

YOUNG PEOPLE, TECHNOLOGY, AND LEARNING

**Young People, Technology, and Learning:
An Intersectional Feminist Approach to Digital Inequalities in Education**



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Abstract

This study investigates the role of technology in the learning of multiply marginalized young people in Washington, D.C., using an intersectional feminist lens to examine how structural inequalities impact their educational experiences. Drawing on feminist theory, education, and technology and media studies, the research explores how systems of power—such as racism, classism, sexism, and patriarchy—intersect to shape young people’s engagement with technology in educational settings.

Fieldwork was conducted at the Artful Change Collective (ACC), a nonprofit organization that supports creative youth development through arts education in a historically marginalized neighborhood. The study involves 31 participants, comprising youth aged 11–29, who represent diverse identity markers and educational backgrounds. The study employs qualitative methods, including photo-elicitation interviews and questionnaires, to center the voices of young people, highlighting how their race, class, gender, and other social identities influence their experiences with digital learning technology. The research is guided by key questions:

How does the convergence of multiple dimensions of oppression/privilege impact young people’s relationship to technology and education?

- a) What dimensions of intersectionality are young people in Washington, D.C. located at?
- b) How is technology in education mutually shaped by these intersectional locations?
- c) How does technology in education shape young people’s learning practices?

Findings reveal that multiple intersections—race, class, age, gender, geography, (dis)ability, body shape/size, parenting status, family structure, care responsibilities, Covid-19, edtech structures, and top-down approaches to parenting and homeschooling—influence young people’s learning practices and attitudes toward technology in ways that are both liberating and constraining, and ways that highlight experiences of structural oppression and resistant agency. The study identifies three major orientations in participants’ digital practices: the Conformists, the Hustlers, and those with Cultural Distinction at the Margins (CDAM). The Conformists navigate formal, top-down educational structures, using technology in instrumental ways, often disconnected from their actual learning needs. The Hustlers engage in self-directed, entrepreneurial learning, using social media to showcase skills and build networks, though their efforts are constrained by socio-economic barriers. CDAM participants’ digital practices, shaped

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by homeschooling and distinctive cultural experiences, are both privileged and marginalized by the structured and socially isolating ways, in which they engage with technology for their learning.

This research argues that an intersectional feminist approach is essential for understanding how educational technologies both perpetuate and challenge systemic inequalities. By centering the perspectives of marginalized youth, it offers critical insights into how technology is intertwined with broader social structures of power and privilege, challenging simplistic narratives of technology as an educational equalizer. The study calls for a more inclusive theorizing of digital inequalities in the learning of young people, who sit at intersections often left out of analyses of digital inequalities in education.

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Glossary of Terms

A

- **Algorithmic Inequality:** The systemic disparities perpetuated by algorithms, often impacting marginalized communities in learning technologies.

C

- **Critical Pedagogy:** An educational approach rooted in critical theory that emphasizes the role of education in challenging power structures and promoting social justice.
- **Cultural Capital:** Non-economic assets, such as education and cultural knowledge, that can influence an individual's social mobility.

D

- **Digital Divide:** The unequal access to digital technologies based on factors such as socioeconomic status, geography, and gender.
- **Digital Literacy:** The ability to effectively and critically navigate, evaluate, and create information using digital technologies.

I

- **Intersectionality:** A concept describing how various social categorizations, such as race, gender, and class, intersect to create unique experiences of discrimination or privilege.

M

- **Marginalization:** The process by which certain groups are pushed to the edges of society and excluded from meaningful participation in social, economic, or political life.

O

- **Oppression/Privilege:** A dual framework used to understand power dynamics in society.
 - Oppression refers to the systemic and institutionalized discrimination and disadvantage imposed on certain groups based on characteristics such as gender, race, class, sexuality, or ability. It operates through mechanisms such as exclusion, exploitation, and marginalization, often maintained by societal norms, policies, and practices. Privilege is the unearned access to resources, opportunities, and advantages granted to individuals or groups based on their membership in a dominant or favored social category.

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- Privilege often goes unnoticed by those who possess it, as it is normalized and reinforced by societal structures.
- **Orientation:** the sum of foundational dispositions that individuals acquire through their life experiences, especially through socialization, narratives, and histories within a particular social group, thereby shaping their perceptions, values, and behaviors.

P

- **Patriarchal Edtech:** A term used to describe educational technologies that reinforce or perpetuate patriarchal structures, norms, and biases through their design, implementation, and use in learning environments. In the context of intersectionality, the ways technologies are designed, deployed, and accessed, often privilege the experiences of dominant groups (e.g., cisgender men) while oppressing or excluding marginalized groups (e.g., women, non-binary individuals, or those from the Majority World).
- **Power Dynamics:** The structures and relationships that determine how power is distributed and exercised within society, in educational settings, or technologies.

R

- **Race/Class:** A conceptualization analogous to racial capitalism, referring to the process by which racial hierarchies and racism are inseparably intertwined with the development, maintenance, and exploitation inherent in capitalist systems. It argues that capitalism adapts to and perpetuates racial inequalities, using race as a tool to justify labor exploitation and the unequal distribution of resources and power.

S

- **Sociotechnical Systems:** Interdependent systems comprising both social and technical components. In the context of edtech, these systems often reflect and reinforce societal inequalities.

1 Introduction

For decades, the discourse in the field of educational technology has been characterized by a disconnect between mainstream narratives of ‘edtech’ as an essentially “positive project” (Selwyn, 2014, p. 11) and the little evidence there is of its disruptive potential in education. A

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recent *Learning Media and Technology* editorial describes the discourse as a “mismatch” between “imaginaries of digital transformation” and the ways in which edtech realities do not necessarily fit in these narratives (Williamson et al., 2024, p. 1). This discord is especially relevant in educational digital inequalities and the role technology plays in the learning of marginalized young people, as they inhabit consequential time for their future life chances (Eynon & Geniets, 2016; Livingstone & Sefton-Green, 2016; Helsper, 2016; Davies et al., 2017; Weber & Becker, 2019).

Critical sociodigital research has empirically documented the many ways by which technologies renew and reproduce new inequalities – without necessarily resolving old ones or addressing other educational problems (Robinson et al., 2020a). The call for more sociotechnical analyses to better understand the nuances of digital inequalities in education is being renewed to include algorithmic inequity (Ragnedda, 2020), automation, artificial intelligence (AI), and datafication in education (Williamson et al., 2023), but also to remind us of the persistence of the myth of disruption in the 2020s (Reich, 2020).

The Covid-19 pandemic has further cemented the beginning of the end of this ‘tired’ edtech narrative as scholarly evidence shows inequalities were exacerbated as young people were confined and expected to learn at a distance (Lerat, 2021; Duby et al., 2022). Further, the pandemic has helped shift the popular discourse from uncritical embrace to skepticism, as increasing examples of data critical rationales and initiatives are emerging in communities and in educational settings.

Though the use of critical theories of power in the field goes back to more than thirty years, as exemplified by the work of scholars like Suzanne K. Damarin (1989; 1991; 1994), it’s not until the 2010s and beyond that we see a proliferation of work questioning power dynamics in edtech using feminist and other frameworks of structural inequality and social justice, examining how systemic injustices are “reproduced through the hardware, software and infrastructures for learning” (Noble 2018; Eubanks, 2019; Eynon 2024 in Macgilchrist et al., 2024, p. 1). Some of this work includes technofeminist (Wajcman, 2004), postcolonial (Subramaniam et al. 2017), and anti-racist (Benjamin, 2019), and queer (Green, 2021) approaches. Intersectional feminist analyses, which look at how more than one dimension of power/lessness shape digital practices, remain few (Gandolfi et al., 2021).

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In this thesis, I add to the latter body of work responding to Damarin's and other feminists' (Atenas et al., 2022) invitation to re-examine the ways in which we think and talk about digital inequalities broadly, and young people's use of technology in education, more specifically. I argue that the focus should be less about the technologies themselves and more about the power dynamics underpinning them and the interests they serve. It should be less about what the technologies promise to achieve and more about if and what they actually help young people achieve.

Though criticality is renewed with the advent of AI in education (AIEd), the field of digital inequalities' research is beginning to shift away from a "deficit framing" (Macgilchrist et al., 2024, p. 148) which centers examples of unfounded "cruel optimism" (Macgilchrist, 2019, p. 77), to a sort of critical optimism, which not only interrogates and critiques, but also "challeng[es] extractive imaginaries of sociodigital futures in education and open[s] up alternatives" for just, "care-full", and equitable engagements with technology in education (Sriprakash et al., 2024, pp. 3, 9). This more recent direction acknowledges that, though edtech is not as useful as promised, there equally are hopeful opportunities emerging "from below" (Bhatia et al., 2024) – privileging "the much messier" realities of educational technology – ones "that are necessarily grounded in freedom and dignity" (Watters, 2021, p. 263). In this thesis, I hope to uphold the spirit of this new direction by contributing work which demonstrates how, in their engagements with learning and technology, marginalized young people embody agency and creativity in subverting the limitations of their contextual conditions and, thus, blurring the boundaries between power and powerlessness.

In the pages ahead, I begin by presenting my literature review (Chapter 2), which I cover in two sections: (1) *Conceptual and Philosophical Underpinnings* ([Section 2.1](#)) and (2) *Education, Technology and Young People: What's the 'Feminist' Evidence?* ([Section 2.2](#)).

In *Conceptual and Philosophical Underpinnings*, I argue that intersectional feminism is the most adequate social justice approach for studying the links between digital and social inequalities in education. Highlighting the work of intersectional feminists, I introduce three dimensions for power analysis: (1) simultaneous and overlapping, (2) hierarchical, and (3) dynamic and relational. Further, I write to position education and schools as vital socializing institutions where values are inculcated and where the political practices of either

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empowerment/liberation or domination/oppression take place. Technology in education, I subsequently argue, plays an important role in all the processes of learning and education, as it is, itself, value-laden and acts as an amplifier and a perpetuator of inequalities.

In *Education, Technology, and Young People: What's the 'Feminist' Evidence*, I locate my research within scholarship at the intersection of feminist studies, education, and media and technology studies. I argue in this section that there is a dearth of scholarship which draws links between social and digital inequalities *intersectionally* to make systemic inequalities analytically visible. In other words, scholarship that is, at once, critical of educational technology, and uses an intersectional feminist lens to examine power differentials as they are compounded along multiple axes of social difference. The little existing work which employs a feminist lens, is either not intersectional (see Damarin, 1989; 1990; 1991a; 1991b; 1994), or does not focus on issues of education and technology (see, for instance, O'Neil, 2016).

With this analytical gap in mind, I highlight in this *Literature Review* Chapter that my aim is to explore the role technology plays in the learning lives of multiply marginalized young people. My second aim is to pursue this research using an intersectional feminist lens and critique power differentials in the technologies, processes, and relationships in their learning experiences. In doing so, this study aims to (a) examine how the youths' subjectivities and day-to-day learning lives are connected to the wider social structures, and (b) privilege their voices by highlighting what they share they value and need (or not) from educational technology. As such, this chapter delineates the original contribution of the thesis is primarily analytical: providing empirical evidence for a more inclusive theorizing of digital inequalities in education and adding to scholarship that is more attuned to the voices of those whose lives are shaped by edtech politics but seldom get to shape it.

I conducted this research in Washington, D.C. and undertook fieldwork at the Artful Change Collective (ACC), a nonprofit organization that promotes creative youth development through arts education in a historically disadvantaged urban neighborhood. I had significant engagement in the field as a volunteer and teacher assistant for the duration of a year (2021-2022). During this time, I developed meaningful and personally transformative relationships with the 31 participants (aged 11-29), staff, and members of the community. Participants represent diverse

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social and educational backgrounds. This fieldwork was in the pursuit of my overarching research question below and the subsequent supporting research questions:

How does the intersection of multiple dimensions of oppression and privilege (such as race, class, gender, (dis)ability, and others) impact young people's relationship with technology and learning?

- a) What dimensions of intersectionality do young people in Washington, D.C. experience in their learning lives?
- b) How do these intersectional identities shape their digital learning practices?
- c) How does technology shape their learning practices?

In *Methodology* (Chapter 3), I first justify my choice of using feminist intersectionality as a methodology to meet my research aims. Second, I present my research design, motivating my choice of a 'quasi-mixed' methods approach (photo-elicitation interviews and questionnaires), detailing the sampling strategy, the instruments employed, and the overall procedures undertaken during fieldwork. Third, I articulate the analytical strategy applied to manage and interpret the collected data. Lastly, I discuss reflexivity and ethical considerations of the study.

In the *Findings Overview* I present the central finding of the thesis which contributes towards the main and the three sub-research questions. Participants across the data have learning practices that are shaped by their intersectionalities in ways that are both liberating and constraining, and ways that highlight experiences of structural oppression and resistant agency. These experiences of enablement and constraint (internal and external) are conceptualized through *orientations*—digital patterns of use, attitudes, digital learning practices, and overall predispositions. Their orientations, I contend, are not only, *inter alia*, racialized, classed, and gendered, but are so simultaneously. Additionally, findings show that despite sharing the intersectionality of 'race-class', participant orientations are shaped differently by its interaction with other dimensions of their subjective identities. As such, participants across the data have patterns of use, attitudes, digital practices and predispositions towards learning with technology, which fall along three major orientations: the Conformists, the Hustlers, and those with Cultural Distinction at the Margins (CDAM).

In the first Findings Chapter (Chapter 4), I present the Conformists orientation. The Conformists are the largest group of the three. I opted for the nomenclature of 'Conformists'

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based on their tendency to be most defined by the rules of structures in their lives—namely schools, after-school programs, home, and digital spaces. The data show that the Conformists' orientation is shaped by race, class, gender, edtech structures, and the constraints and opportunities of learning at home during the Covid-19 pandemic. Their digital learning practices and attitudes are oriented towards consumption and information-seeking and did not frequently reflect engagement in hobbies or capital-enhancing cultural practices that they inherently enjoy (like the CDAMs) or develop skills which they intend to monetize (like the Hustlers). The Conformists are also more orientated towards digital practices that are instrumental and shaped by the top-down nature of the educational institutions they belong to and their respective technology policies and infrastructures. Despite experiencing technology as both a stressful burden they must manage in school and at home and a procedural imposition that is largely disconnected from their learning needs, the Conformists show creativity, resourcefulness, and adaptability in their learning practices, to challenge the constraints of their circumstances.

In the second Findings Chapter (Chapter 5), I introduce the Hustlers. Like the Conformists, this orientation is shaped by multiple and overlapping dimensions of identity difference: race, class, age, gender, Covid-19, geography, body shape/size, neurodivergence, parenting status, home life, family structure, and care responsibilities. The term 'Hustlers' was inspired from a conversation with Thinker, a participant who identified his digital practices as his "hustle" referring to his learning and entrepreneurial practices on the Internet. The Hustlers tend to be older, resourceful, and show the most resistance to structural and institutional constraints resulting from their intersectional social conditions. This is reflected in their self-directed approach to learning and education, their enterprising digital practices on the Internet and on social media, and their deeper engagement in community resources, online and off, to cultivate a network of peers, mentors, and role models. As such, the Hustlers' orientation reflects an enterprising and subversive instrumentality in digital learning as a means of changing their socioeconomic conditions. Nevertheless, their digital practices and attitudes remain constrained by scarcity, need, and want in various forms (economic, social, and political) and in simultaneity. In this chapter, I also highlight the fluidity of these orientations as data show that participant practices can inhabit a space between orientations resulting in some participants who *Hustle to Conform* and others who *Conform to Hustle*.

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In the third Findings Chapter (Chapter 6), I introduce the orientation of those with Cultural Distinction at the Margins. This group only includes two sibling participants (an eleven-year-old girl and a sixteen-year-old boy) who are both homeschooled. Similarly to the two other groups, their orientation is shaped by multiple and overlapping axes of identity: race, class, geography, Covid-19, and their experiences of homeschooling in ways that are both liberating and constraining. Born into a highly educated and race-aware family, these two young people have been made to exit public educational system and are homeschooled as an act of political resistance to a “system that fails Black people”. As part of their structured homeschooling enterprise—and enabled by their distance from immediate necessity—their orientation reflects engagement in highly sophisticated arts, sports, and other culturally-distinctive activities. They are not resolutely enterprising like the Hustlers, which makes arts and other activities for them genuine and inherent pursuits for learning, enjoyment, and self-expression. Unlike the Conformists in school, they do not have to navigate digitally burdensome policies and structures, however, their use of the Internet and other digital learning technologies at home is highly structured, surveilled, and policed in ways that other groups are not. This, combined with their homeschooling, results in social isolation and disconnection from their peers and wider communities of culture, learning, and collaboration. Thus, the CDAMs’ homeschooling experience seemingly simultaneously privileges and marginalizes them, capturing the complexity and importance of intersectionality as an analytical lens.

In the Discussion Chapter (Chapter 7), I interpret the study’s key findings using feminist intersectionality as a theoretical framing and an analysis of power across its dimensions as discussed in Chapter 2. I use these tenets to discuss findings as they relate to the social categories of, *inter alia*, race, class, gender, parenting status, as well as their intersections. Further, I situate these findings within existing literature and highlight their significance to the broader understanding of digital inequalities in education and the field of feminist theory— offering both a critique and a call for more inclusive approaches to technology in education.

Lastly, I draw the thesis to a close in the *Conclusion* (Chapter 8), where I reflect on the completed study, summarizing the findings and contributions of each chapter. Led by the study’s research questions, I highlight the role of technology as socially shaped and socially shaping, helping to draw a fuller picture of the thesis’ findings. I conclude that, in all three Findings

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Chapters, the social shaping of technology happens in a dynamic negotiation between the impositions of structure, the resistance of individual and group agency, and the politics of the technologies they use. This interplay and its implications in the learning lives of young people underscores the importance of considering both the non-neutrality of digital tools, and the broader social and cultural context in which they used in educational settings. Lastly, I highlight the study's original contributions and suggest directions to build on and extend my research in future work.

2 Literature Review

2.1 Conceptual and Philosophical Underpinnings

2.1.1 *Conceptions of Social Justice*

In its larger conceptualizations, justice has been devised as one of the Aristotelian four cardinal virtues of individuals and societies, and the platonic requisite to ‘the good life’ whereas every ethical issue is a justice issue (LeBar, 2020). In its narrower conceptualizations, justice has been posited as an egalitarian (Locke, 1960), utilitarian (Mill, 1964), or prioritarian principle (Parfit, 1997) of distribution of goods and burdens, and a relational one that is based on autonomy, parity of participation, recognition, mutuality (Fraser et al., 2003), or impartiality (Barry, 1989); or as a meritocratic market-based notion, a need-based and right-based concept (Smith, 1777; Spencer, 1891). Or yet, as a feminist discursive pluralist notion (Young, 2000; 2011). The ‘location’ of justice (and power) is also part of the debate as justice is argued to reside with the individual, the social institution, or situated in the nature of the systems governing local and global societies — be they economic, social, or political, and tangible or intangible.

The exploration of every conceptualization of justice is beyond the scope of this thesis, however, it is worth highlighting three broad positionalities. Liberal thinkers like John Stuart Mill and John Rawls articulate justice as a concrete notion within the basic institutional structure of a modern liberal state (Miller, 2017) and ignore that justice, in situ, resides within different types of social and political organization (Miller, 1999). This notion subscribes to a problematic ontology of “sameness” and “universality” (Young, 2011, p. 212; p. 50), which implies a naive sanitization of differences in society.

Skeptics of the notion of justice, such as Adam Smith (1777) and Herbert Spencer (1891), assert a libertarian market-based notion of justice as a utopia and a myth that is best left to the ‘meritocratic’ dynamics of capitalism. This view is problematic because of its exclusive focus on the individual. This assumption ignores the importance of social structures and the fact that some groups are systematically privileged, and others oppressed through their positioning in society’s structures, processes and relations (Young, 2001, p. 6).

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Lastly, between universalism and skepticism, I argue is a position — pluralism — nested in feminist ethics and advocated by feminist philosopher Iris Marion Young in *Inclusion and Democracy* (2000) and *Justice and the Politics of Difference* (2011). Faithful to the tenets of critical theory, Young opposes “truly universal and independent” conceptualizations of justice and power, such as that of Mill and Rawls, as she argues they are “simply too abstract to be useful in evaluating actual institutions and practices” (pp. 16, 36). Instead, a “situated political dialogue” as analysis of the notions of justice is what she claims to contribute (2011, p. 17). Similarly, Spragens, building on Young’s scholarship, advocates a notion based on “small finite set of logical possibilities [that are] plural all the way down [...] incapable of being resolved, adjudicated, or combined into one definitive standard” (1993, pp. 198-199). As, such, my arguments in the remainder of this thesis, will be stemming from the latter conceptualization of justice.

2.1.2 Intersectional Feminism as a Social Justice Approach

Feminist theorist Iris Young argued throughout her work that there is often a defaulting to ‘distributive justice’, which she deems broadly problematic. Distribution focuses on material goods such as “things, resources, income, and wealth, or on the distribution of social positions, especially jobs” and does not adequately account for non-material goods such as “decision making power and procedures, division of labor, and culture” (2011, p. 29). More specifically, distributive frameworks including that of Rawls, which are descendants of the Hobbesian and Rousseauian ontology of abstract individualism (Lukes, 1974) fall short of providing adequate paradigms to account for systemic group injustice. For instance, Nancy Fraser — though sharing much with Young in terms of their feminist approaches — critiques the moral basis of justice residing in social groups and argues that justice as cultural recognition undermines economic redistribution (1995). Recognition here, is narrowly conceptualized as separatist, essentialist ‘identity politics’, which is contrary to recognition as a “vital tool of resistance against oppression” based on “an understanding of identity as a political location, not an essence” (Alcoff, 2006, p. 15). Similarly, the work of Amartya Sen (1980; 1987) and Martha Nussbaum (2000) on the capabilities approach— also in many ways in agreement with that of Young on disadvantage as capability-deprivation— remains insufficient to examine issues of gendered injustice without being supplemented with gender-sensitive theories (Comim et al., 2008).

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Lastly, prioritarianism, as a distributive paradigm, claims the worst off in society should be given priority in the distribution of advantages (Parfit, 1997). Though much more nuanced and inclusive, the priority view (unlike egalitarian approaches) is not sensitive to how worse or better off other individuals/groups are (Holtug, 2017, p. 2), and therefore, remains inadequate to address injustice as a non-relational principle when the essence of injustice rests in converging systematic group oppression *in relation* to one another. For example, in an organization, as long as the worst-off women are being promoted, unequal levels of promotion for women ‘as a group’ *in relation* to men ‘as a group’ is not considered a claim of injustice, which, in my view, fails to make group injustice visible. Young emphasizes the importance of an intersectional framework to social justice going beyond distribution to capture issues of racism, sexism, ableism, among others, and the ways in which they interlock. As a construct, Young argues, and together in their assumptions, expectations, socialization, and relational decision making, they oppress and dominate certain groups while enabling others. She illustrates this using Marilyn Frye’s allegory of the caged bird (Frye, 1983 as cited in Young, 2001, p. 10) which demonstrates the distributive paradigms’ inability to conceptualize inequality in the sense of the caged bird through distributive patterns. Patterns only represent individuals as ‘individual wires’ of the cage and, *alone*, cannot explicate the existence of the cage. Groups (social categories such as Black people, queer people, or children) as the locus of (in)justice and power(lessness), remain invisible and unaccounted for in distributive paradigms.

Likewise, intersectional feminist ethicists have not limited their arguments to gendered issues. They extend their insights for application to analyses at the intersection of gender and other faces of oppression and call for a more inclusive reading of systemic inequalities bearing on issues of justice and power more broadly. There is a body of feminist literature which has effectively argued that mainstream theoretical positions on social justice have not traditionally addressed issues specific to women and children, and even when they claim to do so, it is often androcentrism and a false gender-neutrality which dominate these approaches (Comim et al., 2008). The work of Susan Okin, for instance, stresses the interlocking of spheres of justice for women, as the gendered family and the labor market do collide in ways that fail to include the needs and interests of women and other historically oppressed groups (1989). Elizabeth Anderson (1999) echoes Young’s philosophy by opposing the underpinning liberal principle of

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merit and desert in theories of luck egalitarianism which fails to capture inequalities of “race, gender, class, and caste” (p. 288) and, instead, argues for an approach of freedom from oppressive relationships (p. 289). Similarly, Eva Kittay (1999) shares the commitment to an integrated power analysis of the public and private domains of justice while using frameworks which do not “take as their starting point the public lives of men” (1999, p. 2).

Intersectionality offers a way to conceptualize and analyze power and oppression/domination for persons and groups who experience more than one category simultaneously. Though other theories may offer similar insights, to my understanding, this approach is particularly well-suited for analyzing structural power differentials. Young theorizes in her intersectional paradigm that studying groups (or social categories) — not individuals — and the condition of their relations and social institutions is what allows us to identify systems of oppression (2001). As such, justice, or injustice in the realm of non-material social goods such as power, respect, and cultural recognition, can only come to light when groups are used as the analytical unit. Intersectionality, as a result, provides a very suitable analytical tool for interlocking systems of oppression in the way that Young conceptualizes them.

Similarly, Young’s emphasis on the importance of a politics of difference through collective identity and coalitional politics can be adequately analyzed using intersectionality. The latter is pursued in the interest of expanding understandings of differences and steering clear of cursory understandings of intersectionality as identity politics (2001). Intersectionality, as I see it (critical inquiry and praxis), seeks to bridge gaps between academic feminist thought and feminist activism. Many Black feminists and feminists of color share the same commitment to intersectionality’s rootedness in praxis (Collins & Bilge, 2016). There simply cannot be, in my view, intersectional approaches which are purely theoretical and devoid of agendas for social redress and change. In this vein, I view social justice through a lens of power differentials and use intersectionality as an analytical tool to understand the ways in which power is organized in the particular context of the study.

2.1.3 Intersectional Feminism as an Analytical Framework for Power

Scholarly conceptualizations of intersectionality range from intersectionality as an analytical tool (Collins & Bilge, 2016), a research paradigm (Bowleg 2008; Carastathis, 2016), a concept (Knapp, 2005), and a methodology (Yuval-Davis, 2006), to name just a few. Although

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conceptualizations of intersectionality are numerous and vary in their nuances (see Lorde, 1984; Collins, 1990; Crenshaw, 1989; hooks 1992; Wendell 1996; Khader, 2013, Carastathis; 2016), they all center around an analysis of power differentials. Though various nomenclatures for power such as (in)equality, (in)justice, oppression/domination and liberation, marginalization and privilege, and so on are used throughout this work, they all converge in the same understanding of unequal power dynamics which benefit an individual, group, institution, or system at the detriment of others. In this thesis, although I refer to this broad range of literature – indeed these terms are used at different times throughout this work – I focus down on its remit as it relates to an intersectional feminist theoretical positioning, i.e. that which conceptualizes and analyzes power in three essential dimensions: (1) power as simultaneous and overlapping, (2) power as hierarchical, and (3) power as relational and dynamic.

2.1.3.1 Power as Simultaneous and Overlapping

I begin by highlighting Collins' and Bilge's conceptualization of intersectionality as (1) simultaneous and overlapping:

“Intersectionality is a way of understanding and analyzing the complexity in the world, in people, and in human experiences. The events and conditions of social and political life and the self can seldom be understood as shaped by one factor. They are generally shaped by many factors in diverse and mutually influencing ways. When it comes to social inequality, people's lives, and the organization of power in a given society are better understood as being shaped not by a single axis of social division, be it race or gender or class, but by many axes that work together and influence each other. Intersectionality as an analytic tool gives people better access to the complexity of the world and of themselves.” (2016, p. 14)

Analyzing power as multiple converging axes is also central to other intersectional theorists, including Crenshaw's work in which she argues that “power relations are to be analyzed both via their intersections, for example, of racism and sexism, as well as across domains of power, namely, structural, disciplinary, cultural, and interpersonal” (Crenshaw, 1991, p. 1242). Using this tenet of power analysis is particularly pertinent to Crenshaw's ‘basement’ metaphor, in which she draws on a vivid and insightful way of explaining how intersectionality operates to marginalize individuals who exist at the intersections of multiple social identities. The metaphor is used to illustrate the limitations of traditional anti-discrimination frameworks which focus on a

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single axis of identity (like race or gender) without considering how these identities intersect. Crenshaw invites us to imagine a basement where people are stacked on top of one another, with each layer representing a different form of oppression. Those at the top are the least oppressed and have the easiest time being recognized and lifted out of the basement (i.e., gaining access to social remedies). As you move downward, people are increasingly burdened by multiple forms of discrimination. For example, a White girl might be near the top because she experiences gender discrimination but not racial discrimination. Below her might be a Black boy, who experiences racial discrimination but not gender discrimination. At the very bottom of the basement are those who face multiple forms of oppression simultaneously—like Black disabled girls, who experience racial, gender, and (dis)ability discrimination. Because single-axis frameworks often address only one form of oppression at a time (either race or gender or (dis)ability), the unique experiences of those at the bottom are frequently overlooked. These individuals are trapped in the basement because society's systems are not equipped to address the compound marginalization they face.

Similarly, analyzing power as overlapping and simultaneous was highlighted by philosopher Marilyn Frye, where she coined the term “double bind” (1983, p. 2). This concept refers to “situations in which options are reduced to a very few and all of them expose one to penalty, censure or deprivation” (1983, p. 4). Frye particularly explored how women, as a socially marginalized group, often face such situations due to systemic oppression. For example, a common double bind for women is the expectation to either conform to traditional gender roles (and thus be seen as passive or submissive) or defy them (and be judged as unfeminine or aggressive). In either case, women are penalized, highlighting the impossibility of ‘winning’ under such oppressive social structures. Frye uses this concept to argue that women's oppression is not about individual instances of unfair treatment, but rather about the pervasive nature of these double binds in a patriarchal society. They limit the freedom of marginalized groups and serve as tools of systemic control.

2.1.3.2 Power as Hierarchical

In their work on intersectional analyses, Collins and Bilge (2016) explore how power operates hierarchically through interconnected systems of oppression like race, gender, and class. They emphasize that power relations are not isolated but organized across four main domains:

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structural, disciplinary, cultural, and interpersonal. These domains work together to uphold social hierarchies by privileging dominant groups while marginalizing others. For instance, structural power is embedded in institutions like law, education, and the economy, shaping the opportunities and constraints individuals face. Disciplinary power regulates behavior through policies, while cultural power reinforces norms and ideologies that justify inequality. Interpersonal power governs daily social interactions, perpetuating inequalities on a personal level. Collins and Bilge (2016) emphasize that these domains intersect, making power relations more complex, as individuals experience different forms of privilege or oppression depending on their identity and context.

Accordingly, this conceptualization offers analytical possibilities to examine oppression and/or power, which Collins (1990) proposes are at three levels: “(a) the level of personal biography, (b) the group or community level of the cultural context created by [inter alia] race, class, and gender, and (c) the systemic level of social institutions” (p. 227; see Figure 8 in Chapter 3). This analytical approach is in the interest of “draw[ing] links between individual identity and collective identity”, “keep[ing] a focus on social structures” and “theoriz[ing] from the ground up” (Collins & Bilge, 2016, p. 30). These intersectional theorists contend that making these connections visible is vital to the integration of the public and private domains of power and justice and, indeed, do give meaning to the canonical intersectional feminist statement “the personal is political” (Hanisch, 1970, pp. 76-78).

2.1.3.3 Power as Relational and Dynamic

Power, according to feminist philosopher Iris Marion Young:

“Must be analyzed as something that circulates, or rather something which only functions in the form of a chain. It is never localized here or there, never in anybody’s hands, never appropriated as a commodity or piece of wealth. Power is employed and exercised through a net-like organization” (Young, 2011, p. 52).

This conceptualization emphasizes the relational and structural nature of power, rather than seeing it as a possession or a distributable good. As previously highlighted, Young criticizes the traditional distributive models of power, which treat it as a kind of ‘stuff’ that individuals or groups can possess in greater or lesser amounts. This model, she contends, obscures the more

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dynamic, process-oriented understanding of power that operates through social structures and relationships.

Moreover, Young connects power with domination, defining domination as a systemic phenomenon that excludes people from participating in the decisions that affect their lives. This exclusion is often an unintended consequence of the actions of multiple agents within a system, making domination a structural issue rather than just an individual one.

This conceptualization shifts the focus from simply 'redistributing' power to addressing the dynamic processes and structures that enable domination and oppression. Young's approach is particularly critical of the way in which power is depoliticized and diffused in modern bureaucratic societies, where it can be exercised by many agents without being concentrated in a single person or group. She writes: "power must be understood as 'productive,' as a function of dynamic processes of interaction within regulated cultural and decision-making situations. Many widely dispersed persons are agents of power without 'having' it, or even being privileged" (Young, 2011, p. 33).

This understanding of power as relational and dynamic is also put forth by Collins and Bilge (2016) as they emphasize that power is not fixed, but is relational and shifts based on context, meaning individuals can experience both privilege and oppression simultaneously. They argue that power dynamics are not static or singular but instead vary across different social and institutional contexts. Intersectional feminism challenges the idea of a single hierarchy of power (e.g., men over women) by showing that power shifts across different social dynamics (p. 29). A White queer person, for instance, may experience sexuality-based oppression but also hold racial privilege compared to a queer person of color.

This complexity in analyzing power is central to intersectionality, which looks at how different systems of oppression—racism, sexism, homophobia—interact to create unique experiences of privilege or disadvantage. In some settings, certain aspects of an individual's identity grant them social capital, while in others, those same aspects may contribute to their marginalization.

With the three aforementioned dimensions of power in mind, I conduct my intersectional analysis, interpretation, and highlight the lens through which I discuss the findings of my study.

2.1.4 *Social Justice and Education*

Critical pedagogy is a philosophy of education with social justice aims. The purpose of a critical education is “to redress social, economic, and political inequities” (Whitcomb, 2010, p. 598). Stemming from a line of radical progressive thought and praxis, this conceptualization of education brings into relief “socioeconomic and political forces that maintain structural inequality and oppression, including how schools, as institutions, reinforce the status quo and further inequitable educational experiences” (Whitcomb, 2010, p. 598).

Theorists such as Shor (1987), Simon (1992), Kanpol (1994), McLaren (1995), Giroux (2006), and others have produced scholarship which asserts that the relationship between knowledge and power is central to the educational process, emphasizing the non-neutrality and the inherently political nature of education. In his seminal work *Pedagogy of the Oppressed* (1968) Freire understands teaching as a political act and differentiates between a “banking education” and a “problem-posing education” — the former being responsible for a “culture of silence”, ignorance and domination, and the latter one of “ontological curiosity”, “conscientization” and “the practice of freedom” (pp. 72-86). In the same vein, Giroux’s work advocates the reclaiming of education as a “public good” (2006, p. 21) rather than leaving it in the hands of “market fundamentalists” (2006, p. 22). He writes of “defending the primacy of the political and the ethical as a central feature of educational theory and practice” (2006, p. 17-18). He further presses for a redefinition of the role of schools as “democratic public sphere[s]” where teachers are politically and intellectually engaged in social change, and pupils are not navigating testing schemes that “severely limit the creative, ethical, and liberatory potential of [their] education” (2006, p. 103).

Feminist scholarship of Nel Noddings (1984), Barbara Omolade (1987), Carolyn Shrewsbury (1987), bell hooks (1994), and others also emphasizes the role of education as a means for social justice and democracy. In *Teaching to Transgress* (1994) hooks writes that “the classroom [...] remains a location of possibility [...] to transgress, this is education as the practice of freedom” (p. 207) implying the political nature of schooling and highlighting the link between knowledge, power, and liberation. Intersectional approaches to critical pedagogy acknowledge the role of schools in reproducing social inequalities and argue that “schooling is a contested site of knowledge production” which ought to be subjected to convergent theoretical

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analyses that account for the oppression as it cuts across race, ethnicity, class, sex, gender identity, culture, immigration status, etc. (Collins & Bilge, 2016, p. 376).

It is from this location — of education as political praxis, as a tool for hope, resistance, and transformation — that I conduct this research in a fieldwork site (the Artful Change Collective). The ACC shares a similar ethos of education for social redress and liberation and centers it through community education and lifelong learning programs, as means of social justice and liberation. In the same spirit as bell hooks' *Teaching to Transgress*, it views the classroom and artistic practice as spaces for empowerment, where marginalized voices—especially of youth—can reclaim agency. The ACC's commitment to addressing barriers related to race, class, parenting status, and other social markers, resonates with intersectional approaches in education emphasized by scholars like Freire, hooks, Omolade, and Noddings to challenge systemic inequities and foster imaginaries modeled after what Sriprakash and colleagues (2024) have conceptualized as “reparative”, “sovereign”, “care-full”, and “democratic” educational futures (pp. 2-13).

Against this background, and in my study with young people at the ACC, I engage ways of thinking about learning in its broader sense as conceptualized by Estrad (2012) as a “learning lives” approach. The latter extends beyond lifelong and lifewide learning to include the learning of young people “across contexts” (p. 25) in a fluid, constant, and seamless shift between contexts, devices, time, and space, while learning for purposes, online and off, and in engagement with formal or informal tendencies (Greenhow & Lewin, 2016; Voulgari & Yannakakis, 2019). Studying inequity within this framing allows for a wide, unsegmented, interconnected understanding of youth's digital practices and learning experiences.

2.1.5 Education and Technology

I argue that technological artifacts are value-laden and have implications that are of political and socioeconomic nature. The latter half of the 20th century was known for an instrumentalist framework of technological artifacts as value neutral. This came under scrutiny as new ways of conceptualizing technology emerged: a political phenomenon (Winner, 1980; Feenberg, 1990), a social activity (Latour, 1993; Callon, 1986; Bijker and Law, 1992), a cultural phenomenon (Ihde, 2003; Borgmann, 1984), a professional activity (Davis, 1998), and a cognitive activity (Bunge, 1966). This critical take on the neutrality thesis, also sheds light on design as a value-laden

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process. In short, Science and Technology Studies (STS) theorists argue that value-laden artifacts are the result of restrictive or enabling affordances designed with specific agendas in mind that affect different groups differently (Friedman and Nissenbaum, 1996). These distinctions locate the power in often White straight cisgender middle-class men whose decisions reflect dominant epistemologies and not those of historically oppressed groups (Harding, 1986; Alcoff, 2006).

This epistemic privilege/oppression has been documented in various areas of technology and society such as Google's AI not recognizing Black bodies and digital voice assistants – Apple's personal assistant Siri, Amazon's Alexa, and Microsoft's Cortana – defaulting to female voices (Eynon, 2018, p. 3).

The conceptualization of technology as value-laden and socially embedded can be extrapolated to the field of education, whereas technology's political and social properties apply to technologies appropriated in education. It is, however, important to note that the dominant rhetoric is one which conceptualizes educational technology as a 'technical fix', whereas the de facto question is often not whether technology is "capable of improving education" but *how* technology can improve education (Selwyn, 2014, p. 11-12). As noted in the Introduction Chapter, such conceptualizations are deterministic, overly simplistic, often problematically optimistic.

Similar to analyses of education alone, there is a body of work which asserts that the interface of education and technology is a socially embedded space (Robinson et al., 2015; Collin & Brotcorne, 2019; Helsper, 2021, Tate & Warschauer, 2022). This research has called for critical inquiry that does not divorce educational technology from the wider social, economic, and political contexts in which it occurs, and suggests adopting theoretical lenses which allow for more comprehensive study. As such, it is on the basis that educational technology is *value-laden* and *political* that I build the rest of this work.

2.1.6 Young People and Technology

Studying young people, particularly in relation to their engagement with technology, is critical because they represent a dynamic and evolving category that both shapes and reflects broader societal changes. Historically, young people were often overlooked in research, their experiences considered secondary to those of adults. However, the growing recognition of youth as active participants in shaping their lives—especially through the use of digital technologies—

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has shifted this perspective (France et al., 2020). As Davies and Eynon (2013) point out, young people represent an important and significant segment of the population, whose experiences with technology require continuous study, particularly in light of the changes that impact their lives. Understanding the unique digital experiences and challenges faced by young people is key to exploring how societal changes are influencing the category of youth.

Youth is not a homogenous or static category. Davies and Eynon (2013) highlight that youth is often viewed as a life stage characterized by numerous biological, cognitive, and social changes (p. 3). The definition of youth itself is contested, with different views about when it begins and ends, and about the relative importance of biological versus social processes (Davies & Eynon, 2013, p. 3). However, using age as a proxy helps researchers understand some of the key developmental and contextual aspects of young people's lives, even as they acknowledge the significant variation in physical, social, and developmental circumstances (Davies & Eynon, 2013, p. 4).

Defining "youth", as such, is not a straightforward task, as the boundaries of this category are constantly shifting. However, more recent sociological work suggests that youth is better understood as a socially constructed and extended category, particularly in countries like the UK and the US, where the transition to adulthood is increasingly delayed (Davies & Eynon, 2013). Researchers like Furlong (2017) argue that youth now extend well into the twenties or even thirties, due to factors such as prolonged education, economic precarity, and delayed life milestones like marriage or homeownership. This recognition of youth as a socially constructed and extended life stage challenges traditional notions of what it means to be young and highlights the fluidity and diversity of youth experiences. I take this conceptualization of youth as the starting point for my thesis, which aims to develop a nuanced, contextualized approach that acknowledges the diversity of young people's experiences across different settings and circumstances.

Similarly, in the digital realm, the intersection of youth and technology is an important one to study. Research such as that of Selwyn (2009) and Livingstone and Sefton-Green (2016) emphasizes that young people's digital experiences are shaped not only by the technologies themselves but also by the social, economic, and cultural environments in which they live. Further, Calderón Gómez (2019) emphasizes that the category of youth is shaped by inequalities

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related to gender, class, race/ethnicity, and disability. This is particularly relevant to challenging assumptions about how young people learn and engage in various social activities as mediated by technology.

As young people are engaged in processes of identity formation, socialization, and learning that are deeply intertwined with their use of technology, Alper and Clark (2016) emphasize that research on youth's engagement with technology must account for their intersectional identities and "investigate how [they], situated across social classes, racial and ethnic boundaries, and forms of disability, engage with new media" (p. 107). This underscores the importance of considering the broader context in which young people are experiencing their digitally mediated learning lives. This complexity requires a more nuanced understanding of youth and technology, moving beyond simplistic characterizations that overlook inequities in an ever-shifting understanding of 'youth' and in ever evolving forms of educational technologies.

2.1.7 Reflections On Conceptualizing Social Class

Adopting intersectional feminism as the primary theoretical lens for this thesis has enabled the use of existing analyses of social class to gain a better understanding of how it interacts with other social determinants in the realm of the digital. However, it also poses a unique challenge: bringing a critical and expansive approach to social class as a unit of analysis for research questions that lie at the intersection of several academic communities. As a result, this research embraces an inherent 'messiness' in analyzing and working across various conceptualizations and theoretical framings of sociological class. The thesis accommodates, combines, and extends the various approaches to conceptualizing and operationalizing social class but does not attempt to resolve their theoretical tensions.

For instance, the digital inequalities research ([section 2.2.1](#)) constitutes an important body of literature providing empirical evidence of social inequalities. However, class is often discussed and operationalized as 'socioeconomic status' (SES) (see Warschauer & Matuchniak, 2010, or van Deursen & van Dijk, 2019), which refers to measurable indicators such as income, educational attainment, and occupation that capture participants' positions in the socioeconomic structure. This approach was adopted in the design and use of the Questionnaire as a data collection method ([see Section 3.2.1.2 for rationale](#)) to capture proxy measures of class. Nevertheless, I recognize that SES differs from the broader, more dynamic, and

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multidimensional concept of class as articulated in sociology literature (for example, Danielsson, 2021), which incorporates cultural and symbolic dimensions. In this thesis, I also acknowledge that building on the empirical findings of this literature is critical to addressing the qualitative nature of digital inequalities in education and providing evidence to engage in a broader discussion on intersecting axes of disadvantage beyond class.

Likewise, sociological conceptualizations of social class, such as Pierre Bourdieu's (1986), theorize but do not often measure class (however, see Savage et al., 2013 for a model of social class measurement in British society). The concept of accumulated and transferrable forms of capital, including economic, cultural, social, and symbolic, offers a nuanced understanding of class as emergent and relational, shaped by the interplay of these various forms. For example, cultural capital is often measured by the presence of cultural artifacts at home to capture embodied and objectified cultural knowledge. Class, as constituted by various forms of capital, is also used to frame digital inequalities, including cultural (Robinson, 2009), digital (Ragnedda et al., 2019), and technical (Halford & Savage, 2010) capitals. These analyses situate class not merely as a material phenomenon but as a dynamic and relational process influenced by the distribution and conversion of capital. Yet, from a feminist perspective, the relationships between class as conceptualized in this literature and other social identity markers, such as gender or race, remain unaccounted for.

In line with sociological tradition, existing intersectional feminist analyses critique reductionist understandings of class as solely defined by economic capital or occupational status. Instead, they view class as relational, shaped by power dynamics and structural inequalities within society, which are often racialized and gendered.

As a result, the concept of 'race/class' is developed in the thesis to reflect the inseparability of race and class in shaping participants' experiences. 'Race/class,' in this instance, aligns with the framework of 'racial capitalism,' which posits that capitalism is inherently racialized (Robinson, 1983). Racial capitalism critiques traditional Marxism for failing to account for the ways in which race and racism are inseparable from the development and perpetuation of capitalist systems. This construct highlights that capitalism did not replace racial hierarchies but rather adapted to and exploited them, linking the exploitation of labor to racialized oppression.

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The chosen nomenclature of ‘race/class,’ as used in the thesis, is, accordingly, a product of ‘racial capitalism,’ and the two are considered analogous. In the thesis, ‘race/class’ influences the forms and volumes of capital accessible to participants, shaping their ability to accumulate and transfer various resources (in the Bourdieusian framing). This dynamic is evident in the differential access to and use of technology, which intersects with structural inequities tied to race/class. Appendix A highlights the background of racial capitalism (or participants' race/class intersectional location) in the context of Washington, D.C.

The working conceptualization of social class in this thesis engages with and critiques theories by Marx, Weber, Bourdieu, and racial capitalism, emphasizing how class intersects with race, gender, and other identities to shape lived experiences. While Marx focuses on economic relations, an intersectional feminist framing critiques his neglect of the ways in which systems like patriarchy, racism, and colonialism both shape and are shaped by class relations. It expands Weber's analysis of status and power by incorporating the effects of systemic oppression. Likewise, borrowing from Bourdieu, it highlights how different forms of capital are shaped by intersecting identities. Lastly, aligning with racial capitalism, it underscores the racialized and gendered nature of labor exploitation within capitalist systems, offering a more inclusive framework.

Lastly, while the convergence of these frameworks reflects a degree of theoretical ‘messiness,’ it is a deliberate choice to acknowledge the multifaceted nature of structural inequalities and their intersections and to work across them, despite the challenges this task presents. On the contrary, it may be that, taken together, these tensions create an opportunity to cross-pollinate between the various approaches and thereby inspire more inclusive ways of thinking about social class. As such, I highlight and embrace this messiness without the expectation of reconciling the inherent contradictions among the various concepts of social class used in the thesis, as they are beyond the scope of this research.

2.2 Education, Technology, and Young People: What’s the ‘Feminist’ Evidence?

I have so far presented a conceptual map for an intersectional feminist social justice approach and argued that such a framework is most adequate to studying the links between digital and social inequalities in education. I have also presented my critical positioning on education and

technology as value-laden, political, and furthering of, either values of empowerment/liberation, or domination/oppression. I now present my review of the field at the interface of feminist studies, education, and media and technology studies in order to highlight evidence of work which uses critical conceptualizations of educational technology and takes an intersectional feminist approach to issues of inequality, especially as they pertain to young people.

2.2.1 Critical Non-Feminist Studies of Digital Inequalities

Digital inequalities research goes back to the mid 1990s and has progressed from examining issues of physical access to technology or “first-level digital divide” (McConnaughey & Lader, 1995; Wresch, 1996, DiMaggio et al., 2001; van Dijk & Hacker, 2003) to issues of quality of access between and within groups who already have access to technology (Gonzales, 2016; van Deursen & van Dijk, 2019) — directly or by proxy (Attewell & Winston, 2003; Gunkel, 2003; Norris, 2001; Dimaggio & Hargittai, 2001; Selwyn, 2006). The ‘second-level digital divide’ is a subsequently more sophisticated approach which conceptualizes digital inequalities as a ‘continuum of digital ex/inclusion’ (Livingstone & Helsper, 2007), or a ‘digital gamut’ (Eynon & Geniets, 2011) and examines differentiated digital literacies, skills and use/non-use (Eynon & Geniets, 2016; Chen & Li, 2022), autonomy of use — including absolute non-use, lapsed use, and rare use (Selwyn, 2006; Verdegem & Verhoest, 2009), and digital choice (Helsper & Eynon, 2010; Seale & Dutton, 2012). Away from the binaries of technology ‘haves’ and ‘have nots’, this conceptualization highlights that inequalities as they relate to emergent technologies go beyond access to include skills and (non)/use. However, gaps in physical access do persist and should not be neglected in the research agenda (Henwood & Wyatt, 2019; van Dijk, 2020). Lastly, the ‘third-level digital divide’ considers the differentiated outcomes of using technologies— whether for capital-enhancing activities and/or for consumptive and entertainment uses (Eynon, 2009; Calderón Gómez, 2021), “compoundeddness and sequentiality” (van Deursen et al., 2017) and the differences in their outcomes as they take place in the broader social contexts (Tsatsou, 2011; Hargittai & Hsieh, 2013).

The consensus in this body of literature is that the less privileged have patterns of use or ‘information diets’ that are less capital-enhancing (Robinson, 2009; Ignatow and Robinson, 2017; Ragnedda 2018; Ragnedda et al., 2020) and that these inequalities follow patterns of off-line marginalization. Empirically, these differentials hold true when looking at disadvantage by

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race/ethnicity (Chen, 2013; McMillan Cottom, 2020; Francis and Weller, 2022, Crooks, 2024), economic class (van Deursen & van Dijk, 2019; Danielsson, 2021; Grošelj, 2021), age (Cotten, 2017; Francis et al., 2019; Wilson-Menzfeld, et al., 2024), gender (Kashyap et al., 2020), disability (Kretchmer & Drabowicz, 2018; Wilson-Menzfeld et al., 2024), education level (Weber & Becker, 2019; Bucea et al., 2021), geography (Richardson & Bissell, 2019; Graham & Dittus, 2022), environmental poverty (Ruiu & Ragnedda, 2024), among other categories.

An important idea which emerges from this research is the notion of digital inequalities being mutually shaping with existing social inequalities and that digital inequalities are multilayered and mutually-reinforcing. The notions of the “digital inequality stack” (Robinson et al., 2020a; 2020b) and “compoundedness and sequentiality” (van Deursen et al., 2017) imply that when inequalities exist at the most basic level (i.e. collective connectivity infrastructure, software and hardware, storage capacity etc.) they proliferate inequalities at higher levels. By the same token, fulfilling foundational digital needs, does not necessarily translate to digital wellbeing at higher levels (optimal access, skills, use, and production, not just consumption). In other words, every new ‘wave’ of digital technologies will bring with it and proliferate new inequalities.

In the field of education, this paradigm-shift in studying inequalities is particularly pivotal as there are implications on life chances and life trajectories for individuals and groups across societies (DiMaggio & Garip, 2014; Hargittai & Hsieh, 2013; Robinson et al., 2015). Specifically, when looking at young people’s relationship to technology in education, just as is the case for adults, it appears that social determinants do structure the experiences of young people with ICTs (Harris et al., 2017, Darwin, 2018; Ito et al., 2020). Young people are especially important to study in the digital realm because they engage with technology more frequently and in very sophisticated ways exposing them to both risks and opportunities that are as diverse as they and their contextualized uses are (Scolari et al., 2020; Livingstone & Blum-Ross, 2020; Weinstein & James, 2022). However, this isn’t to suggest that young people are ‘digital natives’ (Prensky, 2001), as they need support in developing skills to access, use, and navigate ICTs just as adults do (Eynon & Geniets, 2016).

Overall, my reservation is that this critical but non-feminist body of research insists on the social shaping and social embeddedness of technology by studying how social determinants affect one’s technological outcomes, but it does so one-dimensionally, considering each axis as a

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static, isolated determinant, without close examination of how it might interact with or compound other axes. Though intersections are alluded to (Robinson et al., 2020a), the field is still lacking research which employs multiple axes in the analysis — both empirically and in theory. Though it succeeds in pointing out the importance of investigating digital inequalities as they relate to issues of distribution of resources, power, and privilege, this literature does not go far enough to conceptualize (and make visible) the systemic and structural nature of inequalities.

2.2.2 Feminism, Science, and Technology

There is a rich body of work which uses feminist theory to examine the gendered nature of technology and how science and technology studies (STS) and feminist studies come together. Although STS had largely ignored questions of gender (Harding, 1986), feminist studies have equally ignored technology as a category of analysis (Åsberg & Lykke, 2010). Feminist technoscience as a field emphasizes the embeddedness of the sociocultural with the technoscientific, both in theory and practice (Åsberg & Lykke, 2010, p. 299).

Just as we cannot speak about one feminism, critiques of STS are as diverse as are feminist theoretical and methodological approaches. While feminist STS approaches are often presented as separate liberal, radical/ecofeminist, and postmodern feminist accounts, they did not develop in a linear fashion or independently of each other (Wajcman, 2010, p. 143). The pessimistic liberal conceptualization of technology as a value-neutral instrument for patriarchal control (Wajcman 2010; Faulkner, 2001; Wyatt, 2008, p. 113) concerns itself with equality of access, representation and opportunity and “reduces gender to a women's problem” (Bath, 2013, p. 1; Weber, 2006, p. 3; Lohan, 2000, p. 902).

The radical and ecofeminist approach shifted the problem away from men’s domination and control over technology to the “inherently patriarchal and malignant” nature of the artifacts themselves (Wajcman, 1991, p. 449; 2007; Cockburn 1985; Webster, 1989). This view also began to shift the analysis to “processes by which technology is developed and used, as well as those by which gender is constituted” (Wajcman, 2007, p. 289). A nurturing and pacifist womanhood was celebrated in this framing, and it was antithetical to the masculine monopoly on technologies they were presented with. Women’s agency, however, was neglected in this essentialist perspective (Wajcman, 2010, p. 46; Lohan, 2000).

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This pessimistic account gave way to a new approach in feminist STS: Postmodern Cyberfeminism. In this view, technologies are inherently liberating for women as the digital world offered possibilities away from the injustices of the material world (Haraway, 1987; 2018). Though this writing on the blurring of body-machine boundary offered a seminal blueprint for feminist epistemology and ontology, it was often misread and pushed from techno-enthusiasm to an uncritical techno-euphoria. Further, much of this work sits within the framework of non-intersectional feminism, which, as I have argued before, is a lens of analysis and a theoretical framework which allows for an inclusive study of technology and inequality.

A contemporary perspective is that of the co-construction of gender and technology held by Berg (1996), Faulkner (2001), Lie (2003), Wajcman (2010) and others, considering femininity, masculinity and technology to no longer be “fixed, unitary categories” (Wyatt, 2008, p. 121) but to be perpetually ascribing and acquiring meaning from and to each other (Wajcman, 2000, 2004, 2010). In this anti-essentialist mutual shaping approach, Wajcman writes, “there is enormous variability in gendering by place, nationality, class, race, ethnicity, sexuality and generation and thus women’s experience of ICTs will be diverse” (Wajcman, 2007, p. 294). Though I subscribe to the social shaping of technology thesis in its big umbrella conceptualization, I do not view the dissolution of social categories in the question of gender as a productive one. As argued in [Section 2.1.2](#), categories are important to making structural injustices against social groups analytically possible and, as such, gender needs to be operationalized as a category in order to be analytically visible. Lohan (2000) shares this view as she advocates for “gender as a legitimate analytical category at the outset of investigations, its shape and form should remain an empirical question” (Lohan, 2000, pp. 902, 907). Similarly, Lykke (2010) concurs that feminists have focused on the interaction between categories “to strike up political alliances” and have therefore considered it “important *not* to detach the categories of gender/sex from other sociocultural categories, but, conversely, to look at the interplay—or intersectionality—between them” (pp. 36-37). Wajcman herself stresses that “gender is connected to other axes of power such as race, colonialism, sexuality, disability and class” (2010, p. 147), which, in my view, warrants even more the need for work which deploys these feminist theoretical tools but remains rooted in an intersectional social justice framing which is empirically feasible. In other words, feminist STS scholarship still falls short of

allowing the study of oppression and domination, which requires social categories to capture an understanding of technology alongside these various axes simultaneously.

2.2.3 *Intersectional Feminism and Technology*

As the aforementioned feminist frameworks remain hard to trace empirically, it is even harder to find evidence of feminist STS applied to the field of learning, media, and technology. There is work which focuses on integrating feminist principles into learning with technology (Aneja, 2017; Herman and Kirkup, 2017; Vivakaran and Maraimalai, 2017), but it is not critical of the role of technology. The question in this literature is not whether technology can deliver, but how it can deliver feminist pedagogy online to minority groups.

Some work adopts an intersectional lens to look at gender and technology but remains in the ‘women in technology’ strand of literature, which asks ‘why so few Black women?’ in computer science and engineering fields of education (Clegg & Trayhurn, 2013). This work does not problematize technology and does not treat ‘educational technology’ as an analytical unit in the way I have conceptualized in my thesis.

There is an interesting body of work which uses various critical theories of power and analyzes how technologies — from the Internet to generative AI — reflect and perpetuate inequalities in very consequential ways for vulnerable and marginalized groups. This literature is critical of power differentials similar to intersectional feminist analysis, but does not frame it as overlapping, simultaneous, dynamic, relational, and within hierarchies of society’s structures (macro, meso, micro) as I have in this thesis. Some of this scholarship includes critical conceptual constructs such as Browne’s “Surveillance of Blackness” (2015), Noble’s “algorithms of oppression” and “technological redlining” (2018), Buolamwini and Gebru’s “Gender Shades,” (2018), Broussard’s “technochauvinism” (2018), Eubanks’ “Digital Poorhouse”(2019), Benjamin’s “New Jim Code” and carceral technoscience (2019), Zuboff’s “surveillance capitalism” (2019), Costanza-Chock’s “Design Justice” (2020), D’Ignazio and Klein’s “Data Feminism” (2020), Crooks’ “Access is Capture” (2024), among others.

Though this work does not focus on education or ‘educational technology’, it introduces critical conceptualizations of the sociodigital field and findings which are useful in analyses of education and technology. A particular study which focuses on the biases of big data in education is *Weapons of Math Destruction* by Cathy O’Neil (2016). Though highly critical and

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subscribes to the socially embedded and value-laden nature of technology, O’Neil’ does not use an intersectional lens, per se, and does not focus on ‘educational technology’ in her study, which addresses accountability measures for teachers.

Likewise, though Ciston’s (2019) “intersectional artificial intelligence” and Hampton’s “musings on algorithmic oppression” (2021) and Brown’s (2021) call for a “Black digital sociology” are excellent examples of the application of intersectionality to sociodigital space, they are not focused on education or edtech not do they address how these sociodigital issues apply to young people.

2.2.4 Intersectional Feminism, Education, and Technology

Focusing in further, there is a limited amount of scholarly work on education and technology from a feminist perspective, or as Suzane Damarin described it, nearly thirty years ago, “a curious and serious shortage” (p. 116) — which, though increasingly being acknowledged, still persists today. The little literature that exists in this space does examine education and technology from a feminist perspective — but not always from an intersectional one. This work is concerned with inequalities of power, control and epistemic privilege benefiting some groups over others and benefiting institutions over individuals, as pertains to education and technology. It does so by focusing on issues of gender and power, but not in intersection with other axes of oppression and domination.

Suzanne Damarin’s scholarship (1989; 1990; 1991a; 1991b; 1994) fits into the narrow intersection of ‘feminist Ed-Tech’ as it is perhaps as close as can be to an examination of educational/instructional technology using feminist theory. Her work seems to echo much of the same issues in the rest of feminist STS, as she writes that “society is patriarchal” and it is “no surprise” that ‘educational technology is “deeply gendered and enormously sexist” (Damarin, 1991, p. 119). She also raises epistemological concerns about edtech not valuing women’s way of knowing, which I would — in an intersectional analysis— extend to the way of knowing of all marginalized groups. She argues that edtech is “top down” in its design and implementation, reflecting oppressive practices stemming from “a male default” (Damarin, 1994, p. 38). Her feminist take on edtech also transpires in her critique of its official definition (NTIA, 1995), which is underpinned by a reductionist assumption of education as ‘learning’, students as ‘learners’, teachers as “facilitator[s]” (Damarin, 1994, p. 39) all receiving and delivering

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‘content’ via technology, which is “delivered in fully developed form, sometimes with mandates for their use and sometimes simply as materials which might be useful” (Damarin, 1990, p. 185). Edtech in this framing robs the teacher of their role within a feminist ethic of care and robs the student of their autonomy.

This framing of edtech as epistemically oppressive is also present in the critical/postmodern analysis of Muffoletto (1991; 1993) and Nichols and Allen-Brown (1996), which — though not feminist — still questions power and epistemic privilege in education and technology. I mentioned Muffoletto’s and Nichols and Allen-Brown’s work here (and not under the critical-non-feminist literature) because of their rare focus on education and technology — and not just technology broadly.

A caveat to note is that this literature —from the 90s to today— remains mostly prescriptive, largely theoretical and has not been subsequently supported with much empirical studies. Fast forwarding to today, research is still grappling with constructing narratives for an educational technology which is just — in its radical feminist most inclusive sense.

More recently however, there has been an increased interest in and a recognition of the need for intersectional feminist thinking in the study of educational technology and "the ways that gender and other inequalities are encoded into the technologies we routinely use for learning and everyday life, and the power and representational imbalances in the EdTech and Technology industry more widely" (Eynon, 2018, p. 3). Feminists have begun examining issues such as “hacktivism, platform economics, data ethics and AI” as part of this evolving effort “to challeng[e] inequalities, especially (but not only) arising from gender’ in the field of educational technology (Beetham et al. 2022, p. 143 in Atenas et al., 2022, pp. 3, 7).

Arastoopour’s study, for instance, is an excellent example of work that applies an intersectional Black feminist lens to the analysis of a #blackgirlmagic Twitter as “learning and identity development spaces” for Black women and girls (Arastoopour, 2022, p. 3). Similarly, Rauchberg’s (2022) examination of the intersection of queerness and neurodivergence in Human Computer Interaction (HCI) research presents an interesting counter imaginary (neuroqueer technoscience) to prevalent “interlocking White supremacist networks of power and control in ICT design” as they overlap with ableism, transphobia, homophobia, and other categories of social difference (p. 375).

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In the context of education and youths, there is a similar dearth of scholarship that looks at young people and media from both a techno-critical and an intersectional perspective. Calls for intersectional approaches which look at young people's "aspects of dislocation from multiple centers of power" and their experiences through the digital has highlighted the need to fill this gap (Alper et al., 2016, p. 109). In reviewing the existing literature, there is work which brings a race-sensitive lens for the educational outcomes of young people (Pickett, 2020), and work looking at gender and race in the context of school discipline and policing (Wun, 2018), which are greatly edifying, but remain unhelpful for the inquiry of how these topics intersect with critical technology studies. When technology and media are examined in the learning of young people (Lane, 2017; Almjed, 2019), the focus remains on feminist pedagogy and educational empowerment using technology, without being critical of technology itself. Further, even when digital inequalities are closely examined in their most sophisticated conceptualizations in education, the outcome is often critique of the status quo and calls for 'urgent' scholarship on how "vulnerabilities can overlap and compound one another" (Robinson et al., 2020a, para.64).

In the years since the Covid-19 pandemic and the global racial and social justice reckoning, there has been growing scholarship which privileges intersectional approaches in research of edtech and young people. For example, Gandolfi and colleagues (2021) employ an intersectional feminist lens, and look at how race and class come to together to create unique forms of marginality in the learning of young people during Covid-19. However, very few examples exist of studies which focus on edtech and young people and use an intersectional feminist lens.

Interestingly, despite not employing intersectional feminist theory as a framing, there is work which, in the same spirit of intersectionality, critiques power and contextualizes inequalities in the digital learning of young people. This, for example includes how information seeking can be both classed and gendered and are conceptualized as "micro events that have social consequences at scale of what Bourdieu (1984: 170) calls 'structuring structures' such as class and gender (and, while beyond the scope of this article, this includes race)" (Davies, 2018, p. 2778). Similarly, in their ethnographic study, Bhatia and colleagues use a "critical platform gaze" to examine "how the situatedness of a student is not simply a difference of learning levels, cognition, socioeconomics, gender, etc., but rather, an intersecting of several of these elements, which are beyond and above the scope of technical systems" (2024, pp. 9, 10, 13). Findings of

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such analyses are very useful to researchers using an intersectional lens and provide helpful empirical evidence for the growing intersectional feminist scholarship in the field.

Given the scant literature I am able to present in this section, there is a justifiable ‘urgent’ need for scholarly work on how, say, a patriarchal edtech interacts in intersection with class, age, geography, or (dis)ability in general, but especially in the lives of young people. Or, similarly, how an epistemically oppressive ‘Ed-Tech’ interlocks with issues of ICT access, skills/use and outcomes. Bridging critical studies of technology and ‘educational technology’ and examining their intersection through an intersectional feminist lens, is what I aim to do in this thesis; in order to understand more clearly the experiences of some of the most understudied in society.

Lastly, in line with the recent shift from “a fatigue of critique” in edtech narratives I mentioned in the introduction (Macgilchrist et al., 2021, p. 247), is an increasing amount of research which imagines what “just learning systems” could look like in the future (Winters, et al., 2020, p. 17) and demonstrates that the field has a growing potential for “champion[ing] these futures-in-the-making, and avoid[ing] despair in the here-and-now” (Atenas et al., 2022, p. 7).

