The Digital Edge

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In a 2013 cover story for *Time* magazine titled “Why Texas Is Our Future,” economist Tyler Cowen explains why a growing number of Americans are moving to Texas. Cowen writes, “More than any other state, Texas looks like the future . . . offering a glimpse of what’s to come for the country at large in the decades ahead.”¹ One data point about Texas and what it implies about the nation’s future from the most recent U.S. Census is especially revealing: between 2000 and 2010 the number of under-eighteen-year-olds in the United States increased by about two million. Roughly half of the nation’s increase occurred in one state: Texas.² Moreover, fully 95 percent of the growth in Texas was by Latino children.

Freeway High School is emblematic of the changes that are shaping the future of American demography, geography, and opportunity. Like many things in Texas, Freeway is big. The cavernous school is broad, tall, and home to more than 2,200 students. Located in the suburban fringes of Austin, Freeway is tucked far away from the entrepreneurial energy and affluence that are commonly associated with Austin’s technology- and university-driven innovation economy.³ The school building is surrounded by many of the familiar landmarks of a suburban geography characterized by nondistinct architecture, big-box stores, fast-food chains, immigrant-owned mini-markets, and arterial roads that are built, in theory, to aid the navigation of Austin’s sprawling metropolis.

Freeway was also the home of our research team for nearly two years and provided an opportunity to examine the many challenges that confront our schools in a time of epic change. If, as Cowen claims, Texas is a microcosm of our future, then Freeway presents a unique opportunity to see that future up close.
Ostensibly, the goal of our research was to gain an on-the-ground perspective of the role that digital media play in the formal and informal learning environments of teens from resource-constrained schools and households. We were aware of the many studies that suggested that Latino, African American, and lower-income youth were adopters of social and mobile media. In fact, their adoption of social and mobile media has prompted some to argue that smartphones, the poor’s primary platform for Internet access, have accomplished what many well-intentioned policy makers, philanthropists, and educators have failed to do—bridge the nation’s stubborn digital divide. Even before beginning our fieldwork at Freeway we knew that the story was more complex than that narrative suggested.

Freeway presented an opportunity to develop a more detailed and textured understanding of the media practices forming in the daily lives of black and Latino teens. Additionally, we wanted to explore the implications of this evolving digital media ecology for learning, opportunity, and social mobility. More specifically, we explore in detail what we call the digital edge.

The digital edge is a reference to the institutions, practices, and social relations that make up the daily and mediated lives of black, Latino, and lower-income youth. Our notion of the digital edge is informed by an essential conflict that is woven throughout the chapters in this book: even though a greater diversity of children and teens are using Internet technologies than ever before, not all forms of technology adoption are equal. The digital media practices of black, Latino, and lower-income youth are influenced by broader social and economic currents that give rise to distinct practices, techno-dispositions, and opportunities for participation in the digital world.

In the technology world, “edge” usually connotes something positive and even forward oriented. Being on the “cutting edge” of technology usually references innovation in either the design of technology (e.g., building a new platform) or the creative use of technology (e.g., finding inventive ways to use technology). Our use of the term “edge” is meant to highlight the contradictory contours that mark the digital media lives of black and Latino teens.

For example, the “digital edge” acknowledges the marginalized position that black and Latino teens navigate as they participate in the digital
world. Black and Latino youth often live in homes with intermittent access to broadband Internet, confront outdated hardware and software, and learn in poor curriculum classrooms. In this context, “edge” is equated with being on the margins of the tech economy, tech rich households, and high quality schooling.

But the “digital edge” also acknowledges the innovative position that black and Latino teens occupy in the digital world. As we reflected on our fieldwork it became clear that so much of the literature focuses on what we might call the deficit narrative—that is, an almost exclusive examination of what black, Latino, and lower-income youth do not have in relation to a rapidly evolving tech landscape. While we understand that black and Latino teens are often bereft of key resources, what they do have is an important part of the story too. We call this the asset narrative. For example, black and Latino teens bring a number of assets to their engagement with technology, including innovative techno-dispositions and practices that have led to important modes of digital expression and community like Black Twitter and social media enhanced movements like Black Lives Matter. Media practices like these highlights the degree to which diverse users of digital media expand what is possible in the connected world.

Three specific dimensions of the digital edge inform our efforts to understand the educational environments and the technology and creative practices that we observed during our fieldwork. These dimensions are the new geography of inequality, persistent racial achievement gaps in education, and evolving trends in the adoption of media technologies. Though distinct from each other, these three elements intersect in complex ways to give an uneven shape and urgency to the making of the digital edge and the lives and futures of young people coming of age in the social and economic margins.

