in a community or culture gain communicative competence, membership, and legitimacy in the group. It is a process that is mediated by language and whose goal is the mastery of linguistic conventions, pragmatics, the adoption of appropriate identities, stances (e.g. epistemic or empathetic) or ideologies, and other behaviors associated with a target group and its normative practices (p. 310).

In this definition, there are processes that novices follow in order to gain membership in a community or culture. By performing a certain identity and engaging with experts, they learn conventions and rules of use that enable them to adapt to what the community
considers normative practices. While socialization at home is always crucial as it shapes durable dispositions and practices, in a digital context, the dynamics of gaining communicative competence expands as the spaces of socialization are multiple and dispersed, and not confined to a specific community. Carmela uses language differently as she engages with different sets of friends on Facebook and Instagram. Nino curates what he posts on these two platforms knowing that what is permissible in one space, may not be accepted in another. As learners negotiate the various ideologies of these spaces, they deploy multiple resources, shifting strategies and performing multiple identities, to assert their place.

To highlight this fluidity, I would like to propose the term digital socialization to refer to the process by which learners acquire dispositions, resources, and competences necessary for agentive digital participation through fluid interactions with online and offline spaces, artefacts, and social networks. Unlike Duff’s conception of socialization that involves how novices become legitimate members of a particular speech community or cultural group, digital socialization takes into account how individuals adopt various cultures-of-use that surround specific tools and platforms. As learners operate in both physical and digital worlds, they are simultaneously socialized into the conventions and ideologies of multiple spaces: at home, in school, on Facebook, or on Instagram. The target of digital socialization is not just the adoption of normative practices, but the ability to shift practices as users move across transideological spaces. Being socialized into cultures-of-use does not mean that digital competences come naturally, but that these competences are developed through the involvement of human and non-human interactants that occupy these multiple spaces.
Because technology allows digital learners to communicate and interact with others who are not physically present, digital socialization itself is distributed. The role of digital mentors is not limited to parents, but is extended to siblings, peer networks, and other social ties that are not bound to home or the local community. Frank learns about computers from his two older brothers, Carmela becomes familiar with cultures-of-use of different social media through her friends, and Nancy’s socialization into video chat practices is shaped by her mother who lives in another country. Following a material perspective, learners are socialized not only by humans but also by the devices and platforms they use, with their corresponding sociotechnical structures and algorithms that interpellate them into certain practices. While learners are socialized into different cultures-of-use on certain platforms through their interactions with others online, they do not necessarily observe the devices others are using, and the ways in which they operate them. Hence, cultures-of-use around specific devices and dispositions towards technology are still largely shaped by local offline environments. Jasper’s interest in recreational digital practices, for instance, reflects his mother’s own interest in games. He observes how she always plays games on her phone during her free time, and similarly, he spends most of his free time playing League of Legends at home late at night. At the same time, because of the physical environment in which he plays, Jasper learns to play while whispering instructions to his friends and playing quietly. In this case, he is interpellated by material conditions and artefacts to perform actions a certain way.

Recognizing how these material conditions shape social practices, Gourlay (2015) proposes that objects like laptops or tablets be recognized as mediators. Students negotiate and interact with technologies and texts, attributing cultural meanings and
qualities to objects and physical spaces. These cultures-of-use as we have seen are
shaped by the affordances of technology, as learners like Jack move between digital and
print formats and link different haptic properties to their capacity to absorb information.
The mobile and browser formats of Google Translate shape how Jimmy finds information
on specific words. Recognizing objects as agentive mediators enables a powerful
analysis of the fine-grained micro-practices within digital discourse. In this case, tools
cease to be neutral and passive objects but mediators that are actively involved in the
processes of digital socialization.

**Digital repertoires.** Through the years, the concept of repertoire has transformed from
being a set of collectively assembled resources associated with a speech community to
one that is more individual. Blommaert (2005) moves from the definition of repertoire as
“the totality of linguistic resources, knowledge about their function and about their
conditions of use in *an individual or community*” (p. 254, emphasis added) to one that
recognizes it as “individual, biographically organized complexes of resources” that
“follow the rhythms of actual human lives” (Blommaert & Backus, 2013, p.15). For
Rymes (2014), communicative repertoire refers to the ways individuals use linguistic and
non-linguistic modes of communication (gesture, dress, posture, etc.) so that they are
able to participate across multiple communities. From a posthumanist perspective,
repertoire becomes more akin to Appadurai’s (2015) notion of assemblages “where
materiality and mediation are best treated as mutual conditions of possibility and as
effects of each other” (p. 233). Their interaction enables what Pennycook (2016) calls a
distributed cognition, where the mind is not the assumed centre from which all
understanding flows, but instead that cognition occurs at different points of this system,
including where the human extends into the technical.
For educational research to better address the inequalities of digital practices of learners, what I would like to propose here is the concept of digital repertoires, which I define as “the individual’s set of linguistic, semiotic, material, technical and social resources that enable the performance of various digital practices in diverse contexts.” In an earlier example, Nino is able to create an Instagram meme account because he is able to draw on his different resources: a smartphone (material), wifi/connectivity (technical), memes that he downloaded from Reddit or images he has taken from Google (semiotic), his competence in English (linguistic), and his followers (social). In this case, social resources are important not only because they socialize him into specific competences, but also because in social media contexts, the number of followers also provides legitimacy and opportunities for promotion. Through the assembly of these resources, users like Nino are able to participate meaningfully in different online spaces.

For Pennycook (2016), repertoire is more than an individual competence but a product of the interaction between semiotic resources, objects, spatial distribution, and social practice. This conception decenters the human, and instead highlights “a distributed set of online semiotic possibilities” (p. 7), integrating understandings of the translingual, transmodal and transtextual semiotic practices that are not limited to an individual or online community. From this viewpoint, the interactants in an online environment are both the named people and the semiotic resources distributed across online and offline networks. While there is value in this perspective to understand digital socialization and the operation of power in online spaces, my purpose in recommending a specifically digital repertoire that is tied to an individual rather than specific contexts is to highlight
the mechanisms of digital inequality. Not everyone has access to high-powered smartphones, high-speed broadband, or access to landscapes that are “Instagrammable”, and these inequalities are not just products of specific interactions but systemic and reproducible. Because of this reality, I argue for an understanding of repertoires that remains tied to the individual, whose history, social location, and identity shape his or her access to resources. The construct of digital repertoires can be used by researchers of identity and investment in digital literacy practices as a means to discuss inequalities of access and use, especially as the construct corresponds to capital as a component of Darwin and Norton’s (2015) model of investment. Together with the notion of digital socialization, digital repertoire draws attention to conditions of materiality. It recognizes that digital literacy events, while transient, are indexical of systemic inequalities, and that the resources one possesses provide agentive possibilities.

10.0 SECOND LANGUAGE ACQUISITION AND POWER IN ONLINE SPACES

In her seminal article, “Social identity, investment, and language learning”, Norton (1995) noted that second language acquisition theories needed to take into consideration the relationship between the individual learner and larger social processes. The social during that time referred to differences between the language learner and the target language community, and Norton put forward a means of understanding “how relations of power in the social world affect social interaction between second language learners and target language speakers” (p. 12). She sought to frame critically the complex, heterogeneous contexts in which informal language acquisition takes place, and to examine the inequitable relations of power that govern such contexts. More than two decades later, the contexts of second language acquisition have rapidly expanded and diversified,
especially through the affordances of technology. In the study, we have seen how learners spend almost as much time online as offline, participating in multiple spaces that traverse national boundaries. While lying in her bed in Vancouver, Nancy keeps in touch with friends in the Philippines through Facebook. Nino meets Filipino gamers in the US while playing League of Legends in his living room. In both cases, the two students are able to occupy spaces and time zones, where private and public spheres converge.

Before the digital revolution, migration was seen as unidirectional, a process of integrating into a country of settlement, and learning norms and conventions of a speech community. Today, learners oscillate between online and offline contexts, negotiating diverse ideologies, and interacting with others in synchronous and asynchronous ways. They are never just in a country of settlement, but move fluidly across multiple spaces, and in this state of flux, they learn the linguistic norms and conventions of communities not necessarily constructed by language, but by different interests. While Norton’s study focused on the language acquisition processes of immigrant women in the fixed, local contexts of work, home, and neighbourhood, the migrant youth in this dissertation traverse physical and digital contexts, simultaneously occupying the local and the global as they engage with diverse others.

In the online world, not only do the boundaries of time and space collapse, but so do epistemological parameters of language and literacy. Speech and writing converge, and digital practices are never exclusively one or the other. People read, write, comment and engage in dialogue, transact and search for information in interactive ways that simulate speech. The interactants of sociotechnical structures and algorithms are not unlike the
interlocutors that shape the direction and flow of a communicative event. When Frank types “what is the onion news all about” in the Google Search field, he receives a response in the form of a list of links to Wikipedia and The Onion, that have been identified and arranged in an order, based on his formulation of the question. This kind of dialogue online becomes even more common as bots are programmed to respond to client inquiries in various websites, and virtual assistants like Siri and smart speakers like Google Home answer questions about the weather. As the online world becomes an increasingly significant context of language acquisition, I take the position that examinations of online communicative events should encompass the whole gamut of digital literacy practices. In the study, we have seen how informal language learning happens when strangers correct the grammar in Nino’s Instagram posts, and Carol corrects the spelling of her cousins on Facebook. Jasper gets to speak English while playing League of Legends, even though he rarely gets to do so during his face-to-face interactions with his mostly Filipino friends. Whether they serve informational, relational, recreational, expressive or operational purposes, these digital practices occur through dynamic exchanges of human and non-human interactants, and are shaped by different norms and conventions.

In the mediated reality of the online world, power operates in new, dynamic ways. The sociotechnical structures and algorithms of digital media have the power to shape online social processes. They determine the kind of information we get from Google searches, the composition of our Facebook newsfeed, and the categories that allow us to represent our identities on our Twitter profiles. At the same time, online interactions cannot be separated from the physical world as material conditions also shape entry and participation in these mediated spaces. How Jimmy searches for an accurate translation
of the word "immune" on the 4.7 inch display of his phone in the middle of a busy living room, will be different from how Kris finds answers to his science homework on the 15-inch screen of his laptop while sitting in a quiet study area. In both cases, the physical environment and the tools have the power to shape the mediated interaction. To participate meaningfully in these spaces, the users draw on these spatial and material resources, their languages, knowledge, and social networks, all of which are forms of capital, which is power.