In the scholarship on young people, researchers have also been cautioning that it has been “problem-focused and privileged families-focused” (Alper et al., 2016, p. 108), and have called for a shift of questions in this scholarship to alternatively focus on “asset-based” and intersectional analyses (p. 113). They believe it is “crucial” to examine intersections between “overlapping forms of social distinction [...] and how children and parents negotiate these multiply marginalized forms of stratification” (Alper et al., 2016, p. 111). Likewise, research on edtech and youth has been imbued in a similar ‘critical optimism’ of the wider critical technology studies field (see Bayne, 2024, for example), as more “hopeful, creative and optimistic” visions of edtech are increasingly emerging (Williamson et al., 2024, p. 3).

2.3 Research Questions

The aim of this study is to use an intersectional feminist lens to examine issues of inequality in the digital learning practices of multiply marginalized young people in Washington, D.C. At the heart of a feminist analysis, in this context, is the critique of power differentials in the tools, processes, and relationality of their learning experiences. In doing so, this study aims to (1) examine how the youths' subjectivities and day-to-day learning lives are connected to their political locations and wider social structures, and (2) privilege their voices by highlighting what they share they value and need (or not) from an 'educational technology'. As such, the research questions guiding these aims are as follows:

How does the convergence of multiple dimensions of oppression/privilege impact young people's relationship to technology and education?

- a) What dimensions of intersectionality are young people in Washington, D.C. located at?
- b) How is technology in education mutually shaped by these intersectional locations?
- c) How does technology in education shape young people's learning practices?

3 Methodology

In this chapter, I will present and justify the choice of using feminist intersectionality as a methodology to guide the study and will elucidate how this choice aligns with my aforementioned research aims and research questions. First, I introduce the philosophical and theoretical underpinnings guiding my inquiry. Second, I present my research design, motivating my choice of qualitative methods (photo-elicitation interviews and questionnaires), detailing the sampling strategy, the instruments employed, and the overall procedures undertaken during fieldwork. Third, I articulate the analytical strategy applied to manage and interpret the collected data. Lastly, I discuss reflexivity and conclude with ethical considerations of the study.

3.1 Intersectionality as Qualitative Methodology

I have previously written in [Sections 2.1](#) of Chapter 2 about my ontological commitment to social justice and discussed the various conceptualizations of it. I have arrived at an understanding of social justice within the pluralist tradition nested in feminist ethics and developed by Iris Marion Young (2000; 2011). Subsequently, I argued from this position that studying issues of social (in)justice requires going beyond universalist ontologies of atomistic individualism—such as that of justice as ‘distribution’—and using a relational framework of heterogeneity and social “dependence” that are free from “domination and oppression” (Young, 2011, p. 30). Within the framework of domination and oppression I contended that feminist intersectionality offers a more inclusive theoretical and analytical paradigm for studying inequalities, as it draws links between individual and collective identities and keeps an analytical focus on social structures in ways which non-feminist and previous feminist work fail to do.

Now, I argue that intersectionality at this stage of my research, has been used — not just as a theoretical/analytical framework, but also — as a methodological approach. With the caveat that there is a great deal of complexity surrounding ‘doing intersectionality’ empirically, I will now articulate and justify the specific way in which I have used it to help answer my research questions.

Before justifying my choice of intersectionality, I’d like to address a few points of contention around its use as a methodology. I first argue that that there is no uniquely-feminist or

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intersectional methodology and/or methods — only conducting research *intersectionally* (i.e. from an intersectional onto-epistemology).

Despite the wide contention around intersectionality's definitional conceptualization — as a theory, epistemology, paradigm, epistemic sensibilization, methodology, and method (Yuval-Davis, 2006; Hancock, 2007; Bowleg 2008; Roth, 2013; Geerts & Van der Tuin, 2013; Carastathis, 2016; Collins & Bilge, 2016; Rodriguez, 2018, pp. 432-433, Hytten, 2022) — there seems to be a clear consensus on the lack of a clear-cut design of intersectional research and a lack of a distinct intersectional methodology (Nash, 2008). “This level of complexity”, Collins and Bilge argue, “can be a source of frustration for scholars, practitioners, and activists alike, who are looking for a neat tool to apply: a tidy methodology for intersectional research [...] or a crisp instruction manual for applying intersectionality to various fields of practice” (2016, p. 41).

Against this backdrop of ‘methodological uncertainty’, I borrow Leslie McCall's “expansive” understanding of methodology as “a coherent set of ideas about the philosophy, methods, and data that underlie the research process and the production of knowledge”, which lends itself to a more pronounced focus on the philosophical underpinnings of the research rather than the choice of methods (2005, p. 1774-1775). Refraining from labeling any one method as intersectional, I instead focus on how the various components and phases of the research process coherently espouse an intersectional ‘epistemic sensibility’. It can, in fact, be argued here that intersectionality's most unique contribution to feminist research is its onto-epistemology. Its conceptualization as a “cognitive habit” (Carastathis, 2016, p. 108) and a way of “thinking against the grain” (May, 2015, p. 59), which shape every step and every aspect of the research. The writings of a number of feminist scholars seem to further this position, including but not limited to McCall (2005), Simpson (2007), Collins (1990), Rodriguez (2018) and Alison Phipps (2016). For the sake of succinct illustration, the latter author writes:

Once you have a good grasp of Black feminist theory, you'll understand that intersectionality is not an additive principle but an inherent one that requires us to interrogate the very foundations of our work. In other words, we need to apply it from our ontologies and epistemologies, through our research questions and sampling to the knowledge claims we make. (para.1)

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Similarly, Labelle (2020) strongly emphasizes the importance of engaging in a discussion on epistemology when it comes to thinking about intersectionality as a methodology. She writes: “I argue that we need to bring epistemology into intersectional methodology. [...] reflecting on one's positionality, one's embodiment of privileges and one's ethical responsibilities informs the ways in which researchers operationalize intersectional projects, thereby shaping methodology” (Labelle, 2020, p. 1).

Although I write from the premise that there is no specifically intersectional methodology or method, it can be argued that feminist scholarship generally tends to share certain basic characteristics: “the raising of consciousness of oppression, exploitation, empowerment, equality, voice and representation” (Doucet & Mauthner, 2007, p. 5; Cohen et al., 2018, p. 1032), which are all values guiding this study. Further, Mertens (2007, p. 213) argues that the connections feminist scholarship makes between knowledge and power — as it interrogates power in every stage of the research process — is a central characteristic of feminist work. And McCall (2005) argues that a basic feminist principle is that knowledge production is not a neutral process, and those who claim so are making a patriarchal assumption. As such, I reiterate that this study has normative aims and is rooted in a tradition of political and social change.

Another point of contention around the choice to use intersectionality empirically (as a methodology) is its operationalization. One of the most prominent criticisms of intersectionality as a methodology is the translatability of its theoretical richness into empirically feasible research. While there is “more than one way” of ‘doing’ intersectional research (Christensen & Jensen, 2012, p. 122), the main difference between the various approaches is their stance towards categories of social difference (race, class, gender, age, (dis)ability, among others) in terms of their conceptualization, the number considered sufficient and adequate, and their priority (for some of the various approaches see McCall, 2005, p. 1773; Dhamoon, 2011; Christen and Jensen, 2012; Carastathis, 2016; Rodriguez, 2018; Duran & Jones, 2019). Given the ontological and epistemic foundations of feminist research, these different stances produce different kinds of knowledge. Below is my positioning on categories of social difference and operationalizing of the research questions.

First, I have been cognizant of the use of additive or unitary approaches to social categories, as this seems to be a prominent shortcoming in measuring intersectionality. In other words,

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thinking of and designing questions which imply, for instance, that race as independent of gender, or class independent of race is a problematic and simplistic approach. In her article *When Black + Lesbian + Woman ≠ Black Lesbian Woman*, Bowleg (2008) warns against this practice which treats categories as “separate, independent, and summative” (p. 314). Instead of the additive model, I adopted an approach of categories as dynamic, interactive, and “always mutually constitutive” (Wahab, 2014, p. 113), as well as “exist[ing] within spatial and temporal contexts and [...] emergent rather than given and unchangeable” (Hulko, 2009, p. 8).

Second, in response to the contrasting views about the number and priority of social categories, I adopted McCall’s (2005) categorical complexity framework which puts forth a middle-of-the-way strategy between “limited categories, which can lead to essentialism, and unlimited categories, which can lead to infinite regress” (Rodriguez 2018, p. 440). In other words, her approach starts from “provisional categories” or “anchor points” such as race, gender, and gender/sex, though it acknowledges that they are not static and independent (McCall, 2005, p. 1785). In order to help answer my research questions, I am making a strategic choice to emphasize race and class. This decision is based on the understanding that these categories shape the lives of most young Washingtonians and that relationships of power are to a large degree situated at their intersection (see [Appendix A](#) for a background on the overlapping nature of inequity in Washington, D.C.). Lastly, I believe that despite all the complexities of intersectionality and the challenges it presents in its measurement, it still is the most inclusive ‘methodology’ to examine the interplay of subjectivities, groups, and structures, as well as the power relations governing them.

3.2 Research Design

In the coming subsections, I detail my involvement in the field, presenting the research context, the research site, and the sample, and justify their fit to answer my research questions. I subsequently present the study’s instruments and procedures.

With the previous understanding that there are no specifically feminist methods, I argue that using an intersectionality-informed qualitative method is most suitable to answer my research questions. I also support this largely qualitative study with the use of a survey, which will also be discussed herein.

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I would like to reiterate that methods are value-laden and firmly rooted in epistemological and ontological commitments (Hesse-Biber, 2012). According to Beverly Skeggs (1994), feminist research is distinct from non-feminist research because it "begins from the premise that the nature of reality [...] is unequal and hierarchical" (p. 77) and that it "is imbued with particular theoretical, political and ethical concerns that make [its approaches] distinctive" (pp. 2-3)" (Doucet & Mauthner, 2007, p. 5). These epistemological positions, in turn, are inherently political (Haraway, 1987; Harding, 1991; Alcoff, 2008; Labelle, 2020, p. 6). This makes research — subsequently and rightly— "a political activity with a political agenda" (Gillies & Alldred, 2002, p. 33). Such normative aims, in this instance, require methods that allow for the in-depth study of subjectivities and "the surfacing and rejection of exploitative power hierarchies between the researcher and the participants, and the espousal of close—even intimate—relationships between the researcher and the researched." (Cohen et al., 2018, p. 1033). Thus, qualitative methods, such as in-depth interviews and PEIs, by virtue of their excavation of the complexity and richness of people's experiences (Denzin & Lincoln, 1994), can help highlight the dynamics of individual and group identities as well as wider social dynamics (Narvaez et al., 2009). Further, using qualitative methods can be especially vital at the level of intersectional analysis, as it may be difficult to tease out power-based relationships using quantitative methods (or using them alone). The latter could also be a challenge at the level of data collection as it can be challenging for participants to convey the nuance of their lived experience without the richness of methods like interviewing, or the combining of interviews with other creative methods, such as photography or drawing (Hawkesworth, 2003; Duran & Jones, 2019, p. 466). These attributes, precisely, make qualitative methods a more suitable choice within the framework of an intersectional feminist methodology.

More specifically to the field of digital inequalities in education, a well-documented lack of methodological diversity makes the deployment of qualitative work of particular importance to the development of the field (Xue & Crompton, 2024). In fact, there are numerous calls for the "need [for quantitative analyses] to be complemented by more qualitative work [for a] holistic understanding of the role technology plays in individuals' everyday lives" (Warschauer & Matuchniak, 2010; Eynon & Helsper, 2010, p. 548).

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Further, the over-reliance in the field on quantitative methodology could be considered “inadequate” in answering nuanced questions, locating within-group differences, demonstrating instances of inter-group inequality (Simpson, 2007, p. 152), and “understand[ing] the more complex dimensions of systems of privilege and oppression” (Rodriguez, 2018, p. 432).

Though this study is, at large, a qualitative one for its amenability to intersectional sensibilities, the choice to use of a quantitative method to complement and support it is not at all at odds with the overarching aims of intersectionality as a methodology. In fact, the binary distinctions between qualitative and quantitative methods, which have sometimes been articulated in feminist scholarship, do undermine “the philosophical and substantive issues involved in any study of intersectionality” (McCall, 2005, p. 1775). In other words, arguing exclusively for one particular research paradigm or the other goes against the very core tenets of intersectionality. Laine (2000) argues that in the context of educational research, “it is important to recognize the place of both quantitative and qualitative methods as the stuff of feminist research” (p. 62).

Despite the study’s obvious qualitative bent, I find that using a quantitative method is complementary to the aims of the inquiry. Using an intersectionality-informed ‘quasi-mixed’ methods resulted in richer, more accurate data and, ultimately, illuminated them in ways that would have otherwise not been possible (Nash, 2002; Denscombe, 2008). In what follows, I present the methods used to investigate my research questions which are (1) photo-elicitation interviews and (2) a self-completion questionnaire).

3.2.1 Motivating the Choice of Methods

3.2.1.1 Photo-elicitation Interviews

Photo-elicitation is a visual method, which refers to “the simple idea of inserting a photograph into a research interview” (Harper, 2002, p. 13). The origin of the method is generally attributed to John Collier (1957) who coined the term and highlighted the potential of adding photographs to traditional interviews. The underlying premise is that “images evoke deeper elements of human consciousness than do words” (Harper, 2002, p. 13) making photographs, in conjunction with interview discussions, a source of “richer, more natural, [and] more detailed data” (Leonard & McKnight, 2015, p. 632). Photo-elicitation can also result in more and/or different kinds of data (Wenger, 2002), more reflexive data (Rose, 2012), “surfacing

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the taken-for-granted ideas about the social world” or areas of lives which do not easily transpire in ordinary discourse (Barton, 2015, p. 197), potentially disclosing “hidden perceptions” and revealing “unknown viewpoints” (Shaw, 2021, p. 346).

The use of a photo-elicitation activity in conjunction with in-depth interviews is a widely used design approach in qualitative visual methods such as PEIs and Photo-voice (Robson, 2011; May, 2011) and in fields such as social work, psychology, sociology and education (Bautista García-Vera, 2023). They have been successfully deployed in education, especially with youth and marginalized groups (Clark-Ibañez, 2004; Loeffler, 2005; Epstein et al., 2006; Leonard & McKnight, 2015; Beazley, 1999, 2016; see Hong & Got, 2019 for further examples), which motivated its use in the current study and in tackling the “how” in technology patterns of use (RQs 2 and 3). The visual images can be produced by either the researcher or the participants (Hatten et al., 2013; Clark-Ibanez, 2004), though, in this study, they were taken by research participants to best align with the theoretical framing of the research.

At the core of feminist work is challenging and complicating power relationships and facilitating voice — and photo-elicitation enables this critical stance (DeVault, 1999; Morris, 2007). The use of PEIs reduces the power differentials between researcher and participant (Epstein et al., 2006, Gwyther & Possamai-Inesedy 2009; Meo, 2010; Hatten et al., 2013; Torre & Murphy, 2015) which is especially important when working with multiply disadvantaged young people, as it enables them to also play the role of the ‘expert’ through sharing and interpreting their photographs to the researcher. Participants, instead of the researcher, have control of the camera, make decisions on which photographs to take, to share with the researcher, and to ultimately include and use in the interview (Hong & Got, 2019 p. 431). This enables the participants to “take charge of the task” and the process of data collection to become a “responsive, child-led activity rather than a controlled, adult-led one” (Shaw, 2021, p. 345). Similarly, the power differential created by the interviewer/interviewee dynamic, is recalibrated in favor of the participant by letting them direct the conversation and “re-position the questioning and narrative in whatever way they choose” (Shaw 2021, p. 348). The role of the researcher is then relegated to that of “shar[ing] in the experience” and not directing it (Goldman-Segall, 2014, p. 93). This, according to Strack, Magill, and McDonagh, can facilitate engagement in the research process and be empowering for participants. In the context of my research, I recorded

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examples of ownership of the photographs and interview data by the young people in ways that communicated empowered participation, and a sense of collaboration that suggested a narrower perception of power differentials for participants. For instance, Libra (G; 17), in response to my clarification about the anonymity of all her data, she proclaimed: “Oh, you can tell them! They need to know who that bright person was that you were talking to!”. Likewise, Thinker (B; 21) was very engaged in the research process and often shared that “I wanna help you out” by participating in the PEIs and sharing his perspective. His offer to ‘help’ came from an empowered sense of understanding the importance of research and my ‘outsider’ status in his community. His recognition of ‘my need for help’ is a result of what felt like a more collaborative relationship than one where I, as a researcher, was in control.

In addition to affording less power differentials in the research process, PEIs allow for power dynamics in the everyday lives of participants to become visible. Horton and Kraftl propose that: “‘the everyday’ is at first glance everything. It is that which occupies our minds, that which we care about, that which matters, that which is done, and that which happens, everyday” (2006, p. 71). As such, the exploration of ‘everyday’ richness and depth through images and interviews, encourages and affords the study of phenomena of power and social difference. This affordance is consistent with the aims of an intersectional feminist analysis, which seeks to complicate the day-to-day worlds of participants and place them in broader social contexts. In fact, Hulko (2015) argues that PEIs can offer opportunities to integrate the micro, the meso, and the macro by connecting everyday experiences and perceptions with wider social and economic structures. The seemingly mundane can, in this context, provide insights on differences that might otherwise never occur to the researcher or come up in interviews alone (Collier and Collier 1986; Chaplin 1994; Pink 2007). This was the case in this study where, for instance, participant photographs of technology inside a public bus on their commute to school (Figure 1), lead to discussions and probing on the length and frequency of their public transportation habits. This eventually informed the development of an analytical theme on urban/suburban geography as a dimension of social location. This insight would not have been reached without its initial origination in photographs of the ‘mundane’ of the participants’ worlds (Balmer et al., 2015; Barbour, 2014).

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Figure 1 Depictions of Technology in Daily Commute by Lamia, Rashida and Libra

A further strength of employing photo-elicitation or “reflexive photography” is facilitating voice when it is “autodriven” (Bautista García-Vera, 2023, p. 67). Not to be mistaken for photo-voice (Wang & Burris, 1997; Leung et al., 2017), another visual method which has roots in Paolo Freire’s (1973) participatory action research and has clear communal, emancipatory, and action-oriented aims. Though, PEI in this study is not embedded in this agenda, it still is very suitable

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because it shares much with photo-voice in terms of their facilitation of a critical epistemic stance on knowledge production. Marginalized young people's views and voices are seldom sought or highlighted in empirical research (Driessnack & Furukawa, 2011; Gray & Winter, 2011) which begs the need for work that engages them and "ask[s] them directly" about their worlds (Hong & Got, 2019 p. 430). Self-produced photographs and visual narratives start from the premise that young people "have the right to talk about their own lives" (Volpe, 2019, p. 361), and therefore foster an experience of agency, self-expression and 'show and tell' from their own perspectives. In this study, the latter was especially encouraged and nurtured within the context of the ACC being an art education organization based on similar epistemic values. Lastly, measuring intersectionality is complex and Bowleg (2008) cautions against 'pigeonholing' participants into categories through the language of the questions, but rather letting them include whichever parts of their identities they feel more connected to. PEIs offer an excellent method to do so through the visual and creative nature of the medium and the tacit ways it can help young people communicate about their identities.

Though photo-elicitation can be a powerful visual method, provide for rich and unexpected data, it is not without its difficulty and limitations. As Harper's study (2002), May (2011) and Shaw (2021) highlight, the use of visual media is not a guaranteed method to better interviews but—just as other interview techniques—PEIs requires flexibility, creativity and a level of experimentation, especially when working with young people. Similar to what Shaw (2021) found in their study, a number of participants in my research did not understand the task, were easily distracted, forgot about it, or misplaced their cameras. This often required several iterations of explaining the task, providing additional cameras, and prompting family members to remind them about the activity. Other participants did not respond at all, despite consenting. They did not take any pictures because the project demanded completing a task and following through with an interview. Others refused to take picture because they did not want me to see what their lives outside of ACC look like—but insisted on doing the interview. This often required flexibility and improvisation in the research process and 'meeting the participants where they are' in terms of what they are able to offer the research process. For example, Kiko (G; 11) did not have any photographs taken at the time of the interview because she misplaced her camera, and Amina (G; 12) exclaimed "Nuh-uh! I won't take pictures in my neighborhood".

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During their interviews, I resorted to asking them to draw images if they wanted to or asked them to imagine a hypothetical in which they had taken pictures and asked them to describe what those photographs would be of and about. Further, some were somewhat anxious about the interview and telling me ‘what I wanted to hear’. Likewise, some took photographs of what they perceived I wanted to see (Gallacher & Gallagher, 2008), such as Lady Maria’s self-censoring and only taking “pictures of very educational things” and Autumn being short and constrained in her answers.

Additionally, the power-diffusion affordance of the method is not always guaranteed to tilt the balance in favor of the participants. It has been acknowledged that the nature of the interview is “abnormal conversation” (Walford, 2001, p. 87) and that interviews mean different things to different people (Hammersley and Atkinson, 2007). Many will not distinguish between the different types of interviews and will therefore treat a research interview as one they are more familiar with (Birkeland, 2013). For instance, for Lamia, the interview had to take place in a more formal (and stern) office in the administrative floor of the ACC— unlike the informal common room where participants are usually most comfortable, and we are sat more informally in a living room-like setting. This spatial shift created a different power dynamic in the interview, which clearly made her nervous, and consequently undermined the more collaborative and friendly atmosphere I preferred about the common room.

Finally, and perhaps more pervasive, is the epistemic limitation of applying PEIs as “a set of techniques rather than as an ethical or political commitment”, which can be tokenizing and actually reproduce unequal power relations (Kesby, 2007, p. 348). In other words, facilitating young people’s voices does not simply happen through the processes of the methods, but through the careful, critical, and conscientious thinking, decisions, and actions of the researcher in the shared construction of knowledge during this process (Lapenta, 2011). Bautista García-Vera (2023, p. 66) suggest that the overall guiding paradigm of the research is paramount to the mitigation of this limitation. With that in mind, and throughout the 12 months of fieldwork, I made every effort to rise to the aspirations and aims of feminist work and feminist research, but I cannot claim for it to be more than an aspiration, as I (and every field researcher) was bound to falter due to ignorance or misjudgment.

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Given the aims of the study and its aim of understanding inequalities in the digital learning practices of multiply marginalized youth, photo-elicitation interviews (PEIs), on the overall, provided an adequate method. It helped illuminate all three research questions guiding this study from the perspective of the participants. It afforded the collection of ‘thick’ data in ways that reasonably reduced power dynamics between researcher and participants, offered a window into their everyday worlds in a way that facilitated deeper engagement and self-expression. It was largely perceived as a ‘fun’ activity for most of the young people involved. This made PEIs particularly consistent with the overarching theoretical and methodological critical aims of this study (see PEI activity instructions in [Appendix B](#) and interview schedule in [Appendix C](#)).

3.2.1.2 Self-Completion Questionnaires

Given that measurement is not a major preoccupation in the research paradigm of this study and knowing that the qualitative data would be far more insightful, I used a purposive non-probability questionnaire subsidiary to photo-elicitation interviews. The questionnaire was conducted concurrently to the PEIs, given at the end of the interviews (sometimes days later when time did not allow). The purpose of using a questionnaire was twofold: (1) collecting a ‘different kind’ of data which can help inform the social locations of participants and (2) strengthening the credibility of the data collected through the main method (PEIs).

The main goal of the design was to adopt an unstructured approach to data collection with the PEIs. The questionnaire offered a structured approach to explore theoretical concepts that I was specifically interested in (see similar rationale in Tondeur et al., 2010, and Robinson, 2015). This was the case for the concepts of cultural capital (Bourdieu, 1973; 1984).

Bourdieu distinguished between economic, social and cultural capitals and established them within a framework of social reproduction to explain distribution of power in society. Cultural capital, for Bourdieu, was a way to link culture and inequality by “seeking to curb the mechanisms of inheritance through which differential distributions of cultural capital across classes are intergenerationally reproduced” (Bennett & Rowe, 2023, p. 326). This was especially relevant to the field of education as Bourdieu and Passeron (1990) argued that young people from higher social status (by way of greater amount of cultural capital of parents) benefit most from educational processes and opportunities. This has led to further theorizing of the mechanism through which cultural capital can contribute to individual educational outcomes

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(DiMaggio, 1982), and widespread ways of operationalizing cultural capital (as is done in this study) by using proxies such as the number of books at home (see OECD, 2011), having a place to study in the home (Teachman, 1987) and “participation in cultural activities that represent a high social status such as visiting the museum and theater or enjoying classical music” (Kingston, 2001 in Sieben and Lechner, 2019, p. 2). However, these operationalizations have been challenged by some who argue that there are new dynamics of inequalities which cultural capital is not fully capable of capturing—namely the work of Thomas Piketty’s (2014 and Chancel et al., 2022) on wealth inequalities. Others call for more adequate ways of operationalizing cultural capital and its interaction with class but also age and gender (Noûs et al., 2021) and urge for a “post-war sociological gaze” that accords “mechanisms of social closure, institutional power, residential separatism, and the symbolic opulence of the super-wealthy” greater importance (Bennett & Rowe, 2023, p. 327).

While there are legitimate reservations about the adequacy of Bourdieu’s (1986) three forms of cultural capital (embodied, objectified, and institutionalized) in operationalizing and explaining social inequalities, some still see it as a worthwhile approach when coupled with analytical frameworks which account for institutions, structures, and struggles of the “latest phase of capitalist development” (Bennett & Rowe, 2023, p. 330). The latter authors write:

“While [cultural capital’s] forms, as developed to date, may not throw much light on the mechanisms of elite reproduction or connect significantly with the internal dynamics and differentiations of working-class cultural practices, the roles played by the connections between home, levels and forms of education, and cultural practices in the processes of inheritance through which significant inequalities are reproduced within and across major forms of salaried and waged employment, are clear.” (Bennett & Rowe, 2023, p. 329)

As such, using a questionnaire which measures proxies of cultural capital associated with other facets of inequality seemed a suitable approach, especially when mitigated by (1) its use only as a way to corroborate primary data from PEIs, and (2) using it within a critical research paradigm, which is sensitive to systems of overlapping and intersecting power and marginalization.

Secondly, the rationale for using a questionnaire was to help strengthen the credibility (and therefore, the trustworthiness) of the research at the level of analysis of all three research

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questions and giving the thick description of the PEIs greater confidence (Bryman, 2012, p. 641). Credibility is reinforced through the collection of rich data and the processes of triangulation and respondent validation (Bryman, 2012, p. 396). Though respondent validation was not undertaken, the use of more than one source of data served as way to cross-check findings (Deacon et al. 1998). For example, Shanelle reported not having a cellphone, but ticked “yes” in the box for “do you have mobile data?”. When cross-checked against PEI data, it was clarified that she had a cellphone but that it was broken, and she often used mobile data on her sister’s or parent’s mobile phones. Similarly, when making claims about the intersectional locations of participants, it was useful to cross-check the PEIs’ unstructured data against the proxies for social location collected through the questionnaire, such as age, sex/gender, household structure, and socioeconomic proxies such as family members’ employment status and geographic location (zip code) (Lillie-Blanton a LaVeist, 1996; Dirette, 2014, p. 5). Lastly, the questionnaire was useful in capturing the concept of technology maintenance, which suggests that “as access to information and communication technology peaks, the digital divide is increasingly characterized by the (in)ability to maintain access” (Gonzales et al., 2020, p. 751). In other words, collecting data on the kinds of physical and quality technology access participants have, helped illuminate the qualitative data in ways that prevented tedious questioning about the number and kinds of devices they had during the interviews, and—in conjunction with photographs—generated a more comprehensive and ‘complete’ picture of their physical media ecologies.

The data collected via the questionnaire were very helpful in understanding some measures of inequality, but were not, by any single measure, definitive in delineating social locations. Asking questions and analyzing data about social categories/individual identities at this level was only secondary to, and contingent on, the more complex qualitative PEI data ([Appendices B](#) and [C](#)).

3.2.2 *Involvement in the Field*

3.2.2.1 *Securing Access*

Securing access to the field was extremely challenging during the height of the Covid-19 pandemic and was the most significant limitation to the research. I approached close to 18 schools in wards 7 and 8 in Washington, D.C. between May 2020 and February 2021— all

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unsuccessfully. It became clear at this stage that schools were too overwhelmed to consider requests for research access. Equally, it was impossible to approach school administrations in-person as an alternative to non-response to phone and email requests. As the likelihood of securing access in a public or charter school became scant, I began approaching my personal network and professional contacts as well as other youth-focused educational institutions. I reached out to a number of non-profit organizations, art centers, youth museums, and youth fellowships, which were still a good fit for the research. In March 2021, a friend introduced me to the Executive Director of the Artful Change Collective—a community-focused arts education non-profit serving marginalized youth in Ward 8—with whom I interviewed and negotiated access on the basis of volunteer work for their various programming as an art teaching assistant and overall helper. I had a number of Zoom meetings with the six staff members to discuss my research and the work involved in the volunteer role. I also had separate in-person interviews with Tasha (Director of Development) and Alyssa (Family Programs Manager and Art Therapist), who had more specific questions about the research agenda and the procedures of data collection. These meetings were clearly a way to ensure that my research is not at odds with the values of the organization and data collection is not approached in a way that compromises the rights and interests of the marginalized youth they are entrusted with. This was, of course, greatly appreciated, and agreement was easily reached given the perfect alignment of the feminist aims of the research and its methodology with the organization's guiding values and culture that are further detailed in Sections [3.4.2.](#) and [3.2.3.2.](#) As such, access was initially agreed upon for their youth summer camp (2021), but was subsequently (and generously) extended a further 2 terms (Fall 2021 and Spring 2022) due to low participation and Covid-19 related logistical difficulties.

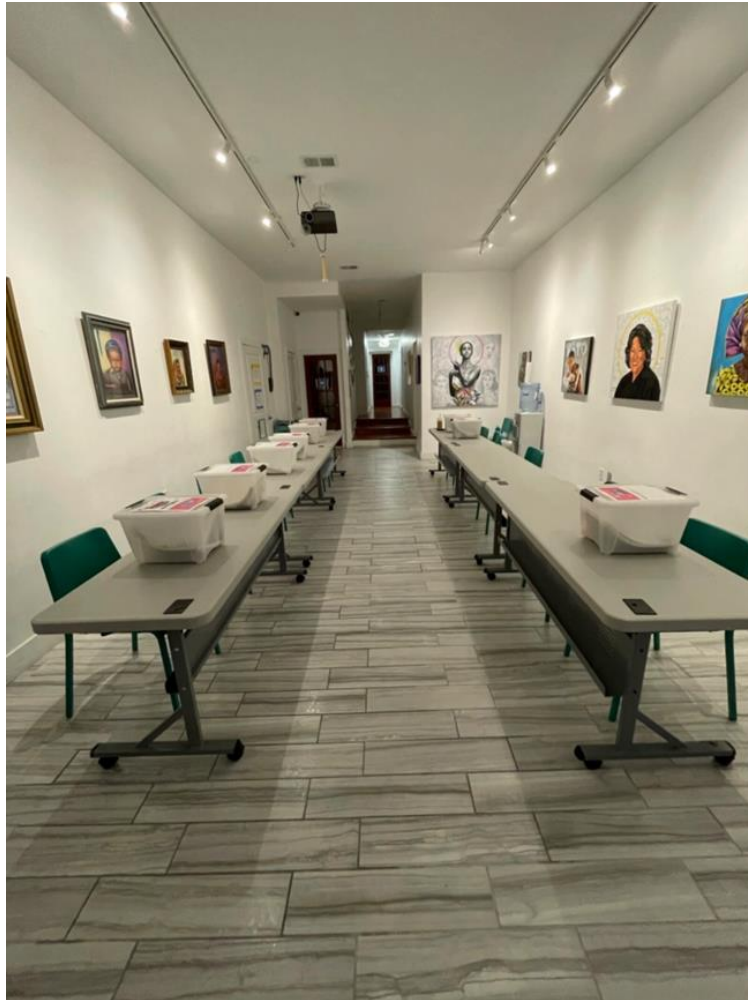
3.2.2.2 Data Collection at The Artful Change Collective

Field work took place in the studio and art center of the Artful Change Collective, which is located in a historically Black neighborhood in Ward 8 of Washington, D.C. Data collection took place over three phases: Spring/Summer 2021, Fall 2021, and Spring 2022. The work took place mostly in the building, with occasional field trips to neighboring sites and other parts of the city.

Figure 2 Participants on a Field Trip in Washington, D.C.



The ACC is housed in a two-level row house with a large open-studio space, a common room, a kitchen, a music production room, and a photography studio on the main level, and a number of studio spaces for visual arts, administrative offices, and supply rooms in the upper level. This was very much an alive communal space that youth, staff, and volunteers enjoyed unreservedly. The main studio space had a rotating exhibition produced by ACC Artists in Residence, which at the time included portrait pieces of important figures in the fight for social justice in America, such as George Floyd, Ruth Bader Ginsburg, and Martin Luther King.

Figure 3 ACC Studio Set Up for Class

3.2.2.2.1 Phase One: Spring/Summer 2021 (May 1st - August 5th, 2021)

My first day in the field was on May 1st, 2021, which coincided with the end of the ongoing spring term of programming. During this time, I came and went freely, sat in on whichever classes I wished, and was at liberty to meet students, teaching artists, and family members. This was a time to introduce myself, familiarize myself with the building, the programming, and begin to build trust with the ACC community. It was also a time for me to learn how I could best help during the upcoming youth summer camp, get vaccinated for the first time alongside other staff, and take required trainings on trauma-based work with children offered by the AC

Figure 4 Campers Producing Music in Class

Starting June 28th, 2021, I officially began my full-time volunteer work for the youth summer camp, which lasted until August 5th, 2021. During this time, the ACC was a full house, with young people attending from 9am to 4pm, Monday through Friday. They were taking classes in studios on both levels and having recess in the attached courtyard. My work consisted of greeting families in the morning, having them sign attendance sheets, and dismissing students at the end of the day (and obtaining dismissal signatures). Camp began daily at 9:30am with a well-being

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check-in session, where students made drawings or engaged in activities that helped staff and teaching artists gauge the emotional ‘temperature’ in the room. Other volunteers and I often self-disclosed and led this effort to help break the ice. By mid-morning, I was usually assigned to a particular class and expected to assist one of the teaching artists. This involved readying class materials, art supplies, and snacks, helping students with artmaking, answering questions, demonstrating art techniques, returning supplies, and cleaning the space at the end. During recess, I had my lunch with the students, and we often spent time chatting and socializing outside the building or in one of the studios. Lunch was free to campers and staff and cooked everyday by a woman from the community. Afternoons followed a similar schedule, and students swapped rooms and teaching artists. I usually followed the same group of students to their next class and assisted a new teaching artist with their class in a similar fashion. After young people were collected by their families, which often was around 3:30-4pm, staff, volunteers, and teaching artists met for a daily debriefing session. The goal of this meeting was to share any challenges or triumphs of the day, inform each other of student difficulties, and compare notes on how camp is going. These meetings always ended with a gratitude exercise, which kept everyone’s spirits up during a physically and emotionally demanding few weeks. I should note that during the whole period of my fieldwork, I was given the opportunity to receive free vaccine boosters on the ACC’s account and was required to wear a mask—as was every teacher, staff member, and volunteer.

Figure 5 A Group of Campers Making Slime

Given the labor-intensive nature of the volunteer position, I had to manage an intricate act of balance between my role and duties as a volunteer/helper, and my research agenda and its timeline. This was often very difficult to reconcile as I had my hands full all-day and could not simply take time to make entries in my journal or speak with family members at length to give

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information or obtain consent. The two had to often happen at the same time, while multi-tasking. For instance, I would have information sheets ready under the attendance sheets, and as families signed it, I seized the opportunity to chat about the research and give them as much information as possible during our brief interaction. I would also use this time to remind parents to bring back consent forms or email me their children's photographs. Similarly, I would use bathroom and water breaks to audio-record thoughts and observations, while they were still accessible to me. I used lunch time and recess to connect with participants and answer their questions about the PE activity. When I began interviewing participants, I had to work around my work hours and often had to come in before or stay after camp hours if participants were able to do the same. We also used—under duress—recess and lunch time for interviews when no other time was possible. At times, I was at once recruiting new participants, managing photograph drop-off and pick from the lab, completing dismissal and staff debrief, then running to conduct due interviews after hours. While stressful and time-scarce, undertaking these procedures while working at the youth summer camp was an excellent opportunity to develop strong bonds with participants, meet their families, and follow up non-respondents occasionally if I felt they needed a reminder to stay on track with the PE timeframe they committed to. The ACC staff and teachers were also exceptionally kind and supportive in facilitating procedures at every stage.

3.2.2.2.2 *Phases Two and Three: Fall 2021 (October 2nd - December 17th) and Spring 2022 (March 11th - May 27th)*

Figure 6 Participant Performance in Improvisational Theatre Class



(938, 352)

The subsequent phases of data collection were different in terms of intensity and demands on my schedule. This time, as a part-time volunteer, I had more time and energy to pursue the research agenda. My volunteer work schedule during both phases was three days a week, from 6pm to 8:30pm. I served in a similar role as the youth summer camp, but for the after-school programming. Classes had fewer participants, and the workload much less demanding. These phases were very useful in connecting with new potential participants but were mostly used to follow up on previously consented participants who were forgetful, distracted, or reluctant and needed gentle encouragement to commit. During these two phases, I also focused on engaging relationships I had built with families and participants during the summer time to snowball sample. Further, I changed the participation incentives from gift cards (\$25) to cash transfers on

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Cash-App, Uber Eats, or other digital platforms they used and valued. However, I ensured that incentives were made to “clearly be seen as a token rather than a payment for the respondent’s efforts” (Cohen et al., 2018, p. 263).

Figure 7 Participant Making Art during Teen Social Hour



3.2.3 Sampling

To address the research questions, I used a non-probability purposive sampling strategy to the population (Washington, D.C.) and research site, while the number of participants was determined by various sampling procedures including consent, availability, and attrition.

3.2.3.1 The Context

The choice of conducting this study in a Washington, D.C. educational institution was made based on the District’s unique and complex sociohistorical background regarding socioeconomic and racial inequalities. Disparities are parallelly reflected in its public school system and the

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educational experiences of its young people. Over its 234-year history, Washington, D.C. has had a convoluted intersection of inequalities that includes the legacy of slavery, a struggle for self-determination, a racially biased criminal justice system, and one of the highest income, wealth and housing disparities in the world (see [Appendix A](#) for further background). Similarly, education in Washington, D.C. has a history of sustained failure after significant success in the nineteenth century. Washington, D.C. schools have historically struggled with issues related to segregation/desegregation, White flight, inconsistent leadership, and a series of failed reforms. Schools in Washington, D.C. are 90% students of color (Eads & David, 2018), have one of the worst performance rankings in the US (45 out of 51 states) in terms of quality and safety, the second lowest math test scores, and the lowest reading test scores in the country (McFarland et al., 2019). Washington, D.C. also falls in the bottom 10 per cent in student-teacher ratio, the number of students in gifted and talented programs, and the highest 10 percent in the number of inexperienced teachers and the number of students who get free or reduced-price lunch (Eads & David, 2018; McFarland et al., 2019, p. 70). It is precisely this convergence of multiple inequalities which made Washington, D.C., in general, and educational institutions in Washington, D.C., more specifically, an interesting sampling population for my study, as it provides for a context that is fit for the investigation on multiple and overlapping marginalization.

3.2.3.2 The Research Site

The choice of research site was a combination of alignment with the overall research aims and several practical and logistical considerations. First, my understanding of educational inequalities as a feminist social justice issue makes Washington, D.C. educational organizations serving marginalized youth “information-rich” research sites “of central importance to the purpose of the inquiry (Patton, 2015, p. 53). The Artful Change Collective (ACC) —an organization with clear social justice aims and a mission to provide equitable opportunities “for creative youth development” and “empowerment”— is based in one of the most underserved wards of Washington, D.C., and offers free arts classes, workshops, field trips, exhibition and performance opportunities in out-of-school-time for young people in the neighboring (almost exclusively Black) communities. It also offers a flagship summer camp program which is free to participants and families. The ACC’s programs are reserved for youth and families with very low

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income (as defined by US Housing and Urban Development for 2020, is less than 50% of Greater Washington, D.C.'s median family income or under \$63,000/year for a family of four). This offered a criteria-based sample on the basis of economic class and race (LeCompte & Schensul, 2010; Patton, 2015) and therefore a sample “from which the most can be learned” to illuminate the research questions (Merriam & Tisdell, 2016, p. 490). Given that the aim of the study was to achieve ‘thickness’ and ‘richness’ of data, and not to generalize findings, a non-probability sample was a suitable strategy, despite its “non-representativeness” (Cohen et al., 2018, p. 217).

Lastly, the choice of ACC as a site of research was also shaped by practical and logistical constraints imposed by the Covid-19 pandemic, which was then still ongoing. Securing access via traditional means of approaching potential research sites was extremely challenging during closures and lockdown. Gaining access in this case was done by relying on my personal and social networks and proved successful after the involvement of “reputational contacts” (Cohen et al., 2018, p. 221). A great number of schools and youth organizations did not have the bandwidth for research demands, therefore making a research pitch rather trivial considering the challenges they were facing. The ACC and I coordinated access to the field based on my contribution of volunteer work, which I provided full-time during the summer camp and part-time during the subsequent fall and spring terms. Such an agreement was necessary during a time of difficulty for the ACC to find volunteers willing to risk exposure to Covid-19 in working with unvaccinated families and therefore provided a mutually beneficial situation. The pandemic, as a result, influenced the sampling strategy by limiting access to other potentially suitable research sites that were approached at this stage, including Washington, D.C. public and charter schools.

3.2.3.3 Participants

Recruiting PEI participants was done by means of convenience, volunteer, and snowball sampling. While following the sampling procedures, I was managing an intricate negotiation between the overall aims and timeline of the research, and the significant constraints of Covid-19 on fieldwork. The sampling strategies I adopted were appropriate for these factors, to the best of my ability, to ensure credibility and trustworthiness (validity and reliability) of the data.

Engaging participants who are part of the ACC at this stage was largely dependent on the willingness and availability of young people and their parenting adults to take part in the study.

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Some young people had been coming to the ACC since they were very young and treated it “like a second home”, so their perception of me as an ‘outsider’ researcher, volunteer, and teaching assistant (TA) also played a role in sampling. Developing rapport with and earning the trust of these young people was a prerequisite to any requests of participation in the study. As such, I spent a few weeks building relationships with staff, volunteers, and young people at the ACC before beginning recruitment. Sampling was further shaped by logistical constraints such as teachers’ schedules, tasks and classes assigned to me as a volunteer, which gave me easier access to some groups of young people and not others. Absenteeism and attrition due to Covid-19 infections (or fear of infection) were salient to sampling as well. As such, choosing participants who were more accessible to me, those who happened to be available, and those more enthusiastic about photo-elicitation and volunteered to participate, was key in this phase of the research.

For the full duration of fieldwork (12 months), PEI sampling remained an issue, as the ACC continued to struggle to fill classes and have full engagement with its programming, which resulted in low participation in the study. Families were either reluctant to send their children, fell out of pre-pandemic habits and activities, or simply were not aware that ACC programming had resumed. Six months into fieldwork, I resorted to snowball sampling. This meant engaging participants to identify others who might qualify for inclusion (Cohen et al., 2018, pp. 220-221). At this stage in the research, I had established strong ties with participants, staff, and community members of the ACC, who took it upon themselves to help me find further participants. It was an effort fully driven by them to engage siblings, friends, and neighbors, as well as friends of the ACC who were not attending classes at the time but were part of the community. Snowball sampling also served to greatly reduce the power asymmetry between the community members and myself, as they could exercise control in the form of ‘referring’ and ‘gatekeeping’ to other participants.

Decisions about the suitable number of participants for the study followed the guidance that most inductive research engages a relatively small number of participants (Creswell, 1998; Rudestam et al., 2007, p. 93). Despite the various views on the definite number, most who support this approach, consider a range of 15-60 participants as an adequate number to reach saturation (Mason, 2010, pp. 3-4). As such, I ended sampling after 31 PEI participants because

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seeking additional data implicated greater stress on available resources for the study (namely timeline and funding).

Lastly, convenience, volunteer, and snowball sampling did not compromise the criterion of planning of the sample, which is ‘fitness for purpose’ and suitability to the aims of the research and its guiding questions. PEI participants, regardless of sampling strategy, were assessed on this basis before inclusion. The objective of the sampling design was not to seek data that could then be “developed into generalizations” but, rather, to seek data that illuminate ‘the many specifics that give the context its unique flavor’ (Lincoln & Guba, 1985, p. 201).

As such, basing the study at the ACC (and not in Washington, D.C. public schools) and having to circumvent sampling limitations by engaging in snowball sampling resulted in a couple of serendipitously positive outcomes. First, engaging the wider ACC community in recruitment resulted in respondents from a range of ages, educational experiences, settings, and power dynamics. This resulted in a wider scope of learning and education to include participants’ whole learning lives (across school, home, third spaces) and various stages of participants’ learning and education (formal K-12, self-directed and independent learning, vocational and trade education, and homeschooling). Focusing exclusively on participants in compulsory education, homeschooled children, or young adults in vocational education, would not have provided the for the rich exploration afforded at a field site like the ACC, which brings together young people from various ages, stages, and educational backgrounds. Likewise, being able to look at the digital learning practices of ‘different’ groups of youth was a strong asset to the research and resonates with literature which conceptualizes both youth (Furlong, 2017) and learning (Estrad, 2012) more broadly.

3.2.4 Instruments

Photo-elicitation photographs were taken by the participants and used in conjunction with a semi-structured interview schedule, which is a widely used design approach in qualitative visual methods such as PEIs (Robson, 2011; May, 2011; Clark-Ibanez, 2004; Loeffler, 2005; Epstein et al., 2006; Ellison & Enriquez, 2021; Vassenden & Jonvik, 2022).

3.2.4.1 Photo-elicitation Interviews

3.2.4.1.1 Photo-elicitation Activity. (Photo-essay stage)

Photo-elicitation instructions ([Appendix B](#)) were printed and given to consenting participants at the end of ‘information sessions’ I held at each of the phases of data collection to introduce participants to purpose, ethics, and technique of photo-elicitation. Students were given the choice to use their own cell-phone cameras or be provided with a disposable camera. They were instructed to take 25-30 photographs of their learning practices from their own perspective. I usually established a timeframe of one week before collecting cameras or digital photographs, but oftentimes this was extended to accommodate those who were not able to complete the activity in time. I also was flexible with the number of photos obtained at the end of the activity. I framed the photo-elicitation activity as a fun project, in which they get to participate and incentivized it with \$25 vouchers of their choice if they completed it and the interview. It was easier to frame it as such because of the creative nature of the activities and programs offered at the ACC and the culture of incentivization in the programs they attend.

The activity instructions were designed following various guidelines on the steps and phases of PEIs (Torre & Murphy, 2015; Ndione & Remy, 2018; Cohen et al., 2018; Bautista García-Vera, 2023). The goal of the instrument design was simplicity, clarity, and relevance to my research questions. To account for the participants’ age and load of activities during their time at the ACC, I used simple and engaging language, and I kept the instructions short and the presentation simple. I also made myself available to them and their families via mobile phone, in case any questions arise, or replacements were needed for the disposable cameras.

3.2.4.1.2 Semi-structured Interviews

After the completion of the photo-elicitation activity, I collected the disposable cameras, developed and printed photographs (or collected and printed the ones taken using digital cameras), then compiled them for each student. I subsequently conducted face-to-face photo-elicitation interviews using a semi-structured schedule ([Appendix C](#)).

A semi-structured schedule offered the ability to accommodate the open-ended nature of questions, and the ability to probe, prompt, and change the wording and sequence of questions in ways that elicit specific theoretically sensitive themes pertaining to the research questions. It

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afforded me a general direction to the interview, but with deliberate openness to new data, contradictions, ambiguities, and insights (Kvale, 1996, p. 30).

In planning the interview schedule, I first identified the phenomena under study which gave general direction to the interview (Tuckman, 1972). In this case, the digital learning practices of participants (what they do when they claim to be learning) and their dimensions of intersectionality (class, race/ethnicity, age, gender, physical and mental (dis)ability, faith, educational attainment, body size, relationship status, parental status, citizenship status, political beliefs, faith, urban/suburban geography, among others).

The goal of the follow up interviews was to help make visible the complexities of intersecting identities, social locations, through the mundane events of the participants' everyday learning lives as captured in their self-produced photographs and in the narratives. To do so, the use of a less-structured schedule in combination with photo-elicitation at the stage of design needed to accommodate the intersectional feminist sensibility of the research methodology. This, as Rodriguez (2018) terms it, is a process of "crafting" an intersectional approach to the instrument because there is simply no off-the-shelf strategy to borrow (p. 12).

As such, planning and constructing the interview schedule 'intersectionally' entailed being mindful of several considerations:

1. Participant and Photograph-led Interviews

First, to ensure fidelity to the collaborative and participant-led premise of PEIs, I crafted questions to simply initiate the process of interviewing: "where would you like to start?" and "can you tell me why you picked this photograph/artifact and not another?". The aim behind these questions was to encourage participants to lead with their narrative and give them the freedom to start where they see fit and talk about what they deem important. This can also "elicit the participants' conceptual categories: how they think and group items, and why" (Barton, 2015, cited in Cohen et al. 2018, p. 632). Other questions were designed to encourage participants to "delve into the content and meaning of the photographs they have produced" (Bautista García-Vera, 2023, p. 67). To do so, I asked questions such as "Could you describe what this symbolizes or means to you?" Or "why is this important to you?". This often-elicited self-expression on "beliefs, theories, concepts or values" (Bautista García-Vera, 2023, p. 69) which were edifying to the research questions.

2. Designing Questions, Probes, and Prompts ‘Intersectionally’

Second, constructing the interview schedule ‘intersectionally’ involved crafting open-ended questions (rather than structured or dichotomous questions) that did not ‘pigeonhole’ participants into identity locations, but rather allowed the complicated nature of their locations to emerge. As questions are far from neutral, Bowleg (2008) warns against the use of questions that make unitary assumptions, isolate one aspect of their identity, or frame identity categories as separate and not mutually constitutive (p. 319).

In the same vein, asking open-ended questions provides a general frame for discussion but does not constrain participants from giving specific answers. For instance, when wanting to find out more about their digital practices, I often asked participants “what do you enjoy most about being online?” Here, other than the subject of the question, I did not impose other constraints such as asking specifically about ‘learning practices’ or ‘leisure activities’ online. In this type of question, there is little restraint on “either the content or the manner of the interviewee’s reply” (Cohen et al., 2018 p. 513) which makes the open-ended nature of the question amenable to the conceptualization of the interview, “not simply a site for information exchange or capture” but as a co-constructed social event by both researcher and participant (Walford, 2001, p. 90).

Likewise, open-ended questions which shed light on (inter alia) class, race, and gender, often started from pictures and gave participants ample room to answer in ways they felt most confident and comfortable with. For example, though my personal view is that structural systems of inequality affect young people’s learning lives, I did not formulate (leading) questions that embodied this assumption. I often asked whether they thought that racism or sexism, for example, affected their learning lives. And, interestingly, as the Findings Chapters will show, in some instances they reported that it did not.

Asking intersectionality-informed questions also often meant asking direct questions. When trying to find out about the interlocking nature of participant marginalization or privilege, feminist scholars recommend “asking what you really want to know” (Wahab et.al, 2015 p. 79) or “asking precisely what you want to know” (Bowleg, 2008). This was important when participants shared identity-based photographs: “You shared with me a picture on ‘Black Girl Magic’, how is this meaningful to you as a young Black girl?”. It was also important to ask direct questions when participant photographs did not explicitly evoke identity, as it was a means to

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shift the conversation to the topic: “When you think of yourself in relation to race and gender, what comes to mind?”, “how do these aspects of your identity affect the way you move around the world?” and “what are some of the challenges/opportunities of [topic of their interest] as a Black young woman/girl?”. While asking such questions, I took great care to balance the need to ask, ‘what I really want to know’, and the participant-led nature of the PEIs. I was careful not to ask direct questions too soon into the interview or ask participants who did not seem interested or comfortable talking about them. I also often led questions with examples of identity self-disclosure as means of illustration, but also a means of reducing distance and creating reciprocity.

Similarly to the open-ended questions, probes and prompts were used with an intersectional sensitivity to dive deeper into the meanings of, perspectives, and feelings about the photographs and narratives during the interviews. Probes and prompts allowed me to ask participants to “extend, elaborate, add to, exemplify, provide detail for, clarify or qualify their response” (Cohen et al., 2018, p. 514) which was useful in the complex inquiry on their intersectionalities. For instance, discussions with participants often started quite narrowly focused on learning practices during the Covid-19 pandemic, and I was to find ways to probe towards the broader focus of their day-to-day experiences beyond this context, and by way of the photograph. I asked questions such as “from here, can you walk me through the rest of your day?”, or “were things this way also before Covid-19?”, therefore taking their “everyday life as a point of departure” to ask further elucidating questions (Christensen & Jensen, 2012, p. 117). Davies (2018) adopted a similar (but reverse) strategy by focusing on broad “social issues such as immigration” rather than the narrow nature of asking about “Internet usage” to reach a deeper understanding of the wider “political and cultural contexts of their digital lives” (p. 2769). Probing and prompting often led to further elaboration on daily experiences of stress and stigma, or joy and agency, which are more complex, yet salient to the research questions. Though a great strategy in less-structured interviewing, I took care to use probing responsibly. I balanced things like the participants’ openness to discussing their identities with me, our rapport and friendship (some had developed a stronger bond with me than others) and reading non-verbal cues, such as eye-contact and tone of voice. I did my best to help them explain and crystallize their thoughts and feelings but without over-probing or slipping into ‘extraction’.

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The interview is a social encounter fraught with power dynamics, but if done from a feminist onto-epistemology, some can indeed be mitigated to some degree—but not all, and never completely. This is especially true when working with young people and marginalized communities, as was the case of this study. As such, the validity and reliability of this interview data can be established through the planning, structuring, and conduct of the PEIs, inviting participants to take the lead in the discussion, actively listening, summarizing, and confirming their responses with them during the interview (Cohen et al., 2018, p. 276). Reliability and validity of the PEIs can also be established through “fidelity to real life, context- and situation-specificity, authenticity, comprehensiveness, detail, honesty, depth of response and meaningfulness to the respondents” (Cohen et al., 2018, p. 271), which I strove best to achieve during my prolonged engagement in the field by cultivating trust and meaningful relationships with participants, by persistently and closely observing the field, and by being reflexive and consistently journaling events and impressions.

3.2.4.2 Questionnaires

3.2.4.2.1 Description of the instrument

As previously discussed, the use of the self-completion questionnaire ([Appendix D](#)) was secondary to the PEIs and measures a number of variables to support the qualitative data. The instrument included demographic data such as sex/gender identity and date of birth/age. The rest of the questionnaire assessed three constructs as follows:

1. Quality of and Access to Technology

Access to and quality of technology was operationalized using measures of technology ownership (home/mobile phone, personal computer, and Internet access on both) and measures of quality access (device sharing and reliability of Internet connection). These were responded to by ticking “yes/no” and filling out the numerical value in the case of number of people participants share the devices with. This construct also included an open-ended question to capture affect around the quality of access, which was then used as part of the qualitative data. Please see Questionnaire Data Analysis section for scoring rationale and [Appendix E.1](#) for key measures and tables.

2. Cultural Capital

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Cultural capital was operationalized using the number of books at home and the presence of objects of art at home. The former, a multiple-choice question, and the later a dichotomous question with the open-ended answer to specify the type of object of art, if present. Please see Questionnaire Data Analysis section for scoring rationale and [Appendix E.2](#) for key measures and tables.

3. Socioeconomic Status

Socioeconomic status was operationalized using household members' occupation/employment status, zip code/neighborhood, the number of people participants share their bedroom with, and where/whether they have a private space for homework. All questions were open-ended. Please see Questionnaire Data Analysis section for scoring rationale and [Appendix E.3](#) for key measures and tables.

3.2.4.2.2 *Development of the instrument*

The questionnaire was designed in accordance with the methods guidelines in Cohen et al. (2018, p. 471-504) and Bryman (2012, p. 231-267) and with a number of considerations in mind. First, the questions were designed with care to account for the young age of some of the participants. I used a simple format and language and, when possible, kept it in the active voice to keep participants engaged. Similarly, I tried to limit the length as much as possible to accommodate respondent fatigue, but without compromising the ability to collect useful data. Second, in ordering questions, I tried to group questions by topic and 'sandwich' the most sensitive ones between more interesting and easier to answer questions. Lastly, I was mindful of the nature of questions and designed them with care to avoid stigma, discomfort, and exclusion. For example, the use of the leading question "how many people do you share the room where you sleep with?" was formulated to steer clear of stigmatizing students who may not have their own rooms and normalizing the fact of sharing a bedroom with family members. Likewise, Multiple choice questions were designed to provide everyone with the opportunity to tick a box and therefore feel included in the process of filling out the questionnaire instead of just ticking "No".

3.2.4.2.3 *Administration of the Instrument*

Questionnaires were administered in-person at the end of the PEIs and at times much later if time did not allow. A consideration here was my presence at the time of administration. I had to

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balance potential bias imposed by the power dynamic of my presence (and often silence) as they completed the questionnaire, with the possibility of collecting erroneous or incomplete data. As previously discussed, the use of the questionnaire was secondary to the PEIs and was equally framed as a secondary form of data collection, sometimes as “some information I need from you before you go” to the participants. I often moved around the room or walked away to take a break while they completed it, as to not undermine the overall goal of not making them feel ‘studied’ and reduce any feelings of distance that quantitative instruments often create between researcher and participant. Sometimes, participants had to be collected from the ACC by family members and could not stay to complete it after the long interview. In this case, I either gave it to them to complete at home or had them complete it at the ACC another day. However, younger and distracted participants clearly needed assistance with completing the questions, so I ensured presence to answer their questions and make clarifications. This was often help with definitions (many of them did not know what “occupation” means) or spelling words they were unsure of.

3.2.5 Procedures

3.2.5.1 Photo-Elicitation Activity and Interviews

At every phase of data collection, information sheets were distributed to students, families, and teachers in-person. Interested parties were given consent forms and often walked through point-by-point, if needed. I held multiple ‘information sessions’ at the start of each term to introduce myself and the PE activity and explain how they can participate and contribute to the research. Further presentations of the research/PE activity were necessary as new students joined, or new ones became interested. I was usually given a few minutes before each class to inform students, answer questions, and distribute forms. Once consented, I usually went over the PE activity steps and timeframe again, clarifying any questions and providing disposable cameras. During the photo-essay phase (lasting usually 7-10 days), I replied to participant messages and questions, and often reminded them to keep up with the task outside of ACC. Once the PE complete, I collected back disposable cameras and took them to a film photography lab for developing and printing. For participants using digital cameras, this usually involved sending their photographs to my email, mobile or whichever way was more accessible to them and their parenting adults. Once photographs compiled and labeled, I scheduled interviews in order of priority (some students were leaving camp early, others were moving out of town) and conducted

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the PEIs as scheduled. I obtained permission to record before each interview, and all but one participant accorded me permission to record. Participants completed the questionnaires at the end of their interviews or later, if time did not allow.

All interviews took place in the premises of the ACC, except a couple, due to logistical and schedule conflicts. One took place in the participant's home (Rashida, G; 29), and the other at a public cafe across the street from the ACC (Naomi, G; 15). For the latter, permission was obtained in-person from her mother and both the location and timing of the interview were shared with the parent.

3.2.5.2 Record Keeping

During the entire duration of fieldwork, I kept a meticulous record of my activities at the ACC in both a written and an audio format. I kept a diary and jotted pertinent observations and thoughts throughout the day on the field. I also noted impressions and questions after conducting PEIs with each participant. To aid my memory in the process of writing up and to “show [my] workings” (Holliday, 2007 p. 42), I took photographs to keep a record of events, the building, class schedules, program descriptions, lists of participants enrollment, and other personally useful records.

3.2.5.3 Procedural Limitations

A procedural limitation of PEIs is the commitment they require and their demand on the participants' time and bandwidth. Though the majority of participants included in the study completed the photo-essay activity, some were not able to. At this stage of data collection, I had to decide between interviewing them without photo-elicitation or seeking further participants. After nearly 12 months on the field, and with recruitment being a monumental challenge during the pandemic, I chose to also interview participants who did not supply photographs but were willing to hold an interview. At a time of uncertainty (the surge of the Omicron variant), being flexible and lowering the demands of the research as much as I could (without compromising my ability to collect useful data) was necessary. This was a practical decision and meant having some data rather than no data at all. At the end of fieldwork 31 participants had completed interviews and 3 had done so without providing photographs (see Table 1).

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Table 1 PEI Participants

Pseudonym	Gender Identity	Age	Photographs	Pseudonym	Gender Identity	Age	Photographs
Adeline	Girl	13	9	Lamia	Girl	15	22
Amina	Girl	12	0	Libra	Girl	17	20
Amira	Girl	11	22	Lucy	Girl	15	15
Autumn	Girl	13	33	Maquita	Girl	16	10
Chiana	Girl	15	17	Marvel	Girl	13	15
Ciara	Girl	13	19	Mckenzie	Girl	13	27
Donny	Boy	15	15	Naomi	Non-binary	15	0
Edwin	Boy	16	2	Phoenix	Girl	16	13
Hannah	Girl	16	0	Rashida	Girl	29	25
Jaelle	Girl	20	15	Samiyah	Girl	17	8
Jamina	Girl	11	12	Ségolène	Girl	13	18
Jori	Non-binary	11	19	Shanelle	Girl	11	9
Kamal	Boy	16	25	Sienna	Girl	12	14
Kelsey	Girl	23	33	Thinker	Boy	21	23
Kiko	Girl	11	5	Tupac	Boy	23	13
Lady Maria	Girl	13	16				

Similarly, conducting PEIs was sometimes lengthy as participants were enthused about certain aspects of the photographs that interested them, but did not directly help answer the research questions. There was a balance to strike between the participant-driven premise of the research and the usefulness of the data, which at times resulted in longer interviews. I would recommend mitigating this by conducting two shorter interviews, if time and resources allow.

Wearing masks in fieldwork was another major limitation in the day-to-day procedures of the research. It was often very frustrating to participants, educators, and staff to have to speak and emote from under a mask. This was particularly difficult during interviews, as both interviewees and I struggled to communicate clearly. It was not only a physical barrier, but one of rapport and closeness as well. This was challenging even further at the stage of transcription. Much of the recordings reflected the noisy background of the ACC studios and the muffled voices of participants. The mask indeed exasperated the clarity of speech and the ease of transcription.

3.3 Data Analysis

3.3.1 *Photo-elicitation Interviews*

At this stage of the research, I undertook data analysis following guidelines proposed by Braun and Clarke (2021) for reflexive thematic analysis, and Cohen (2018), Boeije (2010), and Strauss and Corbin (1998) for qualitative analysis, taking a number of steps from managing the raw data to reporting the findings in writing. In this section, I detail the two-step, multi-level, and multi-dimensional analysis strategy I implemented, which was informed by intersectional analytical approaches so far established in the field.

3.3.1.1 *Data Management*

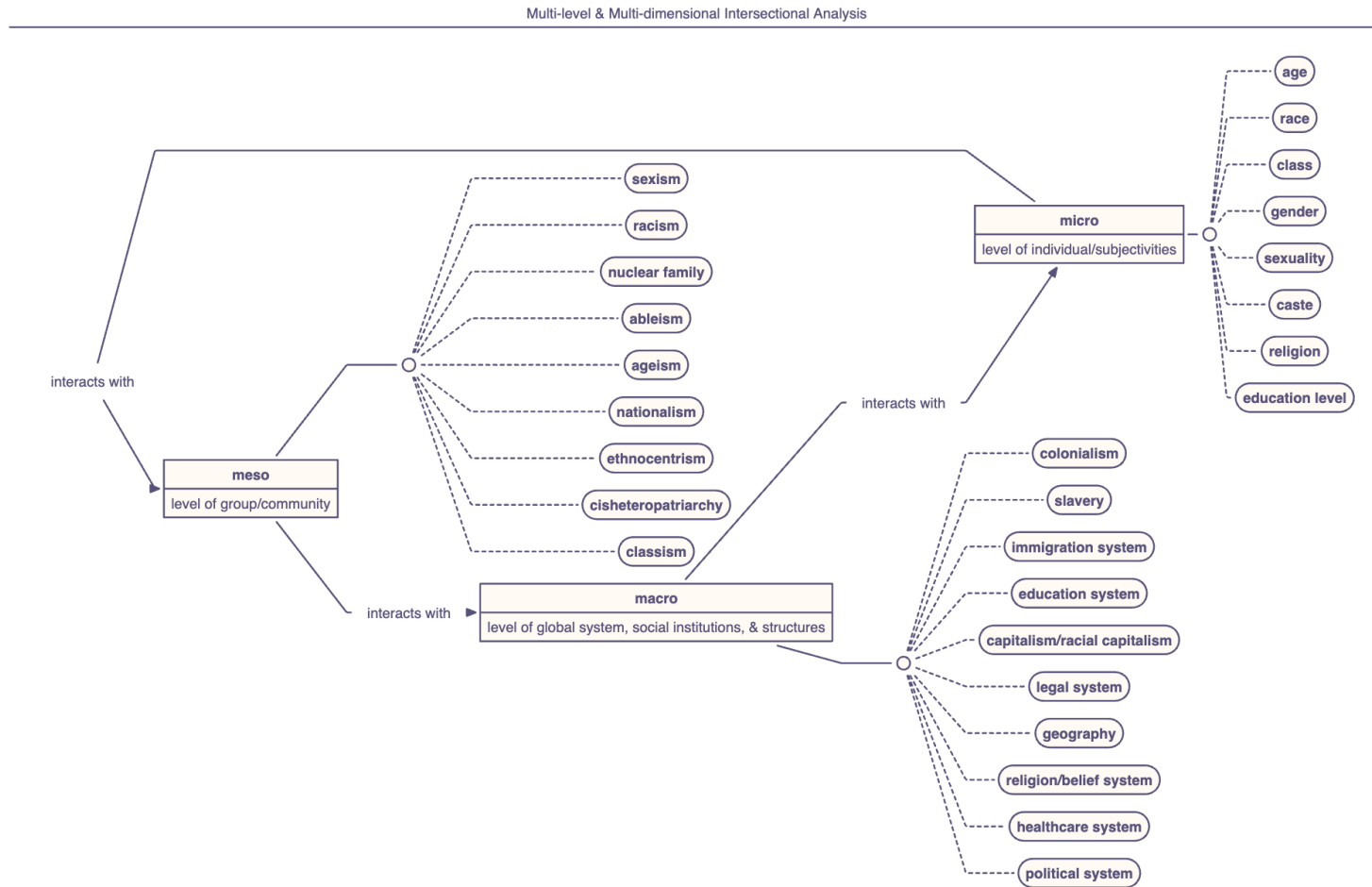
I prepared the raw data (31 interviews, 474 photographs, field notes, and diary entries) by transferring interview and diary audio recordings from the recorder to the computer and arranging files for each participant matching their recording with their photographs, interview notes, and other relevant documents. I kept research data secure in accordance with guidelines of the University of Oxford's Information Security website. Data were stored in a computer protected by whole disc encryption and further secured by the use of iMac's File Vault password protection.