Income inequality in the United States is rising. Although some progress has been made in closing the academic achievement gaps in U.S. schools, racial and class disparities persist at the primary, secondary, and postsecondary levels. And then there are the complex shifts that mark the diffusion of technological innovation. For example, even as black and Latino teens are just as likely as their white and Asian counterparts to use the Internet, they are also more likely to grow up
in homes that do not provide access to broadband, a crucial gateway to more capital-enriching forms of digital participation.

The New Geography of Inequality

A key dimension of the digital edge is the changing geography of inequality. Despite living in a hyperconnected world where physical distance is often characterized as immaterial, geography—or more precisely, where people live—still matters. The neighborhood that a person lives in and the resources (knowledge, schools, and people) available in that neighborhood profoundly shape his or her life chances and access to opportunity. Freeway students lived figuratively and literally on the edges of Austin and its rapidly evolving innovation and tech-driven economy.

During our fieldwork and subsequent analysis, other insights underscored the significance of geography and its relationship to opportunity and social mobility in the United States. For example, the research of Raj Chetty and colleagues on geography and the dynamics of intergenerational mobility informed our work. In their analysis of administrative records on the incomes of more than forty million children and their parents, the researchers argue that specific geographic attributes, and not simply growing up in a poor neighborhood, shape the prospects for a child to rise out of poverty.

The geographical variation in intergenerational mobility detected by Chetty and his colleagues is correlated with factors such as segregation, school quality, and social capital. Upward income mobility, for example, is significantly lower in areas with large and segregated African American populations. Proxies for the quality of K–12 education include things such as test scores, dropout rates, and class sizes. Further, children growing up in communities that rank high in social capital—things like religious affiliation, greater participation in local civic organizations, low crime rates—tend to do better in terms of social mobility measures. Neighborhoods in which students perform well across these measures tend to have higher rates of upward mobility.

Further, the geography of inequality in Austin reflects what Brookings Institution researchers Elizabeth Kneebone and Alan Berube
identify as the “suburbanization of poverty.” Whereas living in a U.S. suburb was once synonymous with white flight, affluence, and upward social mobility, the story is more complex today. The trend toward greater suburban poverty accelerated during the 2000s. Between 2000 and 2010, suburbs in the nation’s largest metropolitan areas saw their poor population grow by 53 percent. Poverty in metro suburbs grew at a rate that was more than five times that of primary cities. According to Kneebone and Berube, “By 2010, the suburban poor population exceeded that in cities by 2.6 million residents.”

Between 2000 and 2011 the suburban city that was home to Freeway tripled in size. In 2000, white residents made up 77 percent of the suburban population. By 2010 that percentage had decreased to 64 percent. Conversely, Latinos made up 16.7 percent of the population in 2000 compared with 27.7 percent in 2010. African Americans made up 9.5 percent of the population in 2000 and 15.5 percent in 2010. Whereas Asians were less than 1 percent (0.01 percent) of the population in 2000, that percentage climbed to 7.4 percent by 2010. The proportion of foreign-born residents living in this particular suburb increased substantially, too, growing from 6.4 percent in 2000 to 13.3 percent in 2011. By 2010, this suburban area had become what demographers refer to as a “majority-minority city.” The population changes did more than remake the demographics of the suburb; they also remade the public schools and educational opportunities that were available to students.

During the first decade of the new millennium, student enrollment in the Austin Metro Area School District (MASD) increased 64 percent and was driven primarily by the enrollment of Latino, black, Asian, immigrant, and lower-income students. From 2000 to 2010, the district reported a 115 percent increase in Asian/Pacific Islander students, a 118 percent increase in black students, and a 177 percent increase in Latino students. White student enrollment during the period decreased by 9 percent. The demographic shifts inside the city limits of Austin were considerably different during this period and reflect the racial and class dynamics of population flows in the Austin metropolitan area.

The rise of Austin’s innovation economy has led to sharp cost of living increases that are driving families, especially working poor and poor families, to the periphery of the city. A study by University of Texas
researcher Eric Tang found that Austin was unique in one important way among the nation’s fastest-growing locales: it was the only one to have a net loss of African Americans. 17

Social class and economics also marked the student population shifts. During this period, the MASD reported a 194 percent increase among students receiving free lunch and a 376 percent increase in students demonstrating limited English proficiency. Like the district as a whole, Freeway experienced a sharp rise among students from lower-income households. In 1997, 13 percent of Freeway students were designated as economically disadvantaged compared with 60 percent by 2011.