In the field of SLA, much research has been done that recognize how these digitally-mediated spaces of language acquisition are a product of both online and offline environments. I would argue however that the field has not sufficiently examined how power operates in these online interactions, particularly through the invisible layer of sociotechnical structures and algorithmic processes. Following this assertion, I argue that SLA theory needs to develop a more comprehensive understanding of how power operates in online communicative events through the interaction of users, contexts, and tools. These events are structured not only by humans but also by the physical environments in which they transpire, and by the forms and mechanisms that enable digital environments to operate. A critical examination of how these components are inextricably intertwined has become necessary for researchers and educators to help learners in the 21st century navigate the online social world more skilfully and claim their right to speak. To contribute to this purpose, I propose a critical framework that draws attention to the ideological mechanisms that are often rendered invisible in digitally-mediated contexts, and to the capillaries of power that flow between the online and offline worlds.
10.1 Rethinking digital literacies

The findings of this study have consistently demonstrated how digital literacies encompass the quotidian events of the learners’ lives. From the moment Nancy wakes up in the morning and checks Facebook to later in class when she searches for the meaning of “incandescent” on Google Translate, she engages with various digital literacies that fulfill different purposes. If we look at models of digital literacy however like the BC Digital Literacy Framework, these practices are classified into categories that fit particularly academic purposes: research and information literacy; critical thinking, problem solving and decision making; creativity and innovation; digital citizenship; communication and collaboration; technology operations and concepts. While the next chapter will discuss in greater detail how such classification schemes formalize components of practice as universal standards for school, what is important to point out here is that such a heuristic seems detached from the wider set of digital literacies youth engage with outside of school. This artificial delineation, I would argue, contributes to a compartmentalization of literacies that makes parents, teachers, and students overlook how even more mundane digital practices also involve literacy. When Nancy’s mother scolds her daughter for spending too much time on Facebook, and says, “Magbasa muna kayo! Puro Facebook! (Read first! It’s just all Facebook!)”, what is not taken into account here is that scrolling down a newsfeed does involve reading, but just not in a genre that she would consider valuable. If we recognize however that digital literacies encompass the wider social arena of second language acquisition, we need a heuristic that does not just view these literacies as targeted school-based skills, but as social practices that fulfill various purposes.
What I would like to propose here is a way to think about the various social intentions that enable users to invest in specific digital practices. Halliday (1975), in examining the ways children learn how to mean, identified seven functions of language that motivate them to learn language: instrumental, regulatory, interactional, personal, heuristic, imaginative, and representational. Similarly, what I propose here is a heuristic that focuses on the intentionality of digital practices, one that takes into account the identities, lived experiences, and knowledge of users as they engage with technology in the many aspects of their lives. For instance, when Penny starts “streaks” with her friends on Snapchat and accepts friend requests from acquaintances on Facebook, her intention is relational, that is, she maintains social ties with family and friends, and also expands her social networks. Searching for information in an online encyclopaedia and typing up a report for school serves an informational purpose that allows her to consume and produce knowledge. When she posts stylized pictures of landscapes on her Instagram account, and takes a selfie of herself using different filters on Snapchat, she performs expressive practices that allow her to represent identities and to express herself creatively. Playing NBA games on her PlayStation 4 and reading sci-fi and romance stories on WattPad are more recreational practices. When she goes shopping online, and arranges the settings on her phone, her ability to manipulate these devices and platforms and perform certain transactions online reflect more operational practices.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Practices</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational</td>
<td>Communicating, Collaborating, Expanding networks</td>
<td>Maintaining a streak on Snapchat, Friending someone on Facebook</td>
</tr>
<tr>
<td>Informational</td>
<td>Consuming and producing knowledge</td>
<td>Doing a Google search, Expressing an opinion in a comments section</td>
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Table 10.1 Classifying digital literacies

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Practices</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressive</td>
<td>Representing identities</td>
<td>Taking a selfie</td>
</tr>
<tr>
<td></td>
<td>Rendering images</td>
<td>Editing pictures on Instagram</td>
</tr>
<tr>
<td></td>
<td>Composing artistic texts</td>
<td>Publishing fan fiction</td>
</tr>
<tr>
<td>Recreational</td>
<td>Playing games</td>
<td>Playing League of Legends</td>
</tr>
<tr>
<td></td>
<td>Participating in leisure activities</td>
<td>Watching a movie on Netflix</td>
</tr>
<tr>
<td>Operational</td>
<td>Conducting transactions</td>
<td>Purchasing goods on Amazon</td>
</tr>
<tr>
<td></td>
<td>Operating devices</td>
<td>Determining the settings for a phone</td>
</tr>
<tr>
<td></td>
<td>Designing software</td>
<td>Coding</td>
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</table>

While the table organizes these ideas in different boxes, what needs to be understood is that digital practices springing from specific intentions are not discrete and separate, but are overlapping and mutually constitutive. While a user may initially engage in a digital event with a specific intention, he or she may achieve other purposes in the process of that engagement. For instance, while Nino may play League of Legends for entertainment purposes (recreational), he also masters keyboard controls (operational), chooses and constructs a champion or avatar that would best represent him (expressive), meets other Filipino gamers in other parts of the world (relational), and learns about other cultures (informational). In this heuristic, creativity and criticality are not seen as separate components like in the BC curriculum, but are integral to all these practices. Expanding the scope of what digital literacies involve enables a broader understanding of these online spaces of language acquisition.

10.2 Proposing a model of digital literacy as a social practice

To recognize digital literacy as a social practice is to understand that people use their digital repertoires for specific purposes in specific contexts of use, and that these digital
practices are always embedded in social relations of power. While Warschauer (2009) has articulated an ideological model of literacy that highlights the differentiated, situated and encultured ways in which digital practices happen, there is no model that outlines how power is distributed across both physical and digital contexts to produce these practices. To address this gap, I would like to propose a model of digital literacy (Figure 10.1) that demonstrates how the process of mediation is situated and entangled with various contexts, objects, cultures, and identities. While material analyses pay particular attention to the interaction of human and non-human interactants, I argue that what is often overlooked is the invisible mechanisms of algorithmic processes and the sociotechnical structures that enable this mediation to take place. This model fills that gap, and outlines how digital practices are produced through the interaction of users, tools, and contexts. I explain each one by drawing on data from the study.

Figure 10.1 Model of digital literacy as a social practice
User. For Bourdieu (1986), capital is power, and in the previous chapter, we have seen how capital in the form of various resources constitutes a user's digital repertoire. To fulfill specific purposes in various contexts, users draw on their repertoires to perform digital practices. For Penny to share pictures on Instagram, she needs a smartphone with a camera (material), wifi and storage space (technical), pictures of landscapes (semiotic), a caption with appropriate hashtags (linguistic), and people to share it with (social). It is through the assembly of these different resources that not only digital production but also online interaction is made possible. The availability of these resources however varies across users: not everyone has access to “Instagrammable” landscapes, or powerful cameras that will produce high-resolution photos. Those without smartphones or high-speed connectivity will not be able to play Mobile Legends with Annie, or win against her. Users invest in specific digital practices because they have different social intentions, which are listed in the diagram close to “user”. At the same time, the digital practices produced through the intersection of user, tool, and context, also become a part of the context, enacted in spaces-of-use, aligning with or resisting existing cultures-of-use and forms of institutional control.

Tools. Tools refer to both technological devices (hardware like computers, smartphones, and tablets) and platforms (software like programs and apps) that have been designed to fulfill specific social purposes. What we have seen in the data is how physical features of devices such as screen size, keyboards and portability shape the digital practices that surround specific devices. Carol uses her laptop for “school stuff” and her phone for “non-school stuff” because each offers different affordances, while Steve, who does not have a laptop has to type up reports on his iPad. Differential access to devices, including
autonomy of use, shapes the dispositions and practices of these learners. Nancy uses their family laptop to print assignments, and is not able to experiment with its informational affordances. Manufacturers, engineers, and software developers create these tools not only to satisfy the needs and desires of different consumers, but also to make a profit, and this duality of purpose is manifested in the sociotechnical structures and algorithmic processes of different platforms.

**Sociotechnical structures.** For digital tools to serve various purposes, their technical design must take into account different social requirements (Whitworth & Ahmad, 2014). Understanding how information systems operate helps us recognize how the interface of different platforms have been structured specifically to meet such requirements. While human-computer interaction studies examine the psychological and cognitive components of technology use, a sociotechnical lens enables inquiry into how the mechanical (hardware) and information (software) levels of computing shape human and societal interactions. Sociotechnical structures refer to design elements—layout, linguistic and semiotic features—that direct and enable the user to perform certain social actions. In this sense, sociotechnical structures possess the power to *structure* digital practices, and drawing on Althusser (1971), they serve as apparatuses that interpellate or “hail” individual subjects in digitally-mediated social interactions. How Annie represents her identity and expresses her feelings on Snapchat is shaped by the filters that the platform has created. The system of displaying how many people have “liked” her posts on Facebook compels Penny to accept friend requests from strangers so that she can accumulate more likes. In this context, sociotechnical structures shape ideologies of sociality where relations and popularity become quantifiable.
**Algorithmic patterns.** While users interact with visible sociotechnical structures and make choices regarding which buttons to press, and which links to click on, how user input is processed to generate a specific output is a product of algorithms. Social actions are coded into algorithms, which operate invisibly in the sense that they are not visible to the user, and that they are proprietary and are therefore not shared publicly. Nonetheless, patterns created by these algorithms can be inferred. Eric recognizes that the search results on his YouTube search are arranged based in part on the number of views each video has received, and because of YouTube’s algorithm, he ends up watching videos that have been, in a sense, promoted and verified by other users who have decided they are legitimate. Algorithms determine which tweets appear on Carmela’s Twitter feed, and identify which users and how many will be able to see Nino’s memes on Instagram. With its proposed patent, Facebook is able to extract details about users that position them in terms of class (number of devices, duration of internet usage, mobility/travel) and through the algorithms they create with this information, they can determine what kind of information reaches specific users. As a legitimate knowledge logic, algorithms integrate and protect commercial interests, and construct a hegemonic rationality that privileges certain sources of information over others (Gillespie, 2014; Granka, 2010; Kirkpatrick, 2008), while determining who will have access to this information.