The recordings were difficult to listen to due to background noise and participant responses not being sufficiently loud or clear due to mask wearing. I decided verbatim transcription of

interviews was necessary to have data in a format more amenable to analysis. Field notes and audio/written journal entries were expanded into write-ups and edited for accuracy. I used NVIVO 12 to transcribe interviews and conduct analysis of all other data.

3.3.1.2 Data Analysis and interpretation

To analyze the data, I adopted a two-step, multi-level and multi-dimensional analysis strategy loosely modeled after Bilge (2009)'s "two-step hybrid" approach (2009, pp. 5-7) and substantially informed by other helpful frameworks in intersectional analysis literature. Variations of this approach have been suggested by Collins (1990) as a 'multi-level' approach, by Bilge (2009, p. 345) as a "two-step hybrid approach", by Holvino, (2010, p. 13) as a "simultaneity framework", and by Choo and Ferree (2010, p. 23) as "process-centered, group-centered and system-centered analyses" (for other approaches see Young, 1990; McCall, 2005; Dhamoon, 2011; Christen & Jensen, 2012; Carastathis, 2016; Collins & Bilge, 2016; Rodriguez, 2018; Duran & Jones, 2019; Misra et al., 2021). In all their diversity, these approaches essentially offer analytic and interpretive tools to examine how individuals experience and resist power and/or oppression at three levels: "(a) the level of personal biography, (b) the group or community level of the cultural context created by [inter alia] race, class, and gender, and (c) the systemic level of social institutions" (Rodriguez, 2018, p. 440) (see Figure 8).

Figure 8 Multi-level and Multi-dimensional Intersectional Analysis

3.3.1.2.1 *First Level of Analysis (Multi-dimensional and Inductive):*

At this level of analysis, I used intersectionality as methodology (onto-epistemology) with an approach to categories previously discussed in this chapter ([Section 2.1.2](#)). The goal at this level of analysis was to move from unitary to mutually constitutive analyses of categories and to keep the analytical focus on (a) identities of individuals and groups considered 'different', (b) the categories of difference, and (c) processes of differentiation, (Rodriguez, 2018, p. 437). In other words, I made decisions about who is included in what category, and how categories interact with one another (multi-dimensional) to create meaning (Huntings, 2014, p. 8). This was achieved through open, axial, and selective coding (Strauss & Corbin, 1998) (see Figure 9).

3.3.1.2.1.1 Open Coding

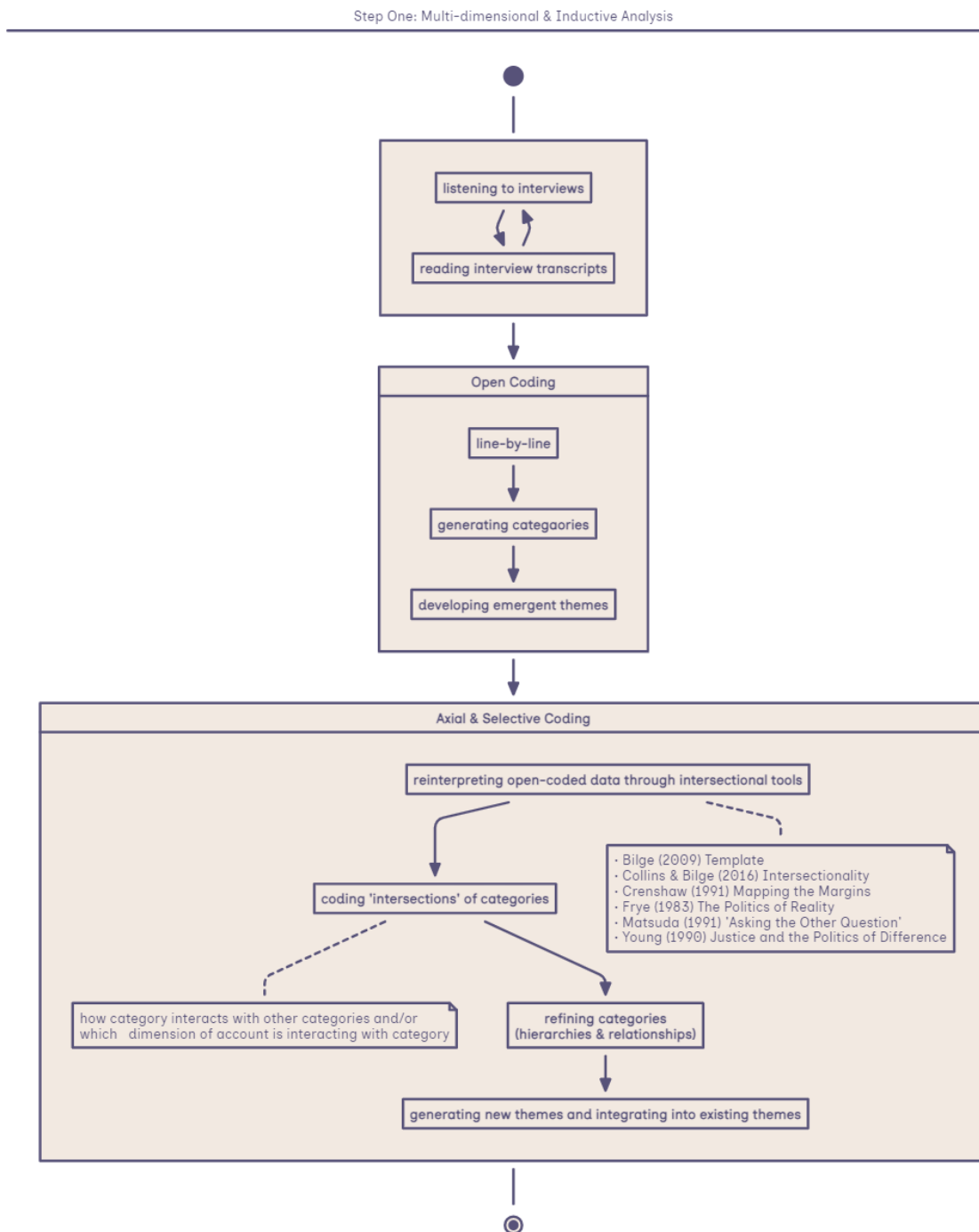
After immersing myself in the data (listening several times to interview recordings, reading and re-reading transcripts and memos, examining photographs, reflecting, and taking preliminary analytical notes), I began the process of open coding. This involved line-by-line coding, generating categories of concepts and defining their properties and dimensions (Strauss & Corbin, 1998, p. 101-121) or what Jorgensen calls a process of “disassembling” data (1989, p. 107 cited in Boeije, 2010). At this stage of intersectional analysis, some researchers start open coding without imposing categories at all, as they seem them at odds with inductive research (Bilge, 2009), while others argue for starting from “provisional categories” or “anchor points” (McCall, 2005, p. 1785) to avoid issues of infinite regress (Ehrenreich, 2005; Rosenblum, 2009). Given that the socio-historical context of my research is imbued in race and class categories (see [Appendix A](#)), I chose the latter strategy and initially anchored my analysis in those two categories. I did not, however, treat them as static or as ‘terminal locations’ (McCall, 2005, p. 1785; Yuval-Davis, 2006). For instance, I generated a code for racism, another for poverty/class, and a third for violence, and so on. I also let any further categories (gender, (dis)ability, sexuality, etc.) inductively emerge from the data. Similarly, when coding categories, I did not privilege one category over another, as I viewed them mattering equally to the research questions (Hancock, 2007). Lastly, I coded for categories pertaining to all research sub-questions (i.e. looking at categories of social difference and categories of digital learning practices).

3.3.1.2.1.2 Axial and Selective Coding

Through a process of “reassembling” the inductively processed data (Boeije, 2010, p. 107), and after analytically isolating each category and striving to understand it separately, I proceeded

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to analyzing categories simultaneously by trying to understand how each shapes (and is shaped by) the other categories (Cuadraz & Uttal, 1999). Thus, I began an intersectionality-informed thematic analysis via axial and selective coding to further refine and develop the separate codes (i.e. racism, poverty/class, (dis)ability, etc.) into emergent codes to reflect a specific aspect of intersectional experience (intersections of racism and poverty into racial capitalism, or ableism, sexism, and racism, etc.) and generate new themes. I also iteratively revised, re-coded, created hierarchies, checked for consistency, and reduced irrelevant data at this stage (Cohen et al., 2018, p. 645).

Figure 9 Step One: Multi-dimensional Inductive Analysis

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While refining and integrating codes at the axial and selective phase, I relied on asking a number of questions to help me “reflect on the intersectional nature of experiences, structures, processes, and institutions associated with [my] data” (Rodriguez, 2018, p. 446). This involved “continually asking questions about each narrative, such as ‘how?’ and ‘under what contexts?’” (Hunting, 2014, p. 14) and uncovering potential relationships of domination/oppression by interrogating the data through what Matsuda (1991) has termed “ask[ing] the other question” (p. 1189). She writes:

“When I see something that looks racist, I ask, 'Where is the patriarchy in this?' When I see something that looks sexist, I ask, 'Where is the heterosexism in this?' When I see something that looks homophobic, I ask, 'Where are the class interests in this?’” (p. 1189).

Also helpful in this interrogation was Bilge’s (2009, p.7) intersectionality template (see Table 2). I used it flexibly and complemented it with further categories of social difference.

Table 2 Bilge's Intersectionality Template (2009, p.7)

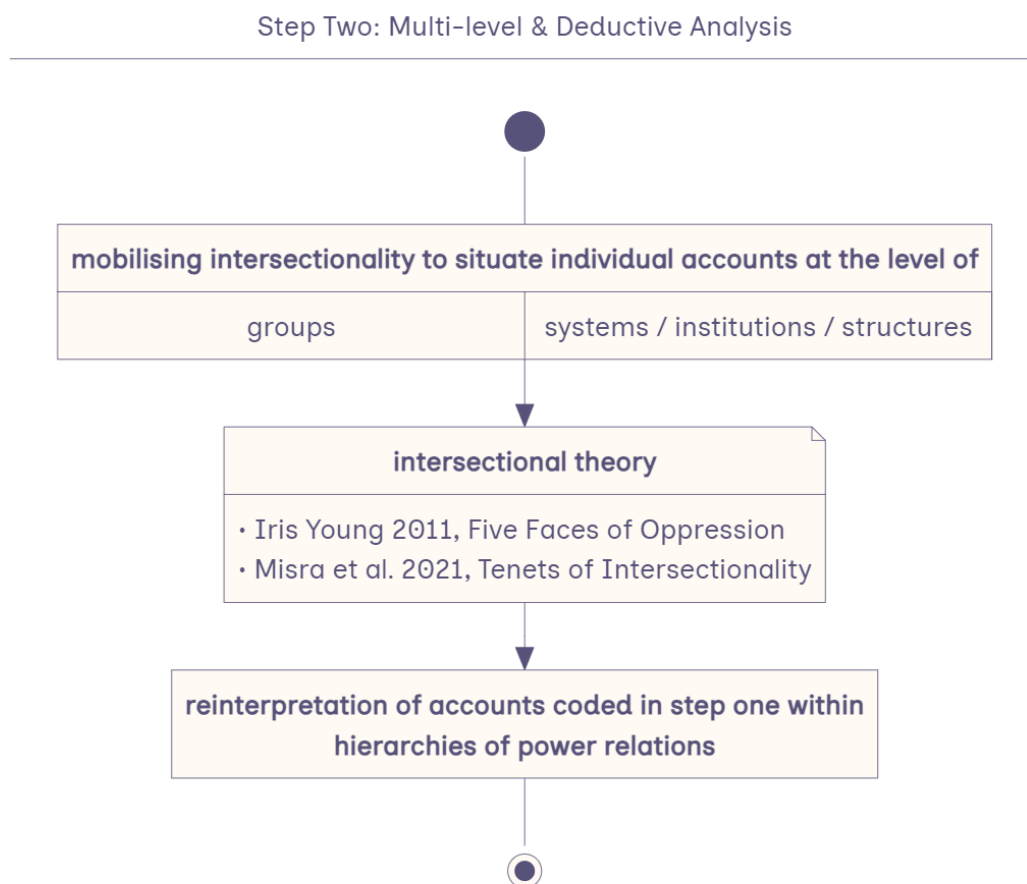
Social Categories	Discrete consideration (1st step)	Intersectional consideration (2nd step)
Gender	How gender informs this individual account?	How gender interacts/intersects with other social categories in this individual account? Or which dimensions of the experience are interacting with gender?
Class	How class informs this individual account?	How class interacts with other social categories in this individual account? Or which dimensions of the experience are interacting with class?
Race	How race informs this individual account?	How race interacts with other social categories in this individual account? Or which dimensions of the experience are interacting with race?
Ethnicity	How ethnicity informs this individual account?	How ethnicity interacts with other social categories in this individual account?
Religion	How religion informs this individual account?	How religion interacts with other social categories in this individual account?
Sexual Orientation	How sexual orientation informs this individual account?	How sexual orientation interacts with other social categories in this individual account?
Age	How age informs this individual account?	How age intersects with other social categories in this individual account?
Handicap	How handicap/ablebodiness informs this individual account?	How handicap/ablebodiness intersects with other social categories in this individual account?
Other relevant categories (immigration status, family status, language, etc)	Are there other relevant social categories/ relations informing this individual account?	How other relevant categories interact with previous social categories in this individual account?

3.3.1.2.2 *Second Level of Analysis (Multi-level and Deductive):*

Thus far, I had been using intersectionality in its onto-epistemic capacity as methodology, at this stage I additionally used it as a theoretical lens to develop insightful intersectional interpretations. This is arguably the “the most important aspect of intersectional work” and its most significant contribution as an analytical tool (Rodriguez, 2018, p. 446).

In the first level of analysis, I focused on inductively making connections between accounts at the level of subjectivities and groups, and identified how social categories intersect. In the second level of analysis (see Figure 10), I shifted the focus to deductively examining how individuals and groups experience power and resist oppression at the systemic level of broader social structures (Bilge, 2009; Dhamoon, 2011). While the first level helped answer the questions “who is included within this category?” and “how [do] categories depend on one another for meaning?”, the second level sought to answer the question of “[how are categories] inextricable from hierarchies of power that structure experience?” (Hunting, 2014, p. 8).

Figure 10 Step Two: Multi-level Deductive Analysis



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This was a theory-driven reinterpretation stage where I prioritized situating the data within their sociohistorical, political, and economic contexts of intersecting power dynamics (Christensen & Jensen, 2012). This involved linking, for instance, individual experiences of racial discrimination and economic hardship to their wider cooccurring intersections of structural racial capitalism and historical colonialism. Similarly, it involved examining experiences of Black masculinity within the larger structural contexts of the patriarchy (i.e. toxic masculinity), and police violence on Black bodies in America. It is also at this stage of interpretation and reinterpretation, that I engaged in making visible—or “explicit” (Bowleg, 2008, p. 320)—implicitly-intersectional experiences, which respondents did not articulate or describe per se. This structurally-contextualizing “interpretive task”, Bowleg argues, is “the responsibility” of intersectionality analysts and one which is at the crux of intersectional feminist research (Hancock, 2007; Bowleg, 2008, p. 321-322). In this analytical process, I informed my inductive interpretations by using helpful frameworks such that of Iris Young, which uses the “five face of oppression—exploitation, marginalization, powerlessness, cultural imperialism, and violence” as criteria to determine whether individuals and groups are oppressed (2011, p. 67-83). I also used Misra and colleagues’ “oppression, relationality, complexity, context, comparison, and deconstruction” framing to help me reflect on the intersectional nature of experiences, structures, processes, and institutions associated with the data (2020, p. 1).

3.3.1.3 Limitations

Lastly, using this two-step, multi-level, and multi-dimensional analysis strategy was not without its limitations. First, there is a dearth of analytical strategies, methodological choices, and empirical examples available to refer to in the ‘assembling’ of the approach I used. This placed a greater responsibility on my role as a researcher and analyst to make decisions in terms of category conceptualization, the number considered sufficient and adequate, and their priority. For example, Rodriguez writes that “researchers must reach a point where they are comfortable enough to say “these categories are sufficient to explain instances of inequality” which, in my view, invites uncertainty (2018, p. 440). Second, operationalizing categories in unitary (additive) categories and using them as a starting point for analysis seemed virtually unescapable—and at times limiting to the analysis—despite the theoretical guidance not to do so. Additive assumptions to categories placed a greater emphasis on the deductive phase of the analysis, and

the interpretation of “the seemingly un-measurable and unanalyzable data” became the most substantial tool at my disposal (Bowleg, 2008, p. 322). This of course, is arguably, at once, a principal limitation and the greatest asset of intersectional analysis. Third, at the stages of analysis and interpretation, I was challenged with the question of temporality and the effects of multiplicative oppression/domination in the context of Covid-19. Rodriguez notes that “institutions, practices, and problems shift over time, reframing dynamics and transforming inequalities” (2018, p. 447). This necessitated ‘stretching’ the analysis beyond interlocking categories of difference at the level of (a) subjectivities, (b) groups, and (c) structures, into temporality as well. This involved attempting to understand how experiences across dimensions and hierarchies of marginalization/privilege played out “beyond a description of a particular point in time” (i.e. before and during the context of a global pandemic) (Rodriguez, 2018, p. 447). Despite its limitations, this analytical strategy still offered a powerful tool and a solid theoretical framework to study inequalities from a lens that illuminated interpretations that often remain obscured.

3.3.2 Questionnaire Data Analysis

In processing the questionnaires, I edited raw data to identify and eliminate errors made by respondents and to ensure completeness, accuracy, and uniformity of the data obtained (Cohen et al., 2018, p. 504-505). I then manually typed the responses into an excel sheet, which I also imported into NVIVO 12 in order to inform participant demographics and be able to analyze open-ended questions qualitatively. I followed similar storage and security protocols to the PEI data and secured the physical copies of the questionnaires in a personal storage.

3.3.2.1 Scoring the Data

The questionnaire uses an ordinal scoring system to quantify responses related to physical and quality of access to technology (Appendix E.1), cultural capital (Appendix E.2), and socio-economic status (Appendix E.3). Following guidelines in Cohen et al., (2018, p. 725-738) and Bryman (2012, p. 232-243), I analyzed the data using assigned scores for key measures of the three concepts then a global score for each concept. Each response is scored on a scale from 0 to 10. For some dichotomous yes/no questions, a 'yes' receives 10 points and a 'no' receives 0 points, depending on the directionality of the response's impact on the category. For other questions, a 'no' response receives 10 points while a 'yes' receives 0 points when it better

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indicates a positive contribution to the category. Ordinal responses with multiple options are scored by mapping the options to scores from 0 to 10 in 2.5-point increments. This uneven scoring approach reflects the relative contribution of each response option to the overall construct being measured. For example, when participants were asked about art ownership, the response 'Yes, [my] own art' receives a score of 2.5 out of 10. Though this is the median value of the 3 possible responses, it is scored closer to the minimum of 0 than the maximum of 10 since it represents a relatively limited contribution compared to the other response options. For interval data, such as occupational income, I used the National Occupational Employment and Wage Estimates (United States Bureau of Labor Statistics, 2022) as a reference for the estimated yearly salaries of the occupational employments provided by participants. Salary data for 23 individuals was collected via questionnaire. Household income estimates were calculated in US dollars on an interval scale ranging from \$0 (Temporary Unemployment) to \$207,690 annually. Prior to analysis, salaries were transformed into a ranked order 0-10 scale using the following method:

1. The salary range was determined by identifying the minimum (\$0) and maximum (\$207,690) values.
2. The range (\$207,690) was divided into 10 equal segments of \$20,769 each to create a continuous scale from 0 to 10.
3. Household income estimates were assigned a score between 0 and 10 by calculating their relative position between the minimum and maximum values:

$$\text{Score} = x / [(x_{\text{max}} - x_{\text{min}}) / 10]$$

This transformation allowed salaries to be analyzed on a continuous 0-10 scale based on their position within the overall distribution.

3.3.2.2 Limitations

A challenge towards quantifying the impact of participant responses towards the measured constructs is presented by the unique circumstances described by many participants. For example, participants were asked for the number of individuals they share their bedroom with. The response of Participant 17 was recorded as 0, as they indicated that they slept 'by [themselves] in the living room'. Participant 12 indicated that they regularly do their homework 'in aftercare' with other children.

3.4 Reflexivity

In terms of positionality, I'd like to refer to Denzin's definition of it as the ways in which "our subjectivity becomes entangled in the lives of others" (1997, p. 27). This process of reflexively 'untangling', is an important aspect of conducting any type of research, but especially intersectional feminist research, as power dynamics are indeed central to the processes of research and relations between researcher and participants. Feminist epistemologists have argued that there is no 'view from nowhere' (Harding, 1986) and that "situating oneself [serves] to 'enabl[e] the production of [a] feminist knowledge [that] is accountable, reflexive and admittedly partial' (Davis, 2014, p. 24). As such, at every step of the research, I have operated from a place that rejects objectivity and did my best to be transparent, authentic, and open about how "who I am, who I have been, who I think I am, and how I feel" affects the research process (Pillow, 2003, p. 175).

Earlier in the thesis, I have made clear my positionality vis-a-vis the value-laden and political nature of knowledge production. I have also articulated that the intersectional feminist lens I adopt in this research is beyond just a theoretical tool that imbues the study with the feminist values, views, and beliefs I hold—but is also where I stand politically and the lens through which I see the world. This situates academic research, for me, as political praxis, which I view as inextricable from theoretical understanding in 'doing' intersectional social justice work.

Further, in reclaiming 'research as me-search', I must disclose that this research is as much motivated by scientific as personal interests. I have experienced marginalization on the basis of—among others—race, class, gender, and sexuality, as a member of the academy, as a professional during my working years, in my youth and education, and in wider society. As such, I am deeply committed to understanding inequality and I pursued my research questions to arrive at an academic understanding that is indeed also "idiosyncratically relevant" for my personal understanding (Altenmüller et al., 2021, p. 1).

Part of attending to one's 'location' as an intersectional researcher is challenging the outsider/insider binary by "complexify[ing]" the relationship to 'margin' and 'center' (Labelle, 2020, p. 5) as "one is neither purely an oppressor nor purely oppressed" (Hancock, 2016, p. 82). In other words, one's intersectional identities may, simultaneously, privilege and disadvantage the researcher and the research process. Patricia Hill Collins (1986) terms this non-binary

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conceptualization “the outsider within” which I engage with in thinking about how my multi-positioning shaped methodology. With this in mind, I attempt an exercise of “accountable positioning” (Haraway, 1988) across dimensions of “my intersectionalities” (Yacob-Haliso, 2018) and think about how they impacted the research at the levels of participants, the research site and community, and the wider social structures this study is situated in.

3.4.1 Micro: Participants Relations and Power Differentials

I found that my subjectivity and intersectionalities indeed impacted the processes of research. This includes my identity as a person of color (North-African) in relation to the racialized context in Washington, D.C. As a non-Black person, I could initially be assigned outsider status to the historically Black community and setting which I am researching. However, my identity cannot be reduced to my race. In fact, my gender, my class, and my involvement within an arts education organization, all co-constructed one another in a way that did not situate me as an outsider per se but have shaped the possibilities and limitations of my ‘insiderness’ and ‘outsiderness’ in relation to participants. For instance, at the end of an art class, I removed my watch to wash paint brushes, and Marvel and Jamina could see a tan line that contrasted my ‘real’ skin color, to the rest of my summer tanned skin (which appeared much darker). Marvel then exclaimed: “Miss Manal, you’re, like, White!?” suggesting that my outsiderness was somewhat revealed. I explained that I was North-African, and not White, but that my people can have a wide range of skin colors, from very fair to Black. This led to a candid conversation about race, my immigration status in the United States, and my roots in Sub-Saharan Africa. Jamina asked if my “folks came from slavery” like hers, to which I responded with a brief explanation of indigenous North-African (Amazigh) people’s history in relation to colonialism and slavery. Because of our shared outsiderness with regards to ‘Africanness’, colonization, and our experiences of uprooting and transplanting in America, my outsider status as a non-Black person was relegated to the margin, thus creating an opportunity for connectedness and rapport which is not possible to explain only from the perspective of race within the outsider/insider binary.

In contrast, despite my best efforts to reduce class status differentials, participants were still able to deduce my outsiderness to their poverty. For example, one morning Lamia, unexpectedly made an observation in a small circle conversation we were having with of the ACC staff:

Lamia: “Miss. Megan, Are you rich?”

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Miss. Megan: “No, why?”

Lamia: “You look like a rich woman, you have an Apple Watch, you wear rich jewelry;

Miss. Grace look okay, Miss Manal look rich, Mackenzie look ok.”

My class outsidersness was further expressed by many of them, after receiving their participation incentive, in asking me for more money, meals, and rides. One could suggest that, in these instances, my perceived class status outsidersness was salient to them; yet feelings of insidersness coexisted alongside it as they also perceived me as an empathetic and caring volunteer and educator. Taking an example of the same participant (Lamia), she would often sit by my side in class, give me hugs and play with my hair (facilitated by my gender as a woman), and affirm to the ACC staff that she is “my partner in research!”. When asked what she would remember most about camp on the last day, she shared a couple of experiences in which we genuinely bonded and learned from one another, therefore enhancing my ‘outsider within’ status:

Lamia: “The dance that Miss Manal and I did! And I’ll also remember that everything don’t have to be perfect.”

Miss Megan: “Okay, how so?”

Lamia: “I learned that from Miss Manal’s paper [collage piece], the paper about perfection.”

These examples not only highlight how my perceived subjectivity impacted power differentials with participants (and the knowledge they were willing and not willing to share with me as a result), but they also show that they are contingent on the subjectivities of participants as well, as they bring their own situated-ness to the field.

3.4.2 Meso: Research Site (Community) Relations and Power Differentials

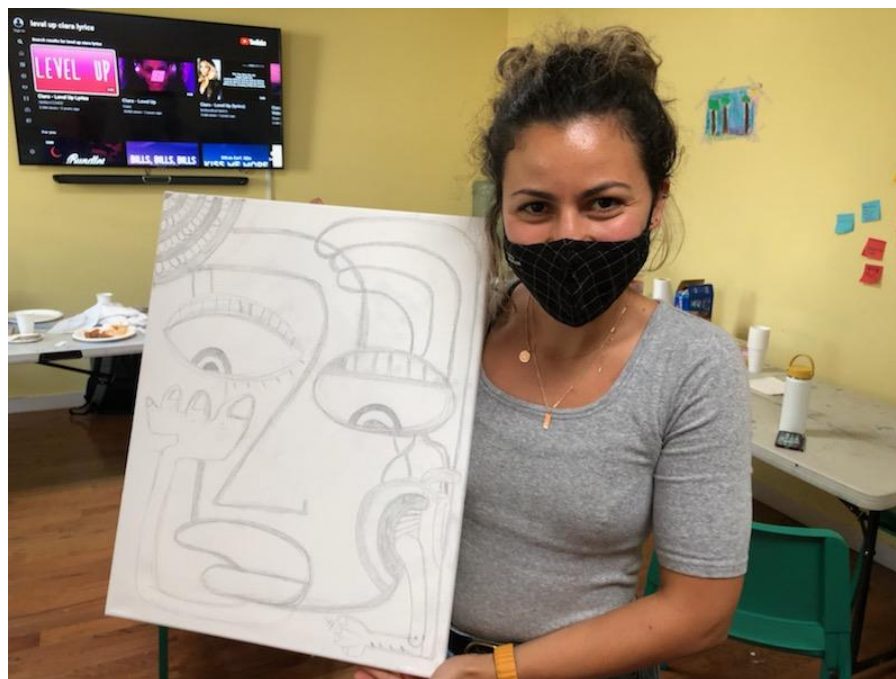
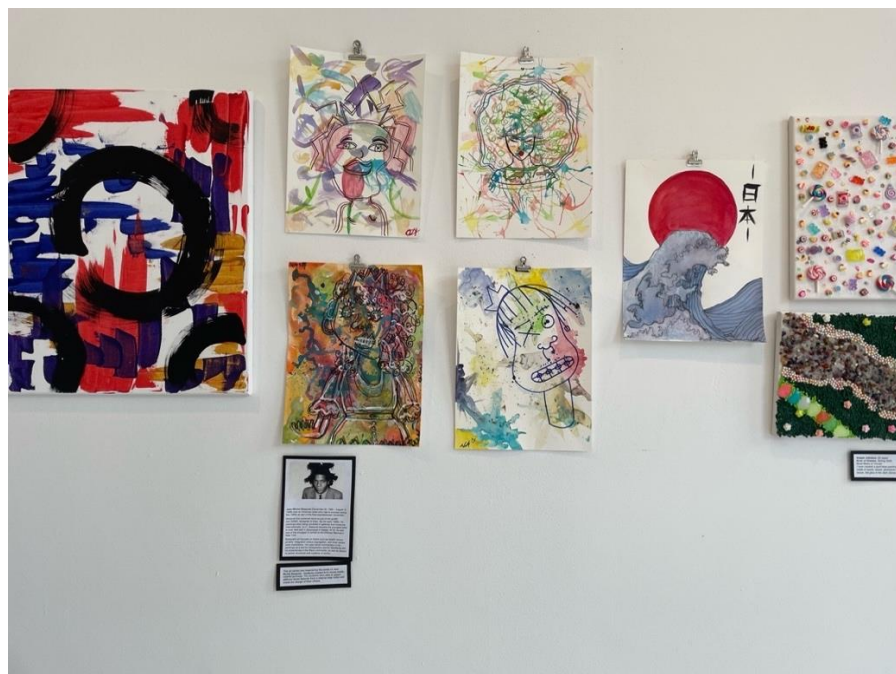
Within the context of the ACC and the Ward 8 community, my subjectivity also affected the process of the research at this level. My study took place within the framing of free art classes and programming at the art center. My presence in classes sometimes coincided with political public relations efforts on the part of the ACC, such as council member and board of directors’ visits, photography of participants for social media and other outreach, which have funding implications for the non-profit organization. During the fall term, the ACC had a 3D printing class taught by race and class-privileged volunteers from a prominent design firm in Washington, D.C. The four volunteers brought expertise, but also tremendous power dynamics to the class. At one point, the class had four teachers volunteering their time, one undergraduate Art Therapy

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intern, an ACC staff member taking photographs of the activity, and myself. We were in a room together with only 5 students and each had our individual aims and agendas which were entangled with giving to the students via our institutional affiliations but also taking from them. This day felt particularly uncomfortable, as power dynamics were heightened—not only by way of our subjectivities—but also the sheer physical number of ‘observers’ and ‘observed’, those ‘studying’ and those ‘studied’ in the room. I—as a volunteer and researcher—wanted to but could not always justify distancing myself from this power dynamic that is embedded within the politics of fundraising, funding, and reducing cost for the non-profit organization.

On the other hand, my embeddedness in the community and research site resulted in humanizing and liberatory outcomes for participants, the community, and myself. The ACC’s values and culture—as an art education social justice-oriented community-based organization for youth—were indeed aligned with and facilitated my intersectionally-reflexive research; and my research and labor were a conduit for their aims. This was a fruitful mutual arrangement within a framing of art education as resistance, or, as Albert Camus put it, “art [as] the opposite of tyranny and oppression, [and] the path to liberation” (2018, p. 29). In fact, when engaging in art making together with the ACC community, I was often reminded by their outsidership to art and culture of my own. Because of the instrumental emphasis on education in my youth, artistic pursuits were always relegated to the realm of the superfluous. I related to their foreignness to certain cultural and artistic practices and their hesitancy to make art uninhibited. I worried alongside them about not being good at drawing and enjoyed ready-made collage more than drawing figures. Art therapy sessions were as liberatory and expressive for them as they were for me. We were creating together, within and without our subjectivities, each changing and learning from one another. This was joyful and transformative for us all.

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Figure 11 Participant Photograph of Our Collaborative Art**Figure 12 My Art Exhibited Alongside Participants' in Fundraising Show**

3.4.3 *Macro: Structures, Institutions and Power Differentials*

At a macro level, my privileged identity as an individual with privileged access to education and a research student at a post-secondary institution also impacted the research process as it certainly implicated the power differentials that the academy represents and perpetuates in society. Being and working in this educationally disadvantaged community as a member of the academy was at times not fully understood. Some did not know the institution and its significance while others simply perceived me as a teacher – therefore placing me as an outsider. But it was also celebrated and perceived as an important achievement by some. This was especially true for those who knew my background as the first person in my family to receive a university education and knew that I shared in their ‘outsiderness’ to the academy as my grandparents are illiterate, and my parents did not pursue beyond a high school education. We often bonded over the joy and meaning of that. However, as uncomfortable as it is, and despite conducting this research intersectionally, I am unsure I can claim that this research is completely free from exploitation. I know I have made positive contributions to the hearts and minds of participants and the overall community in the course of the year and view this work as a meaningful contribution to a lively debate on intersectional work, but I am not sure this exchange is equitable and without macro implications. The study disproportionately benefits me personally and professionally, thereby perpetuating existing power dynamics within the global educational and labor system relations.

Reflexivity is, indeed, not without its limitations as “there is nothing inherently justice-oriented about reflecting on one's subject position in relation to a given project” (Strunk & Locke, 2019, p. 113), and that self-locating “does not guarantee knowing, or “better” knowing” (Doucet & Mauthner, 2007, p. 5). In other words, adopting a feminist epistemology — including but not limited to reflecting on positionality, researcher privilege, and intersectional reflexivity— does not inherently imply the achievement of emancipatory or just ends, or describe reality as it is (Strunk & Locke, 2019, p. 112). It remains, as I view it, an approximation of an ideal, or an “aspiration” that can, in reality, never be fully attained (Darwin Holmes, 2020, p. 4).

3.5 Ethical Considerations

In this research, I have viewed the question of ethics as inextricably linked to feminist methodology and epistemology. Feminism presupposes an ethics of care, which centers values of

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trust and impartiality (Warren, 1999, p. 18), and emphasizes responsibility and caring relationships “rather than more abstract ideas about rights, justice, virtues, or outcomes” (Hesse-Biber, 2014, p. 9)—thereby making ethical practice embedded at every stage of feminist research.

From the planning and design, to fieldwork, to data analysis and writing, I have attended to the ethicality of my research practice according to strategies and guidelines in the field of social and educational qualitative research (Cohen et al., 2018, pp. 111-143) as well as literature that more specifically addresses feminist concerns (De Laine, 2000; Oancea & Furlong, 2007; Mockler, 2014). In their essence, these texts highlight a number of ethical considerations which must be attended to in feminist work. I borrow Mockler’s criteria as it seemed comprehensive to frame my thinking about the study’s ethics: “informed consent, avoiding harm, [participant] voice, power dynamics [...], and [researcher] judgement” (2014, p. 154).

First, per the guidelines of the University’s CUREC 1A and the BERA Ethical Guidelines for Educational Research, I obtained informed consent, made clear to participants, parents/guardians, and teachers the right to withdraw, detailed procedures, data confidentiality, and privacy.

Second, “striving to do no harm” or being aware of the harmful possibilities of fieldwork on participants, the research site and the community has been, to the best of my ability, a central part of my practice. This concerned my role as a ‘researcher-friend’ and the ethical challenges it presented to participant confidentiality and privacy. This dual role inevitably raised the dilemma of “closeness” (Reinharz, 1992, p. 67) or “respectful distance” (De Laine 2000, p. 119) between the participants and myself. “The [feminist] debate is open” write Cohen et al., “should the researcher share, be close and be prepared for more intimate social relations [...] or keep those cool, outsider relations which might objectify those being researched?” (2018, p. 1035). In my study, the field imposed certain responsibilities of care and safeguarding of participants, which were inevitably entangled with my role as a researcher. As a volunteer, I often switched between my teacher, trusted adult, arbiter, and peer/friend-like hats. This relationship, coupled with my prolonged engagement in the field, certainly resulted in participant disclosures (‘finding out too much’), which I had to ethically parse out in terms of privileged information on the basis of friendship, or ‘data’ which can be used for the purposes of my research. This called for a careful

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consideration of what might have been willingly shared, and what might have been shared as a consequence of friendship and being together over a long period of time. Despite my best efforts in reminding participants of and asserting my role as a researcher, this was often overshadowed by the immediacy of my other roles. In addition to withholding the use of certain ‘off the record’ data, I mitigated this ethical issue, by ensuring the anonymity and untraceability of participants, mentors, and staff, seeking permission before dissemination or publication of any of their data more widely, as well as editing of notes and possible identifiers in relationship to me and the activities we engaged in. Ensuring “non-maleficence, beneficence and human dignity” (Cohen et al., 2018, p. 127) in my research also took the form of exercising reciprocity. Extraction from marginalized communities in research is indeed an ethical issue, and I aimed my practice at mitigating this by working for these young people (despite taking from them) and tried to reconcile the unsettling truth of our inequitable predicaments by striving not only to ‘do no harm’ but also give of myself as generously and authentically as possible.

Third, in making decisions about ethical issues such as the one discussed above, I viewed them—in feminist fashion—as both ethical and *moral* questions (Denzin, 1997) requiring the “exercise [of] sound judgement” (Mockler, 2014, p. 154). The feminist ethic of care grants room for a decision-making ethos which has not been previously accounted for by modernist's or traditionalist's ethics. In the context of my study, some of the micro decisions I have had to make as part of my everyday interactions relied more on “intuition, emotions and feelings” than “cognitive or rational reasoning” inscribed in any ethical code of conduct (De Laine, 2000, p. 153). As such, my intentions and the ways in which I made sense of what is honest, just, respectful, were equally important to my conforming to widely prescribed codes of research ethics.

Fourth, “understanding power dynamics” and privileging participant “voice” are other axes which are often attended to as ethical issues Mockler (2014, p. 155). Given the reflexive nature of this research, a deconstruction of power and efforts to center voice were central aspects of the methodology and analyses used. I consider positionality, reflexivity, and the political nature of knowledge production as critical elements of conducting ethical research.

Lastly, I do acknowledge that all of the above considerations were undertaken with some level of acceptance that “a degree of contamination [is an] inevitable outcome of intrusion in the

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daily lives of people” (De Laine, 2000, p. 108) and that this was constantly negotiated in my mind at every step of the research.

Findings Overview

"We shape our tools, and thereafter our tools shape us."

— *Marshall McLuhan*

The thesis' main finding is that participant digital learning practices are shaped by their intersectionalities in ways that are both liberating and constraining, and ways that highlight experiences of structural oppression and resistant agency. Intersectional analysis revealed that the intersections of race, class, gender, (dis)ability, immigration and parenting status, among others, shape the young people's learning practices and attitudes toward technology. I conceptualize these experiences of enablement and constraint (internal and external) through the construct of *orientations*—digital patterns of use, attitudes, digital learning practices, and overall predispositions which, I contend, are *simultaneously* intersectional—i.e. shaped by race, class, age, gender, geography, (dis)ability, body shape/size, parenting status, family structure, care responsibilities, Covid-19, edtech structures, and top-down approaches to parenting and homeschooling.

Accordingly, the analysis shows that, for all participants, more than just one axis of marginality is at play at any given time in their digital learning lives. Particularly, 'race-class' was a common intersection for all 31 participants in the study (see [Appendix G](#) for how physical access to technology is racialized and classed). Engaging in a feminist reading of these orientations illuminated that the intersectionality of race and class for the Conformists, the Hustlers, and the CDAMs is inseparable from a mutually reinforcing history of racial and economic segregations (see [Appendix A](#) for background). However, analysis also highlights the 'race-class' intersectional location shapes their digital learning practices and attitudes differently in its interaction with other dimensions of their subjective, group, and systemic identities. As such, participants across the data have patterns of use, attitudes, digital practices and predispositions towards learning with technology which fall along three orientations: the Conformists, the Hustlers, and those with Cultural Distinction at the Margins (CDAM).

Together, these Findings Chapters highlight how categories of social difference (intersectionalities) do shape orientations, which in turn and overtime, have the potential to shape their current and future social conditions. This reproduction of inequality happens as different groups might have access to different forms of knowledge, language styles, or artistic tastes,

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which—mediated by technology—shape their experiences, opportunities, and challenges in education and in their broader lives.

To explicate the social embeddedness of digital orientations, I use the digital inequalities scholarship as a theoretical starting point, which has empirically established that digital learning practices and attitudes towards learning follow patterns of offline inequalities (see Literature Review [Section 2.2](#)). More specifically, inequalities in this literature are examined in terms of outcomes as they take place in broader social contexts (Tsatsou, 2011; Hargittai and Hsieh, 2013; Robinson et al., 2020a). This research conceptualizes outcomes of use, drawing on sociological literature such as Bourdieusian *habitus*, cultural and symbolic capitals (Bourdieu, 1980) and digital capital (Ragnedda, 2018). This conceptualization is framed as what Bakardjieva and Smith (2001) think of as *behaviour genres*, what Robinson and colleagues (2015) and Robinson (2009) term the *Taste for the Necessary* (based on Bourdieu), *orientations*, and *dispositional patterns*, what Davies and Eynon (2018) call *orientations*, and what Groselj (2021) calls *dependencies*, among other nomenclatures.

The construct of an *orientation*, as I use it in this thesis, is inspired by this literature and is the sum of foundational dispositions that individuals acquire through their life experiences – especially through socialization, narratives, and histories within a particular social group, i.e. class, race, or gender—shaping their perceptions, values, judgments, and behaviors. For example, histories of colonialism, slavery, geographic displacement, or class struggle inform the collective memory and identity of groups, influencing how individuals perceive the world, themselves, and their place in society—as well as how others perceive them. Similarly, technology use is closely tied with social identity, and the identities that are valued in the home play a major role in placing or withdrawing value on certain “tastes, consumptions, skills, and awards”, thereby influencing digital tastes (Valentine & Holloway 2001, p. 73). Thus, young people mirror the cultural value systems of their environments through their digital practices, striving to gain cultural or digital capital when they recognize its worth. However, they are less likely to pursue it if such capital is not socially or culturally acknowledged, encouraged, or rewarded.

In the context of my study, orientations are the sum of the deeply ingrained habits and learning practices (online and offline), the type of physical access to devices and the Internet,

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quality and autonomy of use, digital skills and literacy, as well as overall internalized beliefs and attitudes towards learning and technology. In other words, what these young people ‘do’ with the technology is shaped by what they think, the intersections of the social class they belong to, their (dis)ability, their internalized capacities, and other identity markers. Likewise, what economically deprived Black youth, for instance, value as an extension of their familial and community cultural situatedness, ultimately shapes their proximity to or distance from the dominant racial, economic, gender, and other categorical norms, as well as their possible intersections.

Though the orientations I propose—Conformists, Hustlers, and CDAMs—provide a rich and helpful framing for showing how intersectionalities shape digital learning patterns of use, habits, and attitudes, they are to be similarly understood as porous, dynamic, and fluid forms of categorization. They are meant to describe general patterns rather than rigidly define individual participants. These orientations are not fixed or deterministic but serve as a way to capture the tendencies observed in participants' learning lives.

The need to organize findings by categories (orientations) and not along axes of behaviors such as Conforming, Hustling, and being Culturally Distinct at the Margins is justified through the same feminist ethos and rationale on categories which undergirds the analytical framework of the thesis: "groups are identified in relation to one another. Their existence is fluid and often shifting, but nevertheless real" (Young, 2011, p. 22). As such, to make particular intersectional patterns of marginality and/or privilege of a given group visible, the analysis must maintain the group as a unit of analysis.

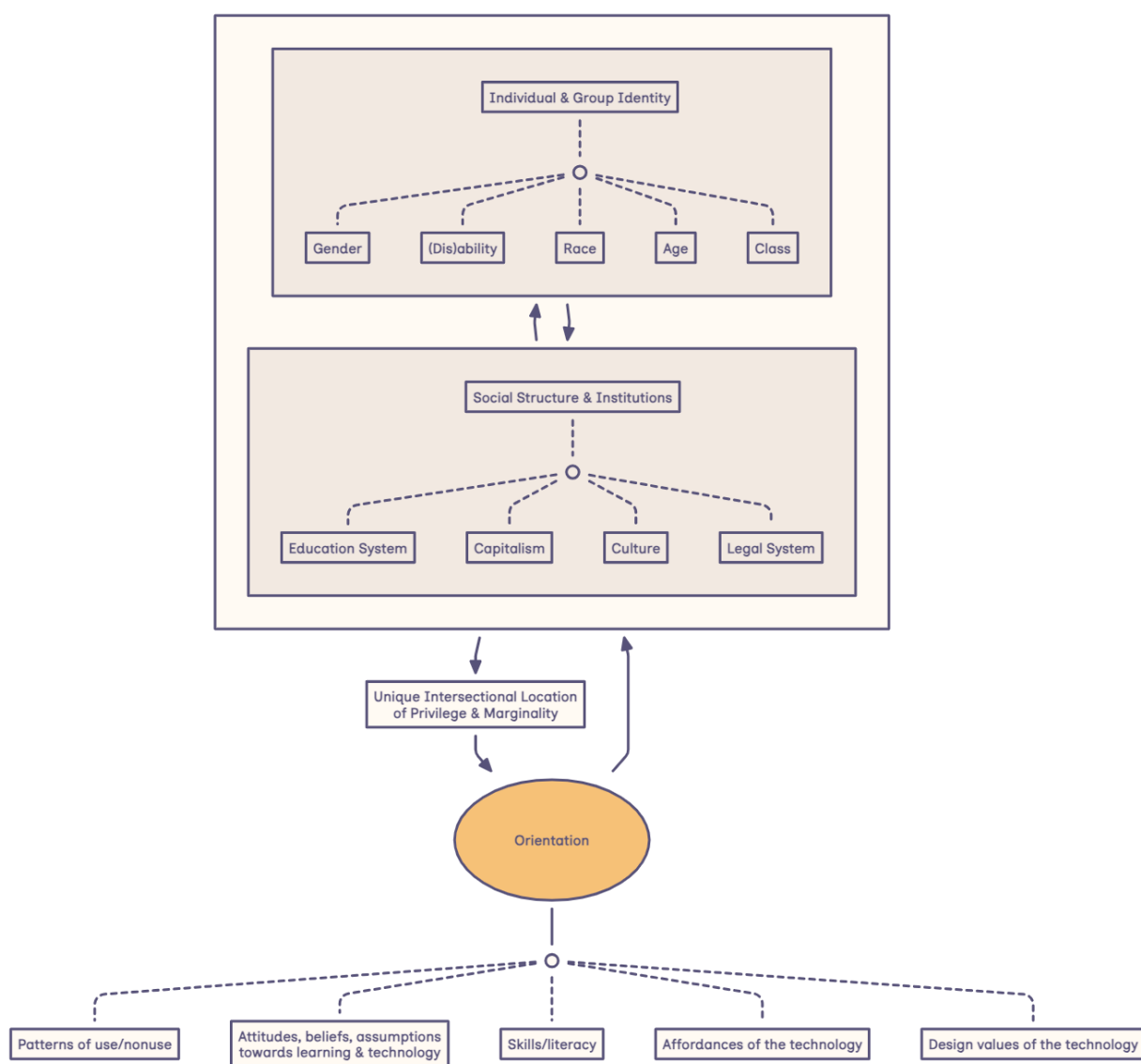
That said, participants could have practices and attitudes which span across all three orientations, even though they may heavily align more with one. In fact, this is highlighted in the two categories of Hustling to Conform (H2C) and Conforming to Hustle (C2H) in Chapter 5, which demonstrate the ways in which participants shift in the space between data categorization, further emphasizing the dynamic nature of digital learning practices and young people's engagement with technology.

What follows are the three Findings Chapters in which I delve deeper into each of the three digital orientations, the Conformists, the Hustlers, and those with Cultural Distinction at the Margins (CDAM), and detail how they are in a mutually shaping relationship with intersectional

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locations in the daily learning lives of young Washingtonian youth. Figure 13 presents a conceptual map to illustrate how digital orientations are the vehicle/ mechanism by which the social shaping of technology happens, connecting them to the micro, meso, and macro hierarchies of power in which they occur. This conceptual map directly answers the primary and secondary research questions of the thesis.

Figure 13 Findings Conceptual Framework



4 The Conformists

In this chapter, I present the *Conformists* orientation. The Conformists are the largest group of the three. I opted for the nomenclature of ‘Conformists’ on the basis of their tendency to not question and mostly conform to and abide by the rules of structures in their lives—namely school and after-school programs, family, and digital spaces. They are the group hardest hit by the constraints of “structured and structuring structure[s]”, notwithstanding their agency and resistance to said structures (Bourdieu, 1984, p. 167). Though they do exercise agency in subverting the rules at times, they do not tend to transcend them. In their learning with technology, this tendency emerges as a shaping factor in how they perceive and feel about the different kinds of learning they engage in. The Conformists are more likely to be middle and high school-aged girls (11-to-14-year-olds), have lower cultural capital, and be engaged in the cultural and artistic activities at the ACC. They are likely to be engaged because of economic incentives (they were paid to attend classes) and/or because their families thought it a better alternative for them than “getting in trouble in the streets”. The data show that the Conformists’ orientation is (1) shaped by race, class, gender, the capitalist (neoliberal) model of education, and the constraints and opportunities of learning at home during the Covid-19 pandemic. Their orientation (2) tends towards consumption and information-seeking and their patterns rarely reflected engagement in hobbies, pursuing passions, reading, or cultural practices that they inherently enjoy and learn from (like the CDAMs), or develop skills which they intend to monetize (like the Hustlers). The Conformists also have learning attitudes and practices that are instrumental, school-led and shaped by the top-down nature of the educational institutions they belong to and their respective technology policies and infrastructures. In this chapter, I explore how this intersectional (multi-level and multi-dimensional) social shaping happens in a dynamic negotiation between the impositions of structure, the resistance of individual and group agency, and the politics of the tools they use.

4.1 The Conformists’ Consumptive Digital Tastes

As part of the photo-elicitation activity and subsequent interviews, all 31 participants were asked to reflect on their learning practices in school, at home, and in the spaces in-between. As the table in [Appendix F](#) shows, twenty-four themes were identified from the interviews and

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photographic data. Despite the wider digital engagement across all three groups, the Conformists seem to be spending their time within the confines of a narrow circle of apps and platforms: TikTok, Instagram, YouTube, Netflix, Hulu, Google, and Snapchat, which constitute the bulk of their media ecologies. They are ubiquitously communicating via mobile messaging, social media, and video-calling apps and following their friends and their points of interest on these platforms. Responses from Jamina (G; 11), Sienna (G; 12), and Amina (G; 12) sum up the patterns of use of their peers succinctly:

Researcher: "What do you like to do when you're on the Internet?"

Jamina: "I play Roblox, I be watching Netflix, I go on TikTok, Instagram, and that's it."

Sienna: "I am mostly on TikTok, Instagram, YouTube, and Roblox."

Researcher: "Is there anything else that you like to learn on the Internet?"

Amina: "No."

Researcher: "What are your favorite websites or apps on the Internet?"

Amina: "Insta[gram] and Snapchat!"

Researcher: "Can you tell me what you enjoy most doing when you are online, besides Snapchat and Instagram?"

Researcher: "I watch, um, gold digger pranks."

Figure 14 Sienna Learning a TikTok Dance

The Conformists' media engagement is also skewed towards consumption more than content creation. Chiana (G; 15), for instance, being an active consumer of TikTok and Instagram, she does not actively participate in their digital cultures. Instead, she “prefer[s] Instagram” because

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“I just like watching people stories. I don’t even post. I just watch people stories.” Phoenix (G; 16) is also clear about her position as a consumer and not a producer of content:

Phoenix: “I just go on [Instagram] just to like look around, text my friends [...], I’mma look at funny videos, send funny videos to my friends, send videos to my mom. Um what else, oh yeah, save videos that I like — not put it on my Insta, on the Insta[gram] stories — not like post- ‘cause I got no posts”.

Figure 15 Chiana's Use of YouTube for Learning



Likewise, while reading on Wattpad, a free social storytelling platform, Chiana clearly positions herself as a consumer rather than a content creator:

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Chiana: “It’s a app where you can like read and write stories, if you’re like a person that like complete your writing out and like put it into a book, you could download the app and like write your own book. I tried doing that, but I don’t know how to write [smacks lips] I deleted it, I just like reading other people books.”

Other examples of passive consumption from the data include Sienna’s and Adeline’s reliance on TikTok’s algorithmic suggestions for their consumption as they scroll through the “fyp, [...] and then I’ll scroll and look through the stuff that’s there” (Adeline, G; 13) and “look up cleaning videos and cooking videos and those types of videos would pop up and I’ll just watch them.” (Sienna, G;12). Marvel (G; 13) does the same to escape boredom and “I’ll just go on there when I’m bored, I just scroll and scroll...”. The algorithmic parameters of these apps further constrain their consumption through highly personalized ‘for you page(s)’ (#fyp), such as the ones available on TikTok, which, in turn, further limit their exposure to how ‘wide’ the world web really is. Lastly, Kelsey (G; 23), who is a teen mother, engages in similar patterns of passive consumption to take a break from her stressful daily life:

“Where I hang out the most is TikTok [laughing] because any chance I get, I just need to laugh, I just wanna laugh, I have a lotta stress during the day, and I have other things that give me anxiety, and sometimes I just need someone to make me laugh to get through the day, and so I just need to look at a few funny videos and just kinda forget what I’m thinking about at the moment.”

As discussed in the Findings Overview, I frame this predisposition to consumption and entertainment use of technology as an orientation, which according to sociological literature, refers to the deeply ingrained habits, skills, and dispositions individuals develop in response to the objective conditions of their environment (see Robinson, 2009; 2014 for similar framing). An orientation—as a product of history—results from the internalization of the social structures in which one grows up, and guides how individuals and groups perceive and react to the social world around them. In this context, a ‘digital taste for’ consumption and leisure is the expression of a set of values, norms, tastes, and knowledge that are strongly associated with material conditions of scarcity and various processes of socialization. This socialization here often happens in undereducated Black households, educational practices of generational segregation,

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and little exposure to practices that develop cultural capital (i.e. an appreciation and knowledge of cultural products like books, music, art, cinema, and the performing arts).

Using the conceptual framing of cultural and symbolic capital helps to further contextualize the consumptive digital tastes of this group of young people. Survey data show that the Conformists score low on cultural capital (see [Appendices E.2](#) and [F](#)), which corroborate interview data. For instance, when asked about their hobbies, many Conformists shared that they did not have any (Maquita; G; 16), or began to tell me about their online practices of consumption:

Researcher: “Do you have a hobby?”

Libra: “Um yes, I like watching YouTube videos, watching people do they hair or people eat food, I love doctor shows too, like Dr. Pimple Popper, plastic surgery...”

Researcher: “You watch these shows just on YouTube?”

Libra: “On TV too, I like cable shows too.”

Researcher: “Do you enjoy any kind of learning that’s not related to school? Like a hobby?”

Lamia: “No.”

Researcher: “Do you do any reading for fun, like Wattpad, or?”

Lamia: “I read at school.”

Researcher: “Okay. Do you have any channels on YouTube or elsewhere that you follow?”

Lamia: “Oh, I like, watch YouTube, ‘cause they be pranking people, so it just be funny.”

Researcher: “Do you have any hobbies?”

Phoenix: “I like going out to eat, oh and umm, Netflix. I like playing GTA [and] Roblox. I think that’s pretty much it.”

This presentation of the digital tastes of the Conformists, however, is not to say that they are not able to be reflexive about their own race-class position in society. Some understand their digital orientation—or certain expressions of it—as disconnected from the values and norms valued by the dominant race-class. For example, Kelsey (G; 23), who is a single teen mother and the sole provider of Izzy (G; 5), highlights from the perspective of a parent the socio-technical negotiation taking place in the face of her race-class conditions:

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Kelsey: “Sometimes just giving [Izzy] my phone helps her sit down like, a lot of parents are like no technology this and that. No, I’m just like I need to breathe, take my phone as long as you need to [laughing]. I try to limit it, but I’m just like, if it gets me through the day, I don’t care what you say, she can watch whatever she wants, as long as it’s parent restricted. [...] I’m just like I can’t! It gives me peace, because these same people are sitting at home with full-time nannies or they have a husband, they live in a nice house, they have money or whatever they need, I don’t have that, so you have no right to judge me on how I parent my child, and [Izzy] is just fine the way she is. [...] I feel like if they were in my shoes they wouldn’t have the same perspective that they have now.”

As such, dominant expectations of parenting in the digital realm (symbolic cultural capital) are an expression of race-class conditions, which Kelsey is clearly aware of (dual-household economic capital, and normative cisheteronormative nuclear family). She is nonetheless exercising what she perceives as the agency within her reach, by imposing parental restrictions on her daughter’s device. Through such restrictions—as enabled by ‘structured’ for-profit digital platforms such as YouTube—give her little epistemic control over the kinds of content her daughter consumes. Kelsey’s example is useful in illuminating the day-to-day negotiations which many of the participants’ parenting adults face in relation to their children’s media use, and whose household structures and economic conditions are similarly shaped by scarcity and necessity.

Likewise, when asked about her perceptions on race as a differentiator in technology use amongst youths, Lamia shows a level of self-awareness which reflects internalized assumptions about a racialized and classed orientation and conceptions of success (academic achievement as route to economic success in the dominant culture):

Lamia: “I play [video] games when I’m bored or something that’s the only thing, [an Asian girl] is different. She like, like learning and exploring the world, she don’t do what like Black kids do, if they wanna do something they do it, the Asian kid she just sit there and just do her work, [...] get her education, get her money, and she get what she goes for ‘cause she supposed to be White.”

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Despite being the group hit hardest by the constraints of structure, I find that the Conformists do show agency in the form of resourceful and creative actions—mediated by digital and analogue tools—in order to circumvent their circumstantial limitations.

Within the context of the ACC art programming, the Conformists engaged in artistic activities such as painting, drawing, collage art, clay modeling, tie-die clothing, beading, music production, theatre, amongst others. Many of them resisted the idea of going to an art education camp over the summer, as (Mackenzie, G; 13) and (Marvel, G; 13) did:

Mackenzie: “I didn't wanna come here [...] It's mom's idea to come to camp, she didn't want me to stay in the house all day.”

Marvel: “I did not wanna come. I was like I can stay home I can watch myself, [...] but I'm glad I did.”

Interestingly, many of them found it very difficult to enjoy some of the artistic activities at first, nervously sharing that “it's too hard”, “I can't draw from imagination”, and “I don't know how to draw” and had a difficult time not playing games on their phones or the computers they were given for art programming. However, with a little help from teachers and adult volunteers, they rarely remained uninterested and often developed genuine interest in making art, enjoying themselves, and belonging with others despite their preconceptions. At this stage of their resistance to engage, agency could not be located with them, but with their parenting adults, families, and community, who have put them in state of ‘forced’ or ‘circumstantial’ awareness (similar to the concept of ‘forced choice’ (Eynon & Helsper, 2010, p. 536)). This ‘circumstantial’ awareness, then begets their own consciousness of their conditions and use their agency in creatively using technology to help themselves. This is observed in the experience of Mackenzie who has perfectionist tendencies, does not like to ask for help, and expressed anxiety around not being able to draw. The technique described below allows her to engage in the part she enjoys the most (painting), while maintaining her full autonomy and continuing to belong to the class:

Mackenzie: “Yeah, I put the paper over my phone like that, and I just sketch it like that. But you gotta make sure you can see it, it can be a little light, you be able to see it. [...] but don't trace too hard 'cause you'll end up cracking your phone with the pencil. [...] and then when you're done just go over it. [...] I had made a whole bunch of Simpson drawings, I traced it though, I made Bart and Lisa and then I colored them.”

Figure 16 Using Mobile Phones to for Referencing, Searching, and Seeking Inspiration

Similarly, Jori, a bubbly and socially confident participant, particularly struggled with creative self-expression and was anxious to participate in hands-on activities. She often showed discomfort and worried she “will mess up”. She asked others to help her with drawing straight lines, making “perfect circles” and mixing paint colors. It was clear that when she is not engaged in her habitual digital practices she experienced distress at having to participate in practices foreign to her. These artistic pursuits, it seems, are a privilege to those who have been exposed to them, encouraged and rewarded to engage in them. Jori, however, found collage art to be particularly enjoyable, because it did not require drawing or painting skills. She shared that

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“there are really pretty things in magazines, scenery [...] it is my first time in camp I do them.” Jori used teachers’ or her friends’ mobile phones to search for inspirational reference images on Google and used them to engage in analogue combinatorial creativity (using magazines and paper) (Figure 17).

Figure 17 Photographs by Jori and Autumn Showing Collage Art Class



Because the summer camp and after school programs are income-restricted and free to qualifying families, it served as free childcare to some and an alternative to staying home, “doing nothing”, and “getting kids off the streets” for others. To incentivize attendance, the ACC offers campers and after-school program attendees cash payments per class, free food, snacks, and weekly groceries for their families. This was especially attractive to older male participants who were not interested in the art programming as much as the perks that came with it. For this subgroup of the Conformists, the aforementioned ‘circumstantial’ agency of being a part of the ACC, was then creatively and resourcefully used for instrumental economic ends to then engage in activities they value most:

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Donny: “Like if you wanna keep it one hundred, [boys] just wanna go smoke or do something with they friends, the only time, they were just coming in, grab something to eat, talk to people, and go on the computer, and fake-do they work, get paid, and then, weed!”

4.2 “Searching Stuff Up” is Racialized and Classed

Previous work in digital sociology has shown that digital practices of youth “follow the contours of class and gender” when using the Internet for research (Davies, 2018, p. 2769) as well as other identity markers (Robinson, 2009). Data in this study point to a similar finding. Analysis shows that the Conformists’ have a race-class orientation that is narrow, lacks criticality in information-seeking and in evaluating the credibility, reliability, and biases in digital sources and digital tools.

As demonstrated by Amina (G; 12) and Sienna (G; 12), the Conformists have narrow and rare information-seeking practices:

Researcher: “Is there anything else that you like to learn on the Internet?”

Amina: “No. But words I don’t know I usually search up.”

Researcher: “Okay. Do you do any reading on the Internet?”

Amina: “No.”

Researcher: “How about Google?”

Sienna: “Um I wouldn’t use it every day, but I’ll use it probably like, 5 or 4 times a week, probably.”

Researcher: “And would that mostly be related to school work?”

Sienna: “Yes.”

Even when this group of young people do exhibit more frequent information-seeking habits, they often over-rely on social media platforms as primary sources for their research. Naomi (G; 15), for instance, shared a story about dropping her phone in water and how she quickly sought out information to remedy the incident: “I got it so quick no damage, and then I went on TikTok and played the ‘get water out of your phone’ videos.” Interestingly, Naomi does not take her query to a search engine but reflexively reaches for TikTok and uses a social media app ‘as search engine’. Similarly, Donny (B; 15) shares that he would “go to YouTube first, ‘cause

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Google, it just gives you like the links and stuff like that, YouTube explain it to you and how to break it down and, to me, I think it's more easier." While social media platforms like YouTube and TikTok can be valuable for information-seeking and learning, they become problematic when they are used primarily and/or exclusively as search engines overtime. Unlike traditional search engines which have made some efforts to allow for private browsing, many social media platforms are designed to track user behaviors for targeted advertising and to use algorithms that feed-back content which users are more likely to engage with (Gilbert et al., 2023).

This is further complicated as Conformists struggle with basic research skills. Some find it difficult to sift through the large amount of information that search engines render, expecting to find immediate and easy answers, rather than engage in a discerning and deliberate search strategy:

Marvel: "So first off I had to look up the tropical rain forest [...] you know you have to look up, whenever you would go press links and stuff, most of the time it would say different things from the other link, so a lot of times it wouldn't even be similar, I mean sometimes maybe, but a lot of times not [...] and so I went on like 2 links and it was like totally different stuff, so that was a little frustrating."

Researcher: "How many pages of google links do you think you would look through?"

Marvel: "You know how sometimes it comes in the white box, and it would just tell you? You know, it just says, like Google just gives you the answer?"

Researcher: "Yes, up at the top."

Marvel: "I love that! oh my gosh! I always use that, but if I can't find it, I'll like maybe press 3 different links and I'll have to like skim through the articles and stuff like that."

Ciara (G; 13) and Phoenix (G; 16) share a similar sentiment towards the overwhelming nature of Internet research and default to Google's 'featured snippets':

Researcher: "When you google something, how far down the links do you go, or how do you decide which is the answer you want?"