Finally, 45 percent of Freeway students were identified as “at risk” of dropping out of school during our time in the field. 18 Labels like these are value laden and generally have implications for how teen bodies are perceived and schooled. 19 In the context of education, for example, these labels impact how students are sorted and tracked into specific curricula and courses, which has significant implications for their opportunity to cultivate the social and academic skills that support either the school-to-work or the school-to-postsecondary-education transition.

The school district that we encountered while conducting our fieldwork was undergoing a dramatic transformation. Between the 1990s and the close of the first decade of the 2000s, the MASD transformed from a predominantly white and middle-income school district to a high minority and immigrant and lower-income district. Life at Freeway reflected these changes and the challenges that ensued for the school, students, and their families. These big demographic shifts were visible in our fieldwork and illuminate the social, economic, and educational disparities that are central features of the digital edge.

The Resegregation of Schools and Learning

One of the defining characteristics of U.S. schools is sharp racial segregation. Because most schools are neighborhood schools, this is a reflection of the legacy of residential segregation along racial, ethnic, and economic lines. 20 Freeway, however, was a multiracial, multi-ethnic, and multilingual school. During our fieldwork, the Freeway student population was predominantly Latino (48 percent) and African
American (24 percent), but Asian (13 percent) and white (11 percent) students were also represented among the student body. English language learners represented 11 percent of the student population.

If the racial and ethnic diversity at Freeway ran against the norm, the racial academic achievement gaps at Freeway were consistent with long-standing patterns. One of the ironies of racially diverse schools is that they end up being racially segregated within, especially along academic lines and perceived academic ability. White and Asian American students, for instance, are much more likely to be represented in the high track, Advanced Placement (AP), college prep, and gifted courses. By contrast, black and Latino students are typically underrepresented in those classes, thus leading to some racially inflected notions about race, learning, and ability. Some researchers refer to this as second-generation segregation, a reference to a post–civil rights era of schooling that reproduces many of the disparities in educational opportunity associated with previous formations of racially segregated schools. Data compiled by the Texas Education Agency highlights clear racial achievement disparities at Freeway.

For example, Asian (57 percent) and white (43 percent) students were more than twice as likely as Latino (20 percent) or black (15 percent) students to have taken at least one AP or International Baccalaureate examination. White (71 percent) and Asian (66 percent) students were substantially more likely than Latino (39 percent) or black (38 percent) students to be college ready in English language arts and mathematics, two cornerstone academic subjects. English language learner (71 percent), Latino (83 percent), and black (88 percent) students were less likely to complete high school in four years than their Asian (93 percent) and white (91 percent) counterparts. Moreover, Latino and English language learners were the most likely to leave high school without a diploma in hand. The academic disparities at Freeway are consistent with national educational trends in which black and Latinos, compared to white and Asian students, score much lower on educational tests and are also less likely to be enrolled in advanced academic courses.

These achievement gaps explain, in part, why white and Asian students were much more likely to earn a postsecondary degree within six years of high school graduation than their black and Latino counterparts. Many of the students that we met did not see college as an option in
their future. As we discuss in the book’s conclusion, students who do not earn a postsecondary credential are especially vulnerable in an economy that privileges higher-educated and higher-skill persons.

The Shifting Contours of the Digital Divide

Our examination of the digital edge was also shaped by another important development—the remaking of the digital divide. Even in a school in which 65 percent of the students were designated as economically disadvantaged, we routinely witnessed students using the Internet and social and mobile media technologies. For example, students used digital cameras, computers, and editing software to produce videos and graphic art in technology courses. Students also used game-authoring software to design simple games in their game design class. At Freeway, technology was incorporated in some of the classes, but the most creative uses took place in the after-school hours. During that time we observed students codesigning digital media and learning environments to support extracurricular activities and media projects that were peer driven, creative, and tech savvy.