**Contexts.** In this model, context refers to the transideological material spaces where digital practices are enacted and where cultures-of-use and institutional structures have the power to impose norms or rules that shape these practices.
**Spaces-of-use.** Digital practices occur in both physical and digital spaces, and we have seen in the data how both impinge on the behaviours of different users. In the case of Jasper, for instance, the fact that he sleeps in the living room where the desktop is located determines how he plays games. So that his mother would not catch him playing games on a school night, he waits till she is asleep before playing League of Legends (LoL) with his friends, and he speaks to them very softly so as not to wake her. This situation highlights how the user inhabits both physical and digital worlds, and how the material conditions of both spaces affect each other. Jasper is simultaneously in the LoL universe and his living room, and the need to speak softly shapes the dynamics of his online participation. How well he plays in the game is not just a matter of skill, but also internet speed, his champion/avatar, his relationships with other gamers, and his capacity to communicate game strategies. He engages with a range of multimodal signs that appear across the physical space, the screen space and the virtual space with a certain polyfocality (Jones & Hafner, 2012). As a user interacts with physical and digital contexts, power is distributed to the objects and the people that inhabit them, redirecting attention and demanding a response from the user. At the same time, within online spaces are gatekeepers and audiences that possess the power to allow or refuse entry, and to enable and disable meaningful participation. Annie blocks people whose stories are not beautiful enough for Instagram, while Nino curates the content on his Instagram so that it corresponds with the expectations of his imagined audience. As social media collapses diverse social contexts (Marwick & boyd, 2011), users need to negotiate identities and relations of power, while managing tensions between public and private worlds, and authenticity and concealment.
**Cultures-of-use.** Different cultures develop around the use of certain devices and platforms, and across different groups of people (Thorne, 2003). Most of the students use their phones for recreational and relational purposes, and view laptops as informational tools. Facebook is more popular with Filipinos than Instagram, and because of this, Nancy rarely uses the latter, restricting opportunities to develop relationships with local students in Vancouver who prefer Instagram. Ms. Wells laments how her students do not know how to attach documents to an email, without recognizing that email use is also culturally bound, and is not necessarily deemed as valuable by younger users who use other means of sharing files. As these cultures are embedded further in the minds of users, they become rules of use that can be imposed on others and thus become implicated in the operation of power. Believing in the necessity of email, Ms. Wells positions her students as inadequate, and has the power to require the use of this particular medium.

**Institutional control.** While cultures-of-use tend to develop more organically, digital practices are also shaped by institutions who impose control on certain behaviours. Copyright laws determine the use and sharing of digital artefacts, and the digital policies of schools limit when and what students can access. In Saint Gabriel, Ms. Cross believes that the focus of the BC curriculum is online safety, and has thus focused her teaching on identity protection, and understandings of the digital footprint. Because Ms. Flanders tends to distrust online sources, she restricts her students to citing only print sources, and does not allow them to refer to online articles, and because of such control, opportunities for informational digital practices are withheld from the students.
By drawing on their different resources, users are able to use the digital tools available to them and produce diverse digital practices in various contexts. The user is also “used”; that is, different digital tools can also control the actions of users, directing them to specific behaviours that fulfill the design intentions of the producers of these tools. The agentive connotation of the term “user” makes invisible how users themselves are “used” or programmed through the sociotechnical structures of a particular platform.

10.3 Revisiting imagined communities and investment

When Norton (2001) sought to understand learners’ non-participation and acts of resistance to language learning, she developed the construct of imagined communities and imagined identities to refer to their own vision of a world outside the classroom that transcended time and space. Expanding this conception further, Kanno and Norton (2003) asserted that identities need to be understood not only in terms of the real, but also the possible, and it is through imagining identities and communities that one is able to invest in a target language. They defined imagined communities as “groups of people, not immediately tangible and accessible, with whom we connect through the power of imagination” (p. 241), and these communities include both future relationships and affiliations that extend beyond local networks. This construct consolidates Wenger’s (1998) theorization of imagination as “a process of expanding oneself by transcending our time and space and creating new images of the world and ourselves” (p. 176), and Anderson’s (1991) position that nations are imagined communities “because the members of even the smallest nation will never know most of their fellow members, meet them, or even hear of them, yet in the minds of each lives the image of their communion” (p.6). Imagined communities have defining sets of rules and regulations, and in this rule-
based imagination (Vygotsky, 1978), there are requirements for participation that allow newcomers to gain access and legitimate membership. Schools and parents also imagine communities for their students and children, shaping curricula and policies, and enrolment in language programs. Imagined communities provide learners with a range of possible selves, especially as imagination is mediated by mass migration and communication developments that enable a globalized perspective and facilitate the construction and maintenance of transnational ties. Kanno and Norton (2003) also acknowledge that the imagination is circumscribed by ideologies and that “processes of social stratification socialize the least privileged children into the most impoverished imagined communities” (p. 247).

In the study, when Nino talks about his aspiration to become a game designer or a YouTuber, he imagines an identity that enables him to invest in digital practices that are linked to his aspiration. He creates a meme account on Instagram, edits videos to post on YouTube, and talks to other gamers online. He participates in social media platforms and multiplayer games, and other online communities that Gee (2004) refers to as affinity spaces. Geographically distributed and digitally mediated, these spaces are fluidly populated by people who share similar interests. By envisioning membership in an imagined community of successful game designers, Nino is able to participate in online communities, which he continues to imagine as they are not “immediately tangible” and with whom he connects still through the power of imagination, that is, through his own interpretations of who is “out there” in the limitless expanse that is the internet. By drawing on his digital repertoire, Nino is able to curate his identities across different platforms, and create digital artefacts i.e. videos and memes that he believes correspond to the tastes and preferences of the community he imagines for himself. People who
share his interests are able to subscribe to or follow his accounts, and thus become part of the community that he sought to build. In this sense, the imagined community is no longer just an abstract collective of people bound by a common language or profession, and who will never meet or hear of each other. Instead, the imagined community begins with the imagination of who should comprise this community, and constructing this community by assembling the relevant linguistic and semiotic resources. This process requires not only a set of resources, but also the knowledge of the affordances and constraints of the given sociotechnical structures and algorithms, and the cultures-of-use that surround a specific platform. It is through this communicative competence that a user is able to make an imagined community materialize. Even though this community remains disembodied and dispersed, it enables real networks and interactions of a potentially global scale.

Given how digital media has reshaped possibilities for the formation of communities, I would like to propose several points on how imagined communities can be reconsidered in the digital age.

1. Through the development of new technologies, occupations that did not exist a little over a decade ago like YouTubers, Instagrammers, app developers, etc. have emerged and become part of the aspirations of some youth. Educators need to be aware of these new possibilities that shape the imaginations of youth, and how such possibilities impact their investment in language learning.

2. As online spaces continue to multiply and provide learners with infinite choices, they are also ushered into more fragmented spaces that are bound by very specific interests, and which Gee (2005a) refers to as “affinity spaces”. While
earlier conceptions of imagined communities were built on broader notions of nation, speech communities, or professional affiliations, communities online can be more atomized and expose students to more diverse ideologies. They can remain imagined however not only because membership in them continues to be aspired to, but also because some communities remain online, and thus require learners to continue to imagine this virtual community. At the same time, because of the affordances of technology, learners like Nino also have the opportunity to create their own communities online, and this involves Nino being able to imagine what kind of community he wants to create, and then proceed to make this community materialize through the deployment of his linguistic, semiotic, material, social, and technical resources.

3. While imagined communities may become more accessible through digital media, the inequalities and modes of exclusion within these online communities also become more invisible. In contrast to the operation of power in physical spaces where economic power manifests itself in more concrete ways, power online is imposed in more complex, multilayered ways. As learners move across these spaces with greater fluidity, the constellations of power continually shift, exercised through linguistic and semiotic elements, and shaped also by algorithms and sociotechnical structures.

**Investment.** As the spaces of socialization multiply online, and learners engage with more diverse sets of people, it becomes easier for learners to move across transnational spaces, and to retreat from physical spaces where they do not feel they hold a legitimate place. Because Jasper feels insecure about his Filipino accent, he is not able to actively engage with English speakers in his school, and participate in the language and literacy
practices of the classroom. Instead he ends up spending more time playing League of Legends with his friends, where he could speak Filipino, and he believes his identity and capital can be valued. Chrissie observes how Kris who does not have the linguistic confidence to participate in face-to-face conversations with English-speaking classmates tends to spend most of his free time in school with his gadgets. In this sense, both Jasper and Kris divest from practicing English, and choose what Norton (2001) called non-participation. Recognizing how digital technologies, particularly mobile devices, provide learners with multiple spaces of socialization, this chapter proposes that the notion of divestment is particularly relevant in the digital age, where it becomes easier for learners to disengage from specific communities where they do not feel accepted or comfortable. By examining instances of divestment, researchers can examine further how power operates in communicative events, and understand how learners withdraw from specific contexts not necessarily because they are pushed out of these spaces, but because they exercise their agency to do so.

11.0 21ST CENTURY SKILLS AND THE GRIP OF NEOLIBERAL IDEOLOGY

In this chapter, I argue that uncritical interpretations of what constitutes digital literacy, constructed and perpetuated by educational policies and teacher beliefs and practices, can be held by the grip of neoliberal ideology, promoting notions of individualism, deregulation, and the entrepreneurial self, and ultimately reproducing social inequalities. Conceptualized as skills essential in the 21st century, these new literacies are often positioned as discrete competences that exist only to serve the labour needs of the knowledge economy. By reducing digital practices to their economic value, the
components of digital literacy articulated in curricula and educational policies can be limited to those that prepare learners to become productive workers. Teachers of course are able to go beyond these instrumental purposes, and facilitate digitally-mediated learning activities such as digital storytelling or the production of identity texts that serve more relational and expressive purposes. To bridge curriculum and classroom, what this chapter seeks to do is to discuss how education policies can be circumscribed by neoliberal ideology, and to propose ways in which language education can resist this circumscription and contribute to the holistic growth of learners.

Controlled by the internal logic of a liberal market, neoliberal ideology has the power to erase a critical impetus that can challenge self-interested individualism and existing modes of exclusion. By focusing on technology as a tool for personalized learning, ideological articulations of digital literacy curricula can also contribute to neoliberal discourses of self-regulation and the entrepreneurial self (Foucault, 2008) erasing structural inequalities that shape these literacies, and highlighting the accountability of the individual learner. At the same time, an autonomous model of digital literacy facilitates the learning of prescribed skills that reproduce already existing practices. To address this issue, this chapter proposes the teaching of online genres and critical digital literacy as key to the development of a sens pratique, an online communicative competence (Darvin & Norton, 2015) that allows learners to both learn the “rules of the game” and to transform the game itself. Framing the learning of digital literacies through genre awareness, I argue, can provide learners with a multilayered map to navigate the digital world, and to understand the intersection of content, purpose and form of various online communicative practices. Critical digital literacy, on the other hand, can provide a lens to examine this map in ways that take into account broader social contexts and
more situated forms of knowledge and inquiry, and to understand how power in these various contexts operates through human and non-human agents.

11.1 Digital literacy and the construction of the entrepreneurial learner

In the neoliberal order driven by privatization, deregulation, and the supremacy of market forces, people govern themselves through a freedom that is understood “as choice, autonomy, self-responsibility, and the obligation to maximize one’s like as a kind of enterprise” (Rose, O’Malley, & Valverde, 2009, p. 91). For Olssen and Peters (2005), the rise in the importance of knowledge is “[t]he most significant material change that underpins neoliberalism in the twenty-first century” (p. 330), and in this enterprise, knowledge practices are produced through relations of power (Peters, 2007), between individuals who navigate these market-driven spaces as homo economicus, “an entrepreneur of [one’s] self” (Foucault, 2008, p. 226). Entrepreneurial learners are responsible for accessing legitimate information, making rational choices, and developing the skills required by the knowledge economy. Heller (2008) asserts that in the current political economic context, literacy education is often imagined as a neutral field where techniques are transmitted for economic integration, and communicative practice is positioned as a measurable skill that is more directly tied to an economic objective, without necessarily providing an understanding of the actual conditions of life. Practical and technical forms of knowledge are emphasized over productive and transformative knowledge.