Ciara: "So I just click, and a big paragraph and I just see it, because that's more useful than like going on a website and scrolling, scrolling, scrolling, [...] there is like that little box, and you click on it, and you find [the answer]"

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Phoenix: “Sometimes I will roll down 2 or 3 times but I never—I think that the first things that pop up is the best one.”

Google’s answer box or, as search engine optimization marketers call it, ‘position zero,’ is a highly coveted placement of information, for which online entities manipulate their information to be featured, regardless of accuracy or validity. Google—with its consolidated power for knowledge dissemination— determines which content is most relevant, making ‘snippets’ potentially biased information that undiscerning users come to trust and rely on as definitive knowledge. Further, Google claim that ‘snippets’ are “especially helpful for those on mobile or searching by voice,” which happens to be almost all participants in the study’s sample. Young people’s trust in the ‘answer box’ as a primary source without cross-referencing information can engender a simplified/false sense of understanding but, in combination with their reliance on mobile phones for research as a result of their race-class conditions, it can further beget an orientation shaped by necessity and a lack of criticality.

Using social media as primary sources of information and browsing the Internet with limited skills and understanding of the politics of technology, can have serious implications when used for consequential health and educational information-seeking. This can be observed in the Covid-19 pandemic and the then-live issue of vaccine hesitancy in Black communities in the US, including the ones the study participants come from. During the interviews, the conversation often led to participants sharing their resistant views on the Covid-19 vaccine. Their opinions were clearly shaped by racial trauma and a historic mistrust of the government passed down from parenting adults in their families and community. But this mistrust was also further affirmed and reinforced through the online media they consumed and participated in. Vaccine resistance and skepticism are not unfounded and can be traced back to historic racial violence in the context of medicine and healthcare in the United States. When asked about their skepticism and hesitancy, participants evoked themes of racial trauma:

“Like, a long time ago, [the government] used to experiment on Black people and stuff like that [...] I just don’t know if that’s that again” (Marvel, G; 13).

“[...] Black people have been used as like Guinea pigs for medicine, like literally if you go back in slavery, our bodies were, you know, poked and prodded for diseases. [...] the

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J&J vaccine, I believe it was recalled and that's the first vaccine that they brought to our urban neighborhoods, so it felt as if that could have pushed our feelings as being used as experimental people again. Especially like lower income people.” (Naomi, G;15)

When asked about misinformation and their consumption of information around vaccines and Covid-19, some participants demonstrated less sophisticated media literacy and skills than others. For example, Rashida (G; 29) holds a combative attitude towards any construct that challenges her anti-vaccine views. Rashida mostly does her research on the Internet and reads what her network shares on social media like Facebook, TikTok, Instagram, and other communication apps like WhatsApp. The quote below highlights how Rashida slips into misinformation and conspiracy theorist opinions, which are often regurgitated in her network:

Researcher: “Is there a reason why you're not vaccinated?”

Rashida: “No it’s more so like I heard like a lotta research like can't have kids, and like I don’t know if I’m fertile or not, because I’ve never actually tried [...] So it’s like I don’t wanna chance that and that’s like my number one dream. [...] And I did my research [...] I’m like no, don't try to dismiss me because I did my research, and I know what I’m talking about. [...] My father arm still hurts, some people was complaining about headaches, throwing up, some people was complaining about they family was getting the vaccine and still dying from corona 2-3 months later.” [...] Some people die not even ‘cause of corona, but they say it’s corona, so I feel like to scare us to getting vaccinated. You won't scare me to get vaccination, you won't. I just hope this stuff not tryna put chips in us and I don’t want no chip in me for you to be knowing what I’m thinking about and all that other stuff.”

Rashida’s quote highlights a complicated negotiation between her class-race social positioning, and her resistance to it. Mediated by online information-seeking, her reflexive agency takes the form of epistemic resistance by ‘doing one’s research’ and valuing her way of knowing over that of the structures represented by White racist ways of knowing. The issue is when ‘doing one’s research’ hinges on being digitally literate, able to differentiate between facts, opinions, and misinformation, and being critical of the tools that mediate such information—which, as demonstrated here, most of the Conformists are not always able to do. It is an especially complex task for young people who are embedded in environments and media

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environments with internalized racial trauma and a legitimate mistrust of societal structures that have historically caused them harm, as is the case for Rashida and others.

Interestingly, even when young people, such as Marvel (G; 13) are reflexively agentic by ‘doing research’ to decide on where they stand on the vaccine debate, their efforts are often thwarted by parenting adults who hold negative beliefs on the vaccine:

“[...] At my school it was happening all day, you know like they were giving info about the covid vaccine every single class, they were giving a lot of information. I feel like some kids are like, well, ‘I wanna get vaccinated’ and their parents are like ‘why? blah blah’, like they wanna argue about it, their parents are just [unclear] so they’re like, okay, I won’t get it. Or their parents just don’t listen, ‘cause of the misinformation, it’s so much it seems like actual information to them, so they just don’t listen to [their children].”

These data show that even these young people’s families over-rely on social media for their information-seeking, and lack the basic understanding that, unlike traditional search engines that might pull from established sources (Center for Disease Control and Prevention, for example), social media is populated by user-generated content, which can be biased, misleading, or outright false. Social media is shaped by algorithmic decisions on what users see and do not see. This has major implications on learning and the shaping of personal beliefs and, in turn, health choices, as is the case in this community. This narrative of mistrust circulating in online media and the refusal to be subjugated to racial discrimination in healthcare amongst this and other BIPOC communities in the US, coupled with low vaccination rates, and high rates of Covid-19 infection, further stressed and perhaps disadvantaged those who are already strained by class, race, and other marginal identities.

It would be misleading to interrogate how the “micro events” (Davies, 2018, p. 2767) of ‘searching stuff up’ are shaped by larger structures of society, without also highlighting the Conformists’ resistance to said structures. Kelsey’s example below highlights resourcefulness in bypassing the limitations imposed by racially biased algorithms, in order to make a drawing that affirmed her daughter’s racial identity:

Kelsey: “In this [picture], Izzy lost her first tooth [...] so I look online and type every version of tooth fairy, like every work related to tooth fairy [...] just to figure out how to draw it in the best way. I also typed in tooth fairy, and Izzy is a Black girl, and so a lot of

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the tooth fairies that I saw online were White. I'm just like, no, Izzy is Black, and I want her tooth fairy to be Black, so I had to do more research online using Pinterest and Google to find the best Black tooth fairy that I could find, but then I ended up having to construct her myself using different things".

Figure 18 'Tooth Fairy' Art by Kelsey for Daughter's First Baby Tooth Loss



For Kelsey, learning drawing and painting techniques online is primarily how she improves as an artist. She uses Google search and Pinterest to collect drawing reference materials for her projects, in addition to YouTube and TikTok for inspiration. Search engines and social media here emerge as important learning tools for her. Outside of the context of education, but relevant to this finding are what Baker and Hawn (2021) and Kay et al. (2015) call 'under-representational harms' in search results due to inadequate training data of AI models. In education, Kelsey and her daughter's racial identity is rendered invisible by algorithmic systems,

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which causes harm in many ways. In this case, racial invisibility in search engine results leads to unequal access to information, resources, and tools for learning *for* and *about* Black people like Kelsey and Izzy. Using learning tools that are lacking in identity-affirming images can shape perceptions and reinforce stereotypes — and, for Black young people like Kelsey, this invisibility has real day-to-day implications which can ultimately influence self-perception and aspirations (Noble, 2018). Nonetheless, Kelsey in this case is exercising ‘algorithmic resistance’ by creatively constructing an identity-affirming image from various other “White tooth fairies” found on Google and Pinterest search results. So, the Internet here emerge simultaneously as ‘oppressive’ and ‘liberatory’, which is more nuanced than initially meets the eye when it comes to young people’s everyday media use and their learning lives.

Other pertinent examples where a lack of digital skills and/or criticality about the tools can coexist with resistance to the structures, is in the ways that the youth use technology to access their marginal identities (race-class) through information-seeking and learning about current events. Findings have previously shown that mobile phones emerge as the primary device for almost all participants. In their own words, respondents convey the emancipatory affordances of the Internet in being able to access information on their mobile phones quickly, freely, and from sources they ‘trust’ about issues of racial violence. In my interview with Jori (G; 11), she explains why she took a picture of a mobile phone with the provided disposable camera:

Researcher: “What kinds of things can you learn using a mobile phone?”

Jori: “You can learn like how people die or something like that, and sometimes—and it’s sad to know how people die, because, what’s his name, Thomas Jefferson? The one that has the house right there.. [She meant Frederick Douglas] someone shot him because of his race. [Frederick Douglas was not killed; he died of natural causes. However, he was a former slave, a prominent abolitionist and anti-slavery writer.]”

Figure 19 Jori's Mobile Phone as Learning Technology

Similarly, Libra (G; 17), explains how she uses her phone for keeping up with the news (relying on citizen journalism with similar epistemic sensitivity) in a way that bypasses mainstream media, which, in her view, does not always relay the full story about racial issues:

Libra: “My phone, I use it for the news, like I don’t wanna watch the news itself, but I will look and find out things on stuff [...] Like if a Black person got killed by a cop, we not gonna find out about the evidence on TV, but I’ll find it on Instagram! I find everybody posting and we get the real info on what really happened, we get to see the full video, we get to see the full reality of things, [...] I get to find out on my phone faster than I can get it on the news.”

Donny (B; 15) also described how he was confused about the social unrest following the death of George Floyd in 2021, because his phone was confiscated at the start of summer camp and “[the unrest] was happening at the time while I was getting back from camp, and I hadn’t had my phone or no type of social media, so I didn’t really know it sooner”.

In all three examples, having access to their mobile phones, the Internet, and social media apps like Instagram and TikTok seems to be an important part of staying informed on issues of interest to them as Black young people, including issues of race-class. Technology in this context plays an emancipatory role by facilitating access to learning about their marginal Black identities in ways that may not be possible offline, or via traditional media. It also emerges as an important

way to channel their reflexive agency in media consumption and, to a certain extent, engaging in sharing, online activism, and slacktivism.

4.3 Race-Class, Covid-19, and Learning at Home

The intersection of being Black and poor in Washington, D.C has implication beyond just the sum of both. The alienation of Black men from the family due to racial capitalism, the burden of care falling on women, higher rates of teen motherhood and divorce, and the complex living arrangements in which these youths find themselves have implications on their learning lives. This, I argue, creates a digital orientation that is unique to their intersectionality. Learning during the Covid-19 pandemic was more widely characterized by disruption, lack of motivation, distraction, and feelings of disconnection for young people (Longmuir et al., 2021), but for the conformists—a group most impacted by the racialized and classed effects of the pandemic (“How Teens Navigate School in COVID 19”, 2022)—this experience further pushed their learning lives online, ‘on-device’, and into their disadvantaged home environments.

According to survey data, 42% of participants live in a single-parent household, 29% live in a household led by a mother only (absent, deceased, or incarcerated father), 10% live with relatives and no parents (deceased, or unknown), and 16% live between households of various structures (divorced and remarried parents, with grandparents, stepparents, half and stepsiblings, etc.). At home, most Conformists lacked the support, structure, and physical space they needed to stay on course with their academic work. Their parenting adults and guardians often worked blue-collar jobs which were deemed ‘essential’ and required leaving the home—leaving the young people, quite literally, to their own devices. Chiana (G; 15) was “failing the first part of virtual school ‘cause I felt it like wasn’t mandatory, like it was optional, and I didn’t wanna wake up”. Samiyah (G; 17) found learning at home “kind of difficult because, I’m not gonna lie, I barely went to my classes ‘cause it starts at like 8 o’clock, I be still asleep”. Adeline (G; 13) recounts how learning at home was challenging for her because she was home alone during the pandemic:

“the problem with it is that one, I’m by myself, no one’s watching me, and there’s a computer there that has work for me, I’m not gonna sit with the computer that has work for me, [laughing] I’d bring it along with me, but then I wouldn’t listen to it. So, if the teacher does call, I can answer, but I’m not paying attention.”

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In addition to finding learning from home very difficult, Donny (B; 15) also must parent his younger siblings, with whom he was left alone during the school day:

Donny: “When I was first getting on [virtual school], I didn’t really know what to do”

Researcher: “Did the school have a session where they explained everything to you?”

Donny: “They did, but I was asleep, so I had to figure it out.”

Researcher: “Did your mom know that you were sleeping [though your classes]?”

Donny: “She wasn’t there! She was at work.”

Researcher: “Were your younger siblings also at home?”

Donny: [Laughs and nods yes.]

Researcher: “Were you responsible for them as well?”

Donny: “[Laughs] yes, they didn’t go to class either. It was hard tryna figure out, what— ‘alright, what’s your next class?’ Like getting everything all figured out, they [group] A they [group] B, they A they B. Uh it be confusing, especially for all of them. [...] Like I probably ended up in the wrong class like a lotta times. [...] I was hard waking up and staying up! Like just being in the bed while working, I go right back to sleep! I forget I’m in the class. I had to go to summer school ‘cause I kept on going to sleep in all my classes. [...] I failed art, and I almost failed PE, all my other classes I passed, barely.”

Researcher: “The teachers would they get in touch? When they realize you’re not showing up?”

Donny: “They will call me or text my phone.”

Researcher: “Okay. How about mom? Would they get in touch with her? Or stepdad?”

Donny: “I don’t even know, my mother never came to me and said anything to me.”

This example illustrates how Covid-19 exacerbated issues of learning for young people whose class-race and family dynamics were already stressed by macro structures. Donny and his siblings all had Chromebooks of their own and a dependable Internet connection—a technical fix—but lacked parental supervision and support to use them for their virtual learning—a largely social problem. Adeline and Donny are a couple of many children who were thrust into a ‘forced maturity’ to care for themselves and others, which they clearly struggled to do. Examples from other participants included preparing meals, “feeding and watching” their younger family members, and ensuring they were awake for the start of virtual school.

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The issue of family structure and learning at home was perhaps most starkly demonstrated in the lives of poor, single, Black young mothers, who had to juggle caring for themselves and their children, working low-wage jobs, and keeping up with the challenges of virtual school:

Kelsey: “school was all online, and it was very difficult, I don’t think I did well, because Izzy is at home and it’s very difficult to keep paying attention in class and I have to come out and I can’t stay to hear the full lecture. Or, if I’m taking my class and Izzy is already asleep by that time, I’m exhausted and I can’t really focus, I’m exhausted. So, my best time is like during the day, but then Izzy is up and screaming, constantly like pulling at me, or being needy or something, whereas during the night, I can’t keep my full attention because I’m sleepy. [...] I just really wish I was able to sit down and just only focus on school, also having to go to work tires me out a lot. That was pretty difficult, and I had to drop some classes because the workload was very stressful. I just I didn’t really do well in any of my classes, I couldn’t keep my focus, I couldn’t [sigh], I was just exhausted.”

Hannah (G; 16) is in a similarly difficult situation to Kelsey’s, but has family help with her son, which is a privilege Kelsey does not have access to:

Hannah: “OH MAN! That was the worst year of my life. Gabriel was so little, so it was just so tiring to have to keep doing this and that and then trying to focus, and then I fell sick because I usually stay up with my son so he can go to sleep. I usually try to put him to sleep but he don’t sleep till like 12 or something, sometimes I overslept, sometimes I didn’t show up to [virtual] school at all, it’s just a lot, like I literally almost stayed back. [...] [my family] always like help out and get him for a while so I can have that time to collect my thoughts, they sometimes, when I’m doing my schoolwork, my mom she would make him food and stuff, and sometimes my aunts and stuff they come and get him.”

The Conformists’ examples, whether home alone or with siblings and children, all point to the hardships imposed by the social and economic conditions which they find themselves in. Their learning lives and patterns of use, especially during a global pandemic, cannot be divorced from the limitations of these structures. Additionally, in-person spaces like schools, the ACC, are a necessity for many of these youths, yet Covid-19 disrupted the fabric of this community

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support that the Conformists depend on for academic tutoring, mentoring, and social support they do not receive at home.

Interestingly—as Hannah’s family example shows—privilege can exist within marginalization. Despite the overwhelming constraints that Covid-19 imposed, a few Conformists found ways to stay the course. Some “do school from your friend’s house” to support one another, and some for the first time had their parents’ support because “my mom’s job gave her online work, so my grades got better ‘cause I wasn’t distracted, and my mom was there to make sure that I wasn’t”. However, it is important to emphasize that, for the majority of them, the impact of structures in this context was too great to overcome by any means of individual agency.

4.4 Race-Class and Top-Down ‘Edtech’ Structures

4.4.1 *Youth’s Educational Needs vs. Top-Down ‘Edtech’ Structures*

Though [Appendix F](#) shows a wide range of practices participants engage in with ICTs, qualitative data highlight a more pertinent story. In addition to the low-quality of their ICTs discussed under ‘technology maintenance’ ([Appendix G](#)), findings show that the experience of learning with technology for the Conformists is one that is structure-led in a ‘top-down’ fashion, which is often disjointed from their ‘ground-up’ educational needs. It is an experience of ‘jumping hoops’, switching between platforms and devices, and resorting to haphazard ‘tool configurations’ (analogue, digital, and combinations of both) to reduce friction while they meet their learning needs.

The Conformists attend different schools, which each have different ICT infrastructures, strategies, and rules. What they all seem to share is their haphazard and ad-hoc employment of ICTs, as well as their expectation of students to navigate said patchwork of tools and rules on their own. To illustrate this, let’s consider the large number of commercial educational apps and platforms that students have reported using in their practices associated with formal learning in Table 3.

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Table 3 Commercial Educational Apps and Platforms

Category	Tools
Communication	Email, Google Meet, Zoom, Facetime, MS Teams, Group Me, WhatsApp, Remind
Managing School Work and Performance	Learning Management System, Google Workspace for Education (Google Classroom), Google Draft, Google Sheets, Google Docs, Google Slides, Canvas, Clever, Edumnaastic, Lastformath, Arvedi, MCPS Dashboard Calendar, Powerschool (Unified Classroom), Flipgrade (video platform to avoid writing), EdPuzzle, Discovery Ed, Kahoot, Fossweb, Edgenuity
Word Processing	Microsoft Suite, Word, Powerpoint, Google Draft, Google Sheets, Canva, Notepad, Cellphone note app
Information Seeking and Retrieval	Google search engine, Google Translate, Google Images, Youtube
Home Working + Supplementary Materials	Nearpod, Screen projectors, White boards, Acellerus, Duolingo, Socratic, Youtube, Google
Math Homework Help	Gothmath, Photomath, Calculator Soup, Brainly
Information and Data Management across Time and Space	Google Workspace for Education (Google Classroom), Google Draft, Google Sheets, Google Docs, Cell phone camera, Cell phone note app, Notepad, Quizlet, Online book summaries, Nadia

Qualitatively, their practices often look like using some or all of different apps available through their Learning Management Systems (LMS), commercial cloud platforms, school-based educational platforms, and commercial educational apps, etc. Take Sienna’s example (G; 12), who shared that her teachers “use Google Classroom everyday” but also use “Power School and Unified Classroom.” Similarly, Hannah (G; 16) described her practices as a mix of using “Google Classroom, or Remind, or Edgenuity [...] oh! And EdPuzzle.” Amira (G; 11) shared exasperation at having to use different platforms as “each teacher has a different one, and you have to keep going back and forth between all of them. It’s a lot.” Lastly, Naomi’s experience with switching between a Chromebook at home and a Microsoft tablet in school highlights her disillusionment with the “limited technical interoperability” (Pangrazio et al., 2022, p. 1) between the ease of accessing her Google Workspace Education account on her Chromebook and having to ‘jump hoops’ to do so on a Microsoft device:

Researcher: “Can you tell me why you don’t like [your school tablet]?”

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Naomi: “‘Cause normally you can connect like your Google email, but [this one is] Microsoft, and I’m not good with Microsoft, so I can’t find half the stuff, they be like open PowerPoint and I’m like [gaping] ‘where is PowerPoint’?? They’ll be like go find your student email and look at the stuff I sent you. And I’m like where is that?! So, it’s like the set-up, it’s really different for no reason!”

Researcher: “Is it different from the computer you have at home?”

Naomi: “Yeah, I have a Chromebook at home!”

These examples show how navigating school demands requires these young people to be adept at using different platforms and software, be able to access them on different working devices, and be aware of what schoolwork is posted where. This “back and forth” across a patchwork of different tools is burdensome, frustrating, and complicates young people’s learning experiences.

Participants reported a similar pattern of haphazard practices when it comes to the tools they use and the combinations in which they use them. Navigating a plethora of platforms and poor-quality hardware is further complicated by practices such as saving materials across seemingly arbitrary, volatile, and inconsistent combinations of analogue and digital tools, and redundantly accessing, completing, and uploading assignments using improvisational and convoluted configurations. Marvel’s (G; 13) example below encapsulates what most of them describe as their strategies with ‘doing’ schoolwork. Marvel’ involves reading a digital copy of a book, handwriting notes on a notebook, word-processing on a commercial cloud app or computer-based program, saving it as a PDF file, and, finally, emailing it to the teacher:

Marvel: “So, it would always be like a PDF book or something and [teacher] would be like get a notebook write down good evidence and stuff like that, before we write the essay, [...] so I always get a notebook and write my evidence and then I’ll write my essay but like on a computer.”

Researcher: “What do you use to type it in?”

Marvel: “Maybe like Google docs, or a Word doc.”

Researcher: “How would you share it then with the teacher?”

Marvel: “So I would download it as a PDF I think, if it was on google docs, ‘cause most of the times your just share it to your teacher’s email.”

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With storage scarcity being commonplace, time scarcity often further complicates their practices of working across digital and non-digital tools. Participants report taking photos and/or screenshots of school materials instead of taking handwritten notes. They report “taking photos because I didn’t finish on time” (Samiyah, G;17) because “if you didn’t have the materials you would just not be able to do the activity, so I take screenshots to be able to do it later” (Lady Maria, G, 13). They later “write it down by looking at it on my phone” (Maquita, G, 16) on their physical notebooks, as they feel anxious about losing the digital data when they need to clear out their devices to create storage space. They also shared that when doing reviews “the day before exams” they have to revisit “Google classroom [...] or sometimes it’d be in our notebooks and um, like it’s a lot of processing, it’s a back-and-forth situation” (Samiyah, G, 17). As evidenced here, participant practices seem to span a number of steps that are clunky and not always straightforward.

4.4.1.1 Analogue Tools as Compensatory Strategy

The data show that the aforementioned top-down power relationship meets resistance in an interesting way through the Conformists’ ground-up learning practices. Without closer examination, it seems as though using analogue tools is a preference for this group of young people—and it is in some cases. However, my analysis illuminates that analogue tools are largely a compensatory practice participants resort to as a result of the inconsistent, non-dependable, and complicated nature of their ICT/media (the patchwork). These analogue practices include using pen(cil)s and notebooks to take notes, completing printed homework or schoolwork sheets, reading physical print books and textbooks, and using physical calculators (see Figure 20).

Figure 20 Phoenix' Photograph of a Learning Technology

Participants rely heavily on analogue practices to “write things down” (Lucy, G;15), “copy what the teacher [wrote] on the board” (Edwin; B; 16), and “write it down multiple times actually, just to kind get it in my head” (Jaelle; G; 20). Likewise, handwriting on physical notebooks seems to be most reliable and the ‘work-around’ with the least barriers for retrieval. In this vein, Autumn (G; 13) reports that “I use a notebook because it's easier, because your notes won't get lost. You might delete it by accident but, the notebook, you can come back to later when you need help.” Amina (G; 12) also explains that “because you can't do as much as you want [on computers], there is a limit to what you can do and what you don't, because you don't have the things you would normally use in reality.” This ‘ease of use’ and seamlessness available through analogue tools, does not seem to be afforded to them in the same way through the ICTs they have access to.

Lastly, a number of participants have reported disengagement with ICTs, despite access, when describing their practices. Their attitudes and perceptions of ICTs’ usefulness to their particular needs seems to shape this practice. Hannah’s (G; 16) example below illustrates her ‘choice’ to reduce the number of steps required to meet her school responsibilities by disengaging with some aspects of the ICT patchwork. This example is pertinent because it highlights the entangled nature of digital choice and exclusion:

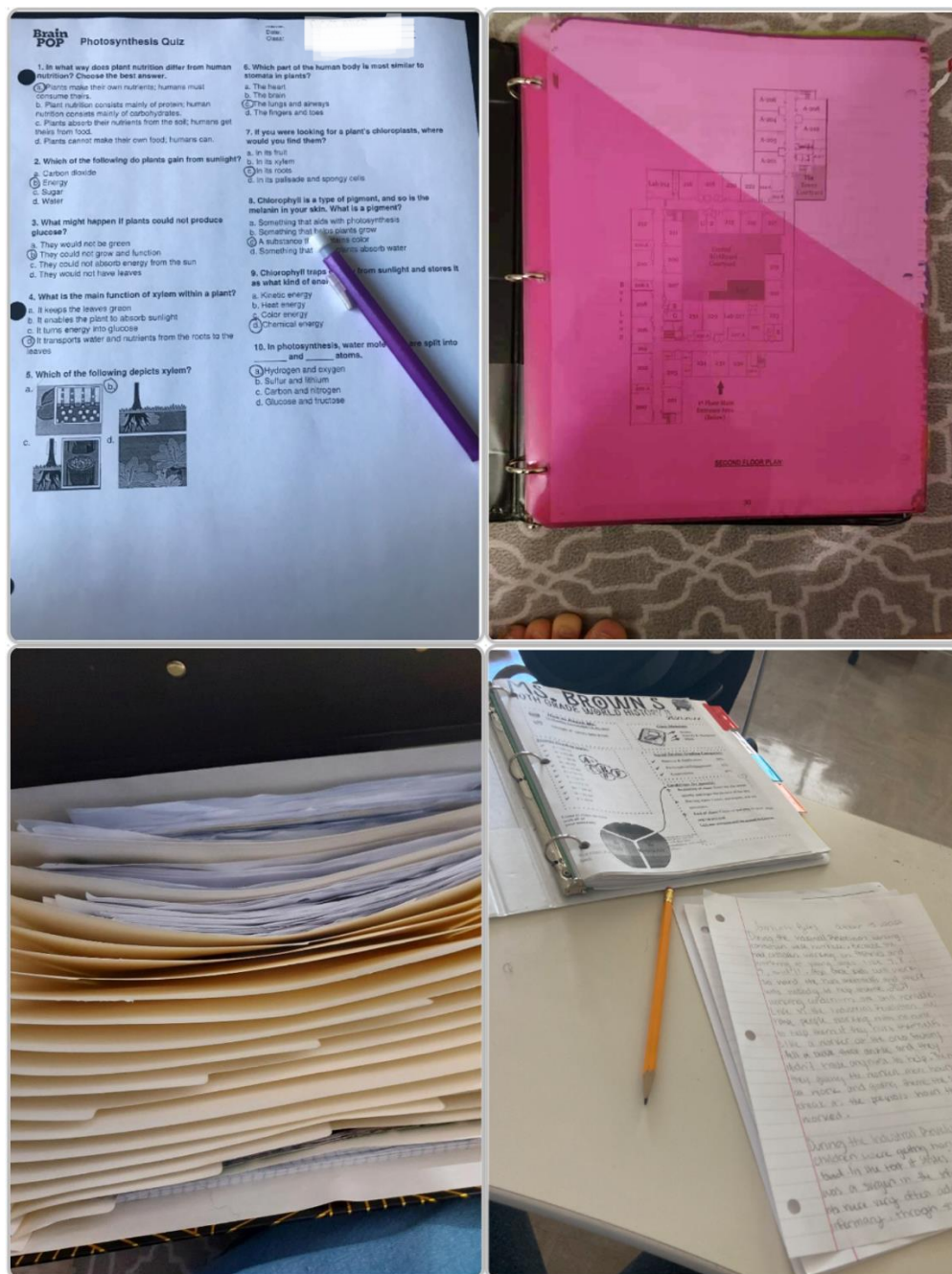
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Hannah: "I really don't like doing my work on computers, I'm more of a paper person. I don't like typing."

Researcher: "So if you need to do work on the [LMS] how do you go about that?"

Hannah: "I'll write it down, and I take a picture, then send it to Google Classroom"

Figure 21 Participant Photographs of 'Analogue' Learning Technology



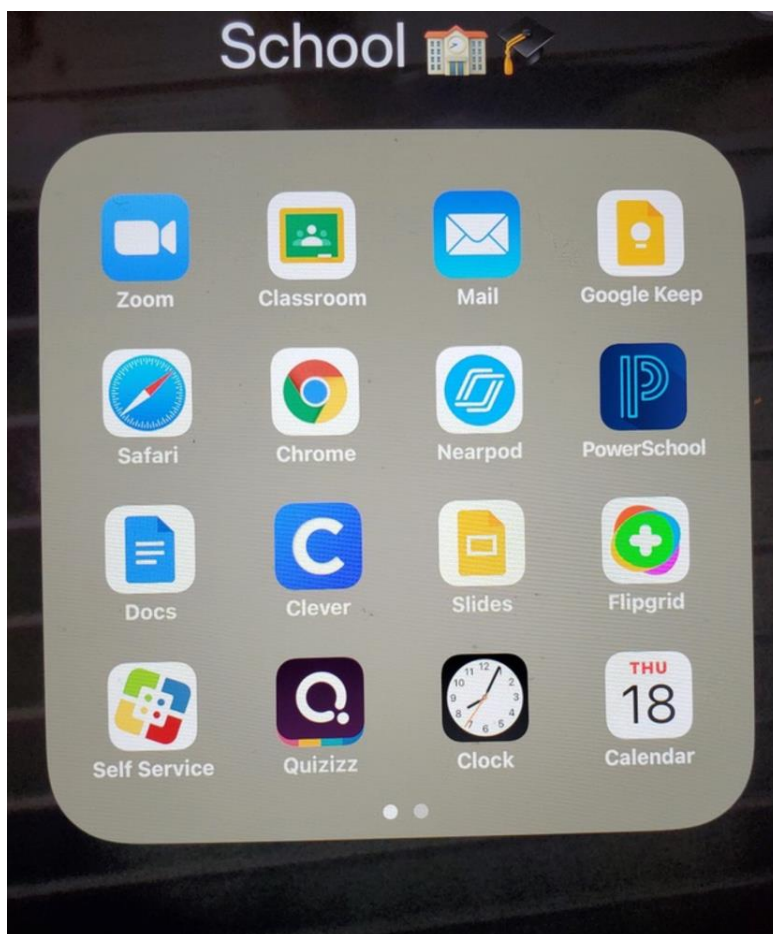
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As discussed in the literature review, ICT and Internet use is differentiated, and (non)use spans a gamut of different ways of (dis)engaging with ICTs. As such, these patterns can be a result of empowered ‘digital choice’, where users make reflexive decisions not to use ICTs or, ‘digital exclusion’ where the users’ (dis)engagement is complicated by the socio-technical conditions of their learning (Eynon & Helsper, 2011; Grošelj, 2021). In the context of the Conformists, I argue that participants’ heavy reliance on analogue tools does not seem to be an empowered choice but does not exhibit a complete absence of agency either. It is a complex and nuanced tension between individual agency and the broader social structures— a sort of structure-meets-agency “forced choice” (Eynon & Helsper, 2011, p. 6).

4.4.1.2 Structured (Top-Down), Instrumental, and Mundane Uses of Technology

Contradictory to most of the enthusiasm around industry-led educational technology and its dominant neoliberal narrative of innovation, creativity, and digital skills, the Conformists’ patterns of use are mostly mundane, instrumental, and limited by the institutional frameworks of the structures they inhabit—namely school and teacher preferences, their respective ICT rules and policies, and the affordances of commercial educational technologies. Their reported learning practices in photographic data and interviews predominantly reflected practices of managing the logistics of their ‘schooling lives’—not their wider ‘learning lives’. When the Conformists were engaged in interest-driven activities (entertainment, gaming, communications), most did not report it as part of their ‘learning’ practices.

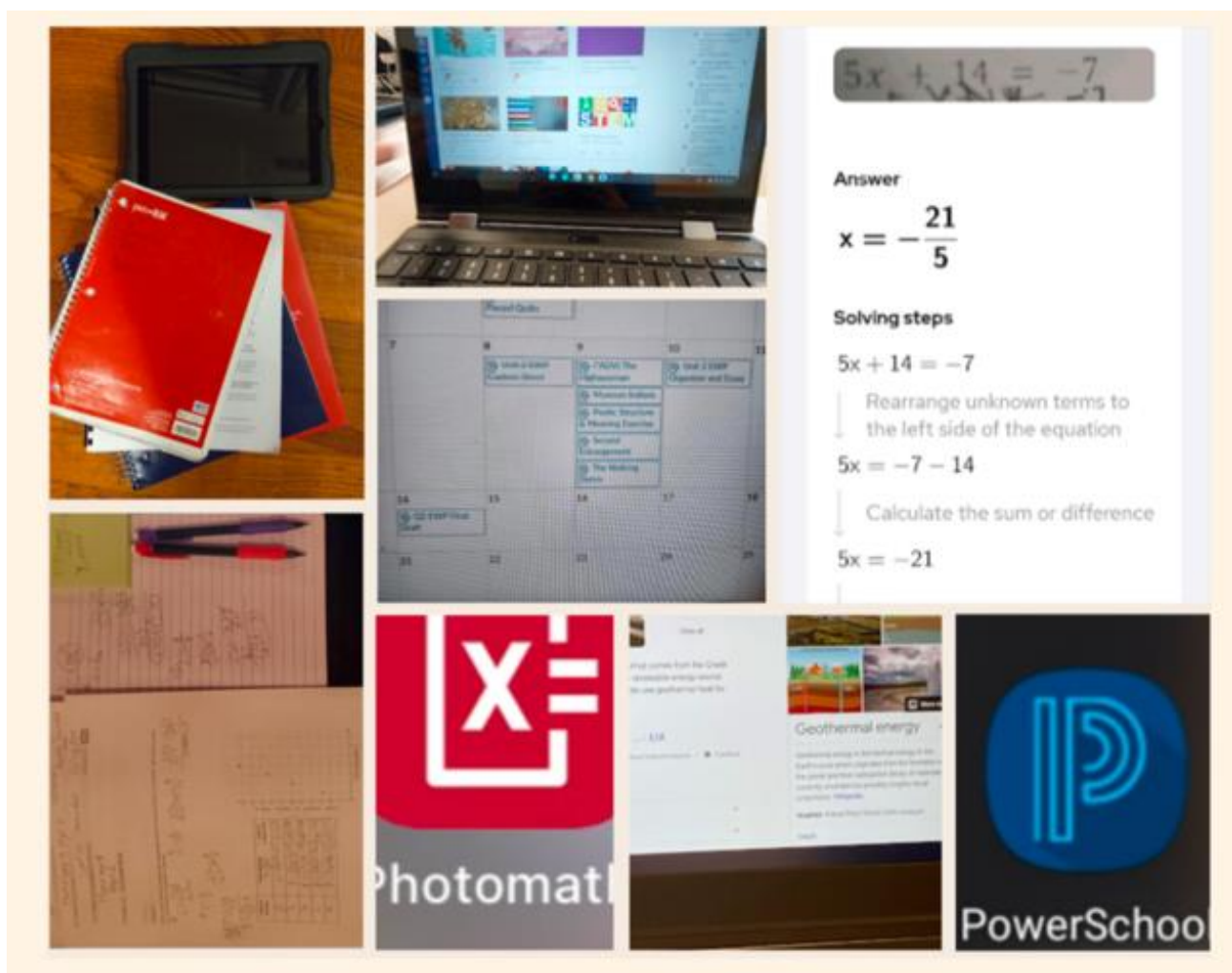
Despite the wide range of practices reported in the data ([Appendix F](#)), the majority of the Conformists reported a narrow set of practices which mainly involves managing the day-to-day responsibilities of school and monitoring school performance. These include home working, word processing, managing school work and school performance, information and data management across time and space, seeking math homework help, and information-seeking and retrieval. Participant photographs depicting activities associated with the latter include Figures 22, 23, and 24.

Figure 22 Participant Depiction of Learning Technology to 'Manage School'

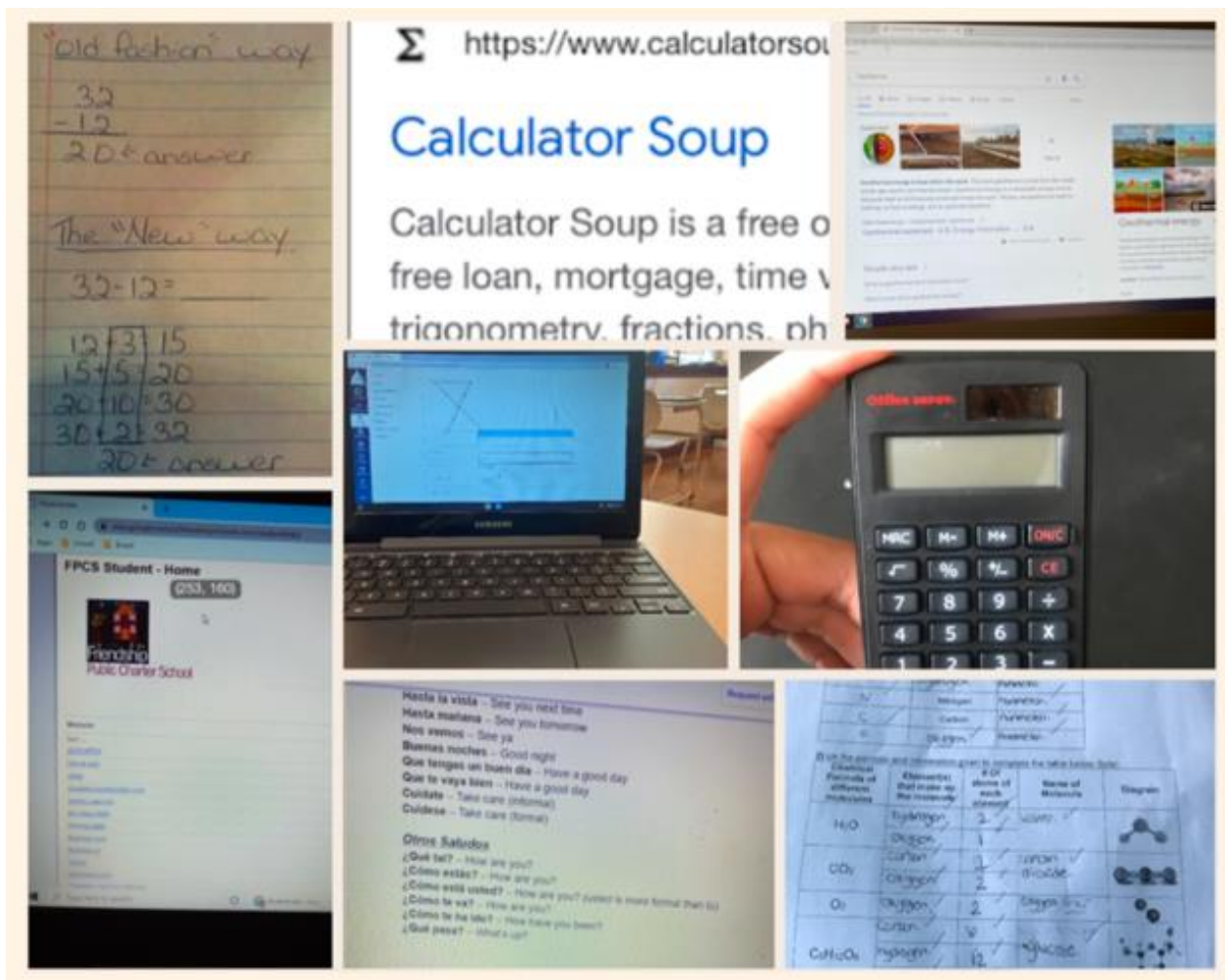
Some Conformists spoke of the “busy work” they must endure to complete their assignments:

Naomi: “So, you do the notes, but you have to watch the video, then you do master-checks, which is like to prove that you actually learned something. [...] the teacher be like ‘oh it’s so simple’, like I mean sometimes it’s not, ‘cause it kinda feels like busy work, I don’t really learn in that kind of environment”.

While others spoke dispassionately about the procedural digital practices imposed by their educational structures to “type the essay [...] and even if I make like a spelling mistake or grammar mistake it corrects me” and “the only time we on the computer is when we’re like need to do tests or like it’s like anything messing up on the board or anything like that.”

Figure 23 Participant Depictions of Learning Technology to 'Manage School'

Furthermore, a lot of their mundane uses of technology were in the form of using a computer (often a school-provided Chromebook) as a mere homework distribution tool. Participants often completed their work on paper sheets and submitted them in class: “Okay so, in physics, they give us homework like mainly on computer [...] but I do all my work on the sheet and all my answers too.” (Samiyah, G; 17). “I’m using my Chromebook because the assignment was on the laptop, but I just used it for the video, and I wrote the stuff down on paper.” (Chiana, G; 15).

Figure 24 Participant Depictions of Learning Technology to 'Manage School'

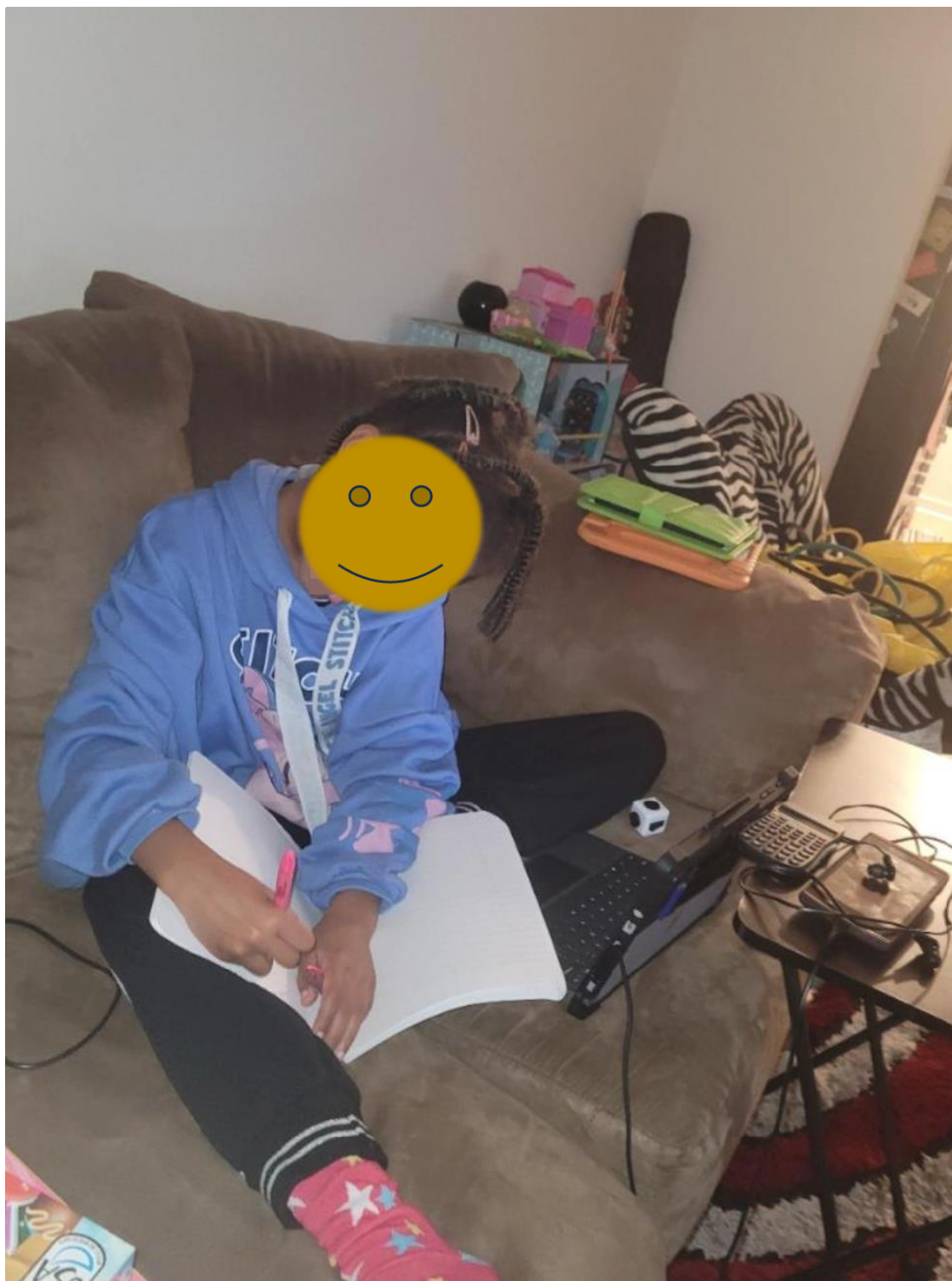
This passionless and procedural pattern is often further exacerbated when the poor quality of their access is accounted for. This is the case for many, but Amira (G; 11) uses her Chromebook merely as a homework prop as completing it online is not a dependable option for her:

Researcher: “Can you tell me what you were doing in this photo?”

Amira: “So, I was doing English homework. [...] so on the laptop is the questions, and the notebook is where I write out the answers for the questions.”

Researcher: “Do you prefer to write on the notebook or type things up on the computer?”

Amira: “I say write down the answers, [...] ‘cause like you don’t need no Wi-Fi to like put down the answer, and I don’t gotta worry about typing, mistyping.”

Figure 25 Amira's Learning Technologies

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In this process, there are conflicting strategies, preferences, and needs, and those of the teachers and the schools almost always take precedent— despite participant preferences or needs:

Ségolène: “My math teacher doesn’t really like us using our tablets in class, so we have to write [answers] out on the notebook.”

Marvel: “‘cause in my one class she really encouraged us to use Word docs, and so it saved to different computers, so you can’t log in. It’s on the actual computer. Yeah, so I couldn’t really turn in a lot of work from that class.”

Lucy: “[LMS] got 4 of my classes, I take 5, 4 classes but then it has only 3 of my classes, [...] because, for Spanish class, we only do uh, work on paper [...] It’s just ‘cause the teacher don’t want to do that [use LMS]”

These examples are but a few which demonstrate how race-class conditions (quality of access), and top-down expectations of ‘learning’ intersect to create a sort of ‘technical submission’ for the Conformists. While mundane and navigational practices can be an inconvenience to endure at best, it can indeed be a barrier to learning for many in this group. These “busy work” patterns or as imposed by schools and teachers come with the extra burden of charging, connecting to Wi-Fi, maintaining from breakage and loss, etc., instead of simply using what is most accessible in their particular conditions (paper-sheets and analogue). I argue that these passive patterns of use (orientation) are simultaneously a cause and result of this ‘technical submission’. In this sense, these data add to acknowledgement in the literature that “students associate digital technologies with managing the logistics of individual study and engaging with school work in distinctly linear and passive ways” (Selwyn et al., 2020, p. 10; see also Griffiths, 2012 and Deng et al., 2016 for similar work).

The Conformists, however, are not powerless and do exercise a great deal of ingenuity to resist the conditions they are subjected to. This resistance often takes the form of ‘gaming the system’ and finding clever shortcuts to complete their work regardless of ‘inherent’ learning. Their technology-supported practices in this case were often framed in neoliberal vocabulary conveying instrumentality of their learning processes towards a higher-prized outcome: “good grades”, “walking across the stage” (graduation), and “passing”. This was also often sanctioned by teachers, who are themselves subjected to compliance to their schools’ platforms and systems:

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“I just needed to answer that question that day [...] we could use Gauthmath [commercial app] for schoolwork as long as we’re learning about what we’re supposed to do” (Ségolène, G; 13) and “my teacher made us access this [Duolingo] account.”

Likewise, this top-down dynamic of learning about what they “are supposed to” and navigating what they perceive as tedious and pointless processes is seen in how Marvel (G; 13) navigates her English class homework by finding creative shortcuts on the Internet:

Marvel: “A lot of times, I am gonna be honest, I didn't really read the book, [laughing] I will read a summary about it, and I’ll be like oh, I’ll base my essay off this summary. And a lot of times, I’ll have to go into the book, to go into the chapter that we're supposed to be reading to just like find evidence, even though I didn't read [...] I go online and I put [name of book], and they have a link, and so the greatest thing about it is it has all the books, and it’s sooo good, it gives you the summary about each chapter and I was like thank goodness! I just feel like I can’t read [the book], this is just too boring. [...] I mean, I still passed the class, I got a B!”

Here Marvel’s agency lies in navigating the structure, not ‘overcoming’ it (as will be argued in the Hustlers’ orientation). This creativity and resourcefulness are channeled into the processes of passing grades and “the ‘job’ of being a school student”—as Selwyn and colleagues put it in a similar study (2020, p. 11)—not interest-driven or enjoyable learning per-se.

4.4.1.2.1 *Gendered Instrumental Digital Patterns*

In addition to being racialized and classed, this mundane and instrumental orientation is also, gendered. It is widely acknowledged that girls lag behind boys in numeracy and mathematics skills due to internalized sexism, gender stereotypes, and unequal learning opportunities (UNICEF, 2022). This is no different in the study’s sample, as the theme of math anxiety only came up with female participants. In their struggle with math as a school subject, the Conformists use digital tools to help themselves in ways that are uniquely and equally creative. Within the instrumental framework of a structured ‘edtech submission’, these girls find ways to resist via patterns of use which render technology rather liberating within the ‘technology for skills’ and ‘education for the labor market’ framework.

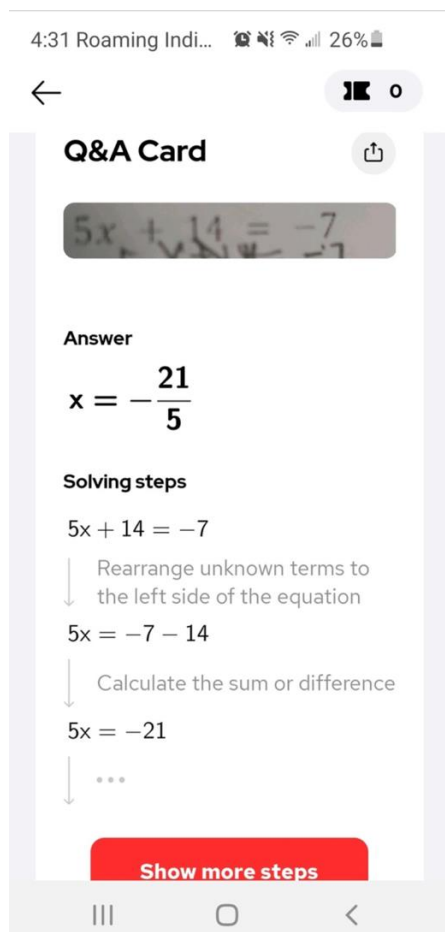
Ségolène (G; 13), Mackenzie (G; 13), and Phoenix (G; 16) use math helper apps such as Brainly, Calculator Soup, Gauthmath, and Photomath to solve their math homework problems,

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and speak about it very enthusiastically. However, in addition to the top-down structures they are already navigating, they come up against yet another one: data capitalism. As the quotes below highlight, these girls speak about the liberating affordances of math apps, including the combinatorial creativity of using more than one, but they are restricted to using the freemium versions, which limit their number or quality of submissions they are allowed for free:

Sékolène: “This is Gauthmath. It is a math homework helper, so up here I took a picture of my work, uh the question and then it tells me the answer and um, it show the solving steps [...] There are actual tutors that, they’re the ones that make the answers. [...] it’s free, but I think some things you have to pay for”

Figure 26 Sékolène's Use of the Gauthmath App



Mackenzie: “if you take picture of the homework, it’ll show you how to solve it, [...] and you only have a limited amount of things [submissions], and the other times it’s not gonna give you—it’s not gonna help you. You have to wait until the next day.”

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Phoenix: “Photomath! I’m telling you, man [claps hands] so okay, look, Photomath is better than Calculator Soup. So, you just kind of snap a picture and it does the whole thing for you!”

Researcher: “Why then would you use Calculator Soup?”

Phoenix: “‘Cause, look, like, you know, it’s different, you know graphing? They don’t got no graph they don’t got the little ratio thing like Calculator Soup does. Basically, they do but you gotta pay for it.”

Figure 27 Phoenix's Screen Capture of the Photomath App



Interestingly, examples of even more resourcefulness to ‘game’ both the school system and the premium requirements of the app can be seen in Libra’s use of the app Brainly (G; 17):

Libra: “I click on the [link] that gives me the answer! The app I was using to get through my credit recovery for science and math, I used this app called Brainly, and they would give you all the answers and the way they solve it and I’m like Thank you! I love you!! [...] you have to pay to subscribe, so I subscribed, until it was due for the next payment, I’ve cut it out, so I don’t have to pay no more, ‘cause I’ve done everything I needed to do.”

Researcher: “How much is it to subscribe to Brainly?”

Libra: “Well, it depends on if you want the good special, it’d be like 28 dollars, and I’m like that’s a lotta money, and there is 10 dollars for like 3 full weeks, for a year it’s like 30 dollars.”

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Researcher: “How do students afford that?”

Libra: “Well, sometimes teachers will give ‘em to them too, if they're really struggling and they need help. I just finesse, I just put in a card number that I know it's got no money on it right now, and then when they try to take it, just unsubscribe and then put in another one. I make sure it has like at least 5 dollars on it so they can fake take something. That's all.”

These math helper apps, though liberatory in one dimension (helps them navigate sexist schooling and social systems that stereotype them as less numerate), are, nonetheless, oppressive in another: requiring them to “pay up” to use these technologies’ affordances, thereby becoming precarious resources to be rationed or paid for with money or personal data.

4.4.1.2.1.1 Gendered Instrumental Digital Patterns are Exacerbated by Covid-19

The exodus from schools and community spaces into learning at home during the Covid-19 pandemic has had learning implications across all participants, but it was especially consequential for the Conformist girls who find math difficult. This group found themselves learning with low-quality computers and mobile phones, using unstable Internet connections, and learning in homes that often lack the helpful family structures that ensure they were on task, on time, and successfully managing their schoolwork. These unfavorable conditions further exacerbated their anxieties around math in ways that can be best summed up in Lucy's words:

Researcher: “What aspects of learning were frustrating for you during the pandemic?”

Lucy: “MATH! Math, algebra. Algebra was SO HARD. Doing it was really hard, I didn't speak up like when I needed help or nothing, it was just really hard to do.”

Researcher: “Can you tell me why you didn't speak up when you felt like you needed help?”

Lucy: “Because I felt like that's embarrassing, like everybody know everything in the class and you just be like ‘uh-oh, I don't know what this is’ or ‘I don't get it’.”

Researcher: “If you wanted to ask for help during zoom class, how would you do that?”

Lucy: “I would push the little raise hand button [...] if we type in the chat, everybody could still see it, but like we could just mention the teacher so she just know in case nobody paying attention [...] I feel like it just weird to ax people that already know like, I

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don't really get math very fast. It like takes time for me to get it, 'cause I find math very hard."

Attitudes towards math for girls like Lucy shape their agency around seeking the help they need, but in virtual learning and the different challenges it presents, it became even harder for them to help others help them given the complicated nature of asking for help in a class-wide open digital forum such as Zoom.

Math helper apps, however, were key for other girls in navigating some of the challenges of virtual learning. Chiana "almost stayed back last year" and "failed chemistry and algebra 'cause I stopped going on Zoom and all that, I was asleep, and I wasn't focused" but using Brainly allowed her "to make up for it" and be on track to "graduate when it was time for me to graduate on time".

In summary of this chapter's findings, the Conformists tended to be the most vulnerable to and the most defined by the constraints imposed by social, educational, and family structures. Data show how their practices and attitudes are racialized, classed, and gendered, and how they are shaped by economic (neoliberal) rationales in education as well as the constraints and opportunities of learning at home during the Covid-19 pandemic. Their digital practices and learning attitudes are instrumental, school-led and shaped by the top-down nature of the educational institutions they belong to, as well as their respective technology policies and infrastructures. Data also highlight how this group are more 'orientated' towards consumptive and leisurely digital uses and less towards cultural and digital capital enhancing practices. Despite experiencing technology as both a stressful burden they must manage in school and at home, and a procedural imposition that is largely disconnected from their learning needs, the Conformists show agentic resourcefulness and creativity that challenges the limitations of their social class in navigating the systems in which they find themselves.

5 The Hustlers

In this chapter, I present *the Hustlers*, a group of young people who navigate significant structural constraints by creatively engaging in what they refer to as their “hustle.” Hustling, as described in this chapter, is an orientation towards finding inventive ways to “do a lot with a little” (Robinson, 2014), subversively challenging the limitations of one’s social class, and resourcefully seizing opportunities to improve these conditions, despite circumstantial scarcity. The digital learning lives of the Hustlers are shaped by various intersectional axes, including race, class, age, gender, Covid-19, geography, body shape/size, neurodivergence, parenting status, home life, family structure, and care responsibilities. The Hustlers are self-directed learners and engage in enterprising practices as a form of adaptiveness to their various forms of exclusion from the formal education system. Their engagement with technology privileges uses of social media as ‘serious’ platforms for their learning, enterprising, and cultivating a network of peers, mentors, and role models as an extension of their offline communities. Hustling as an orientation, however, does not translate to circumventing structural limitations, as this group of young people’s realities remain rooted in intersectional forms of disadvantage despite their best efforts to enable themselves. This chapter also emphasizes the fluid nature of these orientations, as the data reveal that participants’ practices can exist in a space ‘between orientations’ resulting in participants who *Hustle to Conform* and others who *Conform to Hustle*.

5.1 Hustling as Self-directed, Informal Learning Practices

A shared attribute of this group of young people is the informal, self-directed, and independent nature of their learning practices. Their pursuits are often intentionally and reflexively curated to include various sources of learning, with and without technology, alone and in community. Autonomy, individuality, and resourcefulness all distinguish their practices and attitudes.

Tupac (B; 23) for instance, views his informal, self-directed learning practices of engaging in art programs at different nonprofit organizations, such as the ACC, taking Masterclass classes online, and extensive self-paced reading as his “education”. He shares:

“So [besides], the ACC, I’m also part of another program titled the Harmony Heights Music Industry Academy. [...] when it comes to providing us as artists with a music

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program, allowing people who are within the industry to come and speak to us in person or on zoom. Um, everything from learning about the business to learning about how to brand yourself as a artist. Of course, it is a different curriculum [from the ACC], but it is the same end goal. So that's really my schooling, I'm in different non-profits as a student, but I'm not attached to a specific university as a student.

Figure 28 Tupac Performing in Washington, D.C.



Similarly, Tupac elaborates on how he assumes responsibility for his own learning, emphasizing a proactive approach to his personal and ‘music career’ development:

“Okay, so these classes are very vital to my education pertaining to being an artist and musician, but [...] I’m definitely self-taught to where I use what I absorb here and through the other programs, but I also take in consideration that I won't learn anything if I don’t make the attempt. So when I’m not in class, I’m always — I read often, I read a lot actually, so, and the reason I read a lot is of course being a rapper, a wordsmith, I’m also striving to strengthen my vocabulary, I recognize the importance of reading when it comes to expanding my mind and expanding my imagination, but I also like reading because it’s just something I genuinely enjoy.”

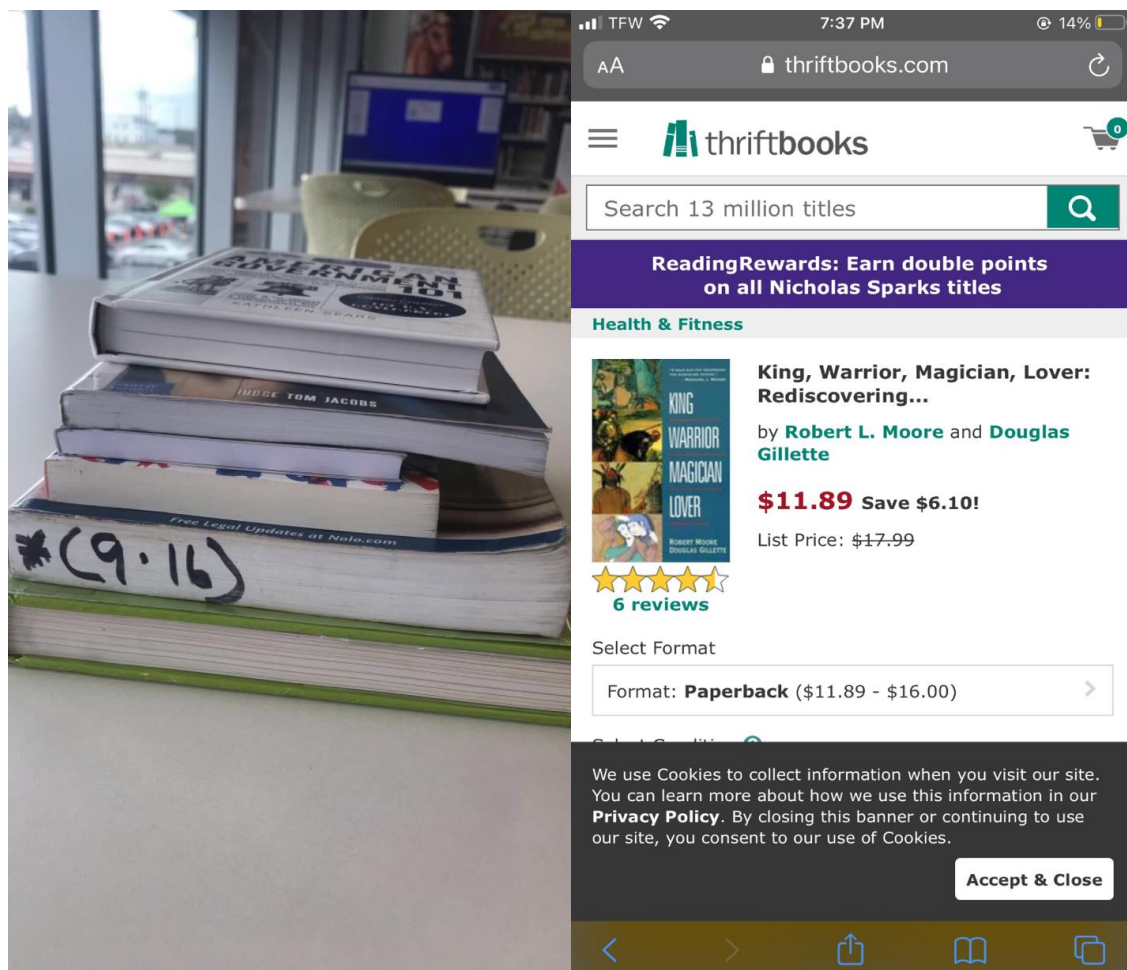
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Lastly, Tupac finds that taking online courses on Masterclass are a great addition to his curated learning toolbox:

Tupac: “[...] it’s only 5 dollars a month and apparently you have all of these big wigs within the music industry [...] I’ll be using the computer I have at home to take these classes, and just do extra work, and just learn, so I’m very excited for that.”

Thinker too (B; 21) learns “on my own pace, what I need” but also likes to “expand my mind on other things”, for which he uses free resources on the Internet, YouTube, and the local library to browse books and references on topics of his interest.

Figure 29 Thinker’s Books from Public Library and Second-hand Online Bookshop

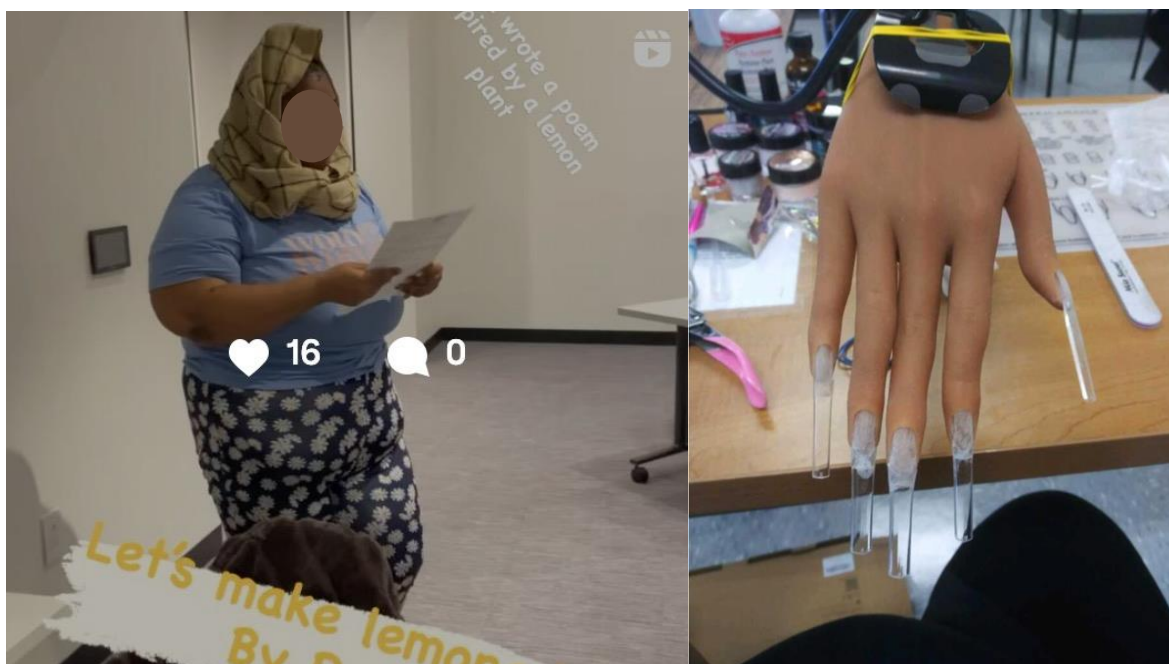


Rashida, like Tupac, is intently focused on curating learning experiences and activities that span attending art community programs like the ACC and Story Telling & Textiles (a local arts

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nonprofit), enrolling in adult learning vocational training, using YouTube, and volunteering at art events:

Figure 30 Rashida's Reading Poetry at Open-Mic Event and Nail Art Class Practice



Researcher: “You’ve done a lot of different things, Rashida!”