Freeway was not a technology-poor school. In fact, the use of technology by the students in our study illuminates how widely the adoption of the Internet, for example, has spread across U.S. schools. In 2000 low-income students attended schools that offered limited access to computers and the Internet, if they offered it all. By 2005, schools emerged as one of the more reliable places for lower-income students to access computers and the Internet.24 By 2005, schools emerged as one of the more reliable places for lower-income students to access computers and the Internet.25

As recently as the early 2000s, young blacks and Latinos barely figured in the conversations about technology adoption and use. At best, they were considered laggards or late adopters. This gave rise to the digital divide concept, a narrative that largely viewed blacks and Latinos as marginal to the digital world.26 The data since the middle 2000s strongly suggest that black and Latino teens have become increasingly central in the making of the teen-driven social media and digital world.27 The adoption of the mobile web and social media by African American and Latino teens has been decisive and also turns the theories about the digital divide and diffusion of innovation on their heads.
No one would have predicted that black and Latino youth would be trendsetters when it came to the early adoption of the mobile Internet. No one would have predicted that by the close of the first decade of the new millennium black and Latino teens would be spending more time online than their white and Asian American counterparts. But their reasons for the adoption of the mobile Internet are complex. Their use of mobile platforms, especially smartphones, suggests early adopter status, on the one hand, while also illuminating the lack of reliable access to home broadband connections, on the other. In chapter two we refer to this as the “mobile paradox.”

Black and Latino youth are extraordinarily active when it comes to using their mobile phones to connect with peers, play games, listen to music, and watch videos. Still, very little is known about the creative and media production practices that are also a part of their social and media ecologies. When Steve Jobs introduced the iPad to the world in 2010, he repeatedly stated that the tablet “was like holding the Internet in your hand.” Our fieldwork suggests that black and Latino teens had already been holding the Internet in their hands via mobile phones. Throughout this book we consider two questions. First, what kind of Internet are black and Latino teens holding? Second, what are the social and educational implications of the Internet they hold? Researchers must develop a sharper portrait of the rapidly evolving media ecologies of black and Latino teens to learn what, if anything, is distinct about their use of media and Internet technologies.

Some of the more interesting questions regarding the media practices of black and Latino teens are sociological. How is their media ecology evolving with the adoption of social and mobile platforms? How does their embrace of the mobile phone as the hub of their social, informational, and cultural life rewrite the digital divide narrative? What distinct skills, assets, and dispositions do they bring to their adoption of smart technologies? Likewise, how does their adoption of mobile reproduce concerns about digital access, participation, and literacy that have been long-standing themes in the digital divide narrative? What are the social, educational, and civic implications of their engagement with media technologies? We address these and other questions in the following pages.
Black and Latino teens go online often and from a variety of places—school, libraries, community tech centers, home, and via mobile devices. Their adoption of media technologies has provoked some researchers to shift from studying the “access gap” to studying what is characterized as the “participation gap” or “digital literacy gap.” This shift acknowledges that as more diverse populations join the digital world, analysts must delineate the different environments, genres of use, and skills that produce diverse media environments, practices, and modes of participation in digital media culture.

Many of the chapters in the book illuminate how the technology practices of black and Latino teens are remaking the digital divide. Thus, rather than frame their use of digital media in the context of deficits, we frame their media behaviors in the context of assets, too. In other words, rather than thinking only about what black and Latino teens lack when engaged in the digital world, we also consider what they bring to their engagement. Importantly, the chapters also consider how social and economic inequalities continue to influence the digital practices and educational opportunities of African American and Latino teens even as their participation in the digital world expands.

As knowledge about the multifaceted aspects of digital inequality (i.e., access gaps, participation gaps, literacy gaps) continues to evolve, research and policy interventions must also evolve. We view the digital divide as not simply a matter of access to technology but also access to the social, human, and learning resources that support more capital-enhancing modes of adoption and participation. Moreover, we maintain that schools and other youth-serving entities invested in preparing young people for the world of tomorrow must help them develop the skills and the disposition to use technology to intervene in the world around them. Access to technology, we argue, is no longer a sufficient measure of success, better learning futures, or digital equity. Rather, those on the ground—parents, educators—or designing policy to enrich the lives of young people must seek to create spaces, resources, and learning opportunities that empower young people to participate in the making of new social, civic, and economic futures.

Much of the debate about technology in the education of teens in the digital edge pivots around workforce development or preparing them
for jobs that are steadily being erased by automation and globalization. The career-ready discourse, as we discuss in the conclusion, misses the critical opportunity to design schools and curricula that prepare students for a society and economy marked by complexity, uncertainty, and diversity. As a result of our fieldwork at Freeway, we pose a different challenge: rather than preparing students for today’s jobs (career readiness), why not support their preparation for the social, civic, and economic uncertainties of tomorrow (future readiness).

The three factors noted above—the new geography of inequality, the resegregation of school and learning, and shifts in the digital divide—contribute in unique ways to the making of the digital edge and the prospects for opportunity and mobility among Freeway students. Schools do not live in a vacuum. In fact, schools are a prominent reflection of society’s racial formations and social and economic inequalities. As we began to analyze the data from our fieldwork, we found ourselves striving to understand how the social and economic currents that were happening outside the walls of Freeway influenced what we observed inside the school.