This neoliberal conception of learning is reflected in educational policies like the BC Educational Plan (Province of British Columbia, 2015a), which is driven by the economic
imperative of preparing young people to be absorbed into the workforce. The repetition of key words in the new curriculum like “self-directed”, “personalized” and “flexible” point to a customization of education that assumes an entrepreneurial freedom, which requires students to govern themselves and to make responsible choices for individual gain. At the same time, the curriculum describes this personalized approach as “ICT-enabled”, that is, technology is seen as a neutral tool for learning rather than as an object of learning that requires critical scrutiny. This tool-centered paradigm is also embedded in the BC Digital Literacy Framework where “digital” and “technology” are often collocated with the verbs “use” or “apply”. Digital literacy is divided into components like research and information literacy, creativity, digital citizenship, communication and collaboration, where the focus is on output: specific knowledge or skills that are developed from the use of such technologies.

These ideological constructions of digital literacy and personalized learning shape inequalities in different ways. First, we have discussed in the previous chapter how students of different class positions can be socialized into contrasting dispositions towards technology, and can develop different digital repertoires. Learners like Nancy and Penny who are not sufficiently socialized into information-oriented digital practices may not have adequate tools to “direct” themselves to legitimate knowledge online. As inquiry-based approaches encourage research of personal interests, students who have not been able to cultivate certain cultural tastes and interests at home, may not be able to pursue inquiries that would produce capital valued in school or in the knowledge economy. In contrast, more privileged students like Frank who have been socialized into such research oriented digital practices and possess the cultural capital that can direct and structure their research can have a clear advantage. If schools are not able to
provide literacy instruction that allows less resourced students to gain the communicative competence necessary to pursue self-directed learning, it becomes easier for these students to slip through the invisible cracks of a flexible approach. Data has also shown the paradox of how teachers like Ms. Halloway recognize the inequalities of access, but still default into a more essentialized view of students’ digital literacies. For her, “not every family has a computer”, but at the same time, “teenagers pick up things so quickly”, and so their “base knowledge” of digital literacy is “the same.” Defaulting into a conception of a “digital native” who has a naturalized competence (Park, 2010) erases the privileged position of those who possess the capital to develop broad digital repertoires. By obscuring how social class constrains access to resources, the digital literacy curriculum rationalizes and justifies the neoliberal logic of the entrepreneurial learner who has the complete freedom to choose.

Second, the conflation of digital literacy with educational technology can construct teaching beliefs and practices that focus on the operation of tools rather than the appropriation of their informational, relational, and expressive affordances. Ms. Cross demonstrates this preoccupation by emphasizing how technology is something that “enhances” learning and teaching, and “increases engagement level.” Her interpretation of digital literacy centers on online safety, which also focuses on tools and platforms and their proper use. Conceptions of digital literacy that are limited to digital citizenship and that exclude more critical and transformative possibilities can train students to follow rules and conventions, but not provide opportunities to innovate, to develop a more strategic competence, or to critique the inequalities of a technocentric society. On another level, a focus on technological devices can interpellate teachers into notions of digital competence that are constructed by ideologies of consumerism. Ms. Salvador,
for instance, associates “tech savvy” with users of more expensive Macbooks, and believes users of devices “on the lower end” like a Windows PC or Asus laptop are not as digitally competent. A Mac user herself, she is socialized into specific cultures-of-use that become her own measure of competence, and she positions learners based on her familiarity with certain devices. When teachers’ understandings of access are restricted to more binary conceptions, that is having or not having a computer or a smartphone, it can also become a rationale for teachers to forego the teaching of digital literacies in the name of equity. Ms. Halloway speaks of limiting “the amount of digital homework, because it highlights who has and who has not.” While her awareness of unequal access is important, the underlying assumption is that digital literacy learning activities require a 1:1 ratio of user to device, reflecting once again a focus on devices.

Finally, the discourses of flexibility and autonomy articulated in educational policy constructs not only the entrepreneurial learner, but also the entrepreneurial teacher. In the study, teachers are given the freedom to decide how to integrate digital literacy into their classes and are expected to be resourceful enough to produce innovative methods but are not given any foundational support. Ms. Halloway reiterates how these digital policies are “putting emphasis on a direction that we have no support for” and how they are “just words on paper to us.” There has been no school-wide dialogue to construct a more comprehensive or consistent strategy. Ms. Wells laments about how when it comes to the digital literacy component of a Grade 8 rotation subject, “each year, a different teacher comes in and they haven’t built kind of like an ongoing strategy so that it does get to every student every year.” Without a more consistent and coordinated pedagogical approach, some students may not have the opportunity to learn critical
components of digital literacy, and it becomes, as Ms. Wells puts it, a case of “hit or miss.”

When a curriculum prioritizes the use of educational technology tools over the learning of situated digital literacies, it also contributes to a neoliberal agenda by moving curricular decisions closer to corporations that provide these technologies and platforms. In BC, the Ministry of Education has partnered with companies like Fujitsu and Cisco to develop its digital infrastructure. Through learning management systems like Fresh Grade, learning can be tracked, stored and manipulated, and learners provide data to companies that serve as useful information for the development of new profit-generating technologies. Accredited but under-regulated private online schools in BC benefit from enrolling international students who are willing to pay extra fees, believing they are more likely to receive the credit they need. In the study, Ms. Halloway and Ms. Flanders lament how students who take the required English 10 course online tend to get inflated marks even if there is no distinguishable improvement in their language competence. The privatization of this credentializing process becomes subject to a market logic where those with the economic capital are able to acquire cultural capital even though authentic learning has not necessarily taken place.

The embedding of neoliberal ideology in educational policies is not unique to the BC curriculum. P21 or the Partnership for 21st Century Learning (P21, 2015) similarly highlights how students have to be “better prepared to thrive in today’s global economy” (p. 1). It identifies “information, media and technology skills” where learners “use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and
create information to successfully *function in a knowledge economy*” (p. 6, emphasis added). Again, the focus is on the appropriate use of tools and the disciplining of digital practices to serve the needs of the knowledge economy, rather than the development of transformative digital literacies that serve wider social purposes. The strategic council of P21 include representatives from companies like Crayola, Faber-Castell, Walt Disney, the Rex Knowledge Group that develops print and digital learning materials, and Goddard Systems, an early childhood education provider with more than 400 franchised schools in the US.

The International Society for Technology in Education Standards (ISTE, 2007), which the BC Digital Framework was based on, similarly divides 21st century learning into discrete skills where students use tools and produce specific technological output. Its “Research and information fluency” standard involves “apply[ing] digital tools to gather, evaluate, and use information. The meaning of “evaluate” is qualified in a bullet point as “select[ing] information sources and digital tools based on the appropriateness to specific tasks” (emphasis added). Just like in the P21 framework, digital tools are assumed to be neutral, and evaluated only to determine which are appropriate for specific tasks. There are no recommendations to examine more critically the sociotechnical structures that are built into these tools. The policy research brief on 21st century literacies of the National Council of Teachers of English (NCTE, 2007) is perhaps one of the few documents that do not just prescribe discrete skills but take into consideration the broader social context, and includes issues of student-to-computer ratios, connectivity, and the need for teacher training. It encourages teachers to “explore technologies students are using outside of class and find ways to incorporate them into [their] teaching” and to “include a broad variety of media and genres in class texts” (p. 5).
While there is no mention of interrogating how tools are not neutral, these recommendations align with what I view as important for addressing the gaps constructed by neoliberal interpretations of digital literacy. In the next two sections, I argue that if we want learners to gain online communicative competence (Darvin & Norton, 2015), they need to be able to navigate and assert their legitimate place in digital spaces, and an awareness of online genres and critical digital literacy can be particularly useful in this regard.

11.2 Online genres and the cartography of power in the digital world

As educational policies continue to promote more self-directed learning and expect students to use technology to discover legitimate knowledge, I argue that more explicit instruction of online genres is particularly critical for learners to succeed in this endeavour. Genres are socially constructed for particular communicative purposes (Kwasnik & Crowston, 2005; Swales, 1990) and by recognizing the forms, structures, and purposes of online discourse, learners would be able to develop a conceptual map that allows them to navigate digital spaces and locate information more strategically. What I advocate for here however is not so much a formal, text-centred approach to genres that seeks to create taxonomies, but instead a more practice-based approach where genres are “orienting frameworks of conventionalized expectations and routine ways of speaking and (inter)acting in specific sites and for specific purposes” (Georgakopoulou, 2006, p. 552). Aligned with Swales’ (1990) emphasis on the communicative purpose of genres, this approach recognizes that online spaces are continually evolving, and to navigate these spaces, what becomes more critical is not the
establishment of structural elements of each genre, but its practices and purposes and connections with other genres.

Online genre awareness is a component of online communicative competence that needs to be learned because in the case of Penny and Frank, we have seen how learners of contrasting dispositions towards technology can have different ways of evaluating information online. Frank displays knowledge of certain sites, and recognizes Imgur as an image sharing website, and The Onion as a “joke site”, while Penny assumes the latter is a “science website.” Penny determines the genre of a website based on the content she is tasked to read, while Frank knows how to research “the brand”, that is the platform on which the text is found. Penny focuses on linguistic and semiotic features that she finds on the text itself: the headline, the news ticker, the news logo, and the links on a navigation bar. Frank on the other hand engages with lateral reading, opening tabs and searching for information about the content outside the parameters of the webpage. Both Penny and Frank overlook other linguistic and semiotic features of the webpages: the URL, the username of the image contributor, and the clickbait articles below the text in question.

If students are increasingly negotiating sociality and consuming knowledge online, then language and literacy education needs to help them become more familiar with the genres they use everyday. The findings have shown how a lack of awareness of these genres and their corresponding structures can make it difficult for students to locate information. When Jimmy searches for the translation of the word “immune” on his cellphone, for example, he overlooks the Tagalog translation because he is not sufficiently familiar with the form and structure of Google Translate. Similarly, it is
because of a lack of awareness of the textbook genre that Jimmy scans his book the way he would a website and misses the answer to his Math assignment. To respond to this gap, a more intentional discussion of the digital and print genres that are part of the students’ reading repertoires would enable them to better identify and evaluate information online. In computer-mediated communication research, studies of online genres however have been largely limited to wikis (Emigh & Herring, 2005), blogs (Puschmann, 2013), chats (Baron, 2013) and email (Thorne, 2003), to name a few. To address the everyday literacies of students, I would argue that developing a metalanguage for other genres like Google search results, news websites, social news aggregates, and social media platforms they use every day would better equip students with the critical awareness of how these different discourses work. Through genre awareness, they may also be able to better recognize design intentions, sociotechnical structures, algorithmic patterns, and cultures-of-use that are part of the digital literacy model I have proposed in the previous chapter. Recognizing these components can allow them to understand how power operates in these spaces, and to find ways to challenge the ideologies embedded in them.