Rashida: “Yeah, [things] that’s artistic—my number one job that I wanted to do was fashion designer [...] It was my first summer job, it was sewing camp [...] it’s like a recreation center. But I always been into art, writing, stuff like that—poetry. [...]”

Researcher: “Do you ever take, like, in person art classes, other than here [ACC]?”

Rashida: “Only with the ‘Story Telling & Textiles’. We do art about global warming gender roles, we was doing poetry, after the first year and a half of Corona we finally came back this year. [...] so, we like um eat less beef, water, more biking and walking, less gas like riding, things like that.”

Additionally, one of Rashida’s learning resources, is the city’s vocational training program for young adults. She has enrolled in several classes overtime, gaining recognition for the skills she has developed:

Rashida: “I went to the Covenant House in DC, I didn’t go there for GED but I went there for like business, basically saying like you got customer service skills, I got my IC3

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basic computer skills certification there, like I got into a lot of different programs [...] It's free, I think it's an adult program, so I guess you gotta be 16 or 18 and older. Um, it used to go to age 24, but now if you like, you just wanna do you just come on. It's barbering, it's nails, it's lashes and it's hair and makeup [...] It's like 8 weeks over 2 and a half months."

Vocational education, in the case of Rashida, is one of many other online and community resources she accesses as part of her learning and hustle.

5.2 Hustling as Adaptiveness and Resilience to Exclusion

The implicit narrative of 'learning as a hustle' is the fact that it is an adaptive response and a resilience strategy to these young people's experiences of exclusion in and from structures of formal education. In their accounts, is a tacit sense of frustration and disillusionment with formal education's failure to meet their particular learning and educational needs. Coming from divergent intersectional starting points, they each have their own story of alienation and individual reasons for embracing the hustle. As such, their learning practices and attitudes reflect their varying stories of racial, class, and gender disenfranchisement but also creative and resourceful resistance.

5.2.1 *Exclusion from Formal Education on the Basis of Race, Class, and Gender:*

Tupac (B; 23) is a young man with the relative privileges of a stable home, a record of excelling in school, and financial support from his father while he pursues a musical career unburdened by the stressors of precarious employment. Tupac has had a brief experience with formal higher education, which he decided to leave behind in favor of focusing on his "craft". He recounts:

Tupac: "I did attend college. I guess you could say I did a semester, I did a few months. I attended [anonymized] State University umm full-ride, but it was one of those things to where I was open to going, I had an open mind, but I knew from the jump though that this wasn't the particular path that fit me, and I felt and I knew, and I still know looking back on it, that I was in school to please this whole perception or view point that others had about me, or pertaining to me. Umm whether it be the fact that I was a great scholar back in high school, and people view me as smart, uh, I felt as though that going to college was what I was supposed to do based off of how other view me. And I never really took

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the time to look within thyself and assess thyself. Mind you, art and poetry and words were still around during this time, but it just never, I never conceived the idea or thought that I can actually be an artist. I always was interested in the arts, but I never considered myself to be an artist [...]. But once I graduate from high school and went to college, that's when I had that moment of truth, realizing that I am not happy and I'm there for other people whose expectations I'm pleasing [...]. So of course I left, or as we say, 'I dropped out' in more blunt terms, I dropped out and I've been back home since."

Though, Tupac's household live significantly below Washington, D.C.'s Median Family Income, he had the relative privilege of choice, resources, and support to pursue higher goals that are distant from immediate necessity. He has had the privilege of a dual-parent household as a child, providing him with the stability and encouragement of artistic ability many of his peers in the community lack. As a young adult, Tupac has the additional privilege of being fully supported, living in his father's basement, and not having to pay for his keep. This freed him to focus on introspection, meaning making, and taking the (economic) risk to follow his dream of being an artist. Despite it being an empowered choice of agency, this nonetheless gave him the relative class privilege to renounce an otherwise-highly-desirable educational experience. He further elaborates on his relatively privileged aspirations for self-actualization, happiness, and self-expression, whose importance he gleaned from his dissatisfactory university experience, but also a conversation with his mother:

Tupac: "[...] but I remember one time talking to my mother about, you know, mom do you feel happy? Do u feel like you're living your purpose and you're living your destiny and you're doing what you love? And despite my mom being able to pay her own bills, and knowing that both of her children, my sister and I grew up to be the adults that we are, and her being able to take care of herself financially, she looked me in my eyes and said umm 'no, I'm not, 'cause I never really got to live out dreams or do what I really wanted to do' and I really, that was kind of like a moment for me, when she said that, 'cause it gave me the clarification that you can have all the superficial things such a good paying job, or a job that can take care of you financially, but if you're not feeding your soul then what's the purpose of it, you know?"

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Tupac came to develop his autonomous and self-directed learning hustle from a place of relative privilege. However, as most young people in the study, his full intersectional location paints a picture of coexisting privilege and marginality. Tupac's choice of 'dropping out' of formal education has indeed been a difficult and alienating one:

Tupac: "I left, and I've been home since, and of course, I dealt with my depression and ups and downs because I did deal with—not by my mother and father necessarily—but by my church, I dealt with church members that were like 'what are you doing back here?', or 'why are you here?', and feeling like I let them down because I left school. And then I would explain 'oh yeah, but I'm doing RAP now, I'm doing music now, I'm doing such and such now, and they'd be looking at me like 'so? Okay? What's that gonna do? So how are you gonna be successful with that?' So not from my parents necessarily, but I definitely faced a lot of resistance from certain individuals [in the community]"

The predicament Tupac is describing shows the community pressure he is facing for choosing to leave formal higher education. This pressure stems from expectations to conform to established conceptualizations of what constitutes 'an education' and what constitutes a 'successful career'. Not valuing the arts as a legitimate career path and not considering informal learning a viable alternative to achieve a career in the arts — or any career at all— is too narrow and restrictive a conceptualization for Tupac, who embraces a much more expansive view of learning, working, and achieving economic wellbeing.

This alienation is brought to an even sharper relief when examined in light of Tupac's intersections of race, class, and gender, creating a unique location of simultaneous privilege and marginality. Tupac's being a learned young Black man in a poor community, comes with a heavy burden. He is widely respected and admired in his community for being an educated, achieving, and talented young man. This is especially celebrated in the context of his gender-race-class intersection, where Black men, more likely than not, come in contact with and are over-represented in the criminal justice system, and never finish high school. Tupac knew he was disappointing many who saw him as a potential role model for other poor Black youth in his community and a representation of Black success in ways that are often reserved for the dominating race-class.

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Similarly, receiving a full scholarship to attend a higher education institution is an unusual achievement for Tupac's particular intersectionality. Turning down this opportunity is disappointing and perplexing to his community — even more so when it is to pursue a career in RAP music. A career in the arts is considered risky and alternative enough for non-marginalized individuals, but a career in the RAP genre of music for a young Black man, perhaps carries a great deal of negative stereotypes plaguing poor, Black, young folks including violence, drug use, misogyny, and materialism, which make his choice even more controversial to those who wish for him a more “respectable” and stable career (Higginbotham, 1994, p. 187).

This is a great amount of responsibility and pressure often experienced by people, like Tupac, who defy their ‘decreed structural position’ and aspire beyond just distance from their group’s stereotypes. Here, Tupac’s exclusion from the structures of formal education is a conceptual one. He is a brilliant scholar, but his aspirations lay outside the confines of formal education and conventional higher education-to-employment pathways, or what he labeled as “the 9 to 5”. More broadly, it is important to highlight that the alienating pressures exerted by his community are only a reflection of the wider structural constraints around what constitutes an education worth pursuing, a wide disinvestment from vocational education in the US, and scant investment in the arts and art education in general. Of course, the choice of dropping out, which cost Tupac mental ill-being and threatened his sense of community belonging, is precisely that which he has the privilege to exercise his agency and reclaim, and what makes it an empowering and an empowered choice for Tupac.

5.2.2 Exclusion from Formal Education on the Basis of Race, Class, Gender, Family Structure, and Care Responsibilities

Tupac’s lived experience can be contrasted to that of Rashida (G; 29), who shares similarly informal and self-directed practices and attitudes, but inhabits a different ‘intersectionality’. Unlike Tupac, Rashida has what seem to be far more precarious socioeconomic conditions: a fragmented and complicated home life (from which she once ran away), a history of physical and gun violence in her community, a history of drug abuse in the family — to which she lost her mother and was expelled from high school for not being able to cope — and, lastly, living with and caring for a sibling who has a progressively debilitating physical and mental disability. Rashida’s intersectionalities (class-race, gender, family structure, and care responsibilities), I

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argue, shape the way she engages in the hustle in ways different from Tupac's and others, and are far more marked by immediacy and necessity. Learning as hustle, then, emerges as an interesting resistance and resilience response to Rashida's alienating structural conditions.

Though both Tupac and Rashida have dropped out of formal education, their reasons and stories of alienation are different. Tupac chose to forego a formal higher education degree, whereas Rashida faced difficulties staying in high school and lacked the necessary support for a child her then-age to complete a formal high school education, let alone pursue further studies at the university level. Below, she first shares with me the complexity of her family structure:

Researcher: "Is dad in the picture?"

Rashida: "Yeah, my father was the glue, my mother was a pimp y'all [...] my mother did my father dirty; it's like uh, okay, my father was with somebody before [...] he had his first child at 17. Um, I don't know what happened—some little bits and piece he didn't tell me—but I got a older brother, my sister is about to be 43 [...] umm my brother has to be 49 so. whatever happened with their relationship happened with their relationship, my mother and father got together had my sister, they broke up a couple a years later then down the line when my sister was 11, she had my brother she had my other brother by somebody else then them two got the same father, and then she got back with my father, had me, but he raised all of us or whatever, you know, they father was like, you know, in and out or whatever, so like he literally raised all of us, you know, once they father came back, he gave my father his handshake. He was like 'thank you', my brothers always look at my father like 'you was there for us, you raised us' type thing."

She then elaborates on how, over the years, her family structure had been fragmented, and family members passed away, which narrowed down her support system to just her brother and her father:

"Umm my mom is in heaven, my cousin in heaven, my other cousin just went to heaven, so it's just—it be really just be me and my bro' for real for real. My other two siblings they [are not around]. Friends are more our family these days."

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Thinking of housing as a cornerstone class issue for many Black Washingtonians, Rashida shares with me the difficulties she and her family encountered in securing safe, affordable, and stable housing:

Rashida: “We all migrated back to my father house when my mom passed away. So, we all was still in the same, just one bedroom. My sister and my two brothers in the back, and then my father in the living room. [...] a bullet went through our house twice, they said because it wasn’t targeted towards us, there’s nothing they could do about it. What?! So, I have to die for y’all to move my father? I’m gonna move with him, I don’t wanna go to heaven! [...] so that’s what really made me be independent—I said, look, I need my own place ‘cause my father was like ‘I’m moving to a senior citizen [home], I don’t wanna deal with these no more, but, baby, you know you can’t move with me to senior citizen, so...’”

Against this background of precarious housing, family instability, and loss of a parent, Rashida helps me understand how these conditions at home played a role in her struggle to remain enrolled in high school:

Rashida: “Okay, so when my mom passed away, like I was skipping school, I didn’t just drop out of school right off the bat, I skipped school, I was like my mom not wake me up, kiss me, tell me to go to school every day then I’m not going.”

She describes her unsuccessful attempt to remain in school as a result of the hardships of her home life—despite integrating a special program in her school for at risk youths called ‘second chances’:

Rashida: “You could skip a grade through the middle of the year, and you only got 2 classes a day from 3:30 to 6:30, so I was going to that or whatever [...] um, my siblings and stuff wasn’t home, so I stopped going to help my father and I got put out. If you, like, miss more than 3 days you get put out, so I got put out. [...] I mean, I wasn’t slow, me and my brother that I live with, we are two smart kids. I just didn’t like school.”

The rigidity of formal education is alienating to young people like Rashida who, despite their best efforts, struggle to remain a part of it. There is no place for them in the formal structure, so they are forced to find educational opportunities outside of it. Rashida, after regrouping from her

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mother's death at 15-16 years old, found that pursuing and, eventually successfully completing, the General Educational Development Test (GED) was much more accommodating to her unique life circumstances. The GED consists of four subject tests that, once passed, earned her a high school equivalency credential:

Rashida: "I had this bad crazy dream [...] and my mother cussing me out, telling me what am I doing with my life, I did not raise you like that [...] she was like look at me I died young, you could do everything I didn't get to do so you need to finish school and do what you supposed to do [...] 'cause you only got one life to live. and I just woke up and I was crying with a snot like a little kid. I just need to get myself together, so I went and got my GED, and I walked across the stage."

After having this reckoning, Rashida explains how the GED structure and community were much more suited to her needs and life circumstances. However, she was also highlighting how teen motherhood can be an additional burden for young women, who, not only have to cope with poverty, family instability, abuse, and living in high-crime neighborhoods, but also alienation based on gender and parenting status. This alienation takes places in even the most flexible educational structures available to young adults in her situation, such as the GED:

Rashida: "my best friend was in the [GED] program with me, but she end up getting put out because her mom wanted to her to finish school but wasn't doing nothing to help, like she had just had her son, and her mom was like I'll watch him for you, but then that was a problem, so it was like some days she was missing classes, so she end up getting put out"

It seems Rashida's teen friend does not have adequate support with her child at home and is being alienated by the GED program structure. Like Rashida's expulsion at the heels of her mother's death, this teen mother is "put out" for not being able to keep up with her classes because she must care for a young child. This issue is considered an individual shortcoming and not one where social structures play a pivotal role. This is alienating to young women like Rashida and her friend who lack a safety net to pursue an education with support and dignity.

Even after successfully overcoming many of her circumstantial barriers to education and receiving her GED, Rashida tells me her home life continued to be precarious, which led to her

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running away and – unlike Tupac – not having the relative privilege of resources to consider further education:

Rashida: “After I finished the GED, I ran away to California [...] we was going through things with our parents so I was down her house for like the last 3 months, our friends still was planning we was gonna leave, me and my father, my other best friend has just gotten into a car accident August, so I had a \$1200 coming from that, plus tax money. I had 600 in tax money, her tax money came, so we really left, we really said F everybody and left [...] we was in the shelter, there’s this other house [...] even if you’re in a shelter or not you could still go there and get food, so we used to see like the other homeless kids that didn’t had no place.”

Researcher: “And how long were you away for?”

Rashida: “Six months, I came back middle of May [...] and walked across the stage. Yeah, I had already passed [GED] and you gotta pay to go to graduation once a year in June.”

Vocational education (also known as trade or adult education) for young people like Rashida, plays a significant role in bridging the gap that formal education leaves unfulfilled in their learning lives. Access to vocational education that is free of charge, fully flexible, and accommodating of young people with various home lives and life situations is especially important. An educational experience accommodating enough to not ‘put them out’ for absenteeism or any of their unique and marginal life conditions. Rashida makes this point clearer with regards to cost and flexibility:

Researcher: “How did you help pay for the program?”

Rashida: “Everything was free, DC has a lot of free programs if you’re a DC resident. So that was free, I was just allowed to go and participate and all of that, come to class and stuff, I won’t get put out, you feel me?”

Again, unlike Tupac, who reflexively chose to forego a successful traditional educational path to hustle for his dream of making art, the hustle is Rashida’s only option. Likewise, unlike Tupac’s conceptual alienation from formal education, Rashida’s exclusion is pervasive, oppressive, and more immediate.

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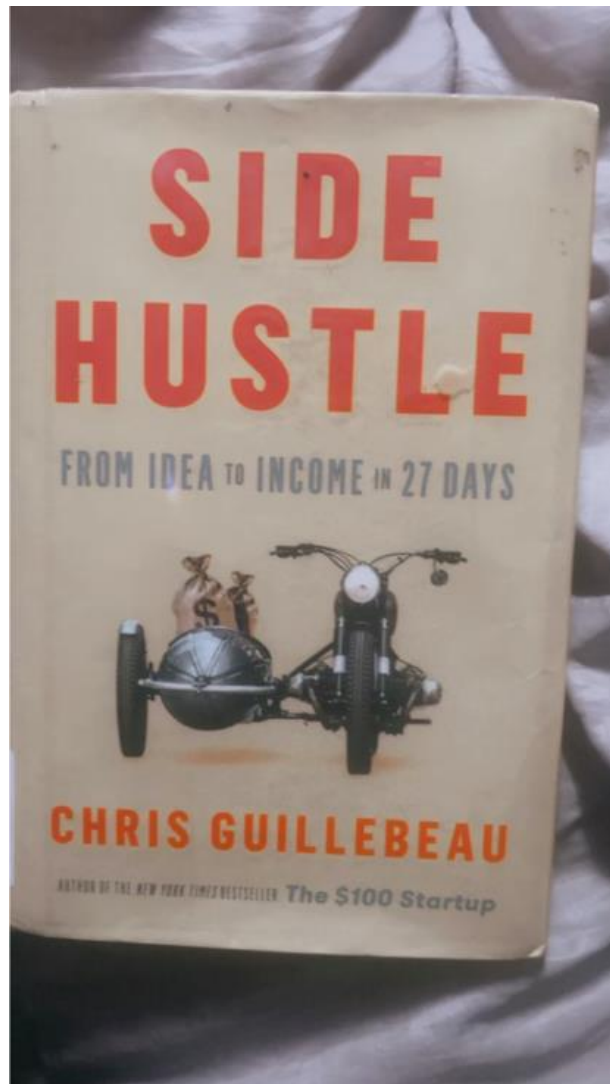
On the other hand, in keeping with the essence of the hustle, Rashida prides herself in being able to push against the confines of structure. As previously discussed, the hustle is an orientation, a mindset of resistance, resilience, and creativity. Rashida's attitude embodies it:

Rashida: "So, you just gotta keep your spirits up and keep the energy rushing and popping and just be that Diva or that artist or that nerd or, you know, that adventurer, just whatever is on your mind just do it push for it, don't have no setbacks, don't have no holdbacks [...]."

Interestingly, by virtue of the hustle, young people like Rashida and Tupac are, at once, being alienated by and walking away from formal education. Coming up against an educational structure that does not consider their particular and unique intersectional conditions, they exercise a great deal of agency in resisting and trying to circumvent it, regardless of how successful they might be in actually doing so. What is important to the study is the mindset adopted by Hustlers in the process of this alienation/resistance. It is both exclusion and resistance to said exclusion which shape the experience of learning as a hustle and attempting to find a way 'beyond' structure.

5.3 Improving Economic Class as Motivation for Learning and Hustling

Hustling involves finding creative ways to do "a lot with a little" (Robinson, 2014), beating the odds, and resisting the finality of one's social condition as presented in Tupac's story. Hustling, however, in its most immediate form, also involves making quick cash 'right-here-right-now', seeking get-rich quick schemes, and emulating celebrity hustlers such as the author of the book *Thinker* pictured in Figure 31. For some, hustling involves cobbling together an income in any way possible, making do with multiple casual jobs while learning and figuring out how to bridge the gap between their business and career dreams and their realities of scarcity.

Figure 31 Thinker's Favorite Book on the Hustle

Despite hustling being motivated by generating income for most Hustlers, participants come to it from very different intersectionalities. As Tupac's story demonstrates, immediate economic gains are not always front and center for the adoption of the hustling mindset. Tupac's provided-for simple artist's life revolves around hustling to be recognized and known as an artist. Any hopes of generating income from his passion of making music is relegated to the future. However, immediate economic gains and changing one's class conditions is a significant driver for others who seem to experience more immediate economic need such as Thinker and Rashida—and their digital learning practices do reflect it.

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Similar to Rashida and Tupac, Thinker (B; 21) has his own story of exclusion from formal education. His is particularly shaped by race-class as Thinker mentioned a music degree a few times in his interview, and when asked if he is pursuing or wants to pursue one, he replied: “No, it was a school called Omega Studios, and I went up there to do an interview, but it was out of my budget, so I kinda declined it.” Instead of pursuing further education, Thinker, as will be shown below, is very focused on hustling and generating income as a means of changing his class status.

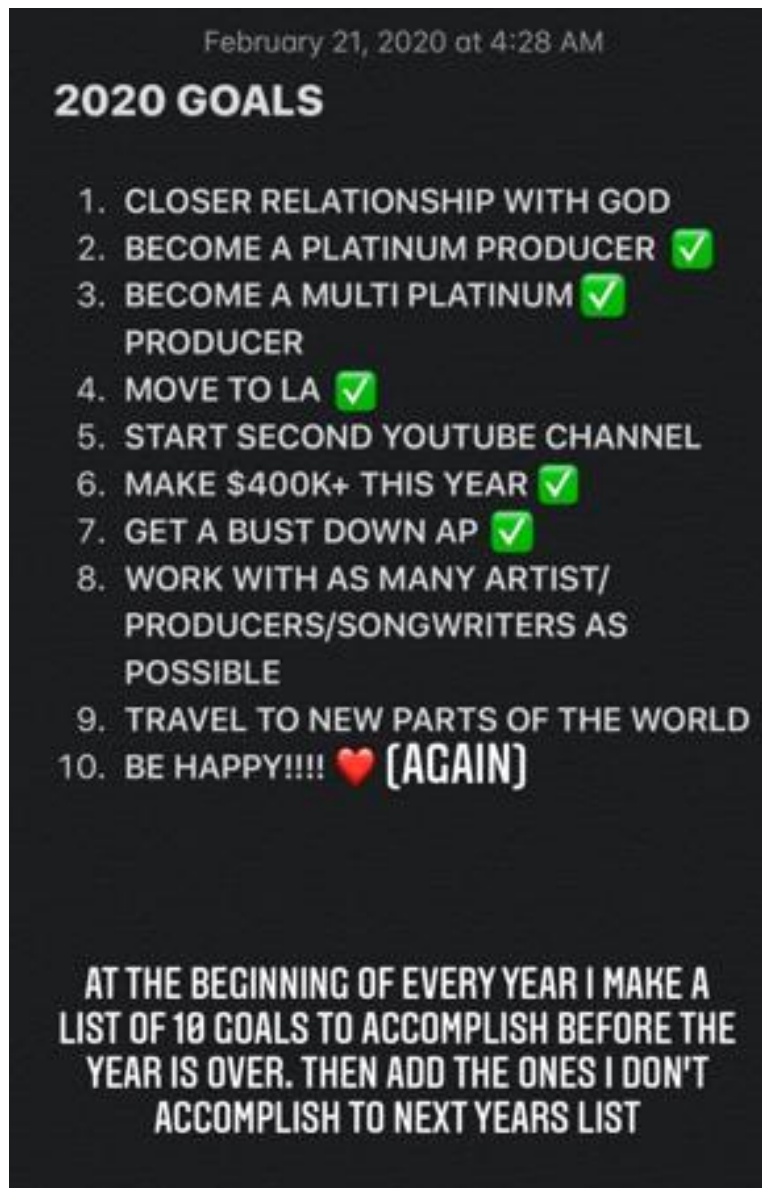
In the pursuit of their respective hustles, participants have big dreams of creating businesses and making money. They also have big goals to match. Thinker, for instance, fervently spoke about his music production business, and shared a screenshot (Figure 32) of his guiding goal list for the preceding year, detailing his ‘money’ goals which he hopes to achieve as a result of producing music and working with other artists:

Researcher: “I’m curious, why did you capture your goals as part of this exercise on learning and technology?”

Thinker: “Because I took a screenshot of my goals and put ‘em on the back of my phone so I could wake up to it every day and I could read it, and I mark off what I’ve accomplished already. Well [I haven’t] become a producer of a platinum record, I don’t know what I’m recording now but it [could be become a platinum record] that’s why it’s checked off. [...] and I haven’t moved to LA, but I’ll visit LA and make \$45000 I’ll make \$45000 that’s a good check.”

Researcher: “Is it nice to aspire? It helps you get into that mental space?”

Thinker: “Yes, that’s why I have all my income, I feel like - probably over the years I probably had made \$4000, but as in right now, [...] I feel like I haven’t but then don’t, ‘cause it probably be all separated everywhere else. But I would bust out EP, I would definitely [get there].”

Figure 32 Thinker's 'Money' Goals for 2020

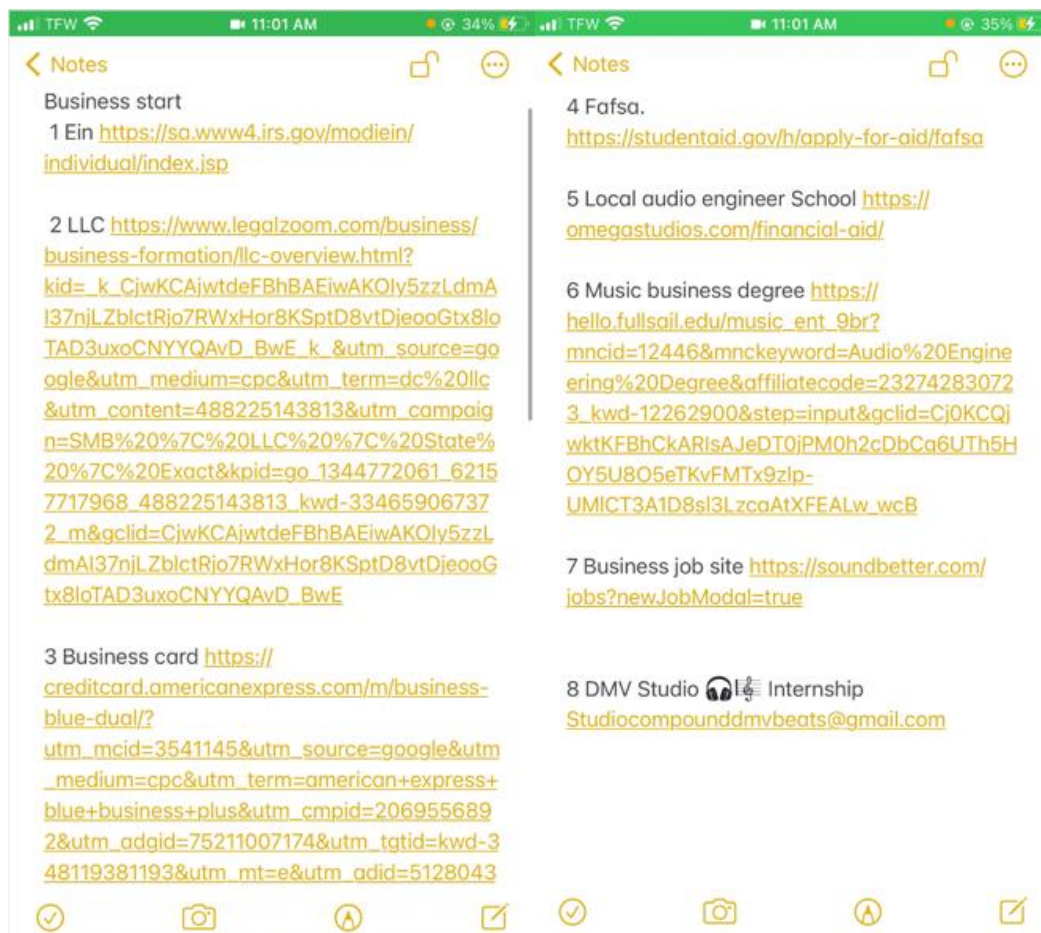
Contrary to the backdrop of his big dreams of income and fame, Thinker's day-to-day reality, tells a story more anchored in his disadvantaged race-class intersectionality. He works part-time at a chain coffee shop which he does not enjoy, and shared that he often sells snippets of curated information, know-how shortcuts, and listicles online to make money:

Researcher: "What are you on the most when you use technology?"

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Thinker: “I mean I try to, like, make a profit, on to the next. [...] I just wake up I just scroll down, they’d be times where I check SM, if not, then I’m picking up on another site and try to make a profit. I mean, mostly probably a more finance [unclear] Robinhood, cash app, PayPal, current, uh, Beatstar Studios [...] something that’s quick and like I sell this to someone that wants to start, so I sell it for like \$5 for a quick start. My notes, I sell ‘em on OnlyFans, so this is the description, so I try to make a profit over there too. [...] if people pay \$5 to get knowledge that’s useful to make profit or income.”

Figure 33 Thinker’s Curated Information Note Sold on OnlyFans

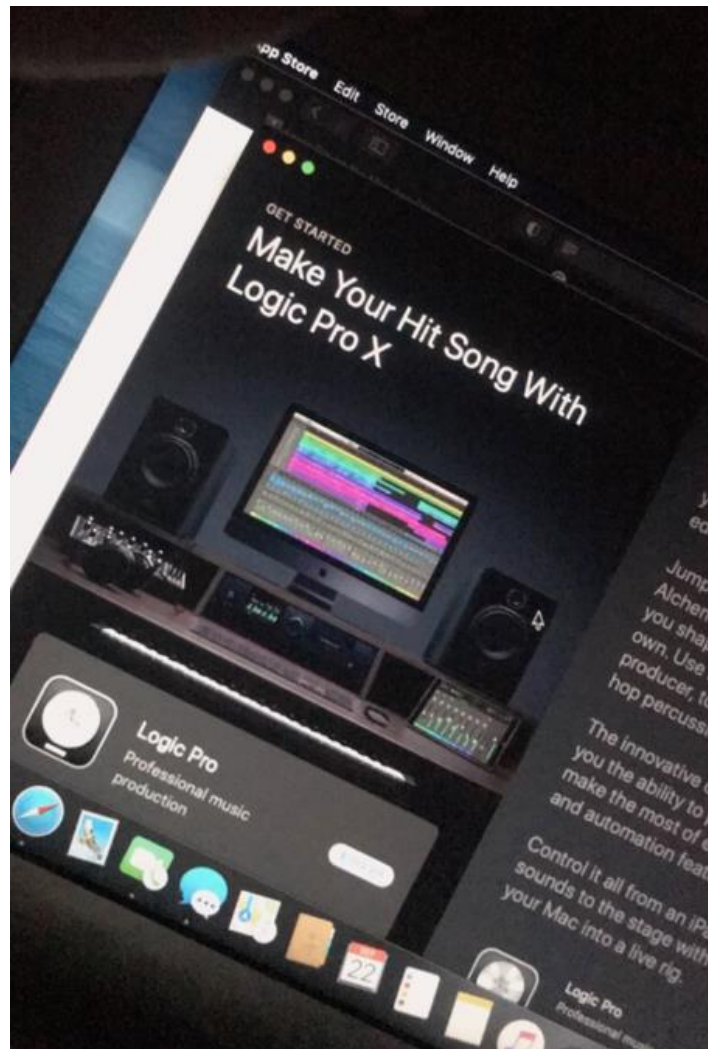


Thinker also explained his motivation to learn making and selling beats online, growing his income, and moving away from the small audio engineering jobs he usually performs to “moving up to full production - basically making beats [and] creating the beats.”

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In his enterprising spirit, Thinker considers a pricey \$200 software purchase he has made on a music production software (Logic Pro in Figure 34) an investment in his budding beat-making hustle. He is learning to make and sell the music he produces to turn a profit. He claims that “this is another way I make money too” and though the price “was too much”, the software has already “pay itself off”.

Figure 34 Thinker’s Logic Pro



A similar focus on generating income and building a business is shared by Rashida (G; 29). The focus on changing her class conditions is very palpable in the two interviews we conducted and, more concretely, in the visible conditions of her subsidized apartment in one of the most under-resourced neighborhoods in Washington, D.C. She gracefully invited me home to conduct

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our second interview while she braided my hair, I took notes and recorded our conversation. In the spirit of the hustle, Rashida explains to me the idea behind her budding enterprise:

Researcher: “I know you’re doing hair and art – do you also sell your art?”

Rashida: “Yes ma’am. It all depends, I guess if I was to have a business, that’s what you ax me – [...] it would have clothes that I make and sell or just design and see, I would do your hair and nails and makeup, [...] and sell art, it be like a spa but artsy, [...] so, like, downstairs would be the shoes, the outfits, the art, and then upstairs it would be where you get your hair, nails, feet, lashes, and things of that nature done. [...] so, like, everything in one stop.”

Researcher: “Would that be a dream of yours to have a shop of your own?”

Rashida: “Yeah.”

Like Thinker, the gap between Rashida’s dreams and her reality is stark. Though Rashida dreams of owning a successful beauty and art shop, her practices reflect the experience of trying hard to cobble together an income, working a number of small jobs and, still, falling short of maintaining a basic standard of living. She explains her hustle:

Rashida: “I had this summer job, um youth, um entre-nurship, I don’t know how to pronounce that name, it’s E, N-..”

Researcher: “Entrepreneurship?”

Rashida: “Yeah, I worked there this summer basically was teaching teenagers and younger kids how to like bake cupcakes and sell ‘erm, like make your own soaps and sell ‘erm, how to broadcast, um set your price [...] so I always been into artistic type jobs, I had another job, we was just doing art projects for the end of [summer youth program in DC]. They give you money from ages 14-24, you can work or whatever. [...] and I only had one regular job it was in the farmers’ market, it was only 2 days a week, you know, selling vegetables, I only did that for 3 months [it’s seasonal]. [...] You know I do hair on the side; I was gonna work my hand till I got the vaccine. And you know I do Story Telling & Textiles [NGO], like they pay everybody, you get \$30 every time you come, like \$60 a month plus doing 1-2 people hairs a month getting at least between \$300 and \$400 every month and that’ll be okay.”

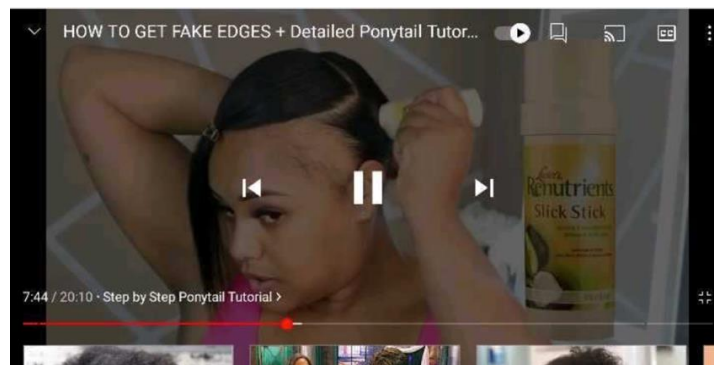
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Rashida is continuously looking for opportunities in her surroundings to supplement her income, including the hair business she runs via word of mouth, on social media, and in her community. The focus on seizing every opportunity to make money transpires through her expression of need and scarcity:

Rashida: like if you wanna talk to me you gotta be able to invest in me too, not even with your money, you can use your mouth to tell your friends [...] I had people go to a normal person but they look out for me it might be around Christmas time, or they be like it's Christmas time and I know you need the money for your god kids, or I'mma come to you 'cause it's your birthday [...]. Sometimes I'll take a cheaper price, 'cause I understand, somebody with long dreads I might charge them \$100 or \$125 but I'm like [smacks lips] I'll do it for \$75 'cause I need the money, so you just never know, you feel me?"

On 'doing hair', Rashida added that, when all else fails, she, as a Black woman, has an accessible income stream to fall back on, because "growing up as a Black female, we automatically are mostly 'posed to know how to do hair.'" It is considered a "Black girl thing" to learn how to braid hair and that "if you don't know how to do nothing else, do braids and sell some."

Figure 35 Rashida Watches YouTube Tutorials to Learn New Hair Styles

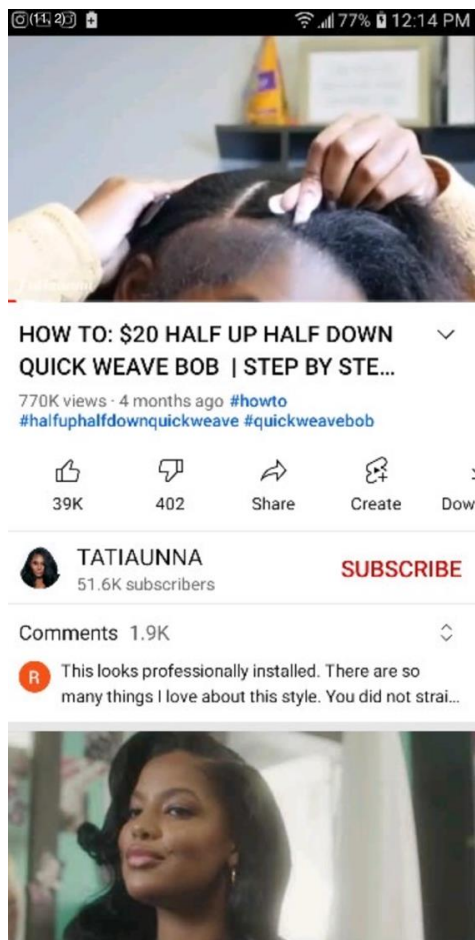


Being able to generate income this way, however, hinges on Rashida's ability to learn new styles and techniques on YouTube. Her focus, however, is not on learning, per se, but on the end it helps her achieve, which is learning new skills to stay relevant and competitive on the informal hair business in her community and continue generating income from it. In this scenario, learning is instrumental. Likewise, Rashida's class, race, and gender identity markers converge to create a unique intersectional location for her, which offer an opportunity to generate income in a way

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that, say, Thinker is not able to because of his gender. The acceptability and availability of ‘doing hair’ to Black girls and women is a hustling route that is not available with the same ease to Black men in the same community and is, therefore, an advantage Rashida holds because of her particular intersectionality.

Figure 36 Rashida Watches YouTube Tutorials to Learn New Hair Styles



5.3.1 Class, Covid-19, and other Intersections

5.3.1.1 Class and Covid-19

The pandemic was not as disruptive for all the Hustlers in the study. In fact, some, like Thinker, even made the most of the lockdowns as they enjoyed staying and working from home and found the convergence of life to the digital realm quite exciting. Thinker even confessed to learning from and emulating an online influencer (Bandman Kevo) on OnlyFans and YouTube about the business of making money online – or to put it more forthrightly, scamming people online to make money. The comments on some of his videos echo the understanding that there is “a fine line between hustler and scammer”. Thinker explains:

Thinker: “Yeah, I mean, I do have a goal, I just wanna be technology-driven like, I just wanna work from home, from my computer. [...] Bandman Kevo, but he also use it like a smart side too of click bating too, [they call him] the scam guy. [...]”

Researcher: “How did the pandemic affect things for you in that sense?”

Thinker: “Oh the pandemic! I love the pandemic! [...] I kinda got a little bit of scamming thing on that Bandman Kevo I was talking about, I mean a lotta people was using the Internet then, it came, and it allowed me to profit, a little bit of [unclear] got a couple of outfits [laughing out loud]. It was a legit way to make a purchase, grabbing they IP address online like that [...].”

Driven by the desire to better his economic standing and overall class conditions, the hustle in Thinker’s case—as a set of practices and attitudes—is further facilitated by the Internet and the conditions of confinement. In Thinker’s case, the convergence of the axis of economic class and the social conditions created by the pandemic, made for a new way for him to use and take advantage of affordances of the Internet he otherwise was not prone to exploring. This resulted in abundant time spent learning and being resourceful and creative online for the purpose of “mak[ing] a profit.”

5.3.1.2 Class, Covid-19, and Gender

The pandemic, which was still part of everyday life at the time of data collection, was a source of distress and uncertainty for young people in the study. This includes Rashida, who has had negative implications to her ability to hustle and generate income during the pandemic because of her particular intersectional location. In [Section 4.2](#) of Chapter 4, I discussed how

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racial trauma and online misinformation can contribute to refusal of the Covid-19 vaccine in Black communities such as Rashida's. Understandably so, on grounds of historical medical exploitation of Black bodies. Rashida made clear her refusal of the vaccine on such grounds, but also on grounds of vaccines causing infertility (this has not been proven). As a young woman wishing to have children one day, she did not want to take the risk of getting vaccinated. This decision has, however, cost her employment opportunities. She explains:

"You know I ain't never got vaccinated so [the ACC] was telling me 'Oh you can't work with the kids'. So, give me the side jobs like, [ACC Director] kept making me mad like, what the fuck! 'Cause I'm like [smacks lips] you let Elijah come in and help 'cause he vaccinated [...] 'cause whoever funded them, they said they wanted everybody to be vaccinated. [...] I be already getting tested every Monday or Tuesday so when I come to class on Fridays, they could know I don't got Corona."

Rashida here has a race-and-gender-compounded class issue. She has to choose between two unfavorable options: receiving a vaccine she does not trust on the basis of her gender-race or forfeiting employment she relies on to cover her basic needs of food and shelter (class). Similarly, the burden of her gender (worrying about the risk of infertility from the Covid-19 vaccine) is perhaps not one her male colleague, Elijah, or her White female colleague Meredith have had to consider in maintaining or improving their employment opportunities. Thus, Rashida's poverty, Blackness, and womanhood have overlapped to create a particular intersection of further disadvantage at a time of global economic uncertainty and social isolation.

5.3.1.3 Race-Class, Covid-19, and Geography

For a young woman like Jaelle (G; 20), being employed in parallel to her professional certification studies is a must because of her low socioeconomic standing. Without employment, Jaelle does not have the means to pay for her privatized education. Here, I argue that her experience of being a working student during the pandemic was influenced by her class-race, geographic distance from the center of the city, and impositions of Covid-19.

When asked about how her learning life was affected "before, during, and after the pandemic", Jaelle shared:

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Jaelle: “um, nothing has really changed, I had always planned to do my learning online for the most part. Um, I guess the only good thing is that I work from home, mostly, now.”

Researcher: “Why is it good that you get to work from home? How is it better?”

Jaelle: “Um, well, even before I moved, it took a pretty long time to get to work, so I spent a lot of my day on the bus and on the train.”

Researcher: “How long did it used to take you to get to work?”

Jaelle: “Um, maybe an hour and a half on a good day? But sometimes trains have delays and stuff like that, so maybe two hours? And I’d have to get up early. But now that I moved, I have to get up even earlier.”

Jaelle further explained that she had not planned on taking in-person classes because the flexibility an online program offers her is one she lacked in her in-person employment. Thus, her learning life had to come second to what was possible for her in terms of economic stability. Maintaining her in-person employment in the city required a long daily commute, imposing a significant spatial-temporal tax. This geographic disadvantage has roots in racist-classist policies that have historically disadvantaged Black, Latinx, and poor Washingtonians. In [Appendix A](#), I demonstrate how housing is, in fact, a class issue in Washington, D.C. and, to many marginalized groups, housing only becomes affordable in the suburban and more remote periphery of the city, or the markedly underserved and violence-riddled inner-city neighborhoods.

Considering the class-race and geography axes of disadvantage, Jaelle’s experience of the pandemic was one of relief from the demands of commuting into the city and recovery of time to invest in educational and other pursuits. Likewise, the pandemic’s normalization of online learning opened the possibility for her to first entertain, and later, enroll in an online Cyber Security program.

The liberating affordances of working and studying remotely for a geographically disadvantaged young person like Jaelle are self-evident but require further complication. Jaelle’s reflexive exercise of her agency in engaging with remote learning (as a positive way to mitigate her taxing commute) may have negative ramifications of isolation:

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Researcher: “Does your [Cyber Security online program] involve working with other people, or is a self-directed, by yourself kind of experience?”

Jaelle: “Yeah, it’s more self-directed. Yeah I haven’t seen anybody other than me using the class.”

Researcher: “Are you connected to a community? Are you looking to do that? Or is this class something that you’re doing on your own?”

Jaelle: “Um, for Cyber Security, I am connected to one person, we haven’t spoken in a while, but we did do an interview where I axed her some questions about what I needed to do to get into the field. Um, but that was pretty much it.”

As demonstrated in Jaelle’s words, isolation could manifest as the absence of face-to-face learning, and therefore, community, peer-to-peer support, opportunities for collaboration and mentoring, which may not be fully available or possible online. As such, Jaelle’s particular intersectionality highlights the ongoing negotiation between various axes of disadvantage, which young people like her often face. The conditions created by the pandemic, in Jaelle’s case, are at once oppressive and liberating, and her decision to embrace one aspect of remote working and learning, inevitably implicates the limitations of doing so exclusively.

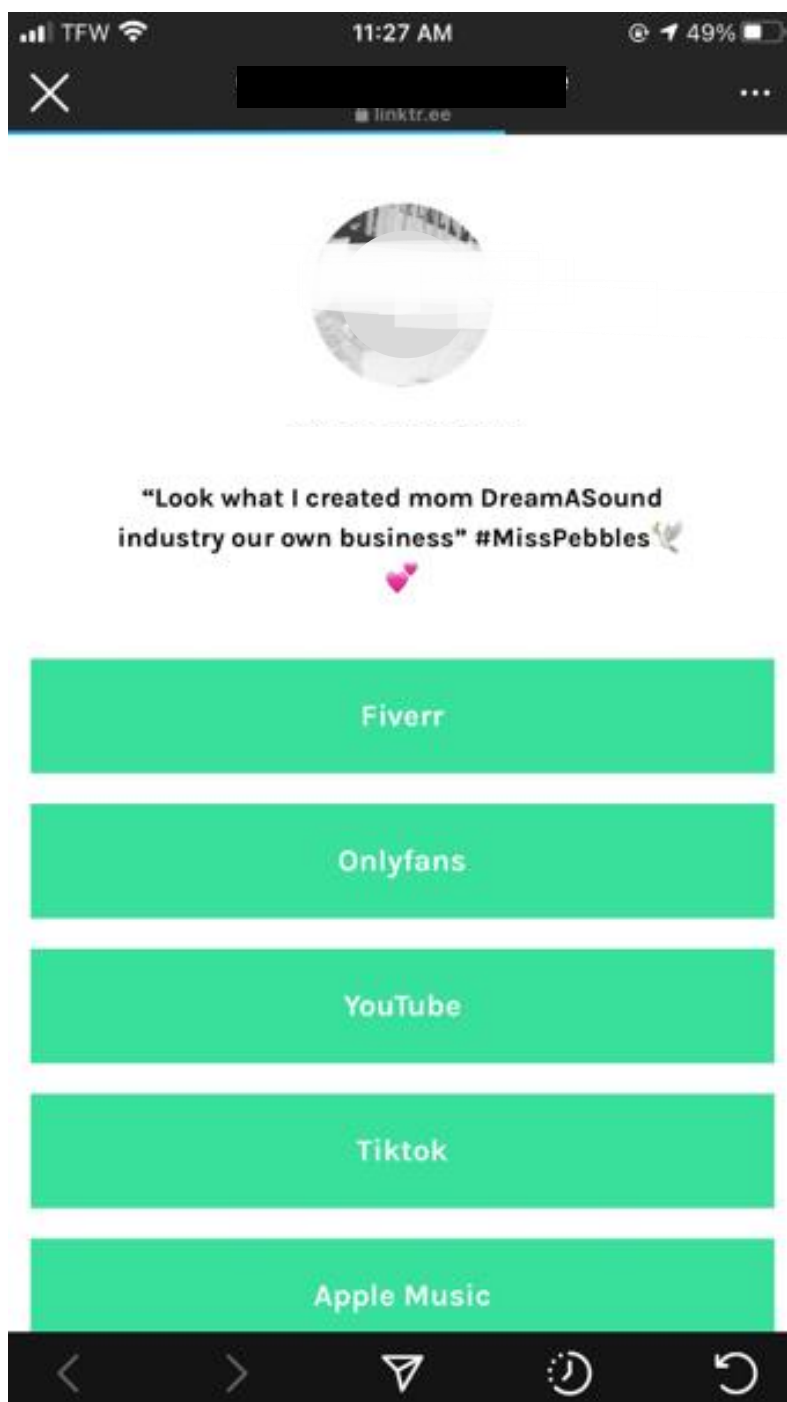
5.3.2 *Class and Home Life*

Thinker’s focus on generating an income and making money from his enterprising activities on the Internet, are further compounded by his other identity markers as a young man with a very difficult home life and his struggle to find his place in it. Thinker’s particular intersection is entangled in experiences of instability, trauma, and, most recently, the loss of his mother’s life to medical malpractice. During the time of collection of these data, Thinker himself went missing for a few days, and was later found in ill-condition at a hospital. This was a traumatic event for the entire community and involved a police search and the mobilization of the ACC to help find him. This event is just one I experienced in my 12-month involvement in the community, but events of missing youth, shootings, stray bullets, and neighborhood violence are a common occurrence in Thinker’s community. With this instability and uncertainty in mind, Thinker shows how growing this business and generating profit by selling his beats means much more to him than just the end itself. It also means success that he considered his recently passing mother would be proud of; it means a sense of accomplishment and a recovered self-esteem. To Thinker,

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it is “a platform I’m starting, a business for myself and my family, and remembering my mother.”

Figure 37 Thinker's Meaningful Linktree Page



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The idea of providing for himself in the context of his mother's very recent passing, transcends changing class conditions to the realm of meaning-making as he shares "I know she want me to move forward, I'm like if she was here now, she be like 'you doing good, you doing better than all your brothers'. This was the plan all along; this was I was supposed to be doing."

Generating income emerges as an important goal and motivator for the hustle and the learning practices involved in it. Participants turn to making money as a result of a double exclusion from the dominant economic class. The first is their exclusion from the dominant economic class (being poor themselves), and the second is their exclusion from formal education as a potential pathway to upward economic mobility. Education is not—and should not be viewed as—a guarantee to better economic outcomes, but it remains a "clear and undisputed" sociological predictor of "employment opportunities, occupational status, and earnings" (Van der Velden and Wolbers, 2007, p. 65). Though framed as a choice by the Hustlers, the latter exclusion is not always one. This double-bind exclusion renders the hustle the only *seemingly* meaningful way for these young people to resist their place in society and make an improved change—regardless of how actually successful their hustles are.

In contrast to Ahmed, who has the relative advantage of living with his father and therefore *choosing* to hustle for higher needs, Thinker and Rashida have to constantly hustle to secure their basic needs of shelter and food. They are both as entrepreneurial about their learning as Tupac is, but they are learning under much more stress than Tupac is. Thus, it seems as though young people who hustle are sometimes pushed into a 'forced resourcefulness', and an instrumentalized approach to learning. They develop and operate from a place of scarcity or what Robinson (2009) calls "a taste for the necessary", which are learning attitudes and practices that are constrained by "a host of spatial-temporal," cognitive, and emotional burdens (p. 505). Experiencing learning with technology from a place of relative abundance, as does Tupac, can be contrasted to experiencing it as an 'investment' and a way to meet urgent and immediate economic needs, as it is the case for Rashida and Thinker.

Similar to other groups of participants, the learning lives of the Hustlers are shaped by their economic class (race-class intersectionality). While the Conformists' digital learning practices involve navigating structured edtech structures to succeed in their 'job of being a student', the Hustlers' practices involve navigating socioeconomic structures with the aim of generating

income. The two share a similar instrumentality in learning as a means to other ends and not just learning for its own sake.

5.4 Social Media as ‘Serious’ Learning Technologies for the ‘Hustle’

Social media (SM) emerge as central and consequential learning technologies for the Hustlers. Popular platforms such as YouTube and Instagram have tangible implications on the various axes of intersectionality for this group of young people. Some are structuring, some are liberating, and others are both, at once. Socioeconomic class, as an axis of intersectionality, is an important theme for this group, as Hustlers engage in SM practices which prioritize and revolve around generating income and “making a profit.” In other words, SM, as serious learning technologies, can facilitate and generate tangible economic capital for the Hustlers. This is often through translating and/or transforming digital capital into social and economic capitals through their personal and diffused community practices. By the same token, I argue that, precisely because of SM’s central role in their learning, they constitute a far more insidious risk to them than they do to other groups.

This engagement with SM, however, is not to suggest that the hustle does not include some of the usual ways that young people engage with SM, such as ‘hanging out’ with friends, information seeking, entertainment, and various leisurely media consumption. For this group, these tools are simply not used *primarily* for entertainment and leisure but rather for learning about and improving on important aspects of their enterprising activities. Some of the most interesting hustling practices include:

- **Personal branding and exposure**
- **Networking and peer-to-peer learning**
- **Honing a skill or a craft**
- **Entertainment, leisure, and social learning**

5.4.1 Personal Branding and Exposure

There are numerous examples in the data of the Hustlers attesting to their use of SM—Instagram specifically—to help promote themselves, their art, or their small business. For example, Tupac summarizes the importance of Instagram for the promotion of his personal brand as an artist to achieve increased visibility and exposure and build a following online:

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Tupac: “I would say, for me, as an artist and musician, IG is really the place. Um, of course, very soon, I shall be branching out and adding more avenues for SM when it comes to my brand and my artistry, but at the moment I would say I’m building all of my following through IG and on IG.”

A sizable Instagram following for artists like Tupac is often synonymous with being seen and appreciated by a larger audience and is often considered a measure of an artist's popularity and success, their credibility, and their reputation within a given art community.

Nine out of thirteen of Tupac’s photographic data were screenshots of the ACC’s official Instagram account sharing his art projects, performances, and overall successes more widely. This in itself is interesting, as the ACC further promotes and exposes his art to audiences, he would otherwise not be able to access on his own. Tupac and the ACC, in this regard, have somewhat of a beneficial relationship, whereby his work gets further exposure on their Instagram feed, and they get to showcase to the community and their funders one of the most active students and young artists on their roster. Because of this exposure on the ACC’s Instagram, Tupac shares that he is often offered “gigs” to perform his poetry, is paid for some of them and for participating in various art projects across similar NGOs to the ACC.

Used strategically for branding and self-promotion, Instagram can have tangible revenue generation implications for aspiring (hustling) professional artists, like Tupac, whose online following has the potential to translate into further opportunities for work, collaborations, commissions, or invitations to art events.

Figure 38 ACC Promotional Post of Tupac's Art on Instagram

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For Rashida, Instagram is also an important tool for exposure and promoting her business as she uses it for self-promotion, cold-messaging people who might be interested in using her service, and reminding friends and family to support her:

“You really gotta push yourself, use technology, ‘cause you could promote yourself. I do hair like, I be on they website [...] like ‘I’m looking for clientele if you know anybody wanna get they hair done, talk to me’ [...] So, you really just gotta push yourself and use that technology to your advantage, but also the back-in-the-day way, which is word-of-mouth, use your hands, DM’ing [direct messaging] your friends and telling them to post it for you.”

For Tupac, Rashida, and other enterprising Hustlers, Instagram is not simply a tool to “scroll and scroll...” as Marvel (G; 13) and others reported in Chapter 4. SM are an important technology with serious implication for turning digital capital into social and economic capital.

5.4.2 Networking, Peer-to-Peer Learning and Support

Social media platforms allow Hustlers to connect with their audience and industry professionals but also, and most importantly, allows them to connect with peers, fellow artists, and entrepreneurs. It is fairly established that peers are “fellow creators that youth see as knowledgeable audiences who have shared investments in the work, and with whom they have a relation of reciprocity” (Ito et al., 2019, p. 49). On this basis, the Hustlers engage in online community-building and provide valuable feedback and support to one another in ways that are important to their hustles online and off.

For instance, Thinker’s enthusiasm about music production was initially nurtured through his membership in a “trap music group” where the members had never met offline. “We gotten that up online” Thinker shared, “there wasn’t really nobody local.” Meeting and learning with his groupmates online provided Thinker with an opportunity to feel supported and validated in his pursuit and planted the seeds for his solo music production business. Additionally, Thinker shared that he finds it daunting to meet and connect with like-minded people offline. Without the ability to investigate and vet a new person’s online information, SM following, and public interests, Thinker finds it challenging to identify common ground to initiate a connection. He explains:

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Thinker: “people that is scary to talk to in person, I’ll do like quick research at you or try to find you and be like “oh cool, it’s this person, they got a cool following” and stuff. And then somehow some other people just don’t really care, the conversation would be kinda weird, ‘cause you starting off as just regular conversation.”

Scouring the Internet to check if someone has shared interests and are worth knowing isn’t the only important role SM like Instagram play for the Hustlers. Tupac – differently to Thinker – describes himself as an “old-fashioned guy” when it comes to his use of technology and, though he enjoys using SM as an avenue for his hustle online, he also highlights the IRL (In Real Life) benefits of Instagram which ensue as a result of using it for networking and building community:

Researcher: “I am curious, a lot of the pictures you sent me were screenshots from the ACC account on Instagram. Does Instagram play an important role in your life?”

Tupac: “VERY, VERY! Not to the point to where it’s toxic though. [...] when you have that approach to IG, because I feel like it is a place to network, people don’t look at IG as LinkedIn, but I view it as such [...] I’ve encountered a lot of people that I’ve met on IG just from following them, and then I actually see them in person, and then it’s just like ‘oh yeah. I follow you’ and ‘oh yeah, I follow YOU!’ [...] and then it also shows me that although I was already aware that SM is real, it also shows me, it gives me the confirmation that it’s not just a portal and you know it doesn’t have no sense of reality to it, you know? These people that I’m connecting with are real people. Now, of course, you have bots and things on IG and other SM platforms as well, but a lot of the people that I connect with are real and are official and they’re tangible and you can meet them.”

In addition to offering a platform for networking and connecting with like-minded people, SM in this context is also used for peer-to-peer knowledge sharing, learning, support, and collaboration in established online communities of practice. Thinker uses TikTok and Instagram as platforms to locate and build such communities as he shares that when he sees that “some other young artist just tryna come out too” he “start reading their comments and DM’ing people” and shares with that “I’m just starting out too, it’s kinda hard to do this and that. It’s like we start our own little group.” Similarly, Tupac engages in a similar practice by making “a comment out of support for another artist” and encouraging his friends’ latest endeavors:

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Tupac: “if a guy that I’m good friends would drop some music video and he ax me to watch it, then of course I’ll leave, like, a thumbs up and then I’ll comment, just to add to the list of comments that he has for his music video on YouTube.”

Tupac himself uses YouTube to “drop” his own music videos (Figure 39) and latest poetry readings with the same expectation of feedback, support, and constructive critique from his creative community and peers. Others also engage in creative production then share their art freely with others. Kelsey, for example, makes paintings (Figure 40) and uses “the hyperlapse feature to show like the whole process to other people in an art show that my friend was doing on Instagram.”

Figure 39 Tupac and Collaborators Recording RAP Song for YouTube



Figure 40 Kelsey's Hyperlapse Painting Shared in Community of Practice

Similarly, Thinker, speaks with a sense of responsibility about his teaching other members of his music production class “all the knowledge I have on producing since, I mean, to me, it feel like it’s a mission to tell them everything that I know.” As such, social media—YouTube and Instagram, in particular— are central technologies for branding and marketing themselves as artists, but also as the main platforms for sharing their passions with peers and teaching one another.

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5.4.3 *Honing a Skill or a Craft*

The centrality of SM to the learning of those who hustle is apparent in the different tools and practices they engage in to hone their skills and find inspiration for the activities related to their hustles.

In Figure 41, Thinker shows his learning process on a streaming platform, watching and interacting with a peer who is teaching others music production techniques. This is as much a part of his learning as checking out library books, or attending in-person music production classes at the ACC.

Figure 41 Thinker Watches Music Production Tutorial on YouTube to Hone his Skills



Throughout my interview with Thinker, the answers to my questions about his go-to learning technologies always converged to YouTube as a platform. The centrality of YouTube to his learning practices quickly became clear as every one of my questions about his learning technologies was answered with an affirmative “YouTube!” This was the case, for example, when I asked about his process of honing his music production skills:

Researcher: “Can you walk me through the process from not knowing how to do something to becoming an expert at it?”

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Thinker: “Well, like YouTube for most of it. It’s only now that I’m in-person with other people and learning different things from different people.”

Similarly, when asked about the websites he often goes “back to for learning?” Thinker further iterated “just YouTube!”

Social media are an equally important learning resource to Rashida, as she shares using YouTube and Instagram hashtags to learn and practice her hair braiding skills. She exclaimed that, for her, “YouTube is everything!” and that “my number one to go to is literally either Instagram or YouTube.”

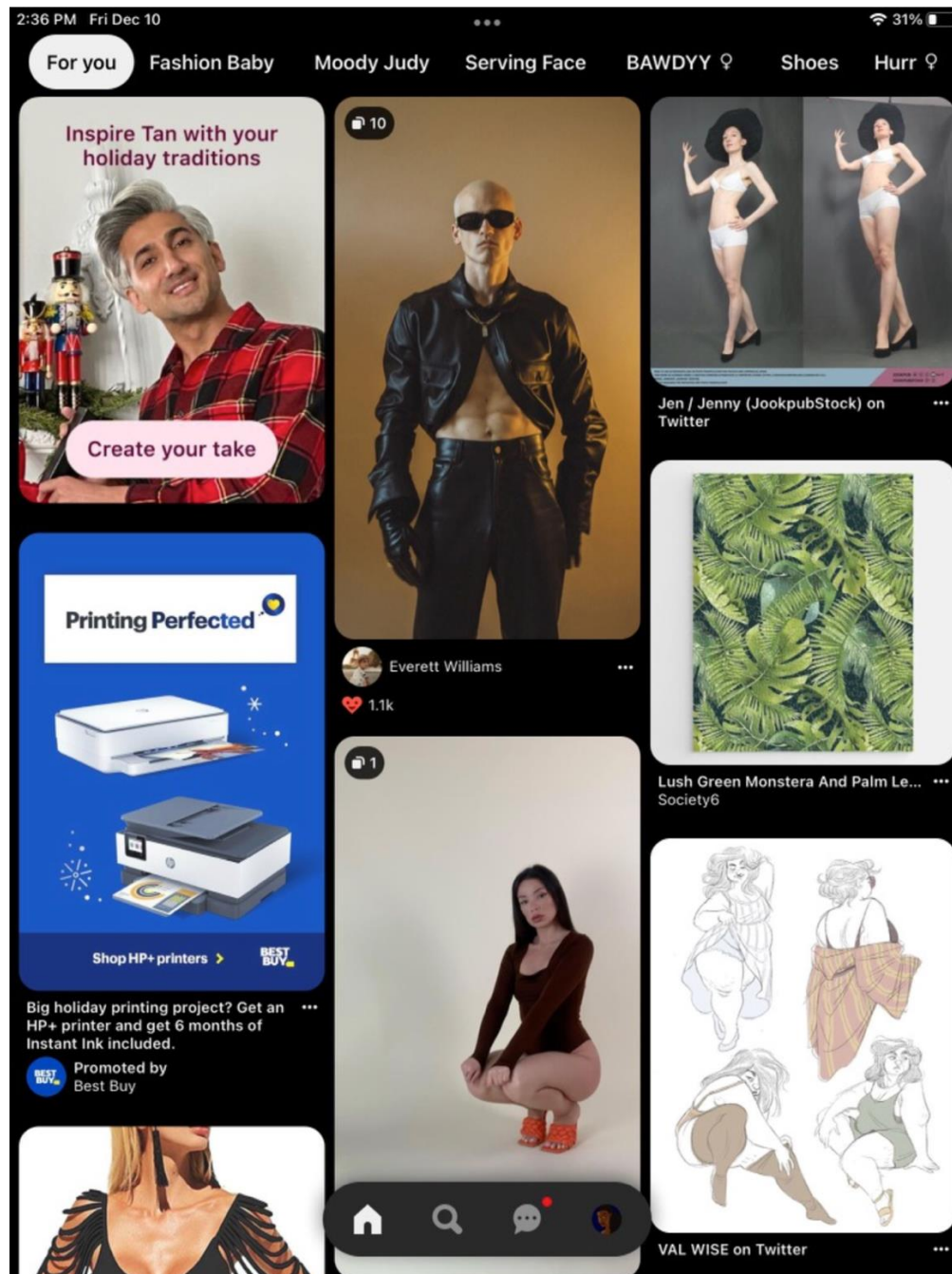
She further details how she makes use of these platforms to learn new skills and, ultimately, support her hair business hustle:

Rashida: “YouTube, they would teach you a new hair style that just came out. A month later, you got three new videos on YouTube for how to do it, and it’s all practice. [...] You know how on IG you can type in hairstyles, and they show you different videos of the person, hashtags, and the name of they hairstyle. So, you can follow the hashtag. Yeah, you know the topknot bun that I been tryna show my little cousins, I literally just typed it on IG. [...] some videos they actually teach you what they did, it be like one slide be the finished look and then the next slide be like how to do it. And they show you the products that was used to achieve the hair style.”

Rashida’s learning to do Black hair on YouTube and Instagram has class implications. These freely accessible tools are a vital resource for her to stay up to date on the newest styles to offer her prospective hair business clients. She learns new skills and adapts acquired ones to keep up with her competition and/or to gain an edge. This emerges as an important practice to her hustle and her financial well-being, which further explains why these tools are ‘serious’ learning tools for young people like Rashida, and not just platforms for entertainment.

For Jaelle (G; 20), social media platforms like Pinterest, Deviant Art, and YouTube are useful for inspiration, emulation of techniques and skill practice. When actively working on an art project, Jaelle uses Pinterest and Deviant Art every day to collect useful references, to then practice her drawing on Procreate. She also uses them as “kind of new inspiration for characters. If I see something that I like, or something useful for new techniques, maybe I draw it on one of my characters or I use it to find tutorials on how to draw something”. After finding useful

Figure 42 Drawing Inspiration on Jaelle's Pinterest Board



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Figure 43 Jaelle's portrayal of her learning tools (YouTube)

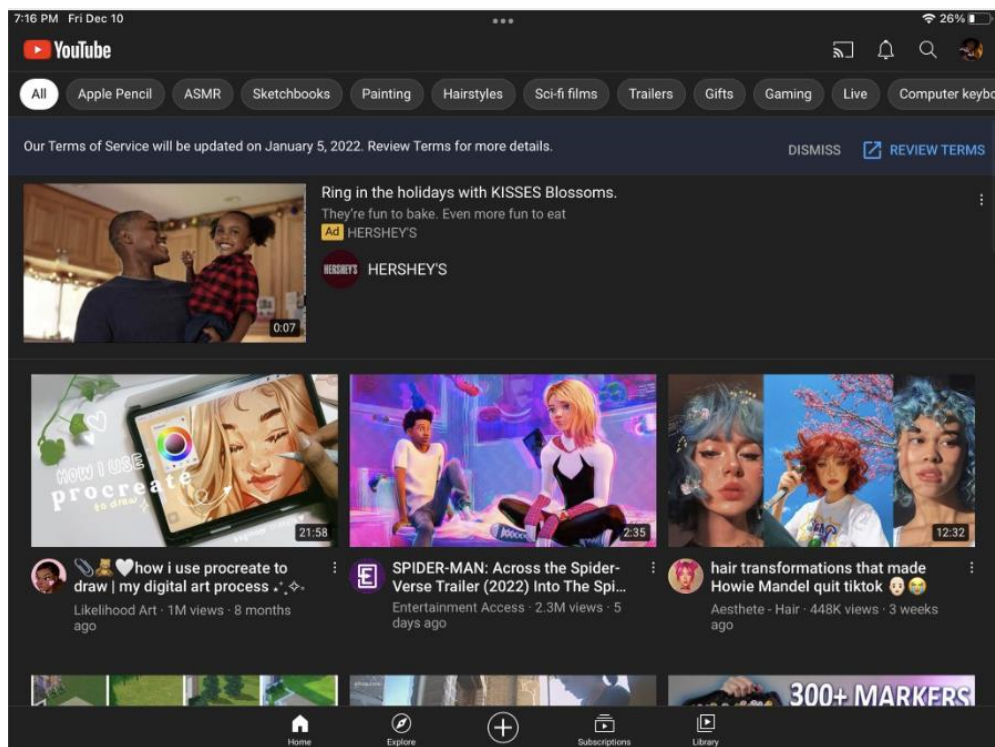
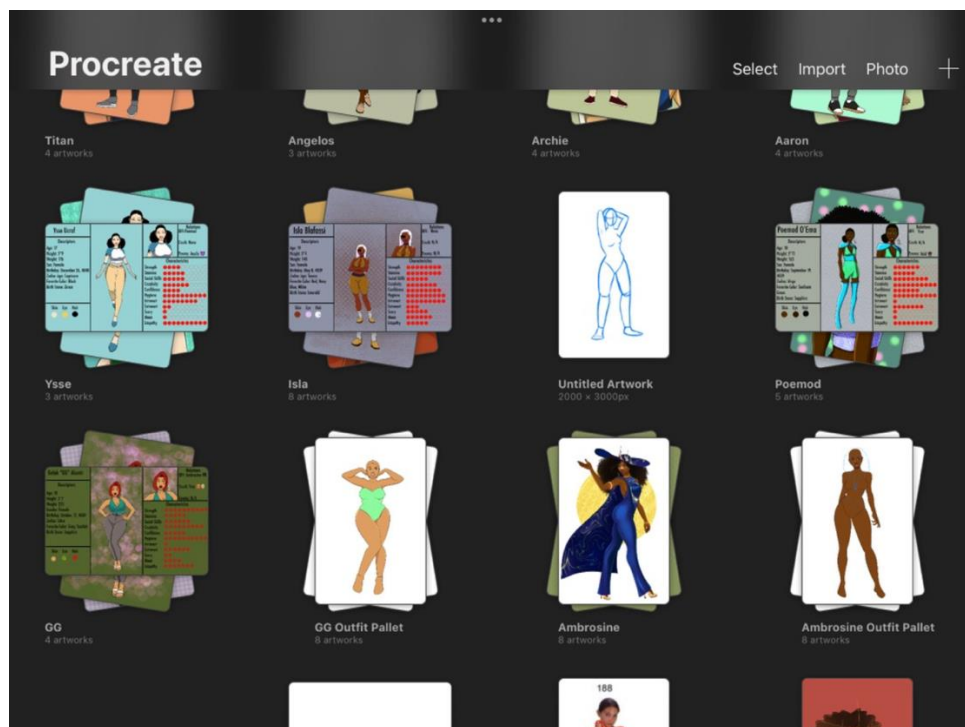


Figure 44 Jaelle's Portrayal of Learning Technologies (Procreate)



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Just like Thinker, Rashida, and Jaelle, Tupac's learning practices include visiting Genius (a crowdsourced lyrics platform) and Sped It (a YouTube channel) to help him hone his poetry writing skills. He shared with me the purpose for which he uses the two resources to diligently practice his craft:

Tupac: "I use Sped It as a way to study my craft from a wordsmith and a poet and a rapper standpoint because, like I said, their videos dissect different lyricism with RAP [...] and how this rapper used a certain word, and how they break down syllables and metaphors and similes, and all that good stuff that I love. [...] On Genius, artists come on there and break down their lyrics line by line, and I love that they [include] the music as well. They break down how the producer made the beat; they break down what was the videographer's vision behind the music video was."

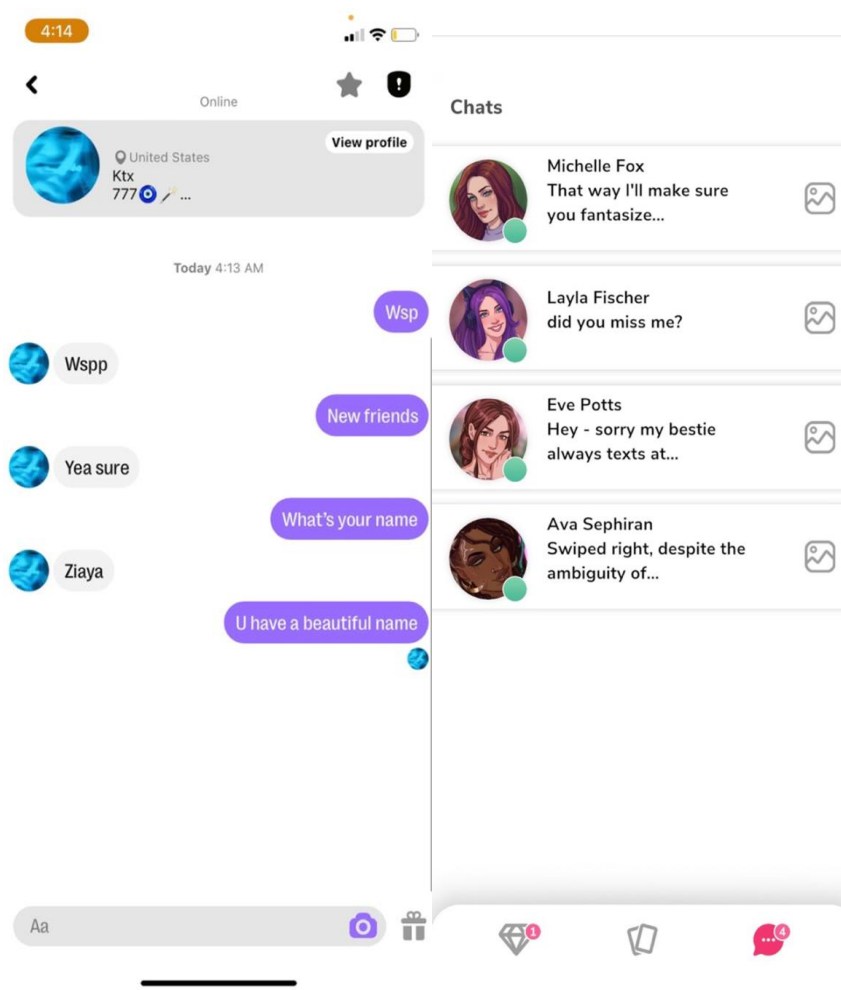
When learning new skills, whether attending to their curiosities or instrumentally meeting a learning short-term goal, the Hustlers rely heavily on SM, namely YouTube. Others have similarly found that YouTube, "along with television, [...] is the media most present in young people's daily lives" serving as a platform to access "entertainment, [...] information, [and] knowledge" (Scolari, 2018, p. 89; also see Scolari et al., 2020).

However useful, these platforms come with some structuring affordances, as discussed in [Section 2.1.5](#) of Chapter 2. Jaelle (G; 20) who uses Deviant Art and Procreate for her art drawings and storytelling designs, is not only alienated by the structure of the formal education system, but also by the constraining nature of some of these platforms' affordances on the basis of body shape and size. Jaelle is a young Black woman whose body does not fit the mainstream dominant standards of thinness. When using Procreate, the reference building software she works on for her designs, Jaelle does not see her body type, shape, or size represented in the models she uses. When asked whether the models on Procreate are diverse, Jaelle explained: "Um, not to me. I wish they were different shapes in a way, most of them seem slim or muscular, and that's not really my style." This lack of both diversity and adequate representation in the learning technology of Jaelle's choice has well-documented representational harms and puts young people subjected to it at a disadvantage. This is further compounded when other axes of disadvantage are taken into consideration. In this case, class, race, age, and alienation from formal education.

5.4.4 Entertainment, Leisure, and Social Learning

The digital practice that all groups of participants in the study share is that of entertainment and being social on the Internet. In addition to “scrolling” (Marvel; G;12) and communicating with peers on SM, some in the hustling group creatively use it to develop interpersonal skills and improve their social competence. Donny, for instance, uses artificial intelligence (AI) social apps to practice talking to romantic prospects. He hopes that practicing chatting with AI bots will build his confidence to eventually approach teen girls in real life:

Figure 45 Donny's Chats with AI Bots



Researcher: “What is this photograph about?”

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Donny: “A little bit embarrassing but, so last year, I used to be real shy, and didn’t know how to start up a conversation with a girl, this app I downloaded on my phone really helped me how to start up a conversation and just talk to people.”

Researcher: “are these bots?”

Donny: “Yes [laugh]”

Researcher: “How useful do you think it was for you using [Meetchat]?”

Donny: “It was a LOT, a lot useful, because I was a shy, shy person, like I couldn’t start up a conversation with nobody, like when I first got on there I was shy to use it!”

Researcher: “Even though they are just bots?”

Donny: “Yeah [laugh]. It helped me build up my confidence.”

When thinking about these data from Donny’s intersectionality, two salient identity markers come to mind: his neurodivergence, which makes social and interpersonal situations difficult for him to navigate, and his gender as a young man socialized in a patriarchal society, which implicates the expectation of initiation, courting, and pursuing romantic partners (as much as women are often denied their agency and sexuality by the same token). The latter exerts a pressure on men in general but, in intersection with neurodivergence, poses an even bigger challenge for young men like Donny, who are already struggling with social skills and the added pressures of performing traditional masculinity. Disability/neurodivergence and gender, in this case, interlock to create a unique challenge that Donny has creatively tried to solve by using technology.

Additionally, Donny was very open with me during the interview process and allowed me to ask about the topic of free pornography consumption on the Internet. This was off the heels of our conversation about bot chats, learning, and practicing online before taking risk offline:

Researcher: “I’m not sure if this question is off limits, but feel free to tell me if you’re not comfortable talking about it. I’m curious about the experience of young boys going on porn sites as a way to explore their sexuality. Would you say that that’s something young people do a lot these days?”

Donny: “Well, not me. Like, I go on it but [not a lot?]”

Researcher: “Do you feel that it gives you an idea of what sexuality is and helps you discover your own?”

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Donny: [nods yes].

Researcher: “Do you feel that that affects the way you engage sexually with girls?”

Donny: “Yes [laugh]. I watch and learn.”

Consuming free pornography emerges as one of the ways many young people, especially boys, entertain themselves and seek to explore and learn about social and sexual behavior (Litsou et al., 2021). Free pornographic sites can be useful for young people who find that the Internet provides them with an outlet for safe exploration and understanding their sexuality in private without risk. Young people with disabilities, neurodivergence, or debilitating social anxiety especially come to mind. However, free (often unethical) porn is fraught with unrealistic expectations about sexuality and relationships and can be tremendously harmful to young people whose understanding of relationships and intimacy is still developing. Likewise, sites that these young people frequent such as “Pornhub, RedTube, and XHamster” are littered with patriarchal representations of sex and gender that may contribute to objectifying and degrading views of women and perpetuating harmful gender stereotypes, especially Black people, and people of color who are routinely hypersexualized and misrepresented in adult materials online (Noble, 2018). In cases where young, Black, neurodivergent people such as Donny and his peers “watch and learn”, they are tapping into dubious learning resources that cannot provide a reliable and age-appropriate education about a healthy sexuality. Provided that Donny’s gender (male) is often portrayed to dominate sexually, his race (Black) is hypersexualized and portrayed as animalistic, brutish, and revengeful, and his class and educational milieu often leave a sex-education gap unfilled, and his young age (15), the intersection of all his identity markers makes for a particularly vulnerable and potential harmful experience of consuming free online pornography as a learning resource.

“Going to church online” is as much a part of Donny’s mediated learning as adult entertainment. Attending the weekly Sunday sermon on a social app allows Donny to not miss his religious teachings and practice when it is not possible for him to attend in-person. He shares that “my pastor would be going on [the app] preaching” and “I’m thankful that he would do that for me [...] he preaches for everybody who’s getting on the app”. Donny also imparted that faith is important to him, especially after losing a close uncle to gun violence. Attending the Sunday teachings on one of the audio rooms on the app in Figure 46 is as much a digital practice he

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engages in as the portrayed “Bf applications”, “Ft/fall asleep otp”, and “Lgbtq”, which are all voice chat interest groups he engages with. This use of the app as a learning technology for Donny, is a creative way he circumvents limitations of geography and how he gets the best of both worlds: staying up all night chatting with his friends online and attending the sermon without having to “wake up too early”.

Figure 46 Donny's Social Learning App



5.4.5 Social Media as Liberatory and Oppressive Learning Technologies

As previously highlighted in this chapter, the data point to the Hustlers creatively using social media as central and ‘serious’ learning technologies. This reliance on SM, makes all

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Hustlers particularly vulnerable to its harms, but especially female participants, and those lacking IRL support and mentorship amongst them.

This is indeed the case for Kelsey and Naomi who candidly shared their experiences of intersecting sexism, racism, body shaming, oppressive beauty standards, cyberbullying, and other forms of discrimination and negativity on SM – the very tools they heavily rely on for their learning. Naomi (G; 15) perceptively explains how consuming oppressive content on SM is detrimental to her mental health, self-esteem, and her overall wellbeing. She also highlights the toxically masculine expectations men consuming similar content might deal with:

Naomi: “Girls are, like, every time we go on like TikTok or IG, there is a new beauty trend like telling you that you’re not the standard, especially for like Black and, like, women of color and stuff. So, it’s like you’re constantly being told that. [...] it’s like pushed down your throat. Like, do this to be pretty, and you have to look like this, and this is the new beauty trend, and blah blah blah [...] there is a lot of pressure, and that causes insecurities and stuff.”

Researcher: “why do you think is it more so for Black women and women of color?”

Naomi: “Honestly, like, beauty standards, it’s like women who obviously don’t look like me, so even like not even in the same body type, they don’t look like me at all. So, it’s like you see like that’s what’s considered beautiful. And then sometimes you have like boys who are your same race telling you also that you’re not beautiful, so it’s like you know, you don’t really feel pretty in a society like – they want you to feel that way, because you’re not that beauty standard so it’s disproportionately way worse for Black women, ‘cause it’s like, even after like taking a lot things from us and turning it into like trends, they still tell us, on us, like, it’s ugly and this and that. But I do feel like, for girls, it’s a lot more pressure and shame and all that on SM, than with men. But honestly men could be feeling the same way but because of society telling them that it’s feminine to talk about your feelings and all that, they don’t say anything. That’s why the percentages are so low or lower. [...] yeah the toxic masculinity is really bad. [...] and then when they let it out it’s like in unhealthy ways and stuff.”

Kelsey: “Black men put down Black women, I’ve had very many Black friends, I see them on SM all the time. The first thing they do is they like to bash Black women down

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and degrade them [...] unfortunately, all I see on SM is Black men tearing other Black women down. And so, when a Black man goes to date a White woman instead of just letting it be, they find every opportunity possible to say, ‘oh well, I’m dating her because Black women be this or that.’”

What these young women are expressing, is inter-group and intra-group marginalizations on social media, where more powerful members of their race (Black men) marginalize them on the basis of their gender, and mainstream standards of thinness and Whiteness marginalize them on the basis of their race and body shape/size. The subtlety and pervasiveness of such marginalizing content on SM renders toxic and oppressive the spaces these women frequent for their liberatory learning. This is, of course, a tightrope every young person on the Internet is walking, but women who belong to multiple margins at once – including the margins of formal education—experience it more insidiously. Likewise, if young Black women are ‘forced’ to navigate toxic environments to access educational resources and opportunities (as is the case for the Hustlers), it has the potential to perpetuate existing educational inequalities and disadvantages they face due to their race, class, and gender.

5.5 ‘Hustling’ and Learning in Community

Learning in community is key for all study participants to varying degrees, but the Hustlers seem to engage with community resources more deeply and more intentionally. Physical community spaces such as the ACC and Malik’s Kids provide young people in marginalized communities with physical access to office and art studio space, computers, and other special equipment and software. They also offer and facilitate invaluable social resources—online and off—such as a network of peers, mentors, and role models. In many ways, they help fill a gap in the informal learning that normally takes place at home, in school, or in micro communities, which these marginalized young people do not always have access to. Additionally, these justice-oriented community spaces tend to serve and cater their programming to the youths’ particular intersectionalities such as racialized poverty, racialized violence, Black manhood, teen motherhood, and other pertinent intersections to this group of young people.

Such spaces are especially important to the Hustlers as they lack other alternative resources such as access to teachers or models within formal education and rely on community more heavily. Unlike participants who are embedded in formal education, community does not come

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by default for the Hustlers. Hustlers also seek community in spaces like the ACC, and online communities of interest. As such, social media and other community platforms are an important part of the Internet where the Hustlers build community and meet more learned others, peers, and mentors.

Taking Tupac's example, IRL community has been central to his development as an artist and his pursuit as a Hustler from a young age. Ironically, despite being castigated from his church community for desiring to pursue RAP professionally, it was at his church's youth choir "at 13 and 14" that he was inspired to "write my own rhymes and poems and then perform them for the church." Similarly, as an older teenager, it was Tupac's IRL community connections that led to his discovery of the ACC, which is now his strongest and main learning community. He passionately recounted how the connection happened:

Tupac: "Mark is the reason, and I will forever acknowledge him when people ax me how did I find the [ACC], because I met Mark at an open mic at [local community food and art place]. After I performed, Mark ended up walking up to me and you know congratulated me and telling me how well I did, and we exchanged numbers. And later on, we ended up hanging out and he ended up inviting me to an event that [ACC] was having. [...] so, fast forward, after I attended that event, I stayed in contact of course 'cause that's my bro. And he told me 'Hey, I attend these songwriting sessions every Saturday uh you should come through because the teacher is a rapper and I know you're a rapper' and he invited me and, ever since then, I've been a student."

Organic IRL connections through in-person community events are very important in this context and are complementary to, if not inseparable from, the online community building Tupac engages in on YouTube and Instagram. Once a regular at and integrated into the ACC, Tupac adds that:

"I feel like I was able to witness community here that I never witness anywhere else, not just in DC but in general. Umm, I love how I'm in this space, and my art or my craft i's being nurtured, and it's being nourished, and it's developing, and then when it's ready to be seen or showcased, you have people in here that pull strings to get you on stage to showcase what you've learned and what you've done in here."

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Similar to Tupac, Thinker also feels that IRL community is very important to his hustle, despite his preference for meeting people and learning together online. Being a part of the community and classes at the ACC, he shared, “helps [him] a lot” and supports his hustle with “music and business, so hopefully I could be here for a minute.” Thinker also relies on his local neighborhood library as a study and workspace, not just for access to books, resources, and meeting people: “I’ll bring my laptop and my equipment, and just sit in the library with headphones [...] a lot of people come up to me, and ask ‘are you a producer?’ [we then] make music and connect.” Thinker also finds the in-person aspect of being in the library’s physical space an opportunity to “approach [the librarian] with questions and see if she has any knowledge on any new books [...] I make her work, we kinda have a cool relationship, she be like ‘you’re the only person that comes in here and make me work and look up something’”. It is a place where he can feel free to alternate fluidly between IRL and online learning opportunities and build community relationships that support his hustle. Digital and IRL connections are, thus, complementary to one another and hard to clearly disentangle where one ends and the other begins.

Rashida’s involvement with Story Telling & Textiles, is similar in its continuity in that she relies on Instagram to scout the social network for local opportunities to showcase her poetry and crafts. She spent the majority of her time building community and connecting with peers online during the pandemic until “we finally came back this year,” and cemented those relationships in-person. She explains the extent and meaning of these peer relationships:

Researcher: “Would you say that, through these programs, you made some lifelong friends?”

Rashida: “Yes, Jaelle, I call her my god sister; Anthony, Nisha, umm Mary, Anna. yeah Anna is also a long timer. Yeah, I was [at the ACC] 2 years before Anna.”

Researcher: “Would you say you influence each other in positive ways and learn from one another?”

Rashida: “Most definitely! My Friend Mary, she only had one daughter when she first came to the program, she basically stayed for that summer and you know [...] she ended up getting her own place, she had her kids, so she doing real good for a mother of 3 and she only 22.”

5.5.1 *Mentors, ‘Mentorfluencers’, and Archetypes Online and Off*

An important aspect of learning in community is having the support and guidance of mentors, archetypal individuals, and more learned others online and off. This is especially important for the Hustlers as they particularly rely on community and its resources for their learning and lack the mentorship and role modeling built-in in formal education. The data highlight that participants in this group have varying quality and access to mentorship and role models, despite them all engaging in learning communities to various degrees at nonprofit organizations such as the ACC and Malik’s Kids. Some have access to IRL mentors, some to online influencers that are adopted as digital mentors – or what I call ‘mentorfluencers’—and some, who did not speak about mentorship at all as part of their learning experience. This access to and quality of mentorship, I argue, follows the contours of the participants’ particular life circumstances (intersectionalities).

Tupac, for instance, makes the most of his involvement in the music production class at the ACC and enjoys coming physically to class, learning from the teaching artist, Mr. Pierre, and his peers. Tupac is often seen lingering after the sessions to ask Mr. Pierre questions and receive advice on his music. Mr. Pierre is a successful Black male teacher and mentor to the aspiring musicians in his class. He is, however, not equally sought out by his students. Tupac seems to have more of his time and attention and seems to have more time and flexibility to come in early and stay late to spend time with Mr. Pierre. When asked to corroborate my understanding of their relationship, Tupac explains:

Researcher: “I guess I’m trying to understand the role that Mr. Dennis plays because he seems to kind of wear multiple hats.”

Tupac: “HE DOES! He does!”

Researcher: “Please correct me, but what I am seeing is the role of a teacher, the role of a mentor; you’re not just doing music, he’s kind of working with you as a whole person?”

Tupac: “Yeah, yeah. You know, these calls with the artists, these pep talks. Yes, yes! And I really appreciate that!”

Researcher: “I’m curious about what else it is that I’m not seeing that you have Mr. Dennis for as a resource.”

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Tupac: “Oh, wow. Yeah he is really, to your point, he is really teaching us the scope of everything. Um, I love how he, it is a saying that he says all the time, umm [...] you know, ‘there is music, and then there is the music business’. [...] I feel like he not only waters and nurtures our seed. The seed that we have to be artists and to create, he also is planting seeds when it comes to understanding that this is a business, and how to value your art in your music and your worth in such a way to where you're moving business-minded, you're not just creating without the intent to think about the business.”

Figure 47 Tupac at Rhythm and Poetry Discussion with Mentor



Fruitful mentoring relationships for Tupac extend beyond his relationship with Mr. Pierre. He is deeply embedded in the ACC and other art and community spaces in Washington, D.C. He relies on these relationships not only for learning, but also for vetting and sponsorships to important exposure events in his artform:

Tupac: “you have people in here like Ms. Claire, and Ms. Simone and Ms. Abby and others, that will call people and or inform me when opportunities present themselves

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pertaining to such things. Literally last weekend, I was able to perform at an event called the Poet Life Fest, and this was their first ever annual event, it was in SE DC, a whole bunch of vendors were out there it was wonderful. But I was just honored that Ms. Claire felt that she could trust me and she could call on me to go out there and perform as a rapper and a poet and it went well, I was able to perform with [collaborator] and I was able to do some solo stuff as well, so that's just an example of the community aspect, I love how you're able to work on your craft and then you have people in here when they recognize that you're ready or when they see the hunger that you have they'll push you in this direction towards opportunities, you know? I think that's important.”

The ACC and Malik’s Kids fill an important educational gap for these young people as third spaces. Integrated mentorship schemes which pair every community member with a trusted mentor that guides and advises them, is another equity-promoting attribute of such community spaces. Hannah (G; 17), for example, spoke fondly of her engagement with Malik’s Kids, which she had been frequenting since she was 13 years old. When asked about what she enjoys most about this community, she explained that it was “especially the people, they’re welcoming, and I have, like, a few trusted adults”. Hannah further explained that she relies on a number of mentors to guide her:

Hannah: “Do you know Ms. Janita? Ms. Janita and Ms. Gina, they was trusted adults; and Ms. Juju and Ms. Natalie, those are the trusted adults that I always turn to.

Researcher: “Can you tell me the kinds of things you turn to them for? Are they academic or personal or both?

Hannah: “Both”

Researcher: “And these are people you have access to at any time? You can call them anytime if you need anything?

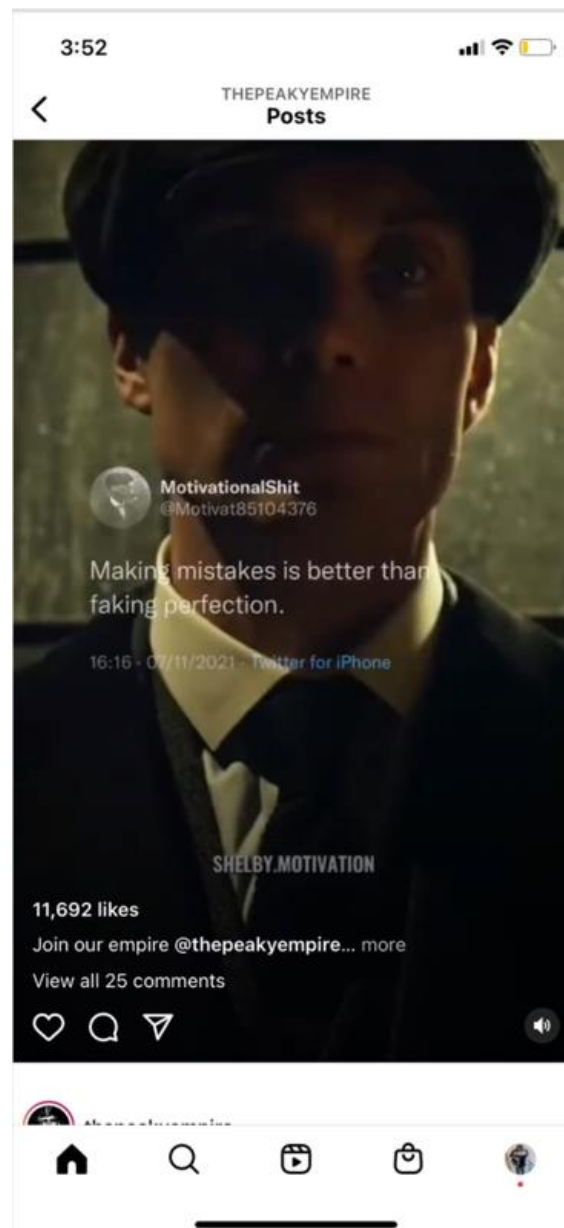
Hannah: “Mmhmm, [...] yeah, they always been there for me since I started going there.”

As previously argued in [Section 5.4.5](#), the Internet and social media play an important role in the learning of this group of young people. Thus, as the rest of their learning lives, learning in community and mentorship are not bound to physical spaces for the Hustlers. Much of the time mentorship is also located online and through adopted virtual mentors on social media such as IG, TikTok, and YouTube, as well as books, films, TV series, podcasts, and other cultural

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artifacts. This is an interesting way that some in this group engage with more learned others by adopting what I refer to as ‘mentorfluencers’. Influencers are individuals or curated SM accounts which have built a considerable audience and level of trust with their followers through their content— often around specific interests or lifestyles. Their perceived authenticity, relatability, and the trust they've built with their audience makes them seem very approachable and likely to be chosen as mentors. To be clear, this mentorship is informal and only goes one way, whereby the follower is adopting the influencer as a trusted source of information, guidance, and advice in a particular niche or area of interest. Contact and rapport with mentorfluencers can sometimes happen, but it does not always. Both Thinker and Donny meaningfully connect to online mentorfluencers, which they obliquely described as part of their learning practices. For example, Donny’s use of IG in Figure 48 where he shares an inspiring maxim he captured on the platform, which he claims was an important learning moment during a period of hardship:

Donny: “Oh, this photo says making mistakes is better than faking perfection and it’s on IG, the Peaky Empire. Um, I picked this because, a lotta of people to me, it helped me out a lot. Basically, I was tryna act like a big old [bit his tongue]. I never wanted to try something new because I was afraid to make a mistake, I only wanted to play inside, but it helped me, um, I lived that a lot, I wanted to take this one because it’s ok to make mistakes.”

Figure 48 Donny's Depiction of Learning on Instagram

Donny's choice of this photograph points to the learning potential of chosen archetypes on SM, which in this case, is in the form of 'teachable snippets' from a series' character he enjoys watching. The algorithm's suggestions of similar content on personal development can mirror the effect of an online community of interest, whereas the comment sections can be sites of discussion, bonding over a similar viewpoint and validation, and indeed, debate and disagreement. This is especially important to highlight for a neurodivergent young man like

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Donny, for whom mentorship and role modeling that consider his ‘whole self’ are important and scarce. This choice of photograph is also an interesting example of the learning usually dubbed ‘personal development’, which is often not a part of the education young people are offered formally and is therefore relegated to the realm of the family, or that of mentorship—which this group of young people generally tend to lack.

Though Donny relies on Instagram for access to mentorfluencers, he is also fortunate to have access to the integrated mentorship scheme with Malik’s Kids. He is assigned an IRL mentor that he meets with weekly and as needed. This relative privilege, however, is not available to everyone.

Young people like Thinker, for whom consistent IRL mentorship and archetypal role modeling are out of reach, online mentorfluencers in their aspirational fields can emerge as an alternative, and they can offer liberating affordances. Thinker, for instance, is enrolled in the same music production class as Tupac, but he does not have the privilege to always attend it because of constraints on his time and geography. Thinker often must work barista shifts scheduled during class time or take a long commute to physically attend class. He also often cannot attend adjacent community events and benefit from unstructured and informal time with the teaching artist, the same way Tupac does. Lacking IRL guidance for his craft, Thinker often creatively looks online.

In his own time, Thinker engages in researching, learning, and emulating more learned others he finds online and off. He shared with me much about an entrepreneur named Chris Guillebeau, who wrote the book *Side Hustle*, which has inspired the title of this chapter. When discussing the photograph with me (Figure 31), he was referring to Guillebeau as a figure he closely follows online, learns much from, and heeds his advice on everything related to entrepreneurship. Reading Guillebeau’s books is an extension of this relationship of mentor-mentee, which Thinker has created. Additionally, Thinker’s learning practices also include adopting mentorfluencers on YouTube and the wider web in the communities of music production and mixing:

Researcher: “I know you told me you go on YouTube for your learning, are there any other places that you enjoy going on online to spend your time?”

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Thinker: “Yes, like other producers’ sites, like they also have templates and plug-ins that they also use and share that I just go on and install so I can have a template like them or a replica of a artist and I try to make it into my own’s. [...]”

Researcher: “Would you research different artists you like?”

Thinker: “Yeah and use all the plugins and mix it how they usually mix it. I know they pattern, the key, of how they do it too. [...] this is the dude that I stalked his page to get plugins from, I honestly use that for when I make my mixing service.”

Figure 49 Thinker's Music Production Mentorfluencer



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By virtue of his class-race and gender intersectionalities (Black, poor, and male), it is tempting to frame Thinker's and others' adoption of online mentorfluencers as a sub-par and a 'making do' form of mentorship. It is because of converging circumstances of deprivation that they cannot access IRL resources available at the ACC and Malik's Kids, including a dedicated mentor. However, chosen online mentors are similarly adopted by participants who do have access to face-to-face mentorship. Donny, as discussed above, seeks this sort of virtual mentorship on the Internet, social media, and in video games, in addition to the face-to-face mentoring he accesses at Malik's Kids. It is, thus, perhaps because of the liberating benefits this form of learning offers, that young people who sit at multiple intersections (disability, race, class, gender, geography, and others) choose to embrace virtual mentors, precisely because IRL mentorship does not meet their needs in the way that online one does. Mentorfluencers, I argue, are an important form of learning for the Hustlers, which exists in its own right – and not as an inferior or second-rate alternative to IRL mentorship. This is, however, not to underplay the problematic nature of some mentorfluencers' ethos and messages, especially when dogmatic or erroneous information is shared and algorithmically propagated.

5.6 Hustling to Conform and Conforming to Hustle

I previously articulated in the *Findings Overview* that the categorizations (Conformists, Hustlers, and CDAMs) are of practices and attitudes, and not categorization of individual participants. An orientation towards conforming or hustling is not deterministic and static but is a way to describe patterns of tendencies of the participants' learning practices. As such, individual participants do drift between orientations and can exhibit interesting and dynamic tendencies in the space between data categorizations. I identify two such orientations which illustrate this liminal space: Hustling to Conform (H2C) and Conforming to Hustle (C2H).

Participants who 'conform to hustle' hold proactive and reflexive attitudes towards learning and engage in learning practices that are agentic, creative, resourceful, and enterprising – *within* their structured experiences of formal education. Those C2H exhibit many of the Hustlers' learning practices including self-directedness, and social media and online learning community engagement. They remain embedded in the formal education system and must also navigate much of the same school-imposed IT infrastructures discussed in Chapter 1, which are not always liberatory or useful to them.

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C2H's aspirations are like those of the Hustlers in their nonconformity and their wish to eventually challenge rather than navigate existing structures. What makes this group's practices/attitudes interesting is their navigating compulsory education despite their desire not to. They have the foresight that doing so is part of their future hustle trajectory. In other words, conforming to formal education milestones such as graduating high school or receiving a GED is, to them, indeed a form of hustle. They view receiving accreditation as a steppingstone in their journey towards the hustle and not an end itself. Thus, when held in comparison, the difference between Hustlers and C2H is that the latter are hustlers-in-the making realizing the need to wait for the right time to fully pursue their dreams of enterprise.

On the other hand, participants who hustle to conform engage in practices that reflect the Hustlers' resourcefulness and creativity, but aspirations that reflect their wish to navigate and fit within— rather than challenge or circumvent — existing structures. Their aspirations include graduating university to achieve employment and economic security. They have internalized narratives, values, and beliefs of capitalism without always critically questioning them or challenging the dominant economic and cultural paradigm as their Hustler counterparts do to a higher extent. One could sum up their goal as a desire for conformity to mainstream ideas of education, learning, work, and success. They exercise agency but not taking big risks for what they could be or build outside of conventional pathways.

Kelsey and Jaelle are Hustlers who spend substantial time and energy enterprising, cobbling together a basic income though selling their art, working part time jobs, and perpetually seeking new and better opportunities. However, unlike, for example, Tupac and Rashida, Jaelle and Kelsey are invested in Conformist ideals of success in ways that instrumentally emphasize the economic outcomes of education. Though their dreams of completing a college education and successfully securing a job are not yet concrete, that is their aim. Whereas Tupac, Thinker, and Rashida passionately pursue their learning to intentionally enterprise and seek success outside of said structures.

Kelsey, for instance, is self-taught on several subjects (photography, drawing, arts and crafts) but not in a way that she directly sees as translatable to economic capital. Unlike Tupac, for example, she does not imagine these art practices, despite enjoying them, as leading to a viable career path. In other words, Kelsey's hustling practices (i.e. using social media 'seriously',

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connecting with online learning community, sharing art practices on IG, etc.) are mostly limited to her hobbyist art and creatively navigating the academic demands of her undergraduate education. Though Kelsey's hustling practices seem like Tupac's on the surface, they have different motivations and aspirations underpinning them.

In this instance intersectional analysis helps illuminate this attitudinal difference between those who relatively thrive such as Tupac, and those who must always strive like Kelsey.

Kelsey is a Black, poor, single teen mother, not receiving child support, casually employed, unhoused, and relying on family for shelter, food, and other economic support for herself and her daughter. As such, Kelsey's goal is economic independence, and her pathway of achieving it is through a university degree, followed by full-time employment. Kelsey has little room for risk-taking, given the oppressive scarcity in many aspects of her life and therefore seeks what she deems the surest way to economic security. Making choices aligned with the experience of internalized capitalism, poverty, and immediacy, Kelsey perceives a divide between her current hustling practices to 'survive', and the future career as graduate graphic designer in which she hopes to 'thrive'.

Tupac, on the other hand, gave up a fully funded opportunity to pursue a university degree in favor of pursuing a risky and unstable music career. Though poor, Tupac has stable housing and is a child-free erudite Black young man with relative success in his small music community. Immediacy and the need for food and shelter are less oppressive for him than for Kelsey. He therefore pursues his passion for learning with little distinction between his lifelong/lifewide learning, and his hustling practices growing his desired career as a recognized musician. They are one and the same for Tupac.

Though both Kelsey and Tupac are 'hustling' to change their race-class and other social conditions, they are engaging with it from different locations of privilege and marginality by virtue of their gender, family income, parental status, amongst other markers. This difference of intersectional location, I argue, is a contributing factor to their attitudinal differences towards economic security, the role of education, and the purpose and practices of learning in their respective lives. Simply put, their attitudes, aspirations, and goals are to an extent structured differently by their specific and intersectional locations.

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Jaelle (G; 21) is another example of Hustling to Conform, where attitudinal resignation interestingly coexists with agentic hustling practices. Jaelle, like Kelsey, is enterprising in her ability to meet her immediate needs by working casual jobs, selling her artworks, and taking commissions from community members in a true hustler fashion. But when probed further, Jaelle shared that she loves art and her current job, “but [she is] planning on doing a university program” in Cyber Security. However, Jaelle explained that due to the high cost of a four-year education in the US, she decided to aim for Cyber Security certifications, instead:

Jaelle: “That’s probably only if my dad can’t help me with [paying for] this class [...]. If I can’t do that then I’ll probably just go to university, and this will probably be a good head start.”

Researcher: “Can you tell me about this class?”

Jaelle: “It’s like a \$2800 class, it’s six weeks, and if I pass the test, I’ll probably have to pay for the test myself, if I pass the test, then the person teaching the class would hire me on the spot. [...] Yeah, I mean the university degree it helps, but I think um the certifications are a little more important.”

Jaelle is a resourceful and creative young woman; she is self-taught, taking courses on Udemy and enlisting her dad’s help in financing her credentials. Though her strategy for a career shift is instrumental and structured by expectations of a return on investment in a university education and/or professional certificates in the form of high-paying employment. She shares below her willingness to pay for courses that can help her advance her credentials in the Cyber Security field:

Jaelle: “Oh yeah, that’s Udemy. I feel like you can learn just about anything on Udemy, but I do focus on Cyber Security; kinda like the basics. Those are the 3 courses that I have.”

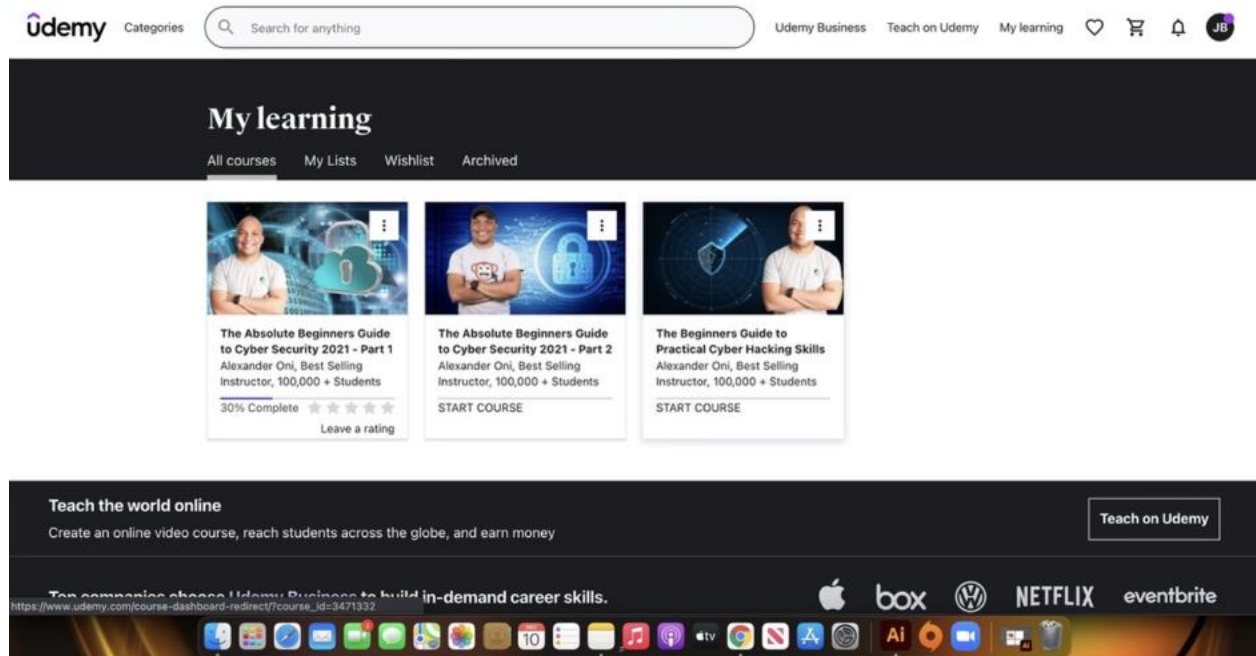
Researcher: “Do you have to pay for courses on Udemy?”

Jaelle: “I think for most of them yeah.”

Researcher: “And how much does it cost to pay for a course.

Jaelle: “Um, I can’t remember the full prices for these courses, but I got these for like \$40 so that was really lucky. I think maybe it would have been around \$100 something for those three.”

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Figure 50 Jaelle's Cyber Security Course on UdeMy

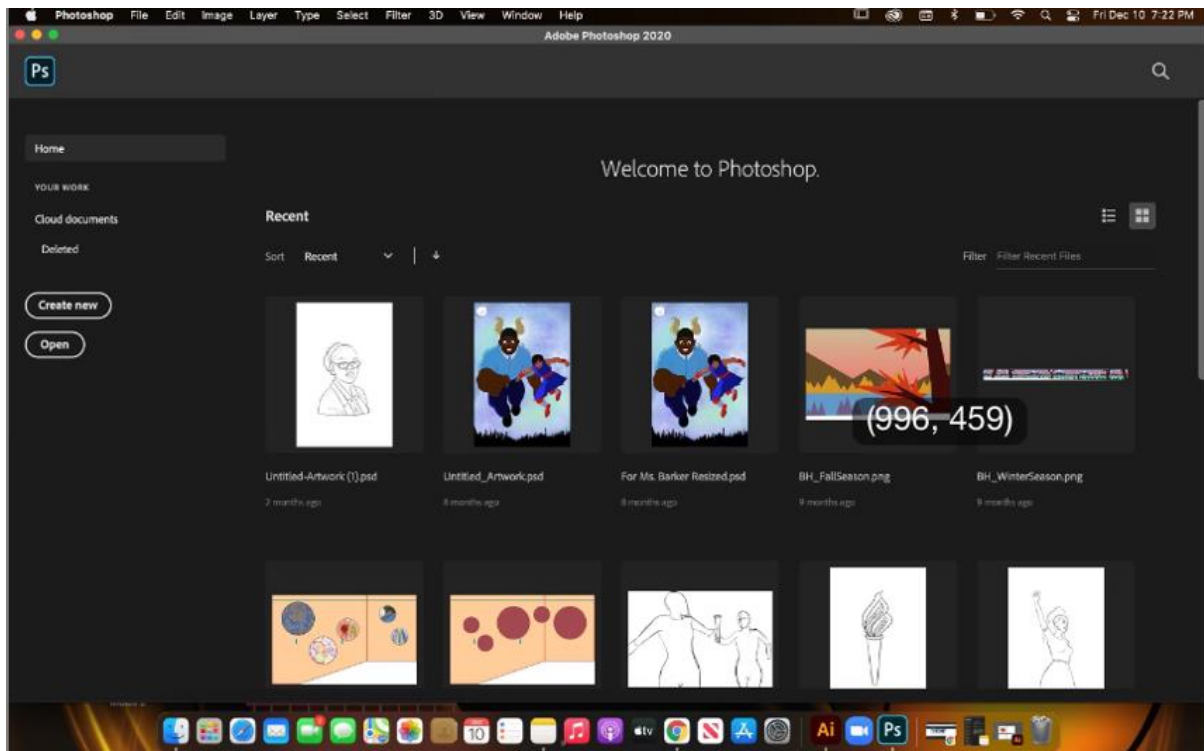
Similarly to Kelsey, Jaelle shares the cognitive dissonance between the art practices she enjoys and what she seems to think she must do in order to be economically remunerated. She does not seem to apply this level of investment and resourcefulness in her current field of design despite very much enjoying it. This illustrates Jaelle's resignation in this area of learning because it does not seem to render a return on investment in the same instrumental fashion as Cyber Security studies represents for her:

Researcher: "And is [this design software] free too?"

Jaelle: "Umm, for the most part yeah, I think some of the things on there, you have to buy, but for the basic ones it's free."

Researcher: "Can you give me an example of some of things that you have to pay for?"

Jaelle: "Umm I think you have to pay for certain proposals and certain clothes and stuff like that, umm maybe certain models, I don't know, I don't use anything other than the free stuff."

Figure 51 Jaelle's Design Software

Jaelle's resignation to not use "anything other than the free stuff" and choosing not to pay for premium features is put in sharp relief, not only against her own practices when she is learning for CS, but also against practices of Hustlers like Thinker. Thinker's practices reflect a doggedness and risk taking in the face of scarcity, which Jaelle deems not a productive use of her limited resources. Thinker, on the other hand, finds an enterprising way to justify purchasing a premium software by calculating potential income generated as a result of his investment and his selling higher quality beats:

Thinker: "This, uh, is the software that I used to record, so this another way I make money too. This was too much [money], Uh, I got [Logic Pro] for \$200, and I make income off that online and stuff. So, it pay itself off, yeah."

The difference between Jaelle's and Thinker's perceptions of the direction and value of their hustles here are disparate and worth noting.

Another interesting finding from Jaelle's and Kelsey's data, as the main participants Hustling to Conform, is the relative isolation which characterizes their learning practices and respective

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educational experiences. In contrast to the community-centered lived experiences of the Hustlers, Kelsey's educational experience highlights her learning in isolation, forfeiting the benefits of learning as part of a larger community. Kelsey explains her experience of being a commuting student for the fifth year with little connection to the institution:

Kelsey: "I wish I could live on campus; I wish I could go to community events; I wish I could make friends so I could talk to those doing the same stuff I am doing. I don't have any friends off my campus that are doing the same things that I'm doing, so I can't even, like, go and ask them for help. It's just me, I feel like, I'm just like, I go there for class—and class only—and come home [...]. It's isolating and I am not excited now as I was when I was a freshman [...] I wish there was something to give me more money [laugh], uh a money tree, like, so maybe I could get my own place so I wouldn't need to stress so hard about college."

Kelsey here explains the pressure of navigating her race-class-gender intersectionality in education which she described as isolating. Simply navigating the school system, as discussed in Chapter 1, her practices are instrumental and focused on extrinsic outcomes of passing classes and completing her degree. In this process, she seems to be missing community, collaboration, sharing, and learning alongside and from others, which are elements that make a university education rich and fulfilling. She also seems to be aware of the luxury of spending one's energy and time learning things one enjoys, as opposed to learning as a means to other ends.

Similar to Kelsey, Jaelle too operates from the belief that a university degree is an economic necessity for social upward mobility and therefore invests her energy in one despite finding more fulfillment and ease in her casual art jobs and commissions, art communities, and varied artistic endeavors. As previously argued in [Section 5.3.1.3](#), Jada is also learning online and in isolation because of considerations that are tangled up with class, race, and geography as intersectional markers of identity and social location.

In summary of the chapter, the Hustlers tended to find creative ways to do 'a lot with a little', try to beat the odds, and resist the finality of their socio-economic condition. Hustling, as an orientation, reflects the young people's varying stories of intersectional disenfranchisement in education, but also the creative and resourceful ways they resist it. In contrast to the Conformists, the *Hustlers* demonstrated a more self-directed approach to learning and education. Though, their

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practices and attitudes seem to be an adaptive response and a resilience strategy to their experiences of exclusion in and from structures of formal education. The Internet more broadly, but social media, specifically, are ‘serious learning technologies’ for the Hustlers, as they are especially used in this group’s shared quest of enterprising to improve their individual economic conditions. Learning in community is key for all three orientations to varying degrees, but the Hustlers seem to engage with community resources (online and off) more deeply and more intentionally. This is especially true with regards to having access to a network of peers, mentors, and role models. This highlights the critical role of third and community spaces, such as the ACC, in catering to their particular intersectionalities and, therefore to some extent, remedying some of the elements of exclusion inflicted by formal education.

Interestingly, the data also show that individual participants do drift between orientations and can exhibit dynamic tendencies in the space between data categorizations. Two such orientations emerge which illustrate this liminal space, the *Hustling to Conform* and *Conforming to Hustle*. The latter have aspirations similar to those of the Hustlers in their nonconformity and their wish to challenge rather than navigate existing structures. What makes this group’s practices and attitudes interesting is their navigating compulsory education despite their desire not to. They consider doing so as a part of their future hustle trajectory. Those who *Hustle to Conform*, on the other hand, engage in practices that reflect the Hustlers’ resourcefulness and creativity, but aspirations that reflect their wish to navigate and fit within— rather than challenge or circumvent — existing structures. Unlike the Hustlers, for example, their aspirations focus on graduating university to achieve employment and economic security and success, not building small business or artistic careers.

6 Cultural Distinction at the Margins

In this chapter, I present the third orientation of the group I describe as having *Cultural Distinction at the Margins* (CDAM). This group includes two sibling participants; Kiko (G; 11) and Kamal (B; 16) who are both homeschooled. Similar to the Conformists and the Hustlers, this group's orientation is shaped by particular intersectionalities in ways that are both liberating and constraining and in ways that equally highlight experiences of structural oppression and resistant agency. The CDAMs' orientation is shaped by race, class, geography, the socially isolating effects of homeschooling, and the digitally isolating effects of parental surveillance and control on their digital lives.

The CDAMs share many aspects of marginality with the Conformists and the Hustlers, including the race-class intersectionality. Yet, they set themselves apart in their challenging of their structural class-race and other marginal identities by way of accumulating and leveraging cultural capital in a way that sits outside of their intersectionally expected practices and attitudes.

As Black and low-income youth of erudite and race-aware parents, Kiko and Kamal have the highest cultural capital of all participants and hold attitudes towards learning and education, conceptualizing them as political and engaging pursuits. Kiko and Kamal have been made to exit the public educational system by their parents as resistance to a “system that fails Black people” and have been homeschooled instead.

Despite homeschooling's framing as an act of resistance and liberation by their family, the pair have also been made to lead very limited and structured digital learning lives. As part of their homeschooling enterprise—and enabled by their distance from immediate necessity—Kiko and Kamal's orientation reflects (1) engagement in highly sophisticated arts, sports, and other culturally distinctive activities. Unlike the Hustlers, their learning is not driven by a resolve to make economic gains or recognition as part of a meaningful hustle; therefore, making the arts and culture a genuine and inherent pursuit for learning, joy, and self-expression. Unlike many of the Conformists, they are aware and critical about their place in society and are confident in questioning and challenging the world around them. The CDAMs are neither conforming nor hustling to change their conditions. They are mostly genuinely interested in their learning and cultural pursuits as part of a unique homeschooling experience designed by their parents to help them achieve cultural and social distinction. Secondly, the CDAMs' orientation also reflects (2)

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a highly structured, surveilled, and policed use of the Internet and digital technologies in ways that other groups are not. This, combined with their homeschooling, results in social isolation and digital disconnection from other young people in ways foreign to the Conformists and the Hustlers. In light of these findings, the CDAMs' homeschooling experience simultaneously privileges and marginalizes them in different ways, capturing the crux of intersectionality in terms of coexisting privilege and marginality and their complexity— or what I refer to as privilege within marginality.

6.1 Resistance and Agency in Learning Practices and Attitudes

Being culturally distinct at the margins of society is a nomenclature I use to refer to the ways in which this group of young people who are socially, economically, and politically marginalized create and maintain unique learning attitudes and practices. This concept captures how, despite being on the fringes of mainstream society in various axes of their intersectionality, they have negotiated a position of cultural privilege and distinction within their marginality. The experience of being homeschooled for Kiko and Kamal is one that reflects a strong liberatory facet of learning and education in terms of both practices and attitudes by centering culture, investing in and intently building cultural capital with the aim of achieving cultural and social distinction.

Across interview and fieldwork data, it emerged that Kiko and Kamal's mother had curated an elaborate schedule of highly sophisticated classes, arts, sports, and other culturally distinctive activities for every day of the week. Kamal and Kiko shared with me the nature of their practices:

Kamal: "Our mom introduced us to something called Heritage Dialogues and that's basically what we've been doing. [...]it is a Christian group where they teach kids everything or almost everything you learn in schools, and they teach us math, reading, writing, cartography, social studies, Latin and Greek, science, we're actually doing a science fair, and reasoning [we go] every Tuesday from like 8am until 3pm. But the woman who teaches us she says that she's not our teacher that our parents are our teachers, she's just our tutor, she tells us what to do and then our parents help us do it."

In addition to Heritage Dialogues, Kiko and Kamal also frequent an African Cultural Center where they take weekly classes such as Spanish, Black history, literature, and economics. Their

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elaborately curated homeschooling project also includes “other extracurriculars” such as attending various classes at the ACC – a 3D printing class, a music production class, and improvisational theatre, among others on different days of the week. They also have weekly tutorials in French and Mandarin Chinese given by privately hired tutors Madame Laurence and Ms. Mingyu. They are also enrolled in a weekly “Egyptian figure painting” class on Fridays and another private painting class with a renowned Washington, D.C. artist on Saturdays, just after their “speed skating” (for Kamal) and “figure skating” (for Kiko) classes “every Saturday at 6am [...] and then, on Sundays, [they] wake up to do, erm, the tennis class”.

When contextualized withing the dominant discourse, this distinctive cultural project, which Kiko and Kamal’s mom has created falls under the experience of engaging children in extracurricular activities. While afterschool programs are meant to “compensate for deficits in children’s lives,” extracurricular activities “are to serve as opportunities for children to get ahead and to prepare for participation in the adult world” (Herr Stephenson et al., 2011, p. 18). Annette Lareau (2003) contends that extracurricular activities have become increasingly significant in middle-class upbringing. She coined the term “concerted cultivation” to describe the efforts that middle-class families use to ensure their children’s future status by engaging them in activities considered to have a high level of cultural capital” (Lareau, 2003 in Herr Stephenson et al., 2011, p. 19). As such, afterschool programs are mostly thought of as tending towards “normative aims”, while extracurriculars are meant to “promis[e] distinction” (Herr Stephenson et al., 2011, p. 19).

Against this background, it is important to note that Kiko and Kamal do not have middle-class status and have not had a middle-class upbringing. According to their questionnaire data, the mother’s occupation is listed as “biodiversity” and “lawyer” by each of them, this suggested a high-earning parent. However, the father’s work was listed as “idk [I don’t know]” and “looking for work”. Additionally, Kamal shared in interview data that his nuclear family are living in their grandmother’s house because his parents could not afford to live in what he insinuated was a middle-class neighborhood. These data, combined with the fact that the pair qualify to register in income-restricted cultural programming at the ACC and other non-profit educational organizations, suggest that the family are low-income.

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Despite their family's apparent economic constraints, Kiko and Kamal are experiencing a cultural and educational upbringing that rivals or even surpasses that of many middle-class children in Washington, D.C. Interestingly, this rare situation stems not from the children's own agency, but from their mother's creative, resourceful, and, to an extent, a race-class subversive approach to parenting. By creatively "doing a lot with little" (Robinson, 2014), she navigates available resources to provide rich experiences for her children – all enabled by her high level of education, cultural capital, and race-class awareness and resistance. As such, the siblings' homeschooling endeavor becomes an intersectionally-defiant project, challenging societal expectations and demonstrating how parents' reflexive agency can play a crucial role in circumventing economic limitations to provide substantial educational and cultural opportunities for their children. It also highlights how this cultural 'leap' is the result of parents 'transferring' cultural capital to their children and shaping their tastes.

Additionally, Kiko and Kamal's unique homeschooling experience is further facilitated by social justice orientated community and art spaces, like the ACC, which offer free cultural programs to marginalized families. While participants' motivations for attending the ACC vary—ranging from simply meeting childcare needs to avoiding trouble on the streets, receiving free food and attendance stipends, or addressing behavioral issues through art therapy programming—the cultural capital gained is often a secondary benefit. In contrast, Kamal and Kiko approach their engagement with the ACC programming as an extension of their homeschooling. They attend classes regularly and year around, they are selective about their choice of classes and show full engagement with their teaching artists. Their experience differs markedly from that of most participants, reflecting their distinct attitudes and expectations toward the ACC's offerings—and as a result, the role the ACC and other community cultural spaces play in their homeschooling project.

In this case, managing to negotiate a position of cultural privilege and distinction within a broadly marginalized status is a testament to the complexity of intersectionality in learning and education, as well as the important role agency and resistance play in this negotiation. It is tempting to think about marginality in absolute terms, but privilege within marginality, as this case illustrates, is a nuanced space that some inhabit.

6.1.1 Education as Critical Attitudes and Practices

While the Conformists' orientation highlights navigating edtech structures and creatively learning to succeed within educational systems, and the Hustler's orientation highlights an animated effort to learn to change class conditions, the CDAMs are doing neither.

The curated homeschooling program that Kiko and Kamal have is the result of a highly critical attitude towards social and educational structures on the part of the participants' family. This includes (1) a stance towards education as an inherently political act and a consequential social justice issue for them and their life trajectories. These young people's criticality also reflects (2) a more expansive conceptualization of education (with and without technology), and (3) an empowered sense of agency, self-confidence, and curiosity towards themselves and the world, which distinguishes them from participants of their age in the other two orientations.

6.1.1.1 Education As a Political Act

In the experience of Kiko and Kamal's family, learning and education are conceptualized as a political pursuit, with homeschooling as its praxis. This is in line with arguments I made in [Section 2.1.4](#) of Chapter 2, where education is highlighted in terms of liberatory and oppressive potentials. In this instance, race-class awareness and resistance is at the heart of and the main motivator behind the decision to homeschool Kiko and Kamal. In fact, the latter shared the narrative behind his mother's decision to pull him out of a gifted public school, which he claims was discriminatory towards him in terms of his gender and race:

Researcher: "I'd like you to think about all your different identities and think about your leaning, do you feel that your identities affect your learning in any way?"

Kamal: "Yes, I feel like I'd still be in school if I was a Caucasian female, for example, I think that my mom took me out of the gifted school because my teachers didn't like me because I was Black and male. [They] were complaining that I wasn't doing anything right even though I wasn't doing anything wrong. She took me out because she felt like I couldn't get the same opportunities as the other kids because all the teachers didn't like me. They just didn't like me 'cause of the color of my skin."

Kiko was homeschooled from the first grade on similar grounds of the family's resistance to the narrative of racial and class marginalization in public education – especially in the context of the historically segregated schools of Washington, D.C.

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It seems the motivation behind homeschooling in this case is a way for the parents to maintain a level of curriculum control and cultural preservation, choosing educational experiences that align with their political beliefs, privileging historical perspectives, economic theories, and social views they feel are underrepresented in mainstream education. The race and class-critical courses the pair are enrolled in by their mother at the African Cultural Center, the ACC, and other social justice orientated cultural spaces are evidence of the political rootedness of their homeschooling. For instance, Roots is a program at the African Cultural Center that teaches Black young people an alternative Black history, focusing on the plight of Black people before, during, and after slavery. Similarly, Kiko is enrolled in a class titled “Black Girl Magic, where [they] read books written by Black female authors and talk about them.” Roots also includes classes such as Pan-African History, Empowered Economics, and the intersection of class and race from a critical and analytical perspective. Kiko elaborates:

Kiko: “Miss Tiranda teaches us about how to become financially free, like, she teaches how to stay out of debt and how to invest in stocks. She also teaches us how to buy a house and things like that and how to retire. So, she teaches us how to be smarter with our money.”

Researcher: “And this is all part of the same place, Roots?”

Kiko: “Yes.”

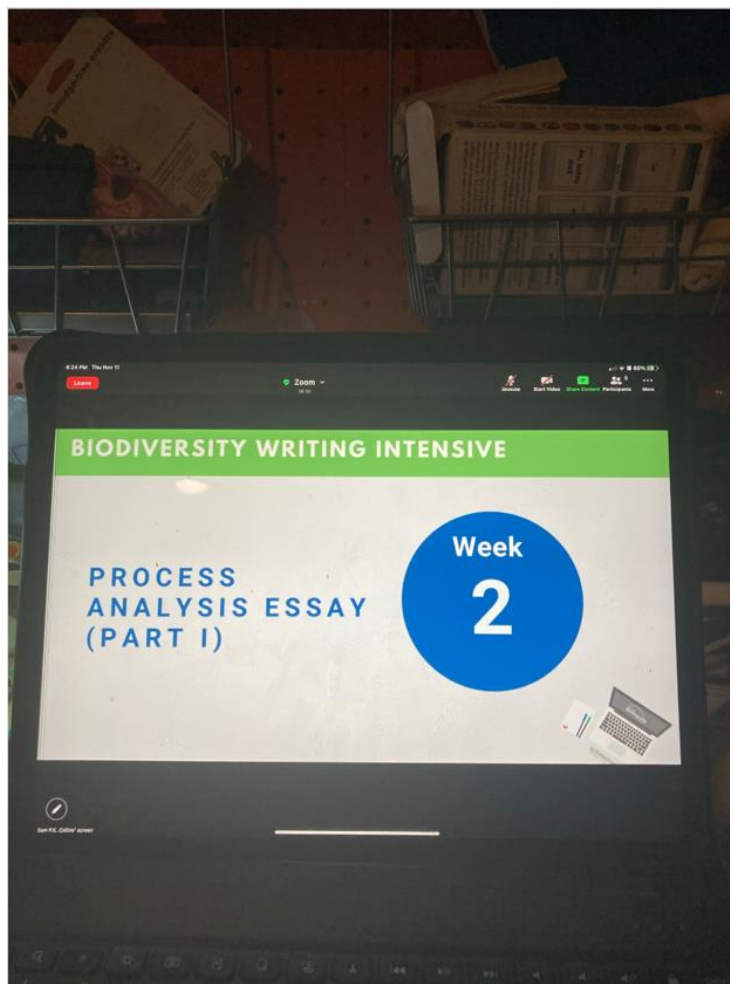
Kamal also highlights the class-race intersection and collective political and economic struggles that his courses at Roots teaches them about, ensuring their education and understanding of the world includes a critical lens, and building them to be engaged political individuals:

Kamal: “So my teacher, [name] he teaches us about all of the African – every person who has helped us to get to where we are now, who’s fought for our freedom. He also tells us about certain groups, he also tells us about the people who have been against us. He also told us that Tiffany & Co, and Bank of America were both companies that profited off of slavery and Beyoncé and Jay-Z have just done something with Tiffany & Co. So, he was saying would you rather be, like restricted and comfortable, Like Jay-Z and Beyoncé, they were being all buddy-buddy with Tiffany & Co? Or would you rather be free and uncomfortable, so? You’d be free and you be fighting for the freedom of other people

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you will be staying away from the companies that profited off of slavery and stuff like that.”

Figure 52 Kamal's Mother's Online Writing Class



As part of the concerted effort of their homeschooling, Kiko and Kamal’s mother additionally voluntarily teaches a class for young Black teenagers in her community, where her children are also enrolled and attend from home together. Kamal described it as “a class for melanated teenagers, for high schoolers, middle schoolers, so that they have the chance to learn the stuff that other people are learning in school.” The class includes science, reading, and writing, which their mother offers as a summer intensive for disadvantaged children in the community.

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Kamal and Kiko's positioning as critical young people receiving a race, class, and gender-critical homeschooling experience is also evident in their expansive understanding of structural issues of inequality and in their awareness and sensitivity to their own place in social structures, including the racial economics of geography, the racial politics of taste, and the intersectionalities driving culture and learning and education:

Kamal: "a Caucasian person would not be in Biodiversity [mother's course], they would not be here in [ACC], even if a White person was interested in music, it would probably be singing or stuff like that. Maybe a beat maker, but I don't think that they would come here to Southeast Washington, D.C. to do any of this, they wouldn't be in Roots, they might be in [Classical Conversations], but it would be in a different place, they wouldn't live in SE where I live. [...] yeah they wouldn't—they just wouldn't be the same as I am."

When asked a similar question about their understanding and experience of inequality in education, many of the Conformists did not share the criticality of the CDAMs. In fact, most of them expressed a limited understanding of systemic inequalities and their role in individual and group oppression. For instance, when asked if they believe their educational experience is in any way different from other identity groups, many of them simply and shortly answered "No". Others provided more elaborate explanations which range from colorblindness and identity erasure to arguments against Black Lives Matter and for a politics of meritocracy and individual hard work. For instance, Chiana interestingly recognizes the salience of race to privilege, but fails to recognize the complexity of racial discrimination, mis/underrepresentation, and segregation in schools, the resistance against which is the core ethos of families such as Kiko and Kamal's:

Researcher: "How do you think your identity as a Black girl impact your experience in education?"

Chiana: "What you mean though?"

Researcher: "I mean, does your race or gender for example give you more, less opportunities? Or anything else you might think of?"

Chiana: "NO, it gives me less opportunities."

Researcher: "Can you tell me why?"

Chiana: "Because White people get more privilege."