11.3 The need for critical digital literacy

In an era of “post-truth,” not only is knowledge acquisition now more contextual and situational (Luke, 2012), but the ideological mechanisms that govern the production of truth within digital spaces also become more invisible. Because of the shared capacity to construct, redesign, and disseminate information through the digital, truth becomes more open to interpretation and reinvention. In the study, Penny is not able to recognize deceptive content in a hoax news site, or an image sharing website, and while Nino was
able to recognize clickbait stories and native advertising articles on Buzzfeed, many other participants in the study were not able to do so. However, the digital does not only impact the production and circulation of knowledge but it also facilitates ways of relating and interacting with others. Through the filters made available on Snapchat, Annie finds new ways of representing herself, but at the same time, these sociotechnical structures simplify and compartmentalize the full range of emotions she is capable of feeling. By gamifying the interactions between users, the streak system on Snapchat shapes how Chrissie develops relationships and interprets intimacy or closeness. In both cases, we see how digital features of social media platforms can both provide affordances and constraints, and have the power to shape the representation of identities and the construction of social networks.

To dissect how power operates in these relational, informational, recreational and expressive processes, learners need to develop a critical literacy that will allow them to filter through the abundance of information, to contest, deconstruct, and critique in order to discover legitimate knowledge (C. Luke, 2003). Recognizing how language and other symbolic forms can be a powerful means to maintain and reproduce modes of exclusion, critical literacy also confronts how issues of access, diversity, and design are implicated in structures of power (Janks, 2000), shaping identities, relationships, and interactions in unequal ways. As a convergence of both digital and critical literacies, **critical digital literacy** examines how the operation of power within digital contexts shapes knowledge, identities, social relations, and social formations in ways that privilege some and marginalize others. It equips learners with the tools to examine the linguistic and nonlinguistic features of digital media, to identify their embedded biases and assumptions, and modes of inclusion and exclusion. Drawing from Giroux’s (1994)
notion of critical pedagogy, Merchant (2007) identified critical digital literacy as an important component of literacy education. Developing a critical lens is a responsibility of the educational system, and this entails providing learners with tools to analyze discourses related to wider social issues, power relationships, and inequities. While there is a need to nurture and preserve new digital spaces, there should also be a means to understand their constructed nature.

A challenge in developing this critical digital literacy is that it necessitates an understanding of complex technical processes and political economic mechanisms. A. Luke (2014) points out that mere digital engagement is not a critical literacy approach. Critical literacy uses media “to analyze, critique, and transform the norms, rule systems, and practices governing the social fields of institutions and everyday life” (p. 20). It seeks to reshape political consciousness, material conditions, and social relations, and examines how new literacies can transform both local and geopolitical relations of power. Because they are developed through a historical materialist lens, critical literacies have no universal model and are contingent on local realities. As digital practices of knowledge circulation, identity representation, and social network construction are carried out within capitalist infrastructure and are implicated in consumer culture, the power asymmetries of digital contexts intersect with a complex political economic order. The challenge in dissecting these contexts is that it requires a new vocabulary to critique the economic structures, flows, and forces through which the digital thrives. At the same time, a critical approach also involves an examination of the complex interplay of information processing, software dynamics, linguistic processes, and cultural practices that are at work within these digital platforms.
11.4 Online communicative competence

In this chapter, I have discussed how uncritical interpretations of digital literacy can contribute to a neoliberal agenda in educational policies that promote individualist orientations and limited conceptions of the purpose of technology. When the use of educational technology tools to facilitate learning is prioritized over the teaching of digital literacies, learners who do not have consistent access to technological resources nor have the knowledge base to conduct personal inquiries may not be able to participate meaningfully in a self-directed approach to learning. It is because of this gap that I have proposed a more explicit teaching of two components of literacy: online genres and critical digital literacy, which can serve as a map and a lens to navigate the online universe and its constellations of power. The third component I would like to put forward here is that of **online communicative competence**, which is important for developing a *sens pratique* (Bourdieu, 1986), a practical sense that was introduced in Norton and Darvin (2015) as the capacity to

(a) master the rules, norms, genres, and multimodal features specific to different communicative contexts; (b) seamlessly shift codes, practices, and strategies while moving across spaces; and (c) use linguistic and nonlinguistic resources to gain access to, challenge, and transform these spaces (p. 48).

The goal here is for learners to develop a more durable sense of the communicative "game", where one masters the logic of the game while experiencing it, and in the process of mastering this logic, be able to find ways to challenge and transform the game itself.
In this study, the learners demonstrated various components of this practical sense, which is practical because it serves practical purposes and because it is achieved through constant practice. First, they recognized how different online communicative contexts involve various rules and norms that require them to use various semiotic resources in appropriate ways. Penny recognizes the culture-of-use of Instagram and curates her content to match the aesthetic of what is considered Instagrammable, while Annie discovers filters and experiments with multimodal ways of expressing herself on Snapchat. The learners also demonstrated how they were able to move across spaces while shifting codes and practices. Carmela switches between English and Tagalog on Twitter to perform different identities and to avoid being positioned as an Ingliserita. Kris moves fluidly across his phone, laptop, and desktop to do the same assignment online, and Jimmy transmediates by locating information on his phone while taking down notes on paper. Learners are also aware of the different tools and resources that allow them to access information and to challenge and transform these online spaces. Eric recognizes how algorithms work to produce YouTube search results, while Frank identifies online genres, moves laterally across browser windows to validate sources and information, and challenges deceptive content. Nino chooses a Tagalog name for his avatar to expand his network and meet Filipino gamers in the US. He imagines a community for himself on Instagram and creates an account where he carefully curates his posts in order for this community to materialize.

What has become evident in the study is that when the notion of what constitutes digital literacy is expanded, and the literacies of home are bridged with those of school, all the participants demonstrate different aspects of online communicative competence. They
have mastered different aspects of the game. Some participate in more passive aspects of the game, while some are better at shifting strategies and challenging the rules of the game. However, what becomes clearer is that they all have developed specific competences because they are avid players of the game, and through constant practice, they learn very practical strategies of navigating the spaces they have chosen for themselves, hence, a “practical sense” of the communicative game. By broadening their understanding of digital literacies, teachers can become more familiar with the various digital repertoires of their students, and the different aspects of the game that each one of them is particularly skilled at. This awareness not only affirms the digital identities of students, but also makes possible classroom practices that can bridge their strengths to other aspects of communicative competence. At the same time, a learner’s interest in more passive aspects of the game (e.g. scrolling through one’s Facebook news feed) can be extended to a more critical awareness of the invisible mechanisms that govern those aspects (e.g. understanding the corporate interests of Facebook and the algorithmic processes that shape one’s newsfeed).

By involving the different kinds of digital practices proposed in the previous chapter, the teaching of this online communicative competence can extend from the more foundational (the mastery of the different “rules, norms, genres”) to the more strategic or critical (the challenging and transformation of these rules, norms, and genres.) In terms of relational digital practices for instance, the goal would be to see learners move from maintaining existing ties and collaborating with others to expanding social networks that provide opportunities for self-development and civic participation. With regard to the informational, learners can move from conducting research and producing texts to recognizing the ideologies embedded in various digital spaces. Expressive practices
can go beyond representing ideas in creative ways to more strategically designing content and curating identities to achieve specific purposes. *Recreational* practices can be more than just passively playing games and watching videos; they can involve more active engagement where people can expand social networks and gain new knowledge. More than knowing how to operate and troubleshoot different tools, *operational* practices can involve understanding how sociotechnical structures and algorithms serve ideological motives, and even challenging these motives through “hacker literacies” (Santo, 2013) that allow them to resist and reconfigure networked public spaces. By understanding how their digital practices can move from conformity to transformation, from the foundational to the more critical and strategic, learners can be better aware of how this online communicative competence can allow them to gain entry to multiple spaces of participation, and to claim their right to speak.

### PART D. CONCLUSION

#### 12.0 ENVISIONING EDUCATIONAL EQUITY IN THE KNOWLEDGE ECONOMY

As an investigation of social class and new literacies of migrant Filipino youth, this dissertation has provided an analysis that rethinks how social class can remain a generative construct in educational research, and proposes theoretical tools for examining digital literacies as a social practice implicated in issues of power and equity. The discussion of these issues has been framed against the context of the knowledge economy, the conceptualization of which, this dissertation recognizes, is far from neutral, and neither are its effects. In this system where knowing is both an intellectual and an
economic activity, education becomes primarily a subset of economic policy rather than a means to achieve social good, and literacy is understood as a form of human capital that leads to increased economic productivity. For a technologically enabled knowledge economy to operate, it must assume global literate engagement, not necessarily because people need to be literate to produce new knowledge, but because they need to be so in order for knowledge to be traded in this distributed economy (Farrell, 2009). By commodifying knowledge, Heller (2008) argues that literacy education becomes “a discursive space in which resources are produced, attributed value, and circulated in a regulated way” (p.50), governed by a logic that promotes competition over access and unequal distribution. These patterns of control are embedded in processes of signification that are circumscribed by power and are deeply interested, positioning literacy not just as a plurality of practices, but as a defined set of standards that legitimates inequalities so that the knowledge economy can thrive. In the 21st century where technology has become a critical factor in accessing power, the processes of valuing, teaching and learning digital literacies are deeply implicated in the reproduction of these inequalities. To contribute to greater educational equity in the knowledge economy, the challenge for teachers, policymakers, and researchers is therefore to continually rethink and re-evaluate how technology is integrated into the educational system, and how digital literacy is conceptualized as a competence and object of study.

Driven by this impetus, this dissertation sought to understand the educational and social ramifications of the unequal ways digital literacies are developed and valued in the knowledge economy. By using the lens of social class, it asked to what extent the material conditions of home, access to devices and mentors, and the class-inscribed lived experiences of migrant learners shaped their dispositions towards technology and
their investment in diverse digital practices. It examined ideological constructions of
digital literacy in curricula, teacher beliefs, and pedagogical practices, and theorized how
such perspectives can position learners in different ways, and construct educational
inequities that impinge on the agentive possibilities of these youth. What the study has
confirmed unequivocally, through observations of the digital practices and dispositions of
the learners, is that one cannot ascribe a single, neutral digital competence to these
“digital natives.” While many of them may be adept in digital practices that serve
recreational and relational purposes, there is still much for them to learn to expand these
practices to encompass the full range of digital affordances, and to extend operational
skills to a more strategic and critical competence.