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Researcher: “And, in school, is that true too?”

Chiana: “No, we got all Black people in our school, well except for like the teachers. Of course, we got White teachers and stuff, but all the students are mostly Black.”

Researcher: “How do you feel about having White teachers?”

Chiana: “They just teachers. They, like, human.”

Colorblindness seems to be both due to a genuine lack of understanding of systemic inequalities, but also, a way to express aspirations for a post-racial equitable society in which the intention is to treat everyone the same, regardless of their racial or ethnic background, including one’s own. Samiyah and Hannah also share this view:

Samiyah: “At the end of the day, we are all the same, you know? We speak different languages, and we’re like [unclear] with the skin tone color, but, like, we’re all human, we all have the same body parts as women and men, you know?”

Hannah: “Well, I am Black, but I don’t really like the BLM movement, ‘cause even though they are some racial things going around, why does it have to be only Black lives, why can’t it be all lives? Why does it have to be specifically focused on one race, why can’t it be all races? US Black people are not the only people that’s going through stuff, it’s different races. Scratch that, we’re not really different races if you think about it, we’re only one race, only our skin colors are different because some people was born [away or closer to] the equator. That’s the only reason our skin color is different. [...] There is only one race, which is the human race. But you know, back in slavery and stuff, they basically programmed it into our minds that they are multiple races, which they really are not [...] it’s false information, we’re all one race.”

Similarly, many of the Conformists and Hustlers demonstrated uncritical and simplistic understanding of the nature of inequalities as they spoke about meritocratic narratives of achievement and success based on individual abilities, talents, and efforts, while ignoring the role that social structures play. For example, on the heels of a conversation about her dispassion about the metal detector in school and the infuriating act of stripping clothing and accessory items in a queue every morning, Lucy shared her internalized individualist view which places greater emphasis on individual responsibility and agency than the role of larger social structures:

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Researcher: “And you feel violence in schools can be a problem? I don’t know, like bringing guns and young people fighting? [...] do you feel that violence can perhaps also be the result of growing up in a violent neighborhood?”

Lucy: “No, not really. It just depends on the way the person act and the way the person carry they self.”

A similar sentiment of internalized individualism was expressed by Samiyah, without acknowledgement of or discussion about wider systemic issues:

Researcher: “I want you to think now about your identity as a young Black woman, and if this identity affects the educational opportunities available to you?”

Samiyah: “No, because I always feel like, I deserve those opportunities like everyone else, because like people work hard to get where they are and, the most important thing to know, is that you work hard, you get rewarded, and that’s what I do. And then to, like, get to where I am today.”

The aforementioned contrasting examples of the views about the nature of inequality, which these young people are perhaps exposed to in school and at home, are to highlight the degree to which Kamal and Kiko’s awareness of and emphasis on racial and economic inequalities in their learning lives – particularly, their homeschooling project – is radically defiant to the educational status quo of most participants.

6.1.1.2 Expansive Conceptualization of Education

Kamal and Kiko distinguish themselves though their critical attitudes and practices in a number of ways, including the ways in which they conceptualize learning and education. Their homeschooling project reflects their family’s lifewide approach to education, which integrates arts, physical education, hobbies and personal interests, community participation, and travel and cultural experiences. Kamal rectifies my misunderstanding by asserting the broad and inclusive way he conceptualizes a “learning experience”:

Researcher: “It sounds like you are engaged in a lot of extracurricular activities, [...] what else are you doing that’s not related to school?”

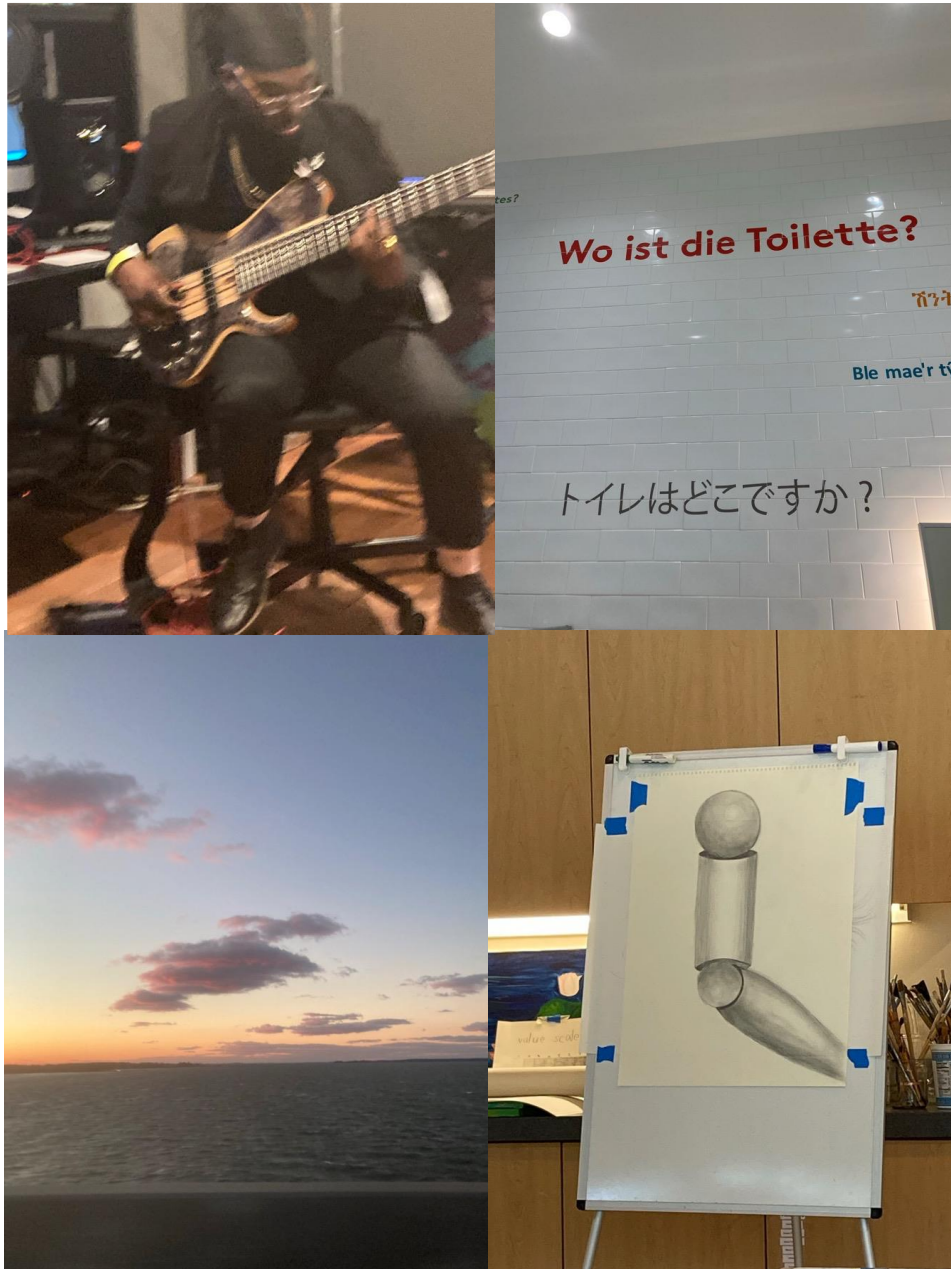
Kamal: “There isn’t really much that isn’t related to school because I’m home schooled. Basically, everything is a learning experience, like, we went on a road trip across all 50

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states and, even then, it was a learning experience. We were going to museums and stuff, and she made us do everything there. [...] So first, we just went to a few states without anything in mind, and then, in an RV, we went for two weeks, and then, we did another trip in our car, I think that was two or three weeks.”

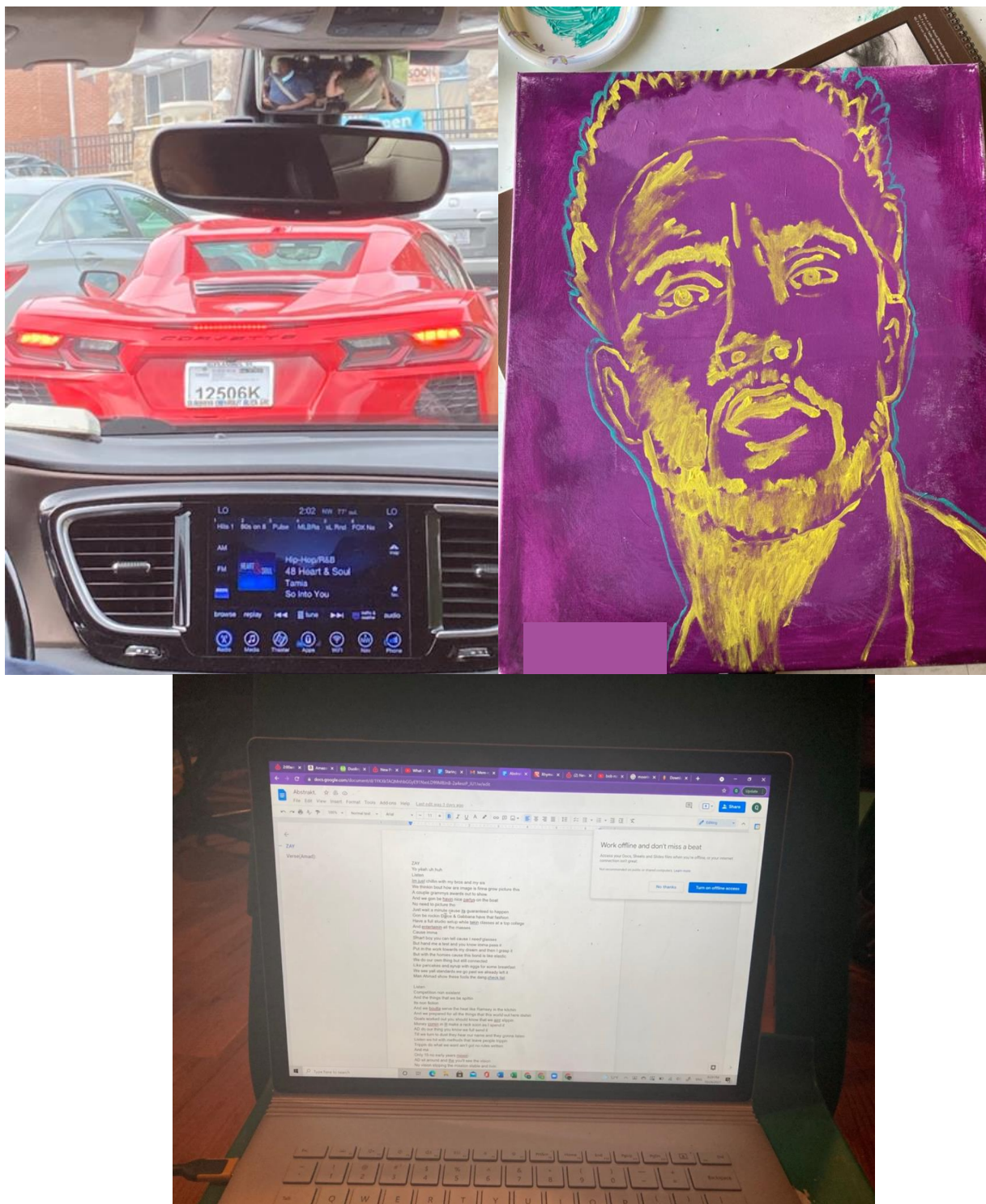
Interestingly, despite my posing a leading interview question which assumes that the activities he and his sister engage in are ‘extra’ to an otherwise separate curriculum, Kamal gave me a critical response. The latter implied an integrated learning experience where no clear boundaries exist between learning, fun, and exploration, and no rigid spatial or temporal constraints are placed on learning practices.

Additionally, Kamal and Kiko’s response to the photo-elicitation exercise at the initial stage of data collection stood out from many of the other participants. Kamal’s pictures of his learning practices (with and without technology) expressed a richness of experience that extends beyond academic or formal learning. In fact, only a couple of Kamal’s photographs were of formal learning practices such as doing a math problem sheet and working on a writing assignment. In Figures 53 and 54, are some of the photographs Kamal chose to take and share with me prior to his interview (top left to bottom right) which express an expansive and rich conceptualization of learning: a landscape from one of the trips he took with his family; drawing class; music production class at the ACC; a public bathroom’s wall with multiple translations of the same phrase in different languages to express his interest in learning and speaking foreign languages; a Corvette to share his love for and interest in cars; painting class; and a photograph of his laptop whilst working on a poem for a rap song. Such a varied collection of what would traditionally be considered extracurricular activities is the core of these siblings’ learning and educational experience, as they see it and through the lens of their own photographs.

Figure 53 Kamal's Depictions of Learning

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Figure 54 Kamal's Depictions of Learning 2



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Kamal and Kiko's conceptualization is put in sharp relief against the ways in which other participants conceptualize learning. The Conformists and the Hustlers share narrow ways of thinking about learning and education, instrumentalizing it as a means to other ends, and as practices to engage in to reap the benefits in the future. For example, Makiyah's attitude, below, reflects a narrower understanding of learning compared to the CDAMs:

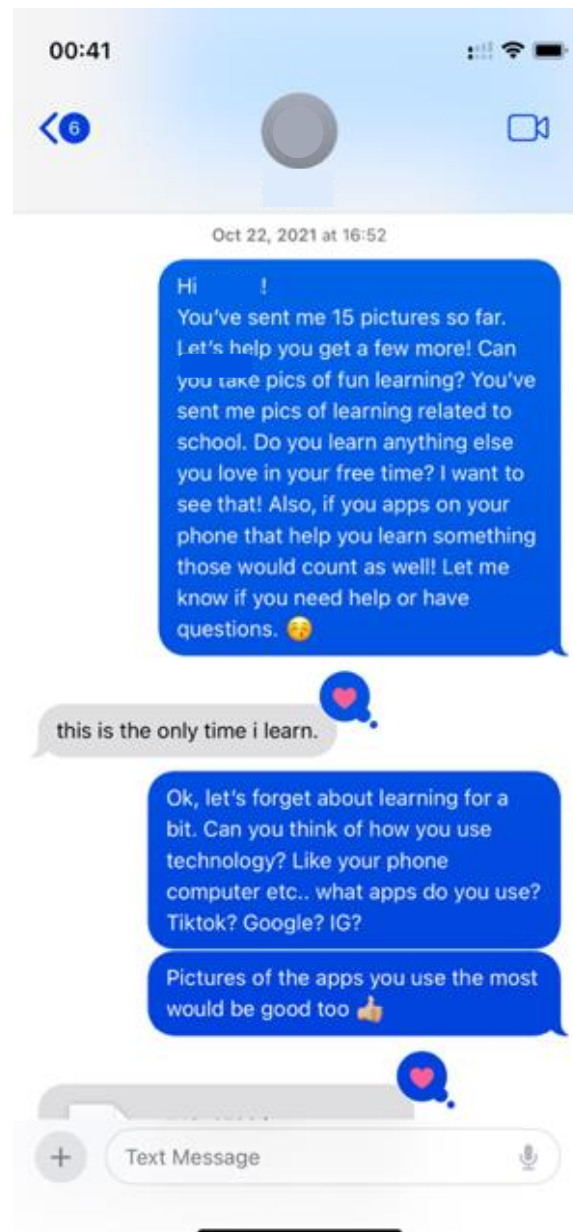
Researcher: "What does learning mean to you?"

Makiyah: "Learning is something that you, like, basically need in the future. [...] because you don't wanna be dumb and not know anything, that's not gon' get you nowhere in life."

Researcher: "If you took learning seriously, what would that look like?"

Makiyah: "You'll basically be somewhere, like you'll either be rich, or just be a super smart person."

Also narrow in scope, is Chiana's way of defining learning as activities related to school. At the time of the probing text-message I sent her (Figure 55), Chiana's photographic data had only included pictures of homework, textbooks, and other school and homework related activities. She and many participants required a great deal of probing to think more widely about their learning in order for their photographs to reflect a more accurate picture of their informal and wider learning lives. Chiana's response to my probing "this is the only time I learn" speaks to this narrow and limited conceptualization of learning which, during the photo elicitation stage, had to be circumvented by encouraging participants to think of the technologies they use and the social media and Internet spaces they frequent

Figure 55 Chiana's Text Message

The Hustlers, including those Hustling to Conform and those Conforming to Hustle also share a similar instrumental conceptualization of their learning and education:

Kelsey: "It's just like, getting out of college so I can get a full-time job that pays well, and I could just get my own place and then whatever happens after that I don't care. I just wanna get my own place."

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Similarly, Thinker is optimizing, streamlining, and making learning as efficient as possible to reach his money and business goals, which take precedent over the inherent value of learning in the moment:

Thinker: “I just know a quicker way ‘cause I been working on this so long, and found shortcuts, I’m just now finding more shortcuts that just make my work feel faster, and that’s something that I gotta do in person like - speed up- I gotta find notes on, if its somewhere faster, but [unclear] I’m at that point where I’m learning again definitely.”

In comparison with the Conformists and Hustlers, Kamal and Kiko experience less conceptual fragmentation in their learning and tend to see their educational experience as inseparable from life. This, however, is not the case for learning with technology, and will be discussed in the following section.

6.2 Structure and Oppression in Learning Practices and Attitudes

Just as the CDAMs’ practices and attitudes are shaped by liberatory affordances of their particular intersectionality, they nonetheless exist within constraining structures. Kamal and Kiko’s unique homeschooling and educational experience is rich, wide, and expansive; it also is very socially isolating. Additionally, their experience of learning with technology is severely restricted and surveilled by their parenting adults, and their Internet use is policed in ways that the Conformists’ and the Hustlers are not. In the context of their homeschooling, this highly structured use of technology results in social and digital isolation, as well as disconnection from other young people in ways foreign to the two other groups.

Though Kiko and Kamal are shielded from the intersectional harms and privacy risks that come with being a young person on the Internet, it is not an exercise of digital choice on their part; it is a form of digital choice that is wielded by a parent, which makes decision *for* them, not *with* them.

Furthermore, Kamal and Kiko have a compounding element of being already socially isolated by their experience of homeschooling, rendering their experience of further digital isolation a double bind. This, as argued below, can have serious negative implications on the learning lives of young people like Kiko and Kamal and leave them feeling even more isolated.

6.2.1 *Homeschooling is Socially Isolating*

The practice of homeschooling children has been criticized for putting them at risk of social isolation by depriving them of the opportunities to develop social skills and networks, and to have experiences that can only be had in brick-and-mortar schools (Lebeda, 2007; Bartholet, 2020; Hamlin & Cheng, 2022). This critique highlights a correlation between social isolation and poor “academic, physical, and socioemotional outcomes in children” (Hamlin & Cheng, 2022, p. 332)

In my twelve months at the ACC and regularly spending time with Kiko and Kamal, my fieldwork notes had an abundant number of observations about their social interactions, what they engaged in at the ACC, and how they did so. Interview data corroborated the hunch I had about their feelings of social isolation. Kiko, for instance, shares her feelings about being homeschooled and how it affects her social life:

Researcher: “I’m curious about your experience of being homeschooled. How do you feel about that? Do you feel it would be best to be in school? Or do you really enjoy being homeschooled? Or anything you want to share?”

Kiko:” It’s pretty boring to be homeschooled ‘cause the only person you basically see is your mom and your brother, umm, but being in school you have like way more friends and more people to talk to. I feel like it would be much easier in school. But then there is homework and mean people.”

Researcher: “Do you feel there are good and bad things in both cases?”

Kiko:” No, not really.”

Researcher: “If you were to make your own choice, what would you do? Stay homeschooled or attend school IRL?”

Kiko: “Um, go to school.”

Researcher: “What is your number one reason for that?”

Kiko: “To make friends and connect with people”

Additionally, Kiko’s behavior at the ACC is reserved, she is often found carrying a book and is usually reading during breaks, at lunch, and recess. During class time, she mostly works by herself on the computer (others share a computer with a partner to complete their work). Unlike Kamal, who spoke a lot about his friend Aaron and is integrated into a musical group of other

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boys, Kiko had no close friends in camp. Whilst other girls went on their phones and made collective TikTok dance videos or shared digital snippets with each other, she often excluded herself. Socializing with other girls her age in camp seemed to be difficult for her. She was often awkward, quiet, and even reckless with comments with other girls, and had been in several arguments where she was severely misunderstood. Some of these quarrels required speaking to the youth's parenting adults.

Contextualizing the CDAMs' social isolation within their intersectional locations further sheds light on the constraints imposed on their learning lives. The axes of race-class and geography are particularly entangled and relevant, as the family's socioeconomic standing shapes their housing choices and how far from the center of the city they can afford to live. This then shapes every other aspect of the young people's learning lives as they are homeschooled. Kamal elaborates:

Researcher: "Do you feel that [homeschooling] is a good trajectory for you?"

Kamal: "I think learning wise, yes, but, socially wise, I don't think so 'cause, right now, I have no friends except for Aaron [unclear], and my musical group. Yeah I think we're friends but I'm moving away soon, so I don't think that I'll have any friends. Aaron and I we communicate over Zoom so I think that we'll have a good relationship but, Abstract Demolition, we don't meet online, but we come here [ACC] to record stuff, we come here to share stuff, like people drive all the way here and take the bus all the way here just to talk to each other in person, and I'm moving like an hour away, so I won't really be able to come in [to the city] so I think that will affect my ability to learn, 'cause I won't be able to go to tennis- I think I will, but I just won't be able to have the same teacher, I won't be able to go to Heritage Dialogues, and I won't be able to come here to [ACC]."

Researcher: "Do you know where and why you are moving?"

Kamal: "Yeah I do. Well, I guess, um, mom was tired of living in her mother's house, we had an apartment before then, but it was in a pretty crappy place, it was a terrible environment to raise children, so she had to get us outta there, so she moved in with our grandmother. We lived there for 8 years I think [...]"

Researcher: "So I sense a little bit of anxiety about the move, is that the case? Are you anxious about it?"

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Kamal: “Mmhmm.”

Researcher: “Just in terms of losing friends and not being able to do the things and go to the places that you’re used to?”

Kamal: “Yeah, sort of.”

Moving farther away from South East Washington, D.C., which is where the ACC is located, and into a new home that is an hour away from the city is a concern for Kamal. He fears being further isolated from the people, activities, and community spaces he is used to frequenting in his current living situation. Housing and geography, in this instance, are a class issue; class in Washington, D.C. is a race issue; race, class, and geography are an intersection of axes which Kamal’s family are navigating at the detriment of some of his and his sister’s learning/social lives, as highlighted by Kamal. Meeting in-person seems to be an important aspect of his learning and social life, as he and his sister have few opportunities to meet other young people IRL. Moving an hour away threatens to take these opportunities away.

6.2.2 *Parental Controls are Digitally Isolating*

Kiko and Kamal have a highly structured, surveilled, and policed use of the Internet and digital technologies in ways that are not experienced by other groups. Their parenting adults impose blanket bans on all social media and use parental control apps to police their Internet and app use. Though well-intentioned, this level of digital control seems to have a further isolating effect when contextualized within the pair’s homeschooling experience. In fact, the rich and expansive learning lives of Kiko and Kamal do not seem to fully or autonomously extend to the realm of the digital and to their learning with technology.

A blanket social media ban is one of the ways that Kiko and Kamal’s mother constraints their access to the Internet and isolates them from platforms and digital spaces that their peers use extensively. This includes YouTube, Instagram, and TikTok, which many of the Conformists and Hustlers seem to consider vital to their learning, social, and enterprising activities.

Interestingly, despite fieldwork data indicating otherwise, Kiko and Kamal appear to be echoing their mother’s beliefs about social media being not particularly beneficial, repeating what seems to be a rehearsed family rhetoric, in the interviews, despite struggling to articulate specific reasons beyond a vague sense of negativity:

Researcher: “Are you on social media?”

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Kamal: "No."

Researcher: "Is there a reason why you're not?"

Kamal: "I just don't think it's all that good, because it's—people are on there, they just, I don't know... I just don't really go on social media, and I don't really have any social media accounts."

Kamal's disinterested response is curious because I had known him to be an inquisitive teen, and such an inarticulate reply was uncharacteristic of him and his family's approach to learning and life. Kamal's supposed disinterest in social media suggests he might be aware of potential downsides, even if he cannot specify them clearly. Likewise, his response is different from that of his sister who, at times, more genuinely asserted her desire to be on social media:

Researcher: "I remember from summer camp that you are not allowed on social media. Are you still not?"

Kiko: "Yeah."

Researcher: "When would you be allowed?"

Kiko: "When I'm 18."

Researcher: "Can you tell me how you feel about that?"

Kiko: "I feel it's unfair. Other people's parents let them be on social media and I think it's not really fair."

Researcher: "What would be different if you were allowed on social media?"

Kiko: "Mhmm, [nothing would be] particularly different [...] I like seeing what other people can do. And learning from that, so I can make my own videos."

Here, Kiko's feelings of unfairness suggest a struggle with parental rules that are stricter than those of her peers, suggesting a recognition of social media's potential educational and creative benefits, even if she downplays its overall impact on her life.

However, at other times, she, too, slips into the family's prescribed stance towards social media, suggesting disinterest and vague negativity:

Kiko: "YouTube, I'm not really a lot on YouTube. [...]"

Researcher: "tell me more about that."

Kiko: "My mom says it's bad to be on YouTube."

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Researcher: “Okay, do you have an idea why she might be saying that?”

Kiko: “There is some weird stuff on there.”

Researcher: “Can you give me an example? Remember that this is a safe space and everything you share with me is confidential”

Kiko: “Just people being weird, I don't really have a description of it.”

Researcher: “Is that what your mom says?”

Kiko: “Yeah.”

Digital isolation for Kiko and Kamal extends beyond the blanket social media ban to include more intrusive controls of their physical devices, and their Internet and app uses. In [Appendix G](#), I discussed that mobile phones are the primary device that participants use, highlighting that a big part of their learning social lives is mediated through their mobile devices. This is not true for Kiko and Kamal, as their physical devices and digital access are severely policed and controlled by their mother. In fact, in addition to the tension between parental restrictions and the CDAMs' desire for autonomy and leisure time, there is an epistemically oppressive preference for offline learning activities like reading books over digital practices such as gaming or ‘edutainment’ on YouTube on behalf of the parenting adults:

Researcher: “Do mom and dad have parental controls on your devices?”

Kiko: “Yes they do.”

Researcher: “What kinds of limitations do they have?”

Kiko: “Well, so, they have restrictions on every single app, if we want an app allowed, we have to go to them, and after 12am, that app will no longer be allowed to use, so we have to go back and ask for the app again.”

Researcher: “And you feel that that’s good? Bad? Useful? Helpful?”

Kiko: “I think that’s really annoying.”

Researcher: “Do you feel that it helps you not be distracted with schoolwork, or?”

Kiko: “It helps me not be distracted with schoolwork, but when schoolwork is done, just don’t make me do more work rather than me— ‘cause if I didn’t have to ask I’ll just be able to play games. ‘Cause I have to ask her [mom], and she’ll be like ‘okay, give it to me — you know what? You can just go read’. If I didn’t have to talk to her about it, she

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would just see me play the game and she wouldn't care, but since I have to ask to her, she'll just make me do more work."

[...]

Researcher: "Can you tell me what frustrates you about that?"

Kiko: "Just like the code that you need to put in to access every app and it's like extremely annoying."

Researcher: "Can you give me an example?"

Kiko: "So, I'm trying to get on my favorite game, and I click on the app that I use for the game, and it says there is a time limit. [...] I get like one minute every single day for like one app and then when I use that app every other app shuts down. It's really annoying"

These data highlight the children's grievance about their loss of autonomy in using technology to the imposed and excessive parental digital controls. Autonomous use of technology and the Internet is paramount to young people's online learning experiences (González-Betancor et al., 2021). Similarly, overly stringent controls, such as blanket bans and time limits without considering the quality of online content, fail to recognize varying maturity levels among children and their need to develop digital literacies (Weinstein & James, 2022). Instead of fostering a culture of digital safety, these restrictions can, in fact, increase curiosity and lead to unsupervised online activity, compromising their ability to learn safe Internet practices. This, for example, was the case for both Kiko and Kamal as they resisted their parental controls whenever they had an opportunity to do so—away from their parents' gaze, at the ACC, and beyond.

Because exceptions to mobile phone bans were made whenever suitable for the parents' surveillance and control infrastructure, Kiko and Kamal were allowed to bring mobile phones into the ACC's summer camp and evening classes during the academic year. Unsurprisingly, this was for the parents to maintain communication with their children and coordinate emergencies and or early pick-ups from camp—and not for their children's digital use. Similar findings (Scolari, 2018) documented how, in similar excessive parental control scenarios, certain technologies "are banned while others are adopted and adapted, as they are understood as useful tools for maintaining household fidelity and structure" (p. 53). Kiko elaborates:

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Researcher: “Can you tell me about any other type of technology that you have at home that use? You mentioned your tablet and your phone?”

Kiko: “I don’t really use my phone that often, I’m not really allowed to have it.”

Researcher: “How often do you have it and how long are you allowed to have it for?”

Kiko: “When I’m here [ACC], I have it for the time when it’s class, and if I’m like somewhere where I’m far away from my parents, they give it to me.”

Researcher: “And it’s mainly to maintain communication?”

Kiko: “Mmhmm.”

Researcher: “And when you’re home, you don’t really use it?”

Kiko: “Yeah.”

Researcher: “Who keeps your phone at home?”

Kiko: “My mom.”

My fieldwork notes and observation highlight that, despite the tight parental controls, Kiko and Kamal still found creative ways to connect to their desired platforms and access digital spaces they are normally not allowed to. For examples, Kiko often asked to work alone on a computer instead of sharing one with a partner. She had multiple tabs open alongside her class work and would switch back and forth between YouTube, Roblox, and the task at hand. Similarly, both Kiko and Kamal struggled to relinquish their computers at the end of a device-friendly class, as they were using them in ways not allowed at home. The two always found ways, more than other participants in camp, to finish their work quickly and go on their favorite YouTube channels or Internet sites. I asked Kiko:

Researcher: “So, I understand that you’re not really allowed [on YouTube]; how come are you following Flamingo and SB737? Is that something you do on your own or is mom aware that you are doing that?”

Kiko: “On my own.”

Similarly, on the rare occasion Kiko would socialize with other girls in camp, she was engaged with them in second-hand browsing TikTok, Snapchat, and Instagram content on their devices and accounts, while she is well-aware she is not allowed to and has no way of doing so on her own. Likewise, Kiko shared with me that, thanks to some surveillance tool her parents use

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at home, Kamal was ‘caught’ looking at adult pornographic materials on the Internet and lost his Internet privileges for some time.

Kiko and Kamal’s resistance to their parental controls is a way they create small pockets of autonomy – albeit unguided – which they seem to want in their restricted digital lives. It also exposes the limitations of imposed blanket bans, and highlights the need for open communication, guidance, and encouragement of safe practices and development of digital literacies as they venture into the online world.

Digital isolation in the context of Kiko and Kamal takes many forms, and the ones discussed here are only what transpired during the time of fieldwork and interview conversations. In addition to the obvious emotional impact this restrictive media diet has on these young people’s emotional lives, there is a host of other learning opportunities which these children are additionally forfeiting. This includes social learning, collaboration, and learning as part of an active online community, which the Hustlers enjoy; social gaming, leisure, and entertainment, which many of the Conformists engage in; and developing digital literacies, which only comes from frequent and autonomous use and guidance.

6.2.3 Social and Digital Isolation Compound One Another

A reoccurring theme for all three groups of the young participants is the difficulty to build community online, unless it is already rooted ‘in real life’ interactions like school, the ACC, or other face-to-face spaces. A similar finding has also been evidenced by research which found young people mostly socialize online with others they already know from their IRL communities (West et al., 2021). For Kamal and Kiko, this is true and doubly challenging as their social lives are already limited by their homeschooling experience, and their digital lives are similarly severely restricted by their parental controls. This renders their entertaining new friendships online impossible, and makes nurturing existing ones, at best, very challenging. For the CDAMs, meeting other young people IRL only happens at spaces like the ACC, Heritage Dialogues, and other cultural or artistic events they engage in. Additionally, Covid-19 further narrowed the possibilities of IRL connection for Kiko and Kamal by removing the IRL aspect of all activities where the pair normally meet other young people. In fact, ‘extra-curricular’ activities are the only outlet they have to meet other young people. As such, the CDAMs’ shared intersection of being economically and racially marginalized, and homeschooled at the time of Covid-19, is

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very detrimental to their social and learning lives. Kamal paints an accurate picture of this double bind of social isolation in response to my question about a hypothetical ideal world in which he could have any technologies he wishes:

Kamal: "I'd create a world where I could go to school, so I could have a social life, 'cause it's hard to make friends on Zoom. I'd also make a place where Covid wouldn't exist 'cause it's hard to make friends on Zoom, like even when Aaron decided to be my friend, he didn't even know me from Zoom, he met me in a tap-dancing class. Um, maybe as a younger child, little kids are interested in games and stuff [...] but for older kids, it's difficult to talk to other older kids 'cause it's a little awkward to talk to a stranger."

Kamal also passionately shared his effort in nurturing his friendship with Aaron, his only and best friend whom he met IRL. He expresses his frustration about the dearth of opportunities to make friends IRL in school, which was made worse by the onset of the pandemic. However, he relished their ability to spend time nurturing their friendship online during the pandemic, during which he was allowed to be online more frequently and for longer, as the rest of the world did as well:

Kamal: "Since I've been able to stay home more, I've been able to play more games, and I also been able to play with my friend Aaron. Actually, my friend Aaron and I- he's become my best friend but, I actually didn't remember him the first time we met, so we met at a tap-dancing class and then afterwards I didn't really see him again for a few months, then in a chess class I met him again, and then we exchanged ROBLOX usernames, and we've been best friends ever since."

Researcher: "So how did you become best friends, through ROBLOX, playing together through the games?"

Kamal: "Yeah."

This example highlights that gaming socially with friends can be joyful and fun, can help young people regulate their emotions, learn new things, and meaningfully build, nurture, and solidify relationships—especially when they are scarce in the first place. This example also further iterates that simply imposing blanket bans on media and games or favoring offline

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learning activities can have excluding effects from positive experiences such as the one Kamal is describing above. With no autonomy to navigate their digital lives, no social media, and stringent timed opportunities for gaming, these young people's isolated social lives are further compounded by their structured and narrow digital learning lives. This seems to create disconnection from their peers in ways that are far more insidious than the Conformists or the Hustlers experienced during the challenging years of the pandemic.

In summary of the chapter, the CDAMs' family is highly critical of racial marginality in educational and digital structures and their implications on their children's learning lives. Unlike the Hustlers, their learning is not driven by a resolve to make economic gains or recognition as part of a meaningful hustle; therefore, making the arts and culture an inherent pursuit for learning and self-expression. Unlike the Conformists, their digital practices are not heavily shaped by instrumentality and dispassion found in navigating digital school LMSs and infrastructures. The CDAMs have the privilege to neither conform to nor hustle to change their conditions. They benefit from a unique homeschooling experience curated by their parenting adults to help them achieve cultural and social distinction. On the other hand, the CDAMs' orientation also reflects a highly structured, surveilled, and policed use of the Internet and digital technologies in ways that are not experienced by other groups. This, combined with their homeschooling, results in social isolation and digital disconnection from their peers. The CDAMs' homeschooling experience, as a result, seems to simultaneously privilege and marginalize them.

7 Discussion

The primary aim of this thesis is to explore—through an intersectional feminist lens—the role technology plays in the learning experiences of multiply marginalized young people in Washington, D.C. In this study, the aim is to engage in an intersectional feminist critique of power differentials in the processes and the relationships of learning and education in the everyday lives of young people as they are mediated by technology. This research seeks to (1) examine how young people's subjectivities and daily learning practices are connected to their intersectional locations and wider social structures, and (2) highlight and privilege their voices by focusing on what they value and need (or not) from technology in their learning lives.

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Ultimately, the study seeks to contribute to a more inclusive theorizing of digital inequalities in education and to help shift the dominant narratives that often do not account for various and overlapping forms of marginality. As such, the overarching and supporting research questions guiding these aims are as follows:

How does the intersection of multiple dimensions of oppression and privilege impact young people's relationship with technology and education?

- a) What dimensions of intersectionality (such as race, class, gender, disability, and others) do young people in Washington, D.C. experience in their learning lives?
- b) How do these intersectional identities shape their learning practices?
- c) How does technology shape their learning practices?

Using an intersectional feminist lens, I identify three orientations—the Conformists, the Hustlers, and the Culturally Distinct at the Margins—that reflect varying attitudes, practices and patterns of use toward technology. In each chapter, I demonstrate how these orientations are shaped by the participants' unique social locations, including race, class, age, gender, geography, (dis)ability, body shape/size, parenting status, family structure, care responsibilities, Covid-19, edtech structures, and top-down approaches to parenting and homeschooling.

The study also shows that participant learning practices are shaped by their intersectionalities in ways that are both liberating and constraining; and ways that highlight experiences of structural oppression and resistant agency. Likewise, findings show that young people domesticate technologies into their learning lives in ways that integrate it into the power dynamics of their social contexts. This thus shows how intersectional power differentials are in a negotiation between the impositions of social structures, the young people's agency in resisting them, and the unique enablements and constraints afforded by the technologies they use.

In the following section, I adopt the intersectional feminist framing of power discussed in [*Conceptual and Philosophical Underpinnings*](#) building on the theoretical work of Iris Marion Young (2011), Collins and Bilge (2016), Kimberlé Crenshaw (1991), and others. As mentioned earlier, central to intersectionality is an analysis of power in its dimensions as (1) simultaneous and overlapping, (2) hierarchical, and (3) dynamic and relational. I use these tenets to interpret the study's findings as they relate to their intersectionalities. Further, I situate these findings

within existing literature and the boarder academic field of digital inequalities, I discuss their implications for theory and practice and reflect on their limitations.

7.1 Power as Simultaneous and Overlapping

The key findings of this thesis are centered around the analysis of the intersectional identities of marginalized youth in Washington, D.C.; particularly how these identities shape their learning practices and attitudes towards technology. These young people's learning lives are located at the intersections of – inter alia – race, class, age, gender, (dis)ability, geography, parental status, and immigration status, as well as their intersections, interactions, and compoundedness. Similarly, the data contribute a clear understanding that, for all participants, more than just one axis of marginality is at play at any given time in their digital learning lives. Unsurprisingly, findings show that the (overlapping and simultaneous) intersection of race and class is shared for all young people in the study, as their intersectionalities are rooted in histories and narratives of structural racism and capitalism meeting in ways that are specific to their context in Washington, D.C., and the United States (see [Appendix A](#) for background).

The finding that race and class do shape learning practices echoes what the literature on digital inequalities has highlighted for decades: social class and other social determinants such as race and gender do structure the experiences of young people with ICTs (Harris et al., 2017, Darwin, 2018; Ito et al., 2020, Robinson et al., 2020a, 2020b; Bucea et al., 2021). This literature outlines education as an important site of reproduction of digital inequalities, because of the role it plays in young people's opportunities and life chances. It also calls for the need for educational engagements with technology which consider these forms of marginality in their outcomes, and not just processes. This critical literature however, as outlined in the literature review, conceptualizes social determinants as one-dimensional, isolated, and static single axes of disadvantage (i.e. race alone, or class alone), which findings confirm is a limited conceptualization of inequalities and one that does not accommodate the multiple and overlapping nature of marginality which emerged in my findings.

Alternatively, the understanding of marginality and/or privilege as simultaneous and overlapping, as intersectional feminist theory proposes, allows for the complication and complexifying of power dynamics in this study, by allowing us to see the young people's "lives, and the organization of power [...] as being shaped not by a single axis of social division, be it

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race or gender or class, but by many axes that work together and influence each other” (Collins & Bilge, 2016, p. 14). As discussed in [Section 2.1.3](#) of Chapter 2, this feminist framing of power(lessness) makes visible overlapping social categories in the lives of participants, while also building on the understanding gained from critical single-axis digital inequalities literature.

Employing this intersectional framing, it is difficult to analytically disentangle the category of race from that of class for this group of young people, in some instances, either one or the other was more salient to the context examined. For instance, the Hustlers’ learning experiences are simultaneously structured by race and class; yet the social category of class is more salient to their learning practices and their overall orientation. Improving economic class emerged as a primary motivation for their learning and hustling (running Instagram small businesses, cultivating online followings as artists, scamming people online) though, historically, their economic class and experiences of deprivation are shaped by their racial experiences of systemic racism and the legacies of school segregation, housing redlining, employment and criminal justice practices disproportionately, which unfavorably targeted Black people (Asch and Musgrove, 2017). As such, the obstacles faced in hustling as a poor young person cannot be neatly separated from those of hustling as a poor *and* Black young person.

Likewise, the CDAMs’ experiences are similarly deeply structured by both social categories of race and class—as evidenced by their family income, living arrangements, and attendance of income restricted programming at the ACC—and yet, their immediate learning practices and digital lives are more defined by that of race. For this family, homeschooling is motivated by a desire to resist an educational “system that fails Black people” and to privilege educational experiences that align with the family’s racial political beliefs. Though an act of racial resistance, homeschooling has implications for these young people that go beyond their racial identity, creating other overlapping forms of marginality.

For the Conformists, the structuring of class is evident in their experiences of having to negotiate logistics and overcome limitations on physical access to hardware, software, and Internet connectivity to navigate school expectation. Racial structure, on the other hand, is evident in uses of search engines and social media which are fraught with stereotypical under- and misrepresentations of Blackness. Race and class, ultimately, overlap for them in ways that combine and transcend both. Experiences of relying on uncritical racially misinformed search

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engine or social media to make employment-implicating vaccination decisions in the midst of the Covid-19 pandemic attest to the overlapping, entangled, and consequential nature of their intersection.

When examining findings across all three orientations—the Conformists, the Hustlers, and those with Cultural Distinction at the Margins—it becomes clear that, despite sharing overlapping intersectionalities (i.e. being young, Black, and poor), participants have diverse experiences of privilege and marginality by virtue of their other axes of identity difference. Intersectional analysis in this instance implicates that ‘young people’ are not a monolith, and that the common ‘race-class’ location shapes their learning practices and attitudes differently in its interaction with other dimensions of subjective, group, and systemic identities and belongings. In other words, ‘race-class’, as a shared intersectional location, points to the need for a theory and analytical framework of inequalities which give explanatory potential to differences *between* groups as well differences *within* groups. Single-axis research, in this instance, falls short of providing explanations. This analysis is in accord with the overall direction which research on young people is taking more broadly, as “there is more and more evidence showing that teens have different digital experiences” and “what’s hard varies [...] what’s valuable and important and even awesome varies too” (Weinstein & James, 2022, p. 21). Therefore, without more inclusive theorizing and analysis, we risk missing to capture the full scope of digital inequalities in education.

When analyzing the data through the prism of power as simultaneous and overlapping, we gain another insight on young people’s digital learning experiences in marginality as being caught ‘between a rock and a hard place’ or what feminist philosopher Marilyn Frye succinctly characterizes in her double-bind metaphor as “situations in which options are reduced to a very few and all of them expose one to penalty, censure or deprivation” (1983, p. 4). This analytical tool made visible power differentials in the case of all three orientations. For the Conformists, this especially manifested in their learning during the pandemic. Research has documented that learning at home tends to have a distinct quality of informality, autonomy, and “playful[ness]”—especially when using the Internet—leading to a richer learning experience and a stronger expression of young people’s agency (Furlong & Davies, 2012, pp. 13,16). For the majority of participants, this empowering experience of digital enrichment at home was already limited due

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to lack of physical and/or good quality access. As such, access and use of ICTs in school and in cultural and community spaces plays an important role in providing informal learning opportunities which they lack at home (González-Betancor et al., 2021). As the pandemic pushed learning, socializing, and every other aspect of life into the home and online, it deprived them of access to the few spaces where they can engage with ICTs in capital enhancing and enriching ways. This, then, renders their learning practices caught in a ‘double bind’ of marginality, where economic scarcity narrows their practices at home, and the structural conditions imposed by the pandemic narrows to their learning lives to their marginalized home lives. The *Culturally Distinct at the Margins*, experience a similar double-bind experience as a result of their isolating homeschooling experience, whereas their home ICTs use is policed and surveilled by their parenting adults, and their access to the ACC and other cultural spaces where they have more opportunities to autonomously use ICTs was halted during the pandemic. Similarly, homeschooling is an experience that is intended to empower these young people in ways that reconnects them to their racial identity, yet it ends up marginalizing them in a different way by creating social and digital isolation. Young people in both orientations are faced with experiences of educational deprivation without any structural ‘good options’.

Another of intersectionality’s powerful tools for analyzing overlapping dimensions of marginality beyond a ‘double-bind’ is Kimberlé Crenshaw’s ‘basement’ metaphor (1991), previously discussed in [Section 2.1.3.1](#) of Chapter 2. Crenshaw’s metaphor illustrates how traditional anti-discrimination frameworks address single forms of oppression, like race or gender, without considering how these identities intersect. People at the top of the basement face fewer oppressions and are more easily recognized by society, while those at the bottom—such as Black disabled girls—face compounded discrimination. These individuals are often ignored by single-axis approaches, leaving them trapped in a system that cannot fully address their intersecting challenges.

The basement metaphor is well suited for framing my findings in the experience of marginalization by some of the most affected by systemic inequality in this group of participants. Particularly, Kelsey and Hannah who are both Black, teen, single mothers experiencing poverty, not receiving child support, casually employed, unhoused, and relying on family for shelter, food, and other economic support for themselves and their children. Data show that learning with

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technology for these participants is fraught with power dynamics in ways that were indeed shaped by their being in the ‘basement’ of overlapping race, age, class, parenting status, legal marital status, employment status, educational level, housing status, to name just the most salient. Kelsey’s struggle to complete her university degree while working casual, minimum wage jobs and raising a five-year old daughter is evident in her practices and overall orientation of Hustling to Conform. The visibility and recognition of the cumulative and intertwined obstacles she faces in her learning and educational journey are important to highlight in studies of digital inequalities, especially as some of the very programs designed to support marginalized young people in her community, leave her right out. In Kelsey and Hannah’s cases, even the most justice-forward educational interventions such as second chance high school initiatives, GED education, and various cultural programming in community spaces do not meet the learning needs of these young women as they require more than just their class, race, and gender intersections to be considered. Among other things, Kelsey needed childcare support to be able to attend to her university studies; instead, she felt isolated from her collegiate community and had been struggling for the fifth year to complete her undergraduate degree. Similarly, Hannah needed prenatal education and support while she was pregnant in high school; instead, she felt excluded from her peers, kept her pregnancy secret, and stopped going to school when she could no longer hide it. These subjective narratives suggest that young people’s experiences of marginality in the ‘basement’ are often rendered invisible by the very structures that are supposed to empower them, because their experiences do not fit within simplistic framework of (in)justice and (in)equality. Educational marginality can be the expression of unique intersections that require unique social interventions to be “lifted” out and redressed.

7.2 Power as Hierarchical

Returning to theory, intersectionality is helpful for conceptualizing and framing power – not just horizontally as intersecting and interacting dimensions of race, class, gender, and so on – but also vertically in terms of people’s positioning in the hierarchy of societal structures. In fact, the biggest contribution of intersectionality to the study of inequalities is what Collins and Bilge (2016) enumerated as: “(1) to draw links between individual identity and collective identity; (2) to keep a focus on social structures; (3) to theorize from the ground up” (p. 30). In the context of educational digital inequalities, this analytical framework enables the linking of “micro events”

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of the everyday lives of young people such as “algorithms, executables, searches, clicks, posts, tweets, likes, and so on” to their wider social, economic, and political contexts, and the systems of enablements and constraints that govern them (racism, sexism, cisheteropatriarchy, ageism, etc.) (Davies, 2018, p. 2778). My findings clearly uphold these linkages as data show that power flows from top to bottom, privileging institutions and structures over individual, groups, and their needs; older people over young people and children, and those with duties of care over those cared for. Findings across the data show a major discord between assumptions of how learning with technology is allowed and fostered by formal and informal educational institutions and parenting adults, and the realities of these young people’s learning lives. Similarly, I find that the top-down logic of “superiority justif[ying] domination” creates a disconnect between what young people need and what they are offered, as well as how they want to be treated and how they are, in reality, treated by adults and institutions in their learning lives (Warren, 1999, p. 15).

For the Conformists, theses top-down external impositions (epistemic marginalization) by schools and teachers are most evident in their instrumental and mundane digital practices and experiences of ‘jumping hoops’ amid a ‘patched-up’ ecosystem of poor-quality ICTs and a large number of school-provided platforms and devices (inadequate tech solutions). Their practices, as a result, reflect a dependance on haphazard ‘tool configurations’ (analogue, digital, and complete digital exclusion) to reduce friction whilst meeting their learning needs. All digital policies and infrastructures for this group are school and teacher-led and decision-making processes about digital device use, non-use, context, and autonomy of use are made for them, without them. The logic from the ‘top’ is that an investment in Chromebook provisions and a dizzying number of educational platforms and apps is based on the systemic edtech promise of aiding and enhancing the creative and innovative ways young people would engage technology in their learning practices. The experience on the ‘ground’, however, is one of frustration, alienation, mundanity, and ‘gaming the system’.

For the Conformists and the Culturally Distinct at the Margins, the top-down epistemic oppression emerges as parenting adults and institutions assume young people need ‘protecting’ from media and technology and implement rules and foster digital cultures of control, mistrust, and surveillance – not ones of literacy, support, and empowerment. As a top-down *political*

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structure of dispensing digital education, edtech (as a coalition of various entities and stakeholders, ‘big tech’ corporations, small edtech companies, government policies, educational administration initiatives) does not presuppose a feminist ethics of care and dependance without oppression, which centers the needs of those who are vulnerable. Instead, it places the responsibility to protect on individuals as autonomous and isolated moral agents. This, as a result, justifies the attitudes of control and surveillance I found in schools, amongst parenting adults at home, while homeschooling, and in third spaces. More specifically, the majority of the adults in the study with the duty of care made non-participatory assumptions about what is safe and acceptable for the young people’s digital practices without taking their needs, actual practices, or opinions as a starting point. This was true, among others, in the case of blanket bans on cellphones and social media for the CDAMs and Conformists, and in the case of requiring the use of LMSs to successfully navigate schoolwork for the Conformists, who found using them difficult, and sometimes lacked physical access to quality computers to do so. Similarly, the data show mobile phones as the primary devices used by young people ubiquitously for learning with formal and informal tendencies. Yet, banning, controlling, and policing their mobile phones was the common strategy adults in their lives used to deal with their fears and misunderstandings of the role of technology in their youths’ lives.

Contrary to feminist approaches which consider values of care, trust, and dependency relationships (Tronto, 1993) integral to parenting and education, this top-down implementation of technology as ‘control’ and surveillance ignores that young people need support with developing digital skills and assumes they know how to navigate the Internet safely in a way that supports their learning. All three groups – but especially the CDAMs and the Conformists – had their devices confiscated by parents and educators, their Internet use monitored and rationed, and their digital lives surveilled. This approach, the data show, constrains their autonomy and participation in culture, undermining the realities of their connected lives, their ways of knowing, and puts them in a position of what Lewis and Hartong (2021) call ‘acts of data submission’ (see Pangrazio et al., 2022 for similar analysis). Further, the constraining is multifaceted when the digital home lives of these youths are characterized by deprivation, and schools impose further policing of their devices and use (González-Betancor et al., 2021). Unfortunately, the data highlight that both learning at home and in school (and at times third spaces) are embedded in

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this hierarchical system of digital oppression which undermines the youths' learning needs and their digital wellbeing.

Interestingly, the finding that edtech is hierarchical and top-down implicates a different narrative than that of educational technology as “an essentially positive project” (Selwyn, 2014, p. 11). Data show participants' digital learning practices spanned the gamut of liberated and enriching, to narrow and highly structured. Findings also show that when they are enabling, however, it is often not in school, and often not in the ways that are assumed and marketed by edtech stakeholders. In contrast, such practices happen mostly in informal learning contexts and in ways that evade and resist the limitations of how and where learning is assumed to take place—as imposed by parents, teachers, schools, and other educational structures. This finding (also documented by Reich 2020, Selwyn et al., 2020; Selwyn, 2022; and others) challenges the understanding of educational technology as a solution to what often are social problems and demonstrates that, in contexts of marginality, they can place additional burdens on young people, parenting adults, and teachers instead of empowering them. This “mismatch” of assumptions and reality is detrimental to young people and leads to misallocation of educational investments for these groups and rules, policies, and expectations which do not serve them (Williamson et al., 2024, p. 1).

Lastly, drawing links between individual (micro) and collective identity (meso), and the collective and the systemic (macro) makes clear the tangible consequences of hard-to-locate power differentials at the systemic level on communities and individual lives (Collins & Bilge, 2016). Making these connections visible is vital to drawing a link between diffused and intangible power in unequal systemic relationships and the palpable day-to-day experiences of individuals and communities. This view, as a result, challenges understandings of justice and power as merely the capacity to exercise agency and, thus, displaces analyses of “atomic individualism” that are divorced from their wider meso and macro social contexts. The former give us a warped understanding of what is at stake in a claim of (in)justice and how to achieve it (Young, 2001). This means that claims of (in)equity solely based on meritocratic narratives of desert, individual achievement, and effortful hard work simply lose their explanatory power in theorizing justice broadly and, in this context, digital inequalities in education.

7.3 Power as Relational and Dynamic

The intersectional feminist framing of power as simultaneous, overlapping, and hierarchical effectively underscores the necessity of examining social structures (i.e. family, education, economy, religion, politics, and legal systems) and systems of oppression/ domination (i.e. racism, cisheteropatriarchy, capitalism, ableism, etc.) in the study of (in)equity. Expanding this perspective to include the study of power as *relational* and *dynamic* within these structures and systems further illuminates the role of individual agency and responsibility as well as the role of technology in examining power differentials in education.

I have noted in [Section 2.1.3.3](#) in Chapter 2, that power, according to feminist philosopher Iris Marion Young, "must be analyzed as something that circulates", and is not something 'owned', but the expression of processes and relationships (2011, p. 52). In other words, justice is framed as a politics of difference, "heterogeneity", and social "dependence" which centers interconnectedness and relationships at the level of individuals, collectives, and systems that are free from domination and oppression (Young, 2011, p. 30). Power, thus, "is never localized here or there" and individuals "are always in the position of simultaneously undergoing and exercising their power" without necessarily 'having it' (Foucault, 1980, p. 98 in Young, 1990, p. 48-49).

Similarly, in reviewing STS literature, I have conceptualized technology as "artifacts" with politics (Winner, 1980) and inherently value-laden because it is developed within specific social, economic, and political contexts that imbue it with certain values and biases. Such values often reflect epistemologies of the dominant groups in society, therefore reflecting existing power dynamics and relationships (Harding, 1986; Wajcman, 1991). Likewise, I reviewed literature establishing that technologies are socially shaped and socially shaping; whereby they are designed to serve certain aims and not others and inherently require or promote certain social arrangements, thus shaping their affordances to reinforce existing power structures (Alcoff, 2006; Costanza-Chock, 2020; Robinson et al., 2020a; 2020b).

This line of reasoning of power as *dynamic* and *relational*, combined with the understanding of technology as *power-laden* enables the theorizing of technology's affordances as fluid and dynamic as the power circulating in the contexts in which it is designed and used. Within the scope of my research, I have shown empirically that orientations across the data are shaped by

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these power dynamics in ways that are both liberating and constraining, and ways that highlight experiences of structural oppression, but also resistant agency (internal and external). This framing of dynamism and relationality allows us to see that power is, indeed, not static, and is in a state of undergoing constant negotiation in a tension between participants' individual agency, social structures, and the politics of the technologies they use. Consequently, we can see that these emerging orientations are not only shaped by the wider social power structures, and the young people's resistance to them, but also by the enablements and constraints afforded by the technologies they appropriate, and the granular ways they are embedded within their particular social contexts and uses.

In a typical example of these dynamic processes, I find that young people domesticate technologies into their conditions of learning practices—as hardware and software, the Internet, and various apps and platforms—rendering them enmeshed in the salient forms of power already existing in their particular contexts. The example of Kelsey's algorithmic racial search engine invisibility in [Section 4.2](#) of Chapter 4 clearly illustrates the dynamic interaction between technology, agency, and structure. When Kelsey searched for images of a tooth fairy on Google, the search engine returned predominantly White representations – a reflection of biases in search algorithms and the lack of diverse representations in online content. These algorithms, created by engineers with certain assumptions, mirror broader societal norms, which often overlook or marginalize non-dominant representations. These discriminatory search results are not a mere technical oversight; they reflect the social and cultural structures that shape what content is created, shared, and deemed important enough to rank highly in search results. Despite the constraints imposed by the search engine, Kelsey asserts her agency by reimagining the predominantly White tooth fairy images she finds. She draws a Black tooth fairy, creatively affirming her and her daughter's identity. This act of reinterpretation is a powerful demonstration of how individuals can navigate and resist the constraints imposed by technology, in this case, while using it.

This empirical example highlights the theoretical conceptualization of power as dynamic and always in negotiation. Power is, indeed, in what the technologies afford Kelsey to do and not do; in the enablements and limitations of her social conditions; and in the sum of her internalized capacities and intentions to autonomously make choices, take actions, and exert influence over

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her circumstances (agency in the face of said conditions). As such, neither of the three, *alone*, can fully explain or be the basis for a claim for (in)equity.

Likewise, when explicating non-distributive claims of (in)equality such as educational opportunities for digital self-expression or digital self-actualization, the locus of (in)justice is the condition of the relationships and processes which govern these opportunities. According to Young, a person has opportunities “if he or she is not constrained from doing things, and lives under the enabling conditions for doing them”; and part of this enabling and constraint also involves “the way other people treat one in the in the context of specific social relations” (Young, 2011, p. 26). Justice, in this vein, is characterized by experiencing relationships and institutions governed by freedom, respect, cultural recognition, and self-determination.

In my study, these relationships include special dependency relationships such as those between participants and their parenting adults, teachers, or church elders and mentors. Many of the central relationships to the learning lives of participants are not, per se, free from domination and oppression. Many, for example, reported being treated in ways that felt disempowering, making them feel infantilized, and as though not respected as full participants in their digital lives. For instance, the digital surveillance and over-policing experienced by the Conformists in school and the CDAMs at home, makes them feel they are constantly being watched and judged, contributing to a sense of infantilization and mistrust. Similarly, the use of LMSs in schools for the Conformists is implemented in ways that monitors and tracks participant behavior reinforcing a sense of being treated as less responsible and capable of managing their own learning than they actually are.

Lastly, in examining the data within the framing of power as dynamic, relational, and always circulating, it became clearer that studying and theorizing about issues of digital inequalities in education needs to employ lenses that accommodate the complexity of these inequalities. Because power is always being negotiated between structure, agency, and technology, this study advances an important understanding of privilege and marginality as always in tension and simultaneously coexisting in the learning lives of marginalized youth. This echoes Patricia Hill Collins’ conceptualization of ‘the outsider within’, which highlights that “one is neither purely an oppressor nor purely oppressed” (1986, p. 26).

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The non-binary nature of inequality was indeed evidenced in the complexity of power differentials in the lives of all three orientations, but especially the Culturally Distinct at the Margins. The example of what I dubbed ‘privilege within marginality’ in the lives of Kiko in Kamal as highly cultured homeschooled children, yet very much socially and digitally isolated attest to this complexity. These young people’s social identities are interlocking and encompassing various forms of marginality and privilege, reinforcing the idea that no one is completely oppressed or completely privileged. In fact, this holds true even for the most defined by structure amongst participants. To use Crenshaw’s basement metaphor again, those in ‘the basement’, data show, do enjoy ‘pockets’ of advantage and relative privilege. For instance, Hannah is a young mother pushing against the structural obstacles of her particular intersectionality, though in her resistance to complete her high school education, she benefits from important support from her parents and siblings who provide childcare, guidance, and school support as she navigates her educational journey. This is a privilege which others, like Chelsey, do not have. Similarly, despite her life being defined by the overall structures of racial capitalism, sexism, and disability, Lamia spoke to me about *Black joy*, *Black Girl Power*, and the centeredness of faith in her community. These ‘pockets’ of empowerment and support are indeed not available to all participants and do differentiate their learning experiences across the data.

Continuing with this logic, The Black, lesbian, feminist, poet Audre Lorde’s statement “there is no hierarchy of oppression” (1983, p. 116) comes to mind. Conceptualizations of identity as “an essence” (Alcoff, 2006, p. 15) and marginality as “oppression Olympics” (Martínez, 1993, p. 24) detracts from the collective struggle for social justice. This intersectional study indeed validates this complexity and supports the idea of identity as a ‘political location’ and marginality as interconnected overlapping dimensions of oppression. The study also contributes the new insight that, despite sharing identity coalitions of race, class, and others, participant digital practices that are liberating to some, can be oppressive to others, while some practices can be at once liberating and oppressive for the same individual or collective. Accordingly, this coexistence of privilege and marginality steers us towards an understanding of intersectionality as ‘oppression *and* resistance’, ‘marginality *and* centeredness’, ‘deprivation *and* joy’ without overly reductionist or overly romanticized portrayals of either.

7.4 Theoretical Positioning and Implications

This thesis makes an analytical and conceptual contribution to the theoretical work of intersectionality by exploring how multiple dimensions of oppression and privilege intersect to shape young people's relationship with technology and education. By applying an intersectional lens, this research highlights the ways in which gender, race, class, and other social categories intersect and shape the digital learning experiences of young people in Washington, D.C. What follows is this study's twofold contribution: first, to the field feminist intersectionality and, second, a contribution the field of digital inequalities in education.

While surveying the field, it is hard to overlook the curious and persistent theoretical and empirical gap in feminist theorizing of educational technology. This study seeks to contribute to bridging this analytical gap by building on this small but, hopefully, growing scholarship. I have highlighted in the Literature Review that research at the narrow interface of critical technology studies, youth learning, and intersectional feminist theory is nearly non-existent. Despite having a model for feminist theory application in the field of educational technology (i.e. Suzanne K. Damarin's scholarship), this work remains limited to gendered implications in educational technology and is not sufficiently comprehensive to accommodate this thesis' findings on young people's intersectional experiences in the digital realm. This suggests that earlier feminist critiques may have overlooked the complexity of intersectionality in educational contexts, which this research helps bring to the forefront.

This thesis contributes to and builds on 'digital sociology' scholarship (such as that of Davies, 2018; Davies & Eynon, 2018), which has evidenced that young people's digital learning practices are, for instance, classed and gendered. Such studies are line with the critical analysis of power dynamics in educational technology used in this thesis and —though not, per se, intersectional— do make the link between the day-to-day learning lives of young people and the wider social structures shaping them. In pushing the analysis to account for the role of structure, this sociodigital research shows how the “triad” of ‘the intentionality of the computer system’s designers, the intentionality of the system, and the intentionality of the user’” come together to create uniquely situated practices (Johnson, 2006, p. 202 in Davies, 2018, p. 2765). Such findings establish the groundwork for intersectional feminist research providing empirical and theoretical knowledge, which this thesis builds upon.

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Likewise, drawing on feminist theory, recent work like that of Zakharova & Jarke (2022) which conceptualizes technology in education as ‘matters of care’ and offers new insights into how these technologies can be reimagined as matters of care and justice—therefore sharing a similar ethos with this thesis. Despite not critiquing power differentials intersectionally, it is grounded in feminist theory and is critical of power distribution more broadly. The few studies which focus on examining edtech and young people from an intersectional lens, Gandolfi and colleagues (2021) for example, look at digital learning practices are raced and classed and highlight inequalities as they were exacerbated by the Covid-19 pandemic. This thesis, which was also conducted during the pandemic, corroborates their findings and highlights that inequalities for these young people were beyond material (hardware, software, Internet) and extend to social inequalities such as community, home life, and broader inequalities at the level of structures.

Similarly, in studying young people’s engagement with edtech in a low income setting in India, Bhatia and colleagues connect the “intersection of neoliberal-capitalist forces and welfare policies of public schooling” with the youth’s “everyday lives, identities, and cultural realities” in a way that highlights how edtech is imbued in wider social inequalities (2024, p. 1). Further, Bhatia et al argue that edtech “platforms are designed to undermine students’ place-based learning needs”, which is also an important finding in this thesis. The disconnect I find in the data between young people’s situated learning needs (teen mothers, for example) and what they are offered (or not) by the formal educational system and the edtech structures is similar to their finding. Interestingly, though both their research and this thesis highlight the classed-gendered nature of digital learning inequalities, their work highlights how gender may manifest differently in intersectionality with class, when studied in different contexts. For instance, their work teased out how low-resourced families in Delhi, Mumbai, and Bangalore, India, “believed that digital technologies and the Internet were instrumental in morally corrupting their girls and turning them into Westernized defiant individuals”, and therefore did not encourage them to engage in online schooling, as they did their boys, and did not want to “spend money to buy [...] subscription to EdTech platforms” (Bhatia et al., 2024, p. 11). In this thesis, the classed-gendered nature of edtech, as found in young mothers such as Kesey or Hanah’s practices, are similarly

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‘situated’ and together emphasize the importance of intersectionality’s contextualizing and explanatory potential.

Additionally, this thesis obliquely contributes to a relevant and growing body of work that engages feminist intersectionality to examine new technologies and how they contribute to the reproduction of inequalities. More specifically, this thesis adds to the broad discourse on digital feminism by engaging and building on previous and contemporary work ([Section 2.2.3](#)), which advocates for a more inclusive and equitable approach to digital spaces and technologies (Noble, 2018; Buolamwini & Gebru, 2018; D'Ignazio & Klein, 2020). Though this thesis is more specifically focused on digital inequalities in education, it remains useful in demonstrating more broadly how intersectionality can be theoretically and empirically applied to this field of critical data, Internet, and technology studies.

Lastly, when mapping the research on digital inequalities in education, this thesis contributes to literature on the ‘third-level digital divide’, which considers the differentiated outcomes of using technologies in education. More specifically, it confirms earlier findings which highlight that technology is socially embedded and that the less privileged have patterns of use that follow patterns of off-line marginalization technology (see Robinson et al., 2020a; 2020b; Bucea et al., 2021; Wilson-Menzfeld et al., 2024 and other literature in [Section 2.2.1](#)). The study also corroborates and builds on previous ‘single axis’ analyses which use the conceptualization of orientations to show that young people develop particular learning attitudes, practices, and digital patterns of use as a result of their race, class, gender and other identities, which then perpetuate existing inequalities (Robinson, 2009; Grošelj, 2021). This previously established understanding of orientations as sites of reproduction of structural inequalities, must accordingly include the conceptualization of inequalities as intersecting, dynamic, and relational. The thesis, however, also challenges the approaches used in this literature as it evidences how orientations are shaped by *intersecting and interacting* subjective and collective identities, such as class, race, parenting status, among others—*simultaneously*—and that privilege and marginality can often coexist in the same context. In other words, despite being rich scholarship, ‘single axis’ analyses which focus on race, class, gender, or age, *alone*, might therefore be inadequate to account for the complex nature of disadvantage for many groups of youths, and might be pushing a swath of young people out of the analysis and, therefore, excluding them in the design of practical

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educational solutions. Thus, perhaps a new conceptualization of digital inequalities might be needed to ensure that theory and praxis are thorough and inclusive. More pertinently, this study raises new questions about the breadth and depth of our understanding when it comes to notions of digital inequality such the “digital inequality stack” Robinson et al., (2020a; 2020b) and “compoundedness and sequentiality” (van Deursen et al., 2017). These notions posit that, when digital inequalities exist at the most basic level, they proliferate inequalities at higher levels. Considering the finding that digital inequalities are, in fact, multilayered and mutually-reinforcing (intersectional), and that deprivation at the most basic levels is shaped in ways we are not actively accounting for, then the gaps in our understanding of how inequalities are reproduced, *intersectionally*, might be much wider, and inequalities at higher levels might, consequently, be much different than we are currently theorizing and designing for.

In summary, this thesis contributes a few original insights into the relationship between the study of disadvantage, education, and technology. It highlights that young people’s digital learning orientations are shaped by their identity markers and group affinities. It contributes evidence for how this happens in a tension between systemic limitations, individual agency, and the politics of the technology. This study emphasizes the prominence of young people’s agency in resisting constraints on their circumstances, even when they are most defined by them. The thesis also establishes that technologies’ affordances in education can be both oppressive and liberating at the same time; they can also, under the same conditions, be oppressive for some while enabling to others. Exploring this thesis’ research questions with an intersectional feminist lens put the focus on power differentials and illustrated how power, in the learning lives of young people, is intersecting, interacting, hierarchical, dynamic and relational. This feminist theoretical framing gives interpretative potential to the study’s findings and makes visible the ways in which marginality and/or privilege at the level of individual biography shape and are shaped by events at the level of social structures. These findings and their theoretical explications bring to light the complex and complicated nature of digital inequalities in education and challenge popular discourses about the role educational technology plays in the learning lives of young people broadly, and marginalized young people, specifically.

8 Conclusion

This thesis has explored the intersection of technology and education within the lives of multiply marginalized young people in Washington, D.C., employing an intersectional feminist framework. This approach was crucial in understanding how these youth navigate their educational experiences amidst overlapping systems of oppression, such as racism, classism, and sexism. The study's focus on the role of technology in this context provided a lens to explore how educational practices are shaped by and, in turn, shape the identities of these young people. In this Concluding Chapter, I summarize the thesis chapters starting with the foundational theories and frameworks guiding the research, the literature review, and the key findings of the research in relation to the research aims and questions. Further, I highlight the thesis' contributions to the academic field and restate and discuss its implications for both theory and practice.

The overarching aim of this research was to explore the role of technology in shaping the educational experiences of marginalized youth in Washington, D.C., using an intersectional lens. The study sought to understand how the convergence of multiple forms of oppression—such as racism, classism, and sexism, among others—impact these young people's relationship with technology and education. By examining these intersections, the research aimed to provide a deeper understanding of how these identities influence digital learning practices and outcomes. To achieve this aim, the study was guided by the following research questions:

How does the intersection of multiple dimensions of oppression and privilege impact young people's relationship with technology and education?

- a) What dimensions of intersectionality (such as race, class, gender, disability, and others) do young people in Washington, D.C. experience in their learning lives?
- b) How do these intersectional identities shape their learning practices?
- c) How does technology shape their learning practices?

The findings of this study provide a nuanced understanding of how marginalized youth in Washington, D.C., engage with technology within their learning lives and educational contexts. In answering secondary Research Question (a) “What dimensions of intersectionality (such as race, class, gender, (dis)ability, and others) do young people in Washington, D.C. experience in their learning lives?”, the analysis revealed that the intersections of race, class, age, gender,

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geography, (dis)ability, body shape/size, parenting status, family structure, care responsibilities, Covid-19, edtech structures, and top-down approaches to parenting and homeschooling, do shape the young people's learning practices and attitudes toward technology. The data also show that, for all participants, more than just one axis of marginality is at play at any given time in their digital learning lives. Particularly, 'race-class' was a common intersection for all 31 participants in the study. However, analysis also highlighted the 'race-class' location shapes their digital learning practices and attitudes differently in its interaction with other dimensions of their subjective, group, and systemic identities and belongings.

Pursuing secondary Research Question (b) "How does intersectional location shape learning practices?", brought to light the thesis' main finding. Participant learning practices are shaped by their intersectionalities in ways that are both liberating and constraining, and ways that highlight experiences of structural oppression and resistant agency. These experiences of enablement and constraint in the learning practices of these young people happen through the conceptualization of *orientations*. Participants across the data have different patterns of use, attitudes, digital practices and predispositions towards learning with technology, which fall along three major orientations: the Conformists, the Hustlers, and those with Cultural Distinction at the Margins). Together, these finding chapters highlighted how the emergence of orientations is shaped by participants' particular categories of social difference (intersectionalities). In other words, what young people 'do' with the technology is shaped by what they think, the intersections of the social class they belong to, their gender, their internalized capacities and so on. Orientations, as a key finding, provided a framework for understanding how different groups of marginalized young people navigate their educational learning lives and how technology plays a role in this process.

Employing a feminist intersectional lens to answer the first two research sub-questions helped illuminate third one (c) "In what ways does technology shape learning practices?". Findings indicate that young people integrate technology into their learning practices and environments, making it deeply intertwined with the power structures within their specific contexts. As such, the emerging orientations are shaped, not only by the wider social power structures and the young people's resistance to them, but also by the enablements and constraints afforded by the technologies they appropriated. Thus, emerges an understanding of technology as socially shaped and socially shaping.

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Lastly, the exploration of the three research subquestions helped bring to light answers to the thesis' primary and central research question "How does the intersection of multiple dimensions of oppression and privilege impact young people's relationship with technology and education?". Answering this question ties the findings together into the main contribution of the thesis which is a feminist reading of digital inequalities in young people's learning and education. First, the three orientations highlight the complex ways in which technology is both a site of opportunity and liberation and misinformation and control for various sub-groups of the same community. For some, technology served as a means of resistance and empowerment, allowing them to navigate and sometimes subvert systems. For others, it enabled some uses, while limiting other, thereby reinforcing existing inequalities. Second, the intersectional analysis of power highlighted the role of wider social systems of inequality by connecting them to the social contexts and day-to-day digital learning practices of young people. It also highlighted the interesting and creative ways participants engaged with technology to resist said social structures. Third, because education is a site of reproduction of social privilege and marginality, overtime, digital orientations (attitudes, patterns of use, and dispositions) have the potential to, in turn, shape opportunities, life chances, and thereby social identities. This emerging role of technology as socially shaped and socially shaping allowed a more complete picture of findings to unfold. In all three chapters, the social shaping of technology happens in a dynamic negotiation between the impositions of structure, the resistance of individual and group agency, and the politics of the technologies they use. This interplay and its implications in the learning lives of young people underscores the importance of considering both the non-neutrality of digital tools, and the broader social and cultural context in which they used in educational settings.

Intersectionality is pursued in the interests of expanding understanding of differences, and this thesis has shown how, orientations are racialized, classed, gendered, and so on, simultaneously, but it has also shown how differences *within groups*, are important and necessary to capture inequalities that often go understudied in single-axis educational and critical technology research. In this thesis, different groups of young people with shared social identities appropriated technologies differently and engaged with their affordances differently, thereby creating unique intersections of marginalization/privilege that are more complex than just the sum of their individual locations.

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This study's contribution is twofold. First, it contributes to field of digital inequalities in education by offering a more nuanced understanding of how multiple dimensions of oppression and privilege intersect to shape digital inequalities in ways that are seldom conceptualized in this body of knowledge. By applying an intersectional lens, this research highlights the ways in which gender, race, class, and other social categories intersect and shape the digital learning experiences of young people in Washington, D.C. By illustrating how power operates in the digital lives of marginalized youth, this research highlights the ways in which technology can both perpetuate and challenge existing power structures, depending on how it is used and by whom. Contributing to this analytical gap, the study brings to light the complex and complicated nature of digital inequalities in education and challenges popular discourses about the role educational technology plays in the learning lives of young people broadly, and marginalized young people, more specifically. This contribution is particularly significant in a world where technology is increasingly integrated into educational practices, yet often without a critical examination of its impact on different groups of young people.

Secondly, this thesis contributes to feminist theory by providing a framework for future research to explore how multiple-axis feminist theory can be applied to empirical research in education, in the digital realm, or in other contexts. It also provides a framework for understanding the complex relationships between identity, power, and technology in studies outside of the field of education, suggesting intersectionality can be a valuable lens for exploring other aspects of digital life, beyond education.

So why does it matter that young people's digital orientations are shaped by broader social, economic, political determinants? And why does it matter that one's race does impact what one is likely to experience on the Internet? Or that one's intersection of gender, race, and parental status can result in exclusion from educational experiences? As I mentioned in the introduction, these questions matter because they have important implications for researchers, policymakers, educators, and technology designers. More importantly, answers to these questions matter because they have the potential to reshape the narrative around technology in education and the wider debate around equitable educational outcomes for different groups in society. Likewise, they are important because they help uncover the inadequacy of individualist and neoliberal approaches in education which often do not consider the role of social structures in shaping the

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learning lives of young people. Addressing these questions is especially important as these logics are embedded in the affordances of the technologies so central to young people's daily lives. These questions matter because, by asking them, we recenter marginalized epistemologies and make power visible in the most consequential sites of knowledge reproduction—and, therefore, power reproduction—in society.

While this research has provided valuable insights into young people's digital learning lives, several areas remain underexplored and present opportunities for future investigation. First, conducting the study during the Covid-19 pandemic may have presented limitations, as discussed in [Section 3.2.2.1](#), but it has also highlighted participants' digital learning experiences in ways that would have otherwise never come been possible without the conditions imposed by the pandemic. Covid-19 created unique challenges and opportunities for digital learning and the findings of this study reflect the specific circumstances of this period. For example, though the intention was not to specifically look at how learning inequalities are compounded in the context of learning at home, the results nonetheless reflect and discuss the realities of digital learning during home confinement, which has been greatly edifying. Similarly, participant recruitment and engagement during the pandemic was limited to those who could afford to take the health risk of physically attending the ACC, therefore excluding young people or families with high health risk factors. Recruitment and engagement were equally limited to many children of families who did not have options or resources for childcare during a time of home virtual learning and their mandate to work outside the home as essential workers. This was especially true for children of young single mothers. Covid limitations certainly shaped the study's research processes and therefore resulted in *different* data and, potentially, different findings. As such, further research is needed to explore how these findings hold up in post-pandemic contexts and whether similar patterns are observed in 'normal' educational settings and non-disaster times.

Additionally, in the incidental context of the study, gender emerged as a curious element. Twenty-four of the thirty-one participants were girls and young women, the majority of parenting adults I dealt with in the procedures of the research were mothers, grandmothers, older sisters, and aunts, and the majority of the ACC staff, teaching artists and all volunteers were women. The study's intersectional approach does not lead a 'gender-first' analysis, it is rather anchored in the categories of race and class because of the particular historical context of racial

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capitalism in Washington, D.C. as discussed in [Appendix A](#). However, the missing intersectional data on young men and boys raises questions that extend beyond the immediate context of the study and could be an interesting avenue for future research. For example, might attending the ACC as a community art space be an inherently gendered experience in the community? Were there contextual reasons for young men to be less likely to engage in community and art spaces such as the ACC during the pandemic, or in general? Similarly, considering the incidental female-dominated participant pool and the depth and quality of relationships cultivated during the 12 months of fieldwork, might the power dynamics, closeness, and disclosure have been impacted in the heavier presence of boys and young men at the ACC? It is hard to assess the impact on findings, but the overwhelmingly gendered nature of the context and should indeed be a consideration in future research. While focusing on young women and girls provided deep insights into their specific experiences, it has highlighted the need for research that takes this finding into account and intentionally designs the research to include male perspectives, broader issues that affect boys and young men, and accounts for their unique intersectionalities and lived experiences in similar contexts.

Curiously missing in participant intersectional data categories were the social categories of gender identity and sexual orientation (or sexuality). In both questionnaire questions and interview questions participants were offered inclusive language to express gender identity and sexual orientation. In the questionnaire, participants had the choice to tick “boy”, “girl”, or “non-binary”. Likewise, during the PEIs, I often disclosed my identity categories or listed a range of categories to help them understand what I meant by identity categories. Sexual orientation, queerness, and gender queerness were all missing from their individual accounts with the exception of two participants. Some mentioned queerness in relation to other people in their lives, but not in relation to themselves. For this group of young people, potentially withholding this information from the data, is understandable and could be a missed opportunity for understanding to the intersectional analysis. However, it may also be that participants did not perceive of their gender-identity and/or sexual orientation as salient and, therefore, did not engage it in the conversations and overall interactions. I found this to be an interesting potential gap that is likely due to the stigmatizing nature of disclosing one’s LGBTQIA+ identity and to the intimidating nature of making such a disclosure in an educational setting. An exploration of

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ways to tease out gender identity (gender queerness) and/or sexual orientation as axes in an intersectional analysis at the stage of data collection could certainly offer additional perspectives on the findings presented in this thesis.

Overall, I add my voice in agreement with others in the field of learning, media, and technology to suggest future research that is qualitative, in-depth, and captures the lived experiences of young people. Further, future research might benefit from drawing on theoretical framings of transnational feminisms and focus on work that is based in non-western contexts. This would deepen the exploration of the experiences of marginalized young people in the Majority World and explicate it using thinking tools based on the ways of knowing of non-western and non-White theorists (Mertala et al., 2022). Lastly, in the spirit of helping shift the focus of the field from ‘critique only’ to critique and optimism, future research might benefit from building on current findings highlighting ‘where young people are’ with digital learning technologies and – with them – helping to build ground-up counter-narratives of edtech that are more centered on their actual needs, practices, and the ways in which they creatively and playfully resist edtech’s oppression in their intersectional contexts.

In conclusion, this thesis has provided an in-depth exploration of the nuanced ways in which the use of technology shapes and is shaped by the educational experiences of marginalized youth in Washington, D.C. By applying an intersectional feminist lens, the study has highlighted the complex dynamics of power in the digital learning lives of these young people. While the findings are specific to this particular context, they offer broader insights into the challenges and opportunities associated with education, learning, and technology in marginality and contribute to theoretical thinking on this topic. As the world continues to grapple with the implications of digital technologies in education—especially at the heels of a global pandemic and a surge in generative AI and AIEd— it is essential that both scholars and practitioners continue to explore these intersections, ensuring that educational technologies are developed and implemented equitably and justly for all young people.

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Appendices

Appendix A: Inequality in Washington, D.C.

“Negro life in Washington is a promise rather than a fulfillment”

Paul Laurence Dunbar (1900)

The above quote by poet Paul Laurence Dunbar was just as much the truth about Black lives in the early 20th century as it is today. Much of what makes it still relevant is the core interest of this appendix: a brief history of inequalities in Washington, D.C. and how they manifest in the lives of Black Americans and Americans of color.

Washington, D.C. is a place founded from its inception on colonization, the killing of indigenous people, theft of their lands, and building a city — a nation — by way of the labor of stolen and enslaved Black peoples — then their systemic oppression from then on to the present time. This history is essential in understanding the complex and convoluted issues which are the foundation of and provide a background to today’s landscape of inequalities in the District in general, and inequalities in education specifically.

In this appendix, I argue that the history of inequality in Washington, D.C. is entangled with race and class and has been institutionalized via deliberately constructed barriers to exclude Black people from various aspects of life and society. I wish to underscore that discussions of economic inequality cannot be separated from the legacy of slavery and its enduring consequences. Likewise, any examination of educational disparities must account for the history of racial segregation, along with the subsequent housing and school segregation it engendered. As such, the educational history of the city is inextricably linked to the larger context of the District’s history of democracy, social, economic, and political events over its 233-year history. Even more significant, is the District’s unique position as the nation’s capital, the cradle of the Civil Rights struggle, and the city of the free Black man, or “Chocolate City” as it is often endearingly referred to.

The Racial Wealth Gap

“If average Black family wealth continues to grow at the same pace it has over the past three decades, it would take Black families 228 years to amass the same amount of wealth White families have today. That’s just 17 years shorter than the 245-year span of slavery in this

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country. For the average Latinx family, it would take 84 years to amass the same amount of wealth White families have today—that’s the year 2097.” (Asante-Muhammad et al., 2017, p. 5)

The United States has more wealth inequalities than any other developed nation in the world — with wealth defined as the sum of assets minus liabilities (Pfeffer & Waitkus, 2019). In fact, the wealth gap in the US has been staggeringly growing in the last thirty years as the rich continue to grow their wealth and the poor further dip into debt (Wolff, 2017). Not only are America’s 1 percent, *alone*, holding more wealth than the bottom 90 percent combined, but they also invest in more lucrative sources of wealth, while the bottom 90 percent’s assets are in homeownership, which offers low returns compared to capital gains, and is more vulnerable to recessions (DFA, 2020). The latter group of Americans also have the bulk of the country’s debt at around 75 percent (DFA, 2020). Wealth inequality has reached its highest level since the 1920s, and it currently shows no signs of a slowing gap (Pfeffer & Waitkus, 2019). To the contrary, the economic growth of the last 15 years has disproportionately benefited the wealthiest 5 percent of Americans, and even more so, the wealthiest 1 percent (SCF, 2016).

Similarly, 37 percent of Black households and 33 percent of Latinx households have zero or negative wealth (having no assets, or more debts than they do assets), compared to a mere 15.5 percent of white households (Collins et al., 2019). In other words, the median White family has 41 times more wealth than the median Black family and 22 times more wealth than the median Latinx family (Collins et al., 2019). Indeed, families of color in this category are much more likely to be asset-poor (not just lacking income) and live in stressful and precarious financial situations than their White counterparts (Collins et al., 2019).

Focusing in further into the wealth gap map, the nation’s capital is in fact ranked amongst the top 10 most unequal cities in the United States as of the last 2016 U.S. Census data, and has higher levels of income inequality than any other state in America, with “households in the top 20 percent of income having 29 times more income than the bottom 20 percent” and the “bottom fifth of Washington, D.C. households had just two percent of total Washington, D.C. income in 2016, while the top fifth had a staggering 56 percent” (Naveed, 2017 p. 1). The District also ranks first on the list of the worst cities in America on the New Urban Crisis Index, a measure which uses the Gini Coefficient, wage inequality, economic segregation and housing costs to more comprehensively measure inequality (Florida, 2017).

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According to the latest Census Bureau data, the District also has one of the highest poverty rates compared to the rest of the 50 states — currently standing at 18.6 percent compared to the 12.7 percent national average (2016). Even more staggering, the city's economy has expanded in the last decade with indicators such as personal income and resident employment on an upward trend — but showed no sign of that growth being proportionately distributed across income levels, demographics, or racial lines (Zippel & Warciany, 2017). To the contrary, when comparing the net worth of Washington households, White households turn out to have a net worth 81 times greater than Black families (Kijakazi, et al., 2016). In 2016, the typical White household in Washington, D.C. has a net worth of \$284,000, while Black households had a net worth of just \$3,500. To make matters worse, marked racial inequalities still hold true even when controlling for educational attainment (Kijakazi, et al., 2016).

Though income is not as central to wealth building for the rich, it is indeed a path for upward mobility for the less-wealthy. In this aspect, Black and people of color also have it worse: a Black person in DC is eight times more likely to be out of a job than a White person, and a Hispanic person at least twice as likely than a White person to be unemployed (Jones, 2018).

Homeownership, Home Values, Gentrification and Homelessness

Unemployment, wage, and wealth gaps go in tandem with being able to afford a home. Washington, D.C. is now a gentrifying city that is quickly becoming whiter and richer, as people of color and poorer residents are being pushed out of neighborhoods that were once affordable — and being pushed out of the city altogether as the rising cost of living alienates them. Given the racial wealth gap, homeownership and home values are also unsurprisingly more favorable for White people (Kijakazi, et al., 2016). In fact, as of 2016, 78 percent of White households owned their homes, while Black and Latinx households had the lowest homeownership rates at 58.4 and 49.7 percent respectively. Only Chinese and Vietnamese households have higher homeownership rates than Whites (Kijakazi, et al., 2016, p.52).

Another disparity which disproportionately affects people of color is that of property values. As a result of historically unjust redlining government policies, Black families are not only less likely to own a home, but when they do, they are also less likely to have their home hold as much value as that of a White family (Hanks et al., 2018). While controlling for educational attainment, for a White family's median home value of \$375,000, a Black family

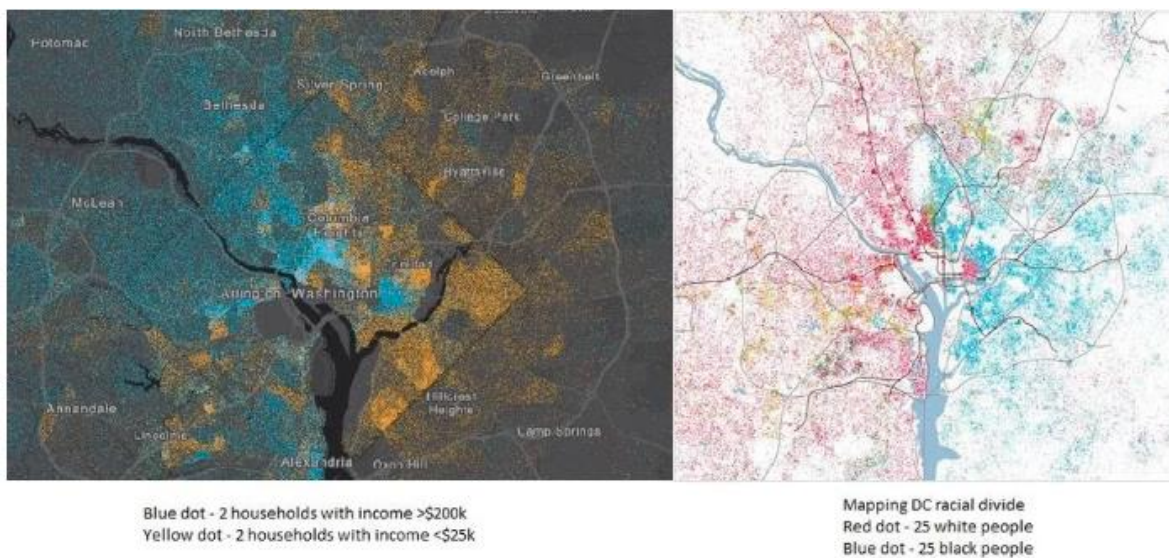
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only had a median value of \$250,000 (Kijakazi, et al, 2016). Additionally, of those who own homes, Black and Latinx families are more likely to have mortgages on their homes than their White counterparts (Hanks et al., 2018).

Residents of Washington for whom homeownership is out of reach, are left with the option of renting a home. As demand for housing in DC has been perpetually increasing, rent prices have been steadily rising in the last four decades, making Washington one of the most expensive markets in the nation. In addition to higher rents, there has been a parallel dwindling supply of subsidized affordable housing for low-income residents, making the impact worse for marginalized and vulnerable populations in the city, who are more likely to be Black and people of color (Gallaher, 2016). For instance, the median rent for a two-bedroom apartment in DC is \$1,577, above the national average of \$1,189, which continues to rise as increases have been occurring not just in the District but in the greater Washington metro area (Gallaher, 2016). DC being the third most expensive city to live in — just after San Francisco and New York — requires an individual to earn around \$133,000 before taxes to afford the average apartment rental price in the city (Geier, 2019). When considering that the median household income for Black residents is at a mere \$56,490, and \$46,880 for Latinx residents, the racial disparity of rent-to-income ratio becomes clearer (US Census, 2020).

Given the economic opportunities the city offers, an exodus of a White, mostly young, and highly educated group of people has been taking place since the 2000s. The Black population of the city is currently at 41.4 percent, down from 70 percent in the 1970s (US Census, 2020). Which speaks to the alarming rate at which gentrification is displacing DC's Black residents.

The irony of the American capital city is that is so clearly segregated into two wealth-race halves, one on each side of the Anacostia River (Figure 56). The contrast between the two sides of the river in terms of wealth and race is so stark that it begs for answers to the causes of such disparities in 'the capital of the free world', a question which will be addressed in a forthcoming section.

Figure 56 Data Visualization of Inequalities in Washington, D.C.

To put this data visualization in perspective, DC's Northwest Spring Valley Neighborhood, at the far west of the city, has a median household income in excess of \$200,000, while across the city — an eight-mile distance from Spring Valley and into Fort Lincoln — the household income is only \$16,736 (Wealth Divide Map, 2017). In fact, the term 'East of the River' is often used in pejorative ways amongst Washingtonians when referring to the poor neighborhoods, and the areas riddled with crime and homelessness. The city government has even attempted to rebrand the eastern part of the city as 'East End', in the hope of steering away from the historical negative connotations that have characterized the alternative.

In light of this racial, geographic, and wealth segregation, Black people make up 13 percent of the American population, however, they account for a striking 40 percent of people experiencing homelessness (Henry et al., 2018). Similarly, with Latinx, their proportion of people in homelessness — 22 percent — is also higher than their share of the general population at 18 percent (Henry et al., 2018). People of color, unsurprisingly, are especially vulnerable to homelessness since they tend to experience overlapping forms of disadvantage.

Racial Inequalities in Education Today

The racial divide across the District does not stop at measures of wealth, geography, and economic opportunity, it is also expectedly manifestly true for the education of young people.

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The nation's capital is an extreme example of this racial-educational inequality. DC has a school system that is infamous for being chronically dysfunctional, perpetually in crisis, and generally failing its young people and communities. In order to situate issues of inequality in this context, this section will look at the current state of education in Washington, D.C.

School Systems in Washington, D.C.

Washington's schools are comprised of the District of Columbia Public Schools (DCPS), the District of Columbia Public Charter Schools (DCPCS) and a number of parochial and other privately-run schools. Both DCPS and DCPCS are tuition-free to District students. DCPS are funded by the local government (occasionally receives funding from the federal government and private donors) and are governed by an elected DC State Board of Education. DCPCS, on the other hand, are partly funded by the federal and district governments but rely on raising private funds more heavily than DCPS. The 134 existing charter schools in the District operate on the basis of charters (or constitutions) they have created themselves. They are bound to implementing the same curriculum as DCPS but have greater freedom in how it is taught and implemented. Charters are governed by a DC Charter Board appointed by the city's Mayor. Schools in both systems are located throughout the eight city Wards (local zoning structure) and together serve about 99,770 students (DCPS), 47 percent of whom are in charter schools. Though both systems offer the out-of-neighborhood route to enrollment, they do so through a lottery system called My School DC Lottery. This system is a program designed to facilitate school choice in the District in an attempt to ostensibly increase educational opportunity and fair access to highly desirable schools by creating more income and race-diverse schools (myschooldc.org). It is a centralized lottery where families can enter their choice of 12 public or charter schools ranked in order of preference, and an algorithm subsequently matches students to schools based on a number of variables. This lottery system is highly contested and is source of frustration for many families as it runs long waitlists for certain schools and not every child gets their top choice. Additionally, as the quality of teaching and performance varies greatly by school, it is difficult to discuss the DC educational system in a vacuum.

In the private sector, about 107 schools are currently serving 19,137 students. The majority of these schools are located in the wealthier northwest quadrant of the city and are not

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representative of the majority of District students whose families lack the resources to afford private schooling.

The Racial Divide in Education Today: “Separate and Unequal”

Along racial lines, disparities in education for DC children are manifested in terms of educational opportunity and achievement, discipline, and segregation. Given that the district’s school system serves a majority students of color, it is easy to maintain the argument that Black are getting the short end of the stick in yet one additional aspect of life and society, and perhaps one of the most important: education.

Washington schools are 90 percent non-white (70% black, 15% Hispanic, 2% Asian, Pacific Islander or Native Hawaiian and 2% with two or more races) (Groeger et al., 2018). These percentages also vary within schools depending on what quadrant or Ward they are located in, as those, in turn, are also racially and income segregated. For instance, in the low-income Southeast Ward 8 Ballou High School, 97 percent of students are Black and 2 percent Latinx. While at Washington You Ying PCS District, that figure is a lot more diverse (37% Black, 30% White, 11%Asian, and 17% two or more races) (Groeger et al., 2018).

As such, Washington DC has one of the highest total spending on public elementary and secondary schools per student, and yet, one of the worst school performance rankings (45th out of 51 states) in terms of quality and safety. In fact, DC has the second highest dropout rate at 64 percent — significantly behind the national average of 85 percent— the second lowest math test scores, the lowest reading test scores, and the highest percentage of threatened or injured high school students out of all 50 states and the District (McFarland et al., 2019). The District also falls in the bottom 10 per cent in a number of national indicators, including student-teacher ratio, the number of students in gifted and talented programs, and the highest 10 percent nationally in the number of inexperienced teachers and the number of students who get free or reduced-price lunch (Groeger et al., 2018; McFarland et al., 2019, p. 70). Data on academic disparities also show that Black students in DC are 4.9 grade levels behind White students in DCPS, compared to Black students in neighboring suburbs falling only 2 grade levels behind their White counterparts (Groeger et al., 2018).

Additionally, a tour across the various neighborhoods in the city reveals the deep visible inequalities between schools in the city — both DCPS and DCPCS. They are unequal in terms of

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their physical condition, the quality of their amenities and, by consequence, the opportunities they can offer their students.

The ProPublica data (Groeger et al, 2018) show that students of color in Washington, but particularly Black students, are 15 times more likely to be disciplined than their White counterparts, which is the highest disparity in the nation. This staggering number speaks to the challenges Black youths face in terms of racial profiling in schools by the very educators and pastoral figures they have been entrusted to.

Consequently, Washington schools are segregated along socioeconomic and racial lines. Though DC has an address-based system of assigning students to in-boundary schools, it has shifted to a school-choice approach in 2004 to alleviate the extreme segregation of some of its schools — though this has been a largely failed resolution, as it is at best transferring the problem on to the community and, at worst, avoiding it altogether — but not addressing it adequately. DCPS and DCPCS harbor a number of extreme cases of overcrowded schools (magnet schools) and deserted low-performing schools. The former have an enrollment of over 95 percent and constitute about a fifth of all schools, while the latter have an enrollment capacity of less than 65 percent and are about a quarter of city schools (DCPS.dc.gov). Magnet schools, unsurprisingly, are concentrated in the more affluent Northwest of Washington (Wards 1, 2, 3, 4, and 6), while the non-desirable ones are concentrated in the southeast (Wards 5, 7, and 8) (Keenan, 2019).

This appendix serves as evidence to demonstrate that the status of education in Washington D.C. today has traceable roots to the systemic and structural racism of several centuries of inequality and marginalization in all aspects of society, including learning and education. Disparities in education are indeed entrenched in racial disparities of wealth accumulation, homeownership, and overall housing. Other disparities are beyond the scope of this appendix also include political disenfranchisement, school racial segregation, and an unfair criminal justice system. These racial and economic injustices created, institutionalized, and perpetually compounded the social, economic, and political structures of racism in Washingtonian society.

Appendix B: Photo-elicitation Activity Instructions

Activity Instructions

Take pictures of your learning practices which involve using technology. You may take photos of yourself, your technological devices, your learning spaces, your learning groups (for example, clubs, faith groups, social groups, tutoring sessions, etc.), or anything or anyone that may be part of or important to your learning in or outside of school. This is a FREE project – it will not cost you or your family anything.

- You may either use the disposable camera I will provide you with (this camera belongs to you! Remember to keep it out of the sun), or you may use your own phone camera, if you have one.
- Try to take between 25-30 photographs
- I will pick up the camera when you are done taking the pictures. Or, if you are using your own digital camera, I will ask you to send them to me. I expect you to have this task completed by (tentatively November 15th) but if you require more time, please get in touch with me.
- After the photos are developed, I will bring them to you.
- We will take some time to talk about the photos you took.
- Call me with any questions you may have! Tel: +1 202-379-6376
- Have fun!

When you're taking your photos, try to think about the following questions to help you with the activity:

- What activities, people or tools do you associate with learning?
- How would you describe your learning practices through pictures to someone who you have never met before?
- What does technology mean to you?
- What tools/aids/utensils/instruments, if any, do you use to learn outside of school?
- Does technology help you when you are learning? Does it frustrate you?
- Where/how/with whom do you usually engage in learning related to school activities
- Where/how/with whom do you usually engage in learning not related to school activities?

Appendix C: Semi-structured Interview Schedule

Semi-Structured Questions for Photo-Elicitation Interviews

- Can you tell me about the pictures you have taken? Where would you like to start?
- Which photos are most important to you, and which are least important? Why?
- What do they show?
- Who took them?
- Where were they taken?
- What is the story behind them?
- Can you tell me why you picked these [point to the technological artefacts in picture] in the photographs? Describe what they are. What do they symbolize/mean to you?
- How do they help you learn? Or not help you learn?
- What do they help you learn? Or what do they keep you from learning?
- How long were you engaged in the activity captured in the picture?
- With whom were you engaged in the activity captured in the picture?
- How does that precise place/device help you to learn (or not learn)?
- What learning practices are most meaningful to you? When?
- Is learning fun to you? When do you enjoy learning?
- Is there anything that you would like to tell me about your pictures that we haven't discussed or that you would like to add?
- Do you have any questions?

Appendix D: Self-completion Questionnaire

Questionnaire

We are doing a study at the university of Oxford, and we are interested in you telling us a little bit about you and about some of the things that you use at home. It doesn't matter if you use them a lot, a little bit, or not at all. Please tick the answers that apply to you and fill in the open questions to the best of your knowledge.

What's your full name?

Are You: ☐ A Boy? ☐ A Girl? ☐ Non-binary

When were you born? (month and year)

Whereabouts do you live? (Postal Code and/or Neighborhood)

Do you have a home phone?

☐ Yes ☐ No

We all vary in what we have access to in our homes, please tick the ones that apply to you.

Do you own:

Digital cable TV:

☐ Yes ☐ No

A computer? If yes, how many people do you share it with?

☐ No ☐ Yes, I share my computers with _____ people

☐ Other:

Can you access the Internet on your computer?

☐ Yes ☐ No

Do you have a mobile phone?

☐ Yes ☐ No

Can you access the Internet on your mobile phone?

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☐Yes ☐No

Is your Internet connection reliable? Can you rely on it to do research, use email, and other online activities?

How many books do you have at home? (Do not count magazines, newspapers, or your school books)

☐ 0-10 books

☐ 11-25 books (enough to fill one shelf)

☐ 26-100 books (enough to fill one bookcase)

☐ more than 200 books (enough to fill two or more bookcases)

Do you have any works of art at home? If so, which ones? (Art may be things like paintings, prints/photographs, sculptures/figurines, copies of music albums/concerts, plays, or films, among many others. Feel free to write about whatever you may have at home that isn't listed here)

☐ Yes, we have the following art works/ art pieces:

☐ No, we don't really have any art works at home\

Households can be diverse and different from one family to another; list the people who live in your household, and include information about what they do, if applicable.

All of the people you live with	Their Occupation

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How many people do you share the room where you sleep with?

I share my room with people

Where do you do your homework or studying at home? How many people do you share this space with?

I study in

While I am studying, I share this space with people

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What do you like most about using technology at home and elsewhere? What do you not like about it? (By technology we mean computers, laptops, tablets, mobile phones, and any other technological devices you may be using).

In case I need to ask a follow up question, could I please catch you on email or phone?

☐ Email:

☐ Phone:

☐ Parent Phone:

Thank you for taking the time to answer my questions!

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Participant #	Access to Home Phone	Access to Digital/Cable TV	Access to PC	Internet on PC	Access to Cell Phone	Internet on Cell Phone	Physical Access to Tech Score
1	0	10	0	0	10	10	30
2	0	0	10	10	10	10	40
3	0	0	10	10	10	0	30
4	10	10	10	10	10	10	60
5	0	0	10	10	10	10	40
6	0	10	10	10	10	0	40
7	0	10	10	10	10	10	50
8	0	0	10	10	10	10	40
9	0	10	10	10	10	10	50
10	0	10	10	10	10	10	50
11	0	0	10	10	10	10	40
12	10	10	10	10	10	10	60
13	0	10	10	10	10	10	50
14	0	10	10	10	10	10	50
15	10	10	10	10	0	0	40
16	10	10	10	10	10	10	60
17	10	0	0	0	10	10	30
18	10	10	10	10	10	10	60
19	10	10	10	10	10	10	60
20	0	0	10	10	10	10	40
21	0	10	10	10	10	10	50
22	0	10	10	10	10	10	50
23	0	10	10	10	10	10	50
24	0	10	10	10	10	10	50
25	0	10	0	0	10	10	30
26	0	10	10	10	10	10	50
27	0	10	10	10	10	10	50
28	0	0	10	10	10	10	40
29	0	0	10	10	10	10	40
30	10	10	10	10	10	10	60
31	0	0	0	0	10	10	20

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Participant #	PC Sharing	Internet Reliability	Physical Access to Technology	Quality of Access to Technology
1	0	10	30	40
2	10	10	40	60
3	0	10	30	40
4	10	10	60	80
5	10	10	40	60
6	7.5	10	40	57.5
7	0	5	50	55
8	7.5	10	40	57.5
9	5	10	50	65
10	10	10	50	70
11	7.5	10	40	57.5
12	10	10	60	80
13	10	10	50	70
14	7.5	10	50	67.5
15	7.5	10	40	57.5
16	7.5	10	60	77.5
17	0	10	30	40
18	10	5	60	75
19	10	10	60	80
20	10	10	40	60
21	10	10	50	70
22	10	10	50	70
23	10	10	50	70
24	5	10	50	65
25	0	10	30	40
26	5	10	50	65
27	10	5	50	65
28	2.5	10	40	52.5
29	2.5	5	40	47.5
30	10	10	60	80
31	0	5	20	25

Appendix E.2: Measures and Table for Measuring Cultural Capital

Cultural Capital																			
Max Score: 20																			
<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 20px;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Books at Home</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0-10 books</td> <td style="padding: 5px; text-align: center;">0</td> </tr> <tr> <td style="padding: 5px;">11-25 books (enough to fill one shelf)</td> <td style="padding: 5px; text-align: center;">2.5</td> </tr> <tr> <td style="padding: 5px;">26-100 books (enough to fill one bookcase)</td> <td style="padding: 5px; text-align: center;">5</td> </tr> <tr> <td style="padding: 5px;">200+ books (enough to fill 2 or more bookcases)</td> <td style="padding: 5px; text-align: center;">10</td> </tr> </tbody> </table> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Art at Home</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">No</td> <td style="padding: 5px; text-align: center;">0</td> </tr> <tr> <td style="padding: 5px;">Yes, own art</td> <td style="padding: 5px; text-align: center;">2.5</td> </tr> <tr> <td style="padding: 5px;">Yes, purchased art</td> <td style="padding: 5px; text-align: center;">10</td> </tr> </tbody> </table>		Books at Home		0-10 books	0	11-25 books (enough to fill one shelf)	2.5	26-100 books (enough to fill one bookcase)	5	200+ books (enough to fill 2 or more bookcases)	10	Art at Home		No	0	Yes, own art	2.5	Yes, purchased art	10
Books at Home																			
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Art at Home																			
No	0																		
Yes, own art	2.5																		
Yes, purchased art	10																		

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Participant #	Books at Home	Art at Home	Cultural Capital Score
1	5	0	5
2	7.5	10	17.5
3	7.5	10	17.5
4	10	10	20
5	2.5	10	12.5
6	10	10	20
7	7.5	10	17.5
8	7.5	2.5	10
9	5	0	5
10	7.5	10	17.5
11	2.5	10	12.5
12	7.5	10	17.5
13	10	10	20
14	7.5	10	17.5
15	10	2.5	12.5
16	7.5	10	17.5
17	2.5	0	2.5
18	2.5	2.5	5
19	2.5	2.5	5
20	7.5	0	7.5
21	7.5	10	17.5
22	7.5	10	17.5
23	7.5	0	7.5
24	2.5	10	12.5
25	5	0	5
26	7.5	10	17.5
27	2.5	2.5	5
28	7.5	0	7.5
29	7.5	0	7.5
30	5	0	5
31	0	10	10

Appendix E.3: Measures and Table for Measuring Socio-economic Status

Socio-economic Status																													
Max Score: 40																													
<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 20px;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Household & Occupation</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="padding: 5px;">Max Score: 20</td> </tr> <tr> <td style="width: 50%; padding: 10px; vertical-align: top;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Household Size</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">1-2</td><td style="padding: 5px;">10</td></tr> <tr><td style="padding: 5px;">3-4</td><td style="padding: 5px;">7.5</td></tr> <tr><td style="padding: 5px;">5-6</td><td style="padding: 5px;">5</td></tr> <tr><td style="padding: 5px;">7-8</td><td style="padding: 5px;">2.5</td></tr> <tr><td style="padding: 5px;">9+</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">N/R</td><td style="padding: 5px;">0</td></tr> </tbody> </table> </td> <td style="width: 50%; padding: 10px; vertical-align: top;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Occupation</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">Min Value</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">Max Value</td><td style="padding: 5px;">10</td></tr> <tr><td style="padding: 5px;">N/R</td><td style="padding: 5px;">0</td></tr> </tbody> </table> </td> </tr> </tbody> </table>		Household & Occupation		Max Score: 20		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Household Size</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">1-2</td><td style="padding: 5px;">10</td></tr> <tr><td style="padding: 5px;">3-4</td><td style="padding: 5px;">7.5</td></tr> <tr><td style="padding: 5px;">5-6</td><td style="padding: 5px;">5</td></tr> <tr><td style="padding: 5px;">7-8</td><td style="padding: 5px;">2.5</td></tr> <tr><td style="padding: 5px;">9+</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">N/R</td><td style="padding: 5px;">0</td></tr> </tbody> </table>	Household Size		1-2	10	3-4	7.5	5-6	5	7-8	2.5	9+	0	N/R	0	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">Occupation</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">Min Value</td><td style="padding: 5px;">0</td></tr> <tr><td style="padding: 5px;">Max Value</td><td style="padding: 5px;">10</td></tr> <tr><td style="padding: 5px;">N/R</td><td style="padding: 5px;">0</td></tr> </tbody> </table>	Occupation		Min Value	0	Max Value	10	N/R	0
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Participant #	Household Size	Household Score	Occupation(s)	OEWEE Estimates	Total Value	Occupation Score	Household & Occupation Score
1	3	7.5	Telemarketer	\$33,600	33600	1.62	9.12
2	9	0	Office Assistant, Floorworker	\$43,410, \$48,870	92280	4.44	4.44
3	3	7.5	Mechanic, Social Worker	\$36,780, \$55,660	92440	4.45	11.95
4	3	7.5	N/R	0	0	0	7.5
5	10	10	Social Benefits Income	\$20,175	20175	0.97	10.97
6	6	5	Lawyer	\$159,710	159710	7.69	12.69
7	3	7.5	N/R	0	0	0	7.5
8	6	5	Executive Assistant, Construction Management, US Marine	\$41,550, \$112,790, \$53,350	207690	10	15
9	3	7.5	N/R	0	0	0	7.5
10	8	2.5	Construction Worker	\$39,320	39320	1.89	4.39
11	4	7.5	Commercial Driver	\$35,000	35000	1.69	9.19
12	4	7.5	Administrator, Healthcare Support Worker, Fast Food Delivery (part-time)	\$41,550, \$35,560, \$13,960	91070	4.38	11.88
13	2	10	Home-Improvement Business (self-employed)	\$56,990	56990	2.74	12.74
14	4	7.5	Driver, Hairdresser, Computer Technician	\$32,710, \$38,910, \$47,120	118740	5.72	13.22
15	7	2.5	Computer Technician, Hairdresser	\$47,120, \$38,910	86030	4.14	6.64
16	8	2.5	Computer Technician, Life Guard	\$47,120, \$28,370	75490	3.63	6.13
17	8	2.5	Temporarily Unemployed	0	0	0	2.5
18	3	7.5	Cook	\$32,080	32080	1.54	9.04
19	9	2.5	Retail Sales Worker	\$32,500	32500	1.56	4.06
20	5	5	N/R	0	0	0	5
21	7	2.5	Caregiver, Security Guard, Retail Sales Worker, Retail Sales Worker	\$30,930, \$36,700, \$32,500, \$32,500	132630	6.39	8.89
22	4	7.5	Mechanic	\$36,780	36780	1.77	9.27
23	7	2.5	N/R	0	0	0	2.5
24	5	5	N/R	0	0	0	5
25	9	0	Temporarily Unemployed	0	0	0	0
26	6	5	Lawyer	\$159,710	159710	7.69	12.69
27	3	7.5	N/R	0	0	0	7.5
28	9	0	Special Education Teacher, Special Education Teacher	\$38,640, \$38,640	77280	3.72	3.72
29	9	0	Special Education Teacher, Special Education Teacher	\$38,640, \$38,640	77280	3.72	3.72
30	3	7.5	N/R	0	0	0	7.5
31	2	10	Temporarily Unemployed	0	0	0	10

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Participant #	Bedroom Sharing	Homework Space Sharing	Personal Space Score
1	10	10	20
2	5	10	15
3	10	10	20
4	5	5	10
5	10	10	20
6	5	5	10
7	10	10	20
8	5	10	15
9	10	10	20
10	10	5	15
11	5	0	5
12	5	0	5
13	10	5	15
14	0	0	0
15	0	5	5
16	0	10	10
17	10	10	20
18	10	0	0
19	5	0	0
20	10	10	20
21	10	10	20
22	10	10	20
23	5	10	15
24	5	5	10
25	5	5	10
26	10	5	15
27	10	5	15
28	0	0	0
29	5	5	10
30	10	10	20
31	10	10	20

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Participant #	Household & Occupation Score	Personal Space Score	Socio-economic Status Score
1	9.12	20	29.12
2	4.44	15	19.44
3	11.95	20	31.95
4	7.5	10	17.5
5	10.97	20	30.97
6	12.69	10	22.69
7	7.5	20	27.5
8	15	15	30
9	7.5	20	27.5
10	4.39	15	19.39
11	9.19	5	14.19
12	11.88	5	16.88
13	12.74	15	27.74
14	13.22	0	13.22
15	6.64	5	11.64
16	6.13	10	16.13
17	2.5	20	22.5
18	9.04	10	19.04
19	4.06	5	9.06
20	5	20	25
21	8.89	20	28.89
22	9.27	20	29.27
23	2.5	15	17.5
24	5	10	15
25	0	10	10
26	12.69	15	27.69
27	7.5	15	22.5
28	3.72	0	3.72
29	3.72	10	13.72
30	7.5	20	27.5
31	10	20	30

Appendix F: Learning Practices across Groups

Practice	Description	Digital Devices, Software, and Applications Associated with Practice	Percentage of Students
Communication and social life	Connecting with friends and family, and reaching out to teachers and mentors. Quick, instrumental, and important relationship-building communication.	Adios, Discord, Dubsmash, Email, Facebook, Google Meet, Instagram, Kik, Microsoft Teams, Snapchat, TikTok, Video-calling, Texting, WhatsApp, Yubo, Zoom	100%
Attention and emotional management	Distraction (especially from schoolwork), disruption (of face-to-face connection and other activities), dependence (on devices/addiction), paying attention and focusing, avoiding boredom, and filling free time; art therapy, reducing stress, and relieving shyness and awkwardness.	Music, Games, cell phones, scrolling through social media	90%
Entertainment	Watching visual media, movies, series; listening to music, scrolling through social media, and reading digital and print books.	Apple Music, Musi, Music App, YouTube, Instagram, TikTok, Netflix, Pandora, Sora, SoundCloud, Soundtrap, Spotify, TAP, Tapas, TV, Wattpad, Hulu, WEBTOON	88%
Gaming	Gaming alone and with others.	Call of Duty, Discord, Life Simulator, Minecraft, ROBLOX, Fortnite, Grand Theft Auto, The Sims 4, Soundtrap	84%
Managing schoolwork and performance (LMS)	Calendar management & scheduling, accessing work documents, worksheets, and lesson materials; submitting and uploading schoolwork, and attending virtual school lessons.	LMS, Google Classroom, Canvas, Clever, Edulastic, Lastformath, Arvedi, Unified Classroom & MCPS Dashboard Calendar, Flipgrid (video discussion and sharing app), Email	81%
Tutoring and help with schoolwork	Tutoring, extracurricular work, Horton's Kids Tutoring, and family help.	In-person, Zoom, FaceTime, Microsoft Teams	81%
Word processing	Writing and composition, typing, dictation, creating presentations.	Microsoft Word, Microsoft PowerPoint, Google Sheets, Google Docs, Canva, Notepad	77%

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Practice	Description	Digital Devices, Software, and Applications Associated with Practice	Percentage of Students
Managing and curating one's online image	Maintaining an online presence, broadcasting and curating interests.	Various social media platforms, Linktree, LinkedIn	71%
Information seeking and retrieval	Including seeking inspiration and pursuing genuine curiosity or serious fun. Some students specifically search for tutorial videos, viewing them as easier to consume than textual guides.	Google, Google Translate, Google Images, DeviantArt, Hashtags, YouTube, TikTok, Instagram, Twitter, magazines, MOOCs	65%
Home working, supplementary materials, and alternate sources of teaching	Resources accessed and used to support their homework completion and comprehension, and problem-solving skills.	Acellus, Duolingo, Google, Socratic, YouTube; analogue tools (paper, sticky notes, worksheets, pencil, analogue/digital calculator)	61%
Edutainment	Reading and watching audio-visual materials for both learning and entertainment.	YouTube, Books, Podcasts, Masterclass	55%
Information and data management across time and space	Utilising Cloud-based storage to access data on multiple devices/in different locations, and to safeguard valuable documents. Capturing screenshots instead of writing, saving time, and catching up on missed work. Various resources online for homework shortcuts.	Google suite, cell phone camera, phone note app, notepad, Quizlet, book summaries, skimming print books, Nadia	52%
Math homework help	Basic calculations, clarifications, and integral practice for participants who are anxious about their mathematical ability.	Gothmath, Photomath, Calculator Soup, Brainly, analogue tools	50%
Entrepreneurial practices (enterprising/'hustle culture')	Making connections, producing and selling art, brand marketing, and performance.	OnlyFans, open mics, Instagram, Masterclass, Genius, Sped it, YouTube, print books, NGO programming	48%
Using print books	School/library books (including those for edutainment).	Social sciences, humanities	45%

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Practice	Description	Digital Devices, Software, and Applications Associated with Practice	Percentage of Students
Passive discovery and 'Feeling Lucky'	Recreational use of online search engines.	YouTube, scrolling through social media, TV	45%
Tech as an in-class teaching aid	Teachers using tech to supplement lessons.	Nearpod, screen projector, whiteboards, YouTube videos.	39%
Design and art-making	Creativity, hobbies, sharing content, streaming, emulating, mixing and matching, and then producing. Drawing, painting, photography, makeup, taking things apart, fashion, shopping, web development, music production, creative writing, comic illustration, and 3-D printing.	'11:11' wishes, 5D Design, Artflow, BandLab, Colorfy, DeviantArt, GlitchLab, Adobe Illustrator, learning to draw, Logic Pro, Magic Poser, Adobe Photoshop, Pinterest, Planner 5D, Procreate, Soundtrap, YouTube	26%
Using digital books	Not carrying heavy books, and having everything in one place.	Wattpad, Sora	19%
Managing and regulating one's tech use and digital engagement	Choosing to withdraw from the digital because of boredom, difficulty, or disinterest; regulating mobile phone use.	N/A	16%
Relaxing/falling asleep	Watching video content to fall asleep/'switch off'.	YouTube, Podcasts	16%
Homeschooling group meetings	Regularly meeting with others—or a more learned other—to pick up knowledge or a new skill.	Classical Conversations, self-directed classes in NGOs, GroupMe meetings	6.5%
Porn consumption	Learning about one's sexuality and viewing pornographic practices as a reference for real-life sexual practices.	RedTube, Pornhub, XVideos, YouPorn, other free porn sites	6.5%
Rule breaking/subversive use	Circumventing school Wi-Fi and firewall protections, playing games when prohibited, using phones, pirating expensive software, and scamming people online.	Internet, computers, phones, YouTube	5%

Appendix G: Quality of Access is Racialized and Classed

Physical Access is Racialized and Classed

Participants have near ubiquitous physical access to technology, with mobile phones being their primary device. However, 84% of them have difficulty maintaining access to their devices and the Internet in a way that is reliable, stable, and autonomous. This has been consistently linked in the literature to social differentiators such class and race, and in this case, the intersection of the two. The quantitative self-report survey data ([Appendix E.1](#)) show that participants have foundational access either directly or by proxy as follows (Figure 57):

Access to Personal Mobile Phone:

- All but one participant (1 out of 31) have access to a personal mobile phone.

Access to Broadband on Mobile Phone:

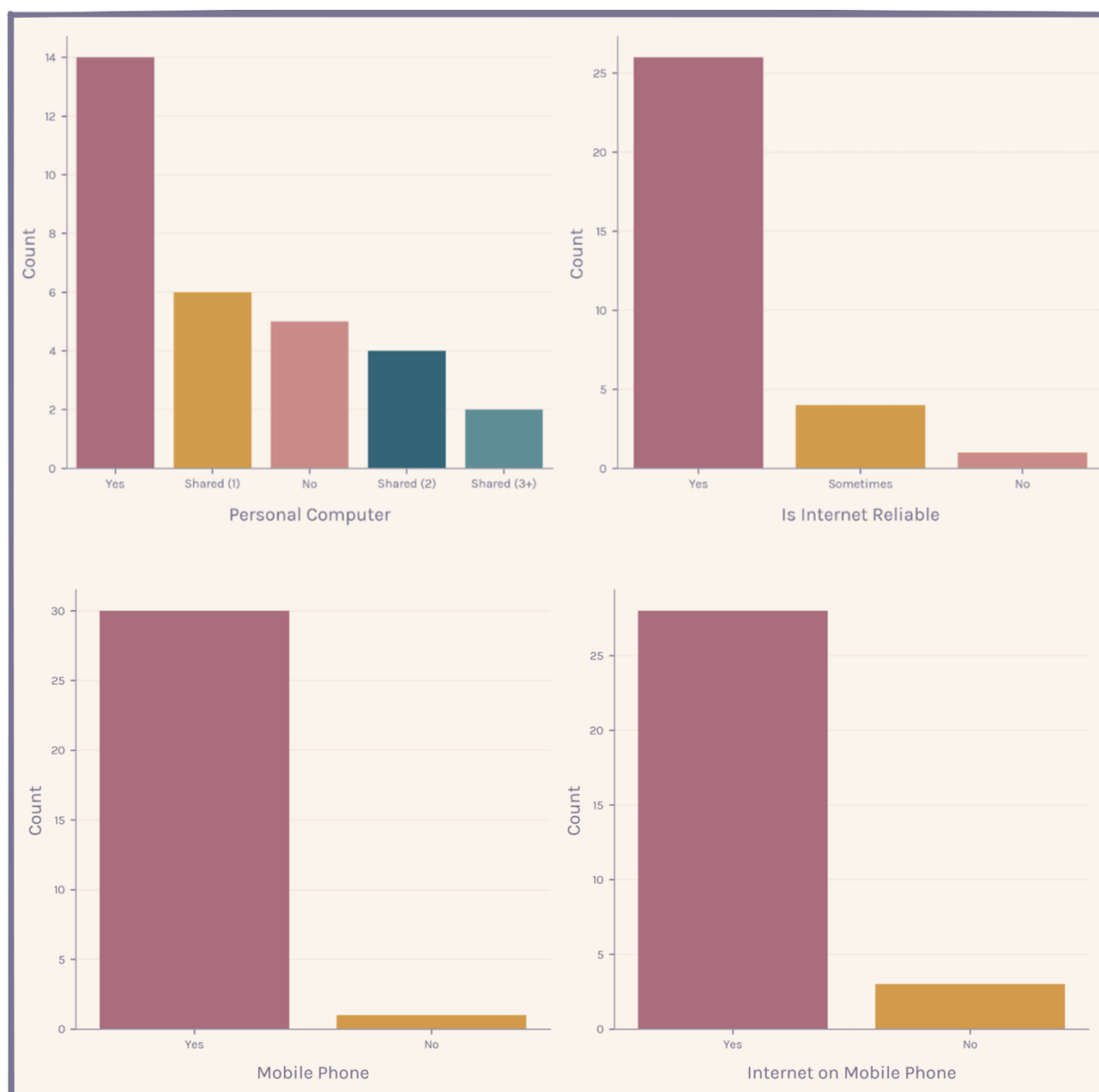
- 91% have access to the Internet on their mobile phones, using mobile broadband or a combination of mobile broadband and Wi-Fi.

Access to Personal Computer:

- 84% have access to a computer either personal or shared (proxy access)
- 39% share computer access:
 - 20% share access with one other
 - 13% share access with two others
 - 6% share access with three or more others
- 77% out of 87% eligible for Chromebook access provided by schools during the pandemic have one (the remaining 13% are not in K-12 education)

Access to Reliable Internet:

- 84% reported reliable Internet access.
- 13% reported their Internet access is *sometimes* reliable.
- Only one person reported their Internet access is *not at all* reliable

Figure 57 Physical and Quality of Access to Technology

While physical access to network infrastructures and individual devices is essential, this finding corroborates evidence that pushes for examining inequalities beyond initial access, as the latter does not inherently subsume higher levels of digital inclusion (Robinson et al., 2020a). As the following sections will demonstrate, this finding tells only part of the story of what emerges as barriers and opportunities for the participants' day-to-day learning practices. Education is a

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process that takes place within a complex context of social relations, and therefore educational opportunity is seen through the prism of inequitably enabling educational opportunities, access to material resources falls short of explicating educational inequalities. This, according to Young (2011) “does not show that distribution is irrelevant to educational opportunity, only that opportunity has a wider scope than distribution” (p. 42). as such, this finding helps firmly focus the argument around looking at the social outcomes of digital inequality and away from technologically deterministic assumptions.

Quality of Access is Racialized and Classed

Fieldwork interviews and photographic data elaborate this finding by showing how issues of frequent disconnection, outdated or broken hardware, storage scarcity, broadband precariousness, and data limits were significant areas of frustration in the day-to-day learning of these young people. Similar to understanding the level of penetration of physical access to technology, understanding the cost of technology maintenance which these young people are faced with in their daily learning practices helps provide a backdrop for examining the social outcomes of inequalities at the level of sustainable access to technology. The latter is known to proliferate social inequalities from the level of biography (micro) to the level of social structures (macro) (van Deursen et al., 2017; Robinson et al., 2020a; 2020b; 2020c). Demonstrating how the two are connected for all three groups of Washingtonian youth is the aim of this thesis.

Technology Maintenance

In contrast to physical access, the data show that quality of access is what emerges as a more pertinent finding to examine in the learning practices of participants. Based on existing theoretical work, technology *maintenance* —issues of connectivity, hardware, and software quality amongst participants who already have access to them—emerged as a theme from the analysis. The concept of ‘technology maintenance’ suggests that “as access to information and communication technology peaks, the digital divide is increasingly characterized by the (in)ability to maintain access” (Gonzales et al., 2020, p. 751).

All 31 participants (100%) have access to some form of hardware, software, and broadband access, directly or by proxy, but 84% of them had difficulty maintaining access to it in a way that is reliable, stable, and autonomous. Fieldwork interviews and photographic data elaborate this finding by showing how issues of frequent disconnection, outdated or broken hardware, storage

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scarcity, broadband precariousness, and data limits were significant areas of frustration in the day-to-day learning of these young people. For example, when asked about her learning with technology, Ségolène explained:

“Something that’s like annoying for me was the Internet connection and the battery life. [...] So, with the Internet, sometimes my iPad would just go really slow, and for some reason it always decided to update my apps, so I had to use my mom’s computer from time to time. And with the battery life, it would just be on 100% at one minute and then I turn around and it’s already on 20%. And I just I try to make sure I don’t use it that much, because like once it gets to 20% it’s like 5 minutes’ worth for you to be able to use it. And before quarantine I had lost my charger that they had gave us, [which] was able to charge the iPad fast, so the chargers that I was given, like the one that my mom was buying me, like they wasn’t doing that, like I wasn’t able to be on it and charge my iPad at the same time, so I have to turn it off, like get off the iPad and I would just use my phone for Zoom, and then I got this computer [Chromebook] and I tried to use Zoom on it, but it wasn’t working”.

Here, Ségolène has a number of devices at her disposal, most of which are outdated, clunky, and hard to use. Her devices have a volatile battery life and cannot support new versions of software without slowing down. Lost hardware is often replaced with lower quality one, impacting her ability to use it with dependability. As her many devices seem unreliable and difficult to maintain, she often resorts to using her cellphone instead. Other examples from Naomi and Chiana include breakage, loss, or theft of hardware, including but not limited to school-provided Chromebooks:

Naomi: “all the computers are going missing. [...] people rarely lose it and will just go ‘someone stole it’ like no! YOU broke it, or YOU lost it, but [the principle] doesn’t really investigate so people have like new tablets.”

Researcher: “How come not everybody has [a Chromebook]?”

Chiana: “Because, in quarantine, everybody they had one, but some people broke theirs or like misplaced it, so the school barely have Chromebooks no more.”

This inability to maintain access to computers results in students reverting back to using school computer labs, library computers, their mobile phones, relying on shared access at home, or altogether opting out of the digital. These are all options documented to have their own

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limitations for under-served young people (Warschauer & Matuchniak, 2010; Tate & Warschauer, 2022).

Another noteworthy and limiting hardware/software maintenance finding is that of storage capacity. The experiences of participants are characterized by scarcity and lack of dependability. When asked about her preference for handwriting notes in class or typing them up, Samiyah shared:

Samiyah: “[I prefer to handwrite], I’m not gonna lie. Because you could save it easily. I mean you could take photos but that’s gonna like take up your whole storage space. You know you will need those notes ‘cause they’re very important and if you delete them, you’re like ‘oh my god’! I’ll write them down, you know?”

Samiyah’s preference here is shaped by the lack of storage space in her phone. Many of her peers take photographs of the board to save time, then save the photographs to the cloud to retrieve them when time comes to revise. Samiyah rations her storage space by taking notes but also feels that the practice of taking photos is too volatile, as she will most likely have to “delete things I don’t use, clean it up” when the phone is full again.

Similarly, when asked about her experience with using the Internet, Chiana shared that “It’s fast” and “I got data” on her mobile phone which she uses dependably. However, when asked about the rest of her devices, Chiana shared her frustration:

Chiana: “[...] like the apps glitch or freeze and I just wanna crack my phone! [...] sometimes it’s because of the iOS update.”

Researcher: “Do you ever have issues with storage on your phone?”

Chiana: “My old phone YES! Like, I had to pay for storage every month. because, like, I only had 32GB so like, I blew it, I had 54 pictures but before that I had a 1000, and then I deleted all that and I had 5 apps and that’s it, and my storage was still full!! That’s why I want a new phone so bad because I want more storage.

Researcher: “What kind of phone do you have now?”

Chiana: “I got the [iPhone] 8 Plus, but at first, I had the [iPhone] 7”

In this instance, it seems as though Chiana has a good quality mobile broadband, but the low quality of her mobile device undermines it, making her experience more characterized by scarcity and frustration.

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Lastly, experiences of disconnection, Internet speed and bandwidth, mobile broadband, and logistic limitations on access were also reported by participants. Interestingly, 84% of them reported that their Internet is reliable, but this finding is at odds with some of what they reported in interview data. Thinker, for instance, prides himself in being an “Internet nerd” and engaging in hacker culture, but he shared his frustration with a slow Internet at home:

Researcher: “I know you mentioned the Internet at home is slow, is that frustrating?”

Thinker: “Most definitely, when I’m like streaming, it’s slow [...] I see everybody just be up to top speed, no delays, no lag, I’m like how do they get they Internet so fast?!? And I feel like they say they have RSVN or Xfinity, and I’m like I have both of them but I’m still slow!”

This finding (technology maintenance) is helpful in framing what under-served young people in this study experience when it comes to the quality of the ICTs they have access to. This finding is consistent with what others found in similar studies (Zickuhr & Smith, 2012) and (Gonzales, 2016), where participants have to consistently negotiate and work to overcome “temporarily disconnected service, broken hardware, and logistic limitations on public access” which they frequently experience.

Similar to understanding the level of penetration of physical access to technology, understanding the cost of technology maintenance which these young people are faced with in their daily learning practices helps provide a backdrop for examining the social outcomes of inequalities at the level of sustainable access to technology. The latter is known to proliferate social inequalities from the level of biography (micro) to the level of social structures (macro) (van Deursen et al., 2017; Robinson et al., 2020a; 2020b;). Demonstrating how the two are connected for this group of Washingtonian youth is the aim of this dissertation.