The popular binary opposition of digital native and digital immigrant (Prensky, 2001) has
the power to erase how these diverse literacies are distributed across a spectrum,
operating through cultures-of-use and ideological attributions of value. Because of the
dichotomizing nature of these constructs, some teachers become convinced that they
cannot achieve “native” competence, while students themselves assume adeptness has
been thrust upon them by virtue of their being part of a generation that was born into
technology. By accepting this essentialized notion, learners may be convinced that their
existing digital literacies already encompass the full extent of technological potential or
that these digital literacies are acquired effortlessly. What this dissertation asserts
however is that while some learners may be socialized into digital practices and cultures-
of-use that are valued by schools and teachers, there are those who do not necessarily
have the social and cultural resources that comprise digital repertoires necessary for
more agentive technology use. As power operates in both physical and digital contexts,
and in the hidden layers of sociotechnical structures and algorithmic processes, how
learners are able to negotiate their various resources can determine their access to and participation in diverse online spaces. Students’ unequal digital repertoires determine modes of inclusion and exclusion, and their capacity to acquire new forms of economic, cultural, linguistic and social capital. At the same time, a lack of awareness of these differences and an uncritical understanding of what comprises digital literacies can contribute to technology-centered educational policies and curricula that duplicate neoliberal discourses of individualism, deregulation and consumerism, and ultimately reproduce social inequalities. The implications of these assertions for practice, policy, and research are articulated in this concluding chapter.

12.1 Implications for practice

By adopting an equity approach to understanding how digital literacies are developed and taught, the study highlights not only the material inequalities of digital socialization processes, but also the competing conceptions of literacy that have the power to privilege some students and marginalize others. It recognizes also that just as students have unequal digital literacies, so do teachers, and the extent to which teachers recognize themselves as legitimate users of technology and receive proper training and support shapes their investment in integrating new literacies in their teaching repertoires.

Addressing inequalities. To mitigate Castells’ warning that technology can lead to the most damaging forms of exclusion, schools need to gain a more complex understanding of the inequalities of digital access and use. In the study, while all students had access to devices and connectivity at home, the kinds of devices they owned (mobile vs. computer), their autonomy of use (ratio of users to device) and the availability of private
study space shaped the extent to which they were able to explore a wider scope of
digital practices. These class-based differences need to be taken into consideration in
the design of digital policies such as bring your own device (BYOD) or the banning of
phones in class, and the implementation of instructional strategies such as flipped
classrooms. Leveraging the potential of technology in education also requires more
school-wide planning to determine how to scaffold more systematically the learning of
digital literacies across grade levels. In the BC curriculum, the integration of these new
literacies into classroom practices is left to the discretion of teachers, and the lack of
coordination and accountability processes can leave significant gaps in the learning of
these literacies. To avoid such gaps, teachers need more opportunities to collaborate
and consult with each other so that they can target specific competences through
relevant cross-curricular tasks. By providing them with the tools to find legitimate sources
and discover legitimate information more autonomously, students of different class
positions can cultivate a disposition that recognizes technology as a rich source of
information.

**Expanding conceptions of literacy.** To equip students with a strategic communicative
competence, teachers first need to collapse the boundaries between print and digital
literacies, and recognize that the primacy that is accorded to print is ideological. While
print did historically precede the digital, these two mediums co-exist in the world today,
and are accessed by learners for different purposes. Exposure to both print and digital
texts shape reading strategies in mutually constitutive ways, and how learners read
websites can influence the way they read their textbooks, and without recognizing genre
differences across these media, learners can easily miss critical information. If students
are taught how to find the table of contents and the index in a textbook, then they should
also learn the processes of locating information online, whether it’s navigating the menus of websites or right-clicking on highlighted words to find their definitions. Recognizing that digital literacy has become an essential component of everyday routines, and not just a “crutch” or a sequent to print, enables a broader understanding of the nature of literacy instruction.

To enable this wider perspective, clearer distinctions also have to be made between digital literacy, digital citizenship, and educational technology use. In the current study and in a survey of teachers in Canada, some teachers have demonstrated a tendency to restrict the scope of digital literacy to digital citizenship, which often refers to internet safety, privacy and security, digital footprint, and other legal and ethical components of online behaviour. The preoccupation of teachers regarding these areas can be attributed to concerns regarding the adoption of tools whose mechanisms and consequences are usually marked with opacity. Although it is an important area for learners to understand, digital citizenship is still more concerned with the control of online behaviour rather than the development of linguistic and semiotic resources that enable them to achieve their own purposes. Teachers also need to understand that while certain apps or learning management systems do facilitate learning in often creative and collaborative ways, the use of these educational technology tools is still distinct from digital literacy instruction. Teachers do not just need to learn new apps or educational platforms but also ensure that their own digitally-mediated teaching strategies are transformative rather than substitutive, and that they incorporate a broader spectrum of literacies that affirm the diverse digital repertoires of their students.
Investing in the identity of legitimate user of technology. In the study, some language teachers acknowledged feelings of inadequacy that discouraged them from integrating digital literacy into their classroom practices. To a certain extent, this can be linked to the conflation of digital literacy and educational technology, where teachers regard themselves as inadequate because they are not familiar with the broad range of educational apps and programs that are available. By recognizing however that digital literacy is still literacy in a more foundational sense, involving the development and deployment of linguistic and semiotic resources and an awareness of the structures and features of different genres, language teachers can feel better equipped to teach digital literacy because they already possess the knowledge and metalanguage of literacy itself. Teachers have to invest in their own identities as legitimate users of technology, so that they can acknowledge the digital literacies that they possess and maintain an openness to learning new ones. They have to be willing to distribute power in the classroom by permitting learners to demonstrate and discuss digital literacies that even they as teachers are not necessarily experts of. Finally, collaboration has always been promoted as an affordance of technology, and to role model this collaborative spirit, teachers need to be willing to partner with each other so that they can scaffold each other’s competences, whether it’s through digitally knowledgeable colleagues sharing digital teaching strategies with their peers, or by working together and designing cross-curricular digital tasks that will allow them to learn from each other.

Using the model of investment as a guide, this dissertation poses the following questions for teachers and schools to think about the nature and value of these rapidly evolving literacies and the role of language education in developing them.
1. **Identity:** To what extent do I recognize the individual histories and material conditions that socialize learners into diverse digital practices, and how do I help learners develop an online communicative competence that will enable them to assert their identities as legitimate speakers of an L2?

2. **Capital:** To what extent do I recognize the plurality of the digital literacies that learners possess? How can my teaching practices enable students to acquire the linguistic and semiotic resources needed to navigate online spaces more strategically?

3. **Ideology:** How does my own disposition towards technology and my cultures-of-use around various platforms shape how I value certain digital literacies over others?

By developing a greater reflexivity regarding their own digital teaching practices, teachers can create a more inclusive classroom where the digital literacies of students of different class positions are recognized and valued.

**12.2 Implications for policy**

Recognizing the unequal ways in which literacies are valued in micro and macro contexts, this dissertation examined curricula as ideologically constructed discourses that have the power to impose specific views of learning and technology use and to shape teacher beliefs and practices. In advancing specific forms of knowledge, the challenge for policymakers therefore is to design curricula that consider existing inequalities and that provide a balance between prescriptivism and flexibility, and between operating through specific worldviews and providing a space to challenge and resist them.
Rethinking the purpose and means of learning. At the heart of curriculum design is the question of what purpose learning serves, and the answers to this question are ineluctably ideological. Whether education is conceived as an economic process of developing future workers or as a means to nurture responsible citizens and well-balanced human beings, these views are cascaded into the subsets of a curriculum and the language used to express competences and assessment strategies. It is for this reason that this dissertation recommends a reframing of digital literacies according to the purposes they serve in various life circumstances. Recognizing the plurality, historicity and situatedness of literacy, this heuristic challenges the notion that digital literacies serve purely economic outcomes and resists compartmentalizing them into given domains or skills such as critical thinking, digital citizenship, or collaboration. By broadening this scope, it grounds the study of these literacies on specific local and personal needs, and recognizes how all these literacies encompass functional, critical, ethical, and collaborative possibilities.

Digital literacy holds a unique place in curriculum construction because it is both object of study and a means of learning. In this regard, technology serves not only as an educational tool, but as an innovation that has the power to reconfigure education itself. Built around choice and self-directed tasks, personalized learning for instance becomes possible through the affordances of technology. It contributes to what Roberts-Mahoney and others (2016) have called “the Netflixing of education” where education becomes a customizable consumer product, and the teacher becomes a coordinator of this customization, rather than an expert who expands the students’ range of interests. While enabling students to pursue their own interests is framed as an agentive act, there is a concomitant risk of disabling those who have not acquired the cultural capital at home.
from discovering knowledge valued in school, while ushering others into the insulated spaces of their own preferences. The challenge to policymakers is thus to construct a space where students are empowered to discover knowledge on their own, and where teachers not only facilitate this autonomy, but also encourage learners to go beyond their comfort zones and to explore more transformative possibilities.

**Structuring digital literacy instruction.** In the same way that an instrumental view of learning limits the scope of a curriculum, the positioning of technology as a tool rather than as an object of study limits the scope of digital literacy. In the BC Education and Training website, “Digital Literacy” is listed under “Teaching Tools” and separate from “Curriculum”, and the ideas that are embedded in the Digital Literacy Framework surface only in the Applied Design, Skills, and Technologies subset of the curriculum. In the English Arts subset, “digital texts” are identified as simply “electronic forms” of oral, written, and visual texts such as speeches, songs, novels, and photographs, and “genres” are still limited to literary classifications such as adventure, fantasy, or science fiction. For curricula to remain relevant in the digital age, this dissertation recommends that digital literacy be integrated further in all subsets of the curriculum, so that it does not become a floating set of skills that is recommended to everyone but owned by no one. Integrating different digital literacies into the subsets of the curriculum with greater intentionality enables a more structured approach where students of different class positions can learn the digital literacies that matter. Language education curricula need to expand their conceptions of genre, communicative contexts, and communicative competence. What are the linguistic and semiotic features and conventions of social news websites, Google search results, and various social media platforms? What are the relevant scripts of synchronous and asynchronous online exchanges? How do users
shift registers and styles as they move across online spaces? These are features of an online communicative competence that need to be inscribed further in language education curricula to address the real-world needs of learners today.

Providing spaces for resistance. By constructing education as a consumer product operating on self-interest, a technology-enabled personalized learning curriculum has the power to segment learners in invisible ways, and to position digital literacy in ways that reproduce existing inequalities. To resist and challenge these ideological mechanisms, students need a critical lens to examine how digital literacy as a social practice can construct modes of inclusion and exclusion. As an overtly political orientation to learning, critical literacy provides this lens, challenging students to invest in their identity as global citizens, to critique and transform dominant worldviews, and to reimagine the role of technology in constructing more equitable futures. In curricula that are more oriented to economic outcomes however, the notion of citizen in “digital citizenship” is restricted to submitting to existing norms of respectful and considerate use, to disciplining subjects into regulated behaviour, rather than serving the needs of others. In the BC digital literacy framework, “critical” is used only to refer to “critical thinking”, that is, rigorous analysis to solve a problem or analyzing a text while maintaining a critical distance. Reflecting a more liberal humanist approach, this notion of critical thinking focuses on developing questioning skills necessary for what would be considered objective methods of analysis. In contrast, critical literacy involves a critical awareness of how texts operate, how grammatical structures and lexical choices manipulate readers, and how discourses represent and alter the world. As a step towards redistributive social justice (Luke, 2012), critical literacy becomes even more crucial in the digital age because of the opacity of digital texts, where authorial identities
are masked and where sociotechnical structures and algorithmic processes shape the construction of identities and the distribution of knowledge in more invisible ways. What this dissertation recommends is that both functional and critical aspects of digital literacy are integrated into the curriculum so that students are able not only to distinguish the truth from disinformation, but to discover how these new literacies can provide new imaginings of the social world, from the everyday interactions of people, to larger global and geopolitical relations.

To respond to the issues identified here, the dissertation again refers to the model of investment to provide policymakers with some questions to guide their thinking as they construct curricula.

1. **Identity.** To what extent does the curriculum recognize the situatedness of literacy, and enable schools and teachers to reshape prescribed expectations to fit local learning contexts? In what ways does the curriculum articulate a more holistic approach to learning that contributes to the development not only of skilled workers, but of responsible citizens and well-balanced human beings?

2. **Capital:** To what extent does the curriculum integrate the diverse literacies that constitute the everyday lives of students, and articulate strategies for expanding students’ digital repertoires? In what ways does the curriculum shape human beings who are invested not only in the individual accumulation of resources, but a more equitable distribution that serves the needs of others?

3. **Ideology:** To what extent does the curriculum conceptualize learning and technology use as processes intended for purely economic outcomes? How does the curriculum
enable the examination of dominant worldviews and provide opportunities to resist and challenge them?

By engaging with a more critical understanding of the role of technology in society, policy makers can design curricula where digital literacy instruction enables agentive participation, but does not reproduce social inequalities.

12.3 Implications for research

As an investigation of digital literacies and social class through the lens of investment, this dissertation examined the operation of power across physical and digital spaces as learners engaged in diverse online communicative practices. It posits that the central metaphor that defines the dynamics of digitally mediated social interactions is that of convergence rather than intersection. Through the digital, not only do speech and writing converge, collapsing the boundaries of language, literacy and multimodality into communicative practices, but online and offline spaces impinge on each other in mutually constitutive ways. The connection between bodies and devices has become more seamless, shaping not only behaviour, but also modes of thinking. Consequently, digital practices are produced through the convergence of material conditions and the incorporeal realm of dispositions, desires, and cultures-of-use. In examining these convergences, the relationship between power and technology needs to be theorized further, and this dissertation contributes to this impetus by offering new ways of thinking about investment, digital literacies, and social class.
**Investment.** As a theoretical tool, investment enables an examination of the conditions of power under which social interaction takes place, and the extent to which relations of power enable or constrain opportunities for language learners to speak. In the digital age, as L2 learners move across multiple online spaces, they need to negotiate their resources in order to assert their legitimate place online and to claim the right to speak. This dissertation posits that to engage with the theory of investment meaningfully in these online contexts of second language acquisition, research needs a framework to better understand the dynamics of power as it flows in various directions through the converging physical and digital spaces in which these practices occur. As the use of new technologies become more domesticated, users begin to take for granted that they are interacting with increasingly sophisticated machines that are embedded into their bodies and networked with other devices, and that these platforms become more autonomous actors in social interactions. Through a materialist lens, objects such as devices, algorithms and sociotechnical structures are imbued with agency, structuring communicative events and their corresponding inequalities. The intervention of humans, whether it be directly in such contexts, or indirectly through the design and positioning of such objects, also needs to be made visible. It is through the interplay of these human and non-human interactants that cultures-of-use emerge, sedimenting values and beliefs into dominant ideologies.

To recognize the unequal capital that learners are equipped with, this dissertation proposed the notion of *digital repertoires* to refer to the set of linguistic, semiotic, material, technical and social resources that learners negotiate as they participate in diverse online spaces. In research regarding the fluidity of online interactions, the tropes of flows, polycentricity, and spatiality have become particularly significant, and
investment can be particularly useful for calling attention to the asymmetrical distribution of power that exists but is obscured through the metaphor of flow. To articulate the inequalities within these flows, research needs to recognize how an online communicative event is produced through the interplay of human and non-human interactant s at a specific time scale, i.e. a synchronic lens, the inequalities of which are produced through unequal individual and collective histories and institutional control i.e. a diachronic lens. The extent to which learners invest in digital practices can be determined through a critical examination of how these learners are positioned in these online spaces (identity), how their repertoires are valued (capital), and how tools, spaces, cultures-of-use, and other institutional mechanisms structure their behaviour (ideology).

**Digital literacies.** Recognizing how technology is used across different aspects of human life, this dissertation proposed a heuristic that views these literacies not as targeted school-based skills, but as social practices that fulfill different purposes. Understanding the relational, informational, expressive, recreational or operational intentions of users can help researchers examine how users can be socialized into different dispositions towards technology. By framing digital practices this way, research is tied to the individual, the personal, and enables an understanding of how learners perceive their own digital repertoires and practices. These intentions are not discrete and separate, but are overlapping and mutually constitutive, and while a learner may engage with a specific digital practice for a particular purpose, the same practice may enable other affordances. In this case, a digital practice that was intended for recreational purposes can also serve relational and informational affordances. Recognizing this interplay of intentions and affordances can be useful in the design of creative
pedagogical practices where learners can recognize how seemingly mundane digital practices can offer various opportunities for learning.

By theorizing what an online communicative competence would involve, this dissertation recommends further research on online genres. In language education research, studies of online genres have been largely limited to those of computer-mediated communication and telecollaboration, wikis (Emigh & Herring, 2005), blogs (Puschmann, 2013), chats (Baron, 2013), and email (Thorne, 2003), to name a few. As new online platforms continue to emerge, there is a need to develop greater genre awareness of these spaces that learners access every day: Google search results, news websites, social news aggregates, and social media platforms. To understand how these genres operate, we need a metalanguage that will enable us to identify more clearly the sociotechnical structures and linguistic and semiotic forms that populate them e.g. the descriptive text that appears under the link of each Google search result, or the feedback system for sending hearts and likes on social media platforms. By recognizing the purposes, forms, and structures of these rapidly evolving online genres, learners would be better able to examine the operation of power in these spaces, and to find ways to challenge the ideologies embedded in them.

**Social class.** This dissertation asserts that social class is a particularly generative construct for examining the inequalities of the digital age. Apart from the fact that technology comes with substantial costs, the material contexts in which digital practices are enacted and the cultural and social capital that enable such practices are all inscribed by social class. In education research, there has been a proclivity to conflate social class with ethnicity, neighbourhoods or immigration categories, or to limit it to
socioeconomic status (SES). While economic capital does play a significant role in determining other forms of capital, the notion of SES and the aforementioned categories do not sufficiently address the convergent realities of both physical and digital contexts, which are not just diverse but increasingly dispersed. These essentializing notions of class can be echoed by teachers as they seek to understand the differences of their own students. By drawing on a Bourdieusian notion of social class that distributes power to the economic, cultural and social, class-based research especially in postindustrial contexts does not necessarily have to contribute to identity politics by discovering patterns behind categories of people. The goal instead is to dissect how class is subjectively experienced and inscribed in material conditions that shape digital inequalities. Class also has to be understood as relational, and that to examine the positionality of learners is to take into account not only the pre-determined categories that researchers have chosen but also the signifiers that research participants themselves find relevant in recognizing difference. As people move across online and offline spaces, and cross national boundaries, class also has to be understood as fluid, that is, people’s economic, cultural, and social capital is valued differently as they are subject to different orders of indexicality. In the same way, the digital repertoires of users are valued differently as they move across transideological online spaces.

As learners negotiate their various resources online, shifting strategies and performing multiple identities to assert their legitimacy, this dissertation proposed the notion of digital socialization to highlight the fluidity of these online interactions. Digital socialization refers to the process by which learners acquire digital dispositions, resources, and competences from their fluid interactions with online and offline spaces, artefacts and social networks. In this definition, the target is not just the adoption of
normative practices, but participation in online spaces that is considered legitimate by powerful others, and agentive in that users are able to resist, innovate, and engage with greater critical awareness. By using social class as a means to understand the material contexts in which learners are able to acquire digital dispositions and repertoires, not only can research arrive at a more nuanced understanding of class at work in specific micro-interactions, it can also examine instantiations of learner agency. By recognizing class differences through the frame of economic, cultural and social capital, education research can better understand how the successful negotiation of linguistic, semiotic, technical and social resources by learners can be used to reframe contexts and relations of power, and provide them with greater agentive possibilities.

Finally, the use of social class as a construct for analysis can enable a better understanding of how learners exercise agency in learning and using an L2 in online and offline contexts. Their linguistic confidence shapes their capacity to access online spaces and assert their legitimate place, and the level of their linguistic confidence or anxiety cannot be separated from their class-inscribed lived experiences. In the study, the experience of migrant Filipino students cannot be separated from the pressures of the larger global context in which they participate: the material conditions of their migration, the experience of long-term family separation, and the position of the Philippines in the global class hierarchy. Recognizing class as subjectively experienced and focusing on various individual subjects enables particularized and contextually grounded research where complex personal histories and practices are understood both in terms of local conditions and in terms of broader socioeconomic pressures.
In making these recommendations to educators, policymakers and researchers, this dissertation expresses the hope that we can collectively challenge or at least mitigate Castells (2001) prediction that digital inequality will be the gravest form of exclusion in the 21st century. The position of technology in education is not an uncontestable inevitability. The way we adopt and appropriate different technologies is indexical of existing social values and structures, and is not predetermined (Facer 2010). The paradox of technology however is that while the discourses of networked publics and participatory cultures highlight the interconnectedness of people in the digital realm, the reality is that we are also easily ushered into more fragmented spaces of our own interests. This social fragmentation obscures the mechanisms through which inequalities are produced, and prevents us from developing a greater compassion for others who are not necessarily “like us”. For education to preserve its role in creating opportunities for people of different social positions, we need to make sure that the use of technologies contributes not to greater polarization and radical inequality but to sustainable economic futures.

Recognizing that class differences can shape diverse out-of-school digital practices, more efforts to bridge home and school literacies need to be undertaken. The role of school in the community needs to be reimagined as a resource not just for students, but also for parents and families who are key to the agentive socialization of these students. Schools may consider programs that develop the digital literacies of parents and mentors through intergenerational learning experiences. Workshops at informal learning spaces like public libraries or community centres can provide students with opportunities to engage with digital applications that they may not have access to at home. By systematically expanding the scope and spaces of digital literacy instruction, the hope is
that not only migrant students but also families of different social class positions can invest in valued digital literacies that assert their legitimate place in the new social order. This expanded approach can help develop a more comprehensive communicative competence and cultivate dispositions and practices that enable purposeful consumption and production of knowledge, strategic curation of identities, and meaningful construction of social networks. By developing the communicative competence necessary for agentive participation in the digital world, learners can not only resist and challenge the inequalities of the knowledge economy, but also discover possibilities to transform it.
References

Abidin, C. (2014). #In$tagLam: Instagram as a repository of taste, a burgeoning marketplace, a war of eyeballs. In M. Berry & M. Schleser (Eds.), Mobile media making in an age of smartphones (pp. 119–128). New York: Palgrave Macmillan. https://doi.org/10.1057/9781137469816.0017


Hou, F., & Bonikowska, A. (2016). *Educational and labour market outcomes of childhood*


OECD. (2015). *Students, computers and learning: Making the connection*. Organisation


https://doi.org/10.1017/9781108234931


https://doi.org/10.1080/0305764022000024212


https://doi.org/10.2167/le745.0


https://doi.org/10.1016/j.socscimed.2011.02.026


https://doi.org/10.17763/haer.66.1.17370n67v22j160u


Appendices

Appendix A: Pre-study questionnaire

Pre-study Questionnaire

Thank you for agreeing to participate in the study, “Reading practices in the digital era: The literacies of migrant Filipino students and educational change”. This pre-study questionnaire is designed to provide some background information about you and details about your reading practices at home and at school. It will be used strictly for research purposes only, and your confidentiality is guaranteed. You may fill this out and hand it over to Ron Darvin. Alternatively, you may answer this electronically and email the filled out questionnaire to ron.darvin@ubc.ca.

Date: ________________________________

Name: _______________________________ Age: ________

School: ______________________________ Grade: ________

Reading level (if available): ________

Section 1: Personal and background information

1.1 Address:

1.2 Mobile number:

1.3 Email address:

1.4 Please answer the following questions so that we can have a better understanding of your living arrangements.
1.4.1 Is there a mother in your home? ☐ Yes ☐ No
   If Yes, does she work outside the home? ☐ Yes ☐ No
   If yes, what work does she do?

1.4.2 Is there a father in your home? ☐ Yes ☐ No
   If Yes, does he work outside the home? ☐ Yes ☐ No
   If yes, what work does he do?

1.4.3 Do you have sisters and brothers? If so, please indicate their names below, their gender, age, and occupation. If their occupation is “Student”, where and what do they study? If they are working, what work do they do?

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender (male or female)</th>
<th>Age</th>
<th>Occupation (Student/Employed)</th>
<th>Lives with you? (Yes/No)</th>
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1.4.3 Is there anyone else who lives with you at home? If so, please indicate their names and their relation to you (e.g. grandfather, grandmother, aunt, uncle, cousin, etc.)

1.5 Does your family own or rent your home? ☐ Own ☐ Rent

1.6 What languages or dialects does your family speak at home?
1.7 What month and year did you move to Canada?

1.8 Who did you move to Canada with?

1.9 What year and through which immigration category did your mother and/or father enter Canada?

<table>
<thead>
<tr>
<th><strong>Mother</strong></th>
<th>Year of entry: ________</th>
<th><strong>Father</strong></th>
<th>Year of entry: _____</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Live-in Caregiver</td>
<td>☐ Live-in Caregiver</td>
<td>☐ Professional or Skilled Worker</td>
<td>☐ Professional or Skilled Worker</td>
</tr>
<tr>
<td>☐ Professional or Skilled Worker</td>
<td>☐ Entrepreneur/Investor/Self-employed</td>
<td>☐ Entrepreneur/Investor/Self-employed</td>
<td>☐ Family</td>
</tr>
<tr>
<td>☐ Family</td>
<td>☐ Family</td>
<td>☐ Other _________________________</td>
<td>☐ Other _________________________</td>
</tr>
<tr>
<td>☐ Other _________________________</td>
<td>☐ Not Applicable /My mother is not in Canada</td>
<td>☐ Not Applicable / My father is not in Canada</td>
<td></td>
</tr>
</tbody>
</table>

1.10 What is your hometown in the Philippines?

1.11 What was your grade/year level when you left the Philippines?

1.12 What school were you attending when you left the Philippines?

**Section 2: Reading artifacts and practices**

2.1 What print reading material do you have at home?

- ☐ Newspapers
- ☐ Magazines
- ☐ Books (leisure reading)
- ☐ Textbooks
- ☐ Comics
- ☐ Others: Please state: ______________________

2.2 How many of each digital device listed below does your household have?
2.3 Which of these digital devices do you own or have sole use of?
☐ Desktop ☐ Laptop ☐ Tablet
☐ e-book Reader ☐ Smartphone ☐ Gaming console
☐ Others. Please state: ______________________

2.4 Approximately **how many hours a week** do you spend with the following artifacts?
☐ Newspapers ☐ Magazines ☐ Books (leisure reading)
☐ Textbooks ☐ Comics ☐ TV
☐ Desktop/s ☐ Laptop/s ☐ Tablet/s
☐ e-book Reader ☐ Smartphone ☐ Gaming console
☐ Others. Please state: ______________________

2.5 What do you enjoy reading the most? Rank the top five, 1 being the one you enjoy the most.
☐ Advertisements ☐ Comics or graphic novels
☐ Drama / plays ☐ Entertainment news
☐ Essays ☐ Fiction (novels/short stories)
☐ Letters/emails/personal messages ☐ Feature articles (special interest topics)
☐ Local and international news/editorials ☐ Non-fiction (biographies, self help, special interest topics, etc)
☐ Poetry / lyrics ☐ Research articles
☐ Sports news ☐ Textbooks
2.6 Given this list of activities, rank the top 10 that you engage with, 1 being the activity that you engage with the most:

- Calling (voice calls, FaceTime, Skype)
- Checking newsfeeds or profiles (Facebook, Twitter, Tumblr, etc.)
- Composing assignments (Word, PowerPoint, etc.)
- Coding / web design
- Editing and uploading pictures and/or videos
- Getting local/international news
- Listening to music
- Playing games
- Reading assigned texts for school
- Reading books/stories/articles for leisure
- Searching for information (Google/Yahoo search, Maps, Translate, dictionary)
- Shopping
- Texting/messaging (SMS, iMessage, Messenger, etc.)
- Looking at / commenting on pictures (Facebook, Instagram, etc.)
- Watching / commenting on videos (YouTube, Vine, Vimeo, etc.)
- Writing blogs/essays/status updates (Facebook, Tumblr, WordPress, etc.)
- Others. Please state: ______________________________________________

2.7 Identify and rank the top five (5) websites / apps (e.g. Facebook, Instagram, etc.) that you access during the week, (1) being the one you access the most.

1. _____________________________
2. _____________________________
3. _____________________________
4. _____________________________
5. _____________________________

2.8 When you encounter an unfamiliar word while reading, which do you usually do first?
Section 3: Views of reading

3.1 Do you think reading is valuable? Why or why not?

3.2 What makes someone a good reader?

3.3 Do you consider yourself a good reader? Why or why not?

3.4 What can make reading difficult?

3.5 How can someone become a better reader?
Appendix B: Interview protocol for students

Interview Protocol for Students

Reading practices in the digital era:
The literacies of migrant Filipino students and educational change

Note: Depending on which language students are most comfortable with, these questions may be asked in English, Tagalog, or a combination of both.

Personal background

1. How long have you been in Canada? Who did you come to Canada with?
2. What is your hometown in the Philippines?
3. Where did you live before you moved to Canada? Who did you live with?
4. What grade/year level were you when you left the Philippines? At which school were you studying?
5. What languages or dialects do you speak at home?
7. What are your hobbies/interests?

Educational performance

1. How would you evaluate your school performance in the Philippines?
2. How is the educational system here different from that of the Philippines?
3. Did you encounter any challenges when you started going to school in Vancouver?
4. How did / do you try to overcome these challenges?
5. What do you enjoy most about going to school here?
6. How would you evaluate your performance in school here?
7. In what subjects do you excel? Why do you excel in these subjects?
8. In what subjects are you not doing well? What makes these subjects challenging?
9. Does your family help support how you perform in school? If so, how do they do this?

Reading practices

1. What print reading material do you have at home?
2. Who are the avid readers in your household (in the Philippines or in Canada)? What do they enjoy reading?
3. What digital devices do you have at home?
4. What digital devices do you own or have sole use of?
5. What do you enjoy reading?
6. Do you read these from printed texts or digital devices?
7. What do you use your digital devices for the most?
8. What websites or apps do you use the most?
9. What are the challenges of reading?
10. What do you do when you encounter an unfamiliar word while reading?

Views of reading

1. Do you think reading is valuable? Why or why not?
2. What makes someone a good reader?
3. Do you consider yourself a good reader? Why or why not?
4. What can make reading difficult?
5. How can someone be a better reader?

Personal aspirations

1. What would you like to do after graduating from high school?
2. What kind of work do you want to do in the future?
Appendix C: Instructions for journals

Instructions for Journals

Why am I being asked to keep a journal?

As a participant in the study “Reading practices in the digital era: The literacies of migrant Filipino students and educational change”, you can help us gain better insight about reading by sharing your own reflections on reading and your reading practices. We want to know what you enjoy reading, what you may find challenging about reading, and what your own reading goals are.

What kinds of things should I write about?

You can write about anything that you feel is related to reading. This can include:

- Why you think reading is valuable or not valuable
- What you believe reading involves
- What you enjoy reading and why
- What you find challenging about reading
- How different factors at home or school affect your reading practices
- Something you enjoyed reading and talking about why you enjoyed it
- What made a particular text difficult to read
- How you overcome challenges in reading
- The differences in reading varied texts (e.g. reading the news vs. reading your Facebook newsfeed)
- How different digital devices affect the way you read

How often should I write in my journal and how long should my entries be?

Please try to write in your journal once a week, if possible. An entry can be anything from a 2-3 sentences to a page or more.

Who will read my journal entries?

Your journal will be read by Ron Darvin and Dr. Bonny Norton.
How do I keep and share my journal?

You have the option of keeping a hard copy journal and handwriting your entries, or an electronic journal and typing your entries in Word or any other digital format you prefer. If you wish to keep a hard copy journal, we can provide a notebook for you. You can share your journal with us at any time, but we would appreciate receiving it at least three times: by the end of December 2015, March 2016 and June 2016. You can email your e-journal to Ron at ron.darvin@ubc.ca (or share the digital format in some other way) or we can collect the hard copy journal from you at a convenient time. We are happy to provide feedback on your journal entries, should you wish.

If I have questions, what should I do?

Please email Ron at ron.darvin@ubc.ca, tweet him @rondarvin, or call or text him at 778-889-5080.
Appendix D: Journal Sheet

Journal Sheet

Please answer the following questions in the space provided. Technology here refers to devices (e.g. computers, phones, tablets), the internet, apps and software.

1. What do you think is technology for?

2. What do your parent/s use technology for?
3. How have you used technology for class?

4. What are the issues or problems, if any, with using technology in class?
5. What about technology do you want to learn more about? Why?