Doing School in the Digital Edge

The demographic and academic achievement data cited above offer insight into the world that we encountered at Freeway. But these data do not tell the whole story. In fact, only looking at these data obscures the practices and social relations that present a more nuanced portrait of Freeway. Thus, our analysis is attentive to the diverse ways Freeway students “do school.” In her investigation of a group of high-achieving high school students, Denise Clark Pope identifies a number of ways that they craftily manage the stress of high-demand courses, hypercompetitive extracurricular schedules, and parental expectations that they gain admission to a select college. During our fieldwork at Freeway we considered this question: How do students in resource poor and underperforming school settings do school?

Much of the research to date has been influenced by the view that low-performing black students, for example, foster an oppositional culture that negates academic achievement. This claim essentially states that black students do school by trying to fail. In recent years, however, researchers have challenged the oppositional culture perspective.
For example, Prudence Carter suggests that black students’ struggles in school may have less to do with an opposition to learning and more to do with an opposition to authority and a disciplinary apparatus that subjects them to harsher punishment and cultural misunderstandings over their sartorial styles, language, and sources of cultural capital. Karolyn Tyson argues that the academic experiences of low-achieving students may be shaped by the practice of resegregation, especially in the form of being sorted into low-ability classes that often establish extremely low expectations. Angel Harris compiled an impressive array of data to demonstrate that “kids don’t want to fail” in school. Harris maintains that most black students value school and want to achieve but that they may not know how.

In our case studies, students “do school” in a variety of ways. In chapter three Jacqueline Ryan Vickery and Vivian Shaw explain how students do school by resisting and revising the often antiquated district policies that restrict their ability to be more creative with the technology that they have access to in school. As Alexander Cho, Vivian Shaw, and S. Craig Watkins discuss in chapter seven, some of the students in our study enrolled in AP courses and strategically pursued extracurricular activities to establish a competitive academic profile for college. But most of the students in our study employed more nonconventional tactics in the ways that they did school.

In chapter five, for example, Watkins discusses how a group of students formed their own quasi studio to turn their game design class into a more collaborative and dynamic learning experience. Watkins, Andres Lombana-Bermudez, and Lauren Weinzierl describe in chapter six how some Freeway students transformed the after-school hours into a lively lab for creativity, collaboration, and content creation. In these last two examples, students were less interested in building a competitive profile for college than they were in building opportunities and social relations that simply made school a more interesting and relevant place to be.

Many of these activities were not academic in a traditional manner. But rather than describe them as deviant or oppositional to learning and achievement, we pursue a different analytic track. More precisely, these forms of learning and media production highlight how students do school in ways that are inventive, engaged, and achievement oriented.
This study is also informed by the Connected Learning framework, an approach to learning and youth practice that has been developed by a series of research and design initiatives supported by the MacArthur Foundation. The Connected Learning model is as much a vision of learning as it is a theory of learning. More generally, connected learning posits that when learning is linked across multiple spheres—school, after school, peers, home, and online—it is likely to be more powerful and more meaningful.

From a Connected Learning perspective, learning should be networked, experiential, production centered, and marked by a shared purpose between students and adults. Unfortunately, the bulk of learning in America’s schools runs counter to these principles and is, instead, typically cut off from the networked world, routinized, test centered, and individualized. In a connected learning world, students are expected to actively produce and apply knowledge. In most schools, students are generally required to passively consume and memorize information.

Not surprisingly, it is much more likely that students from resource-abundant schools and communities will have greater access to connected learning opportunities than their resource-constrained counterparts. In addition to richer opportunities to learn in school, students from affluent households benefit from richer out-of-school learning opportunities. Still, even when schools and the adults who run them organize learning in more traditional ways, students occasionally find opportunities to redesign learning in ways that counter established conventions and reflect some of the principles of connected learning. The clever ways in which some Freeway students do school underscore this point.

Technology Is Not a Solution

Our fieldwork was an opportunity to see up close how the social, digital, and educational lives of black, Latino, and lower-income teens are evolving. This is a fact: teens from lower-income families are more likely to have access to Internet-enabled technologies today than they were a decade ago. As we discuss in chapter one, access to Internet media comes in a variety of forms, including more affordable computers and smartphones. Similarly, access to Internet media comes from a variety of places, including schools, after-school settings, and home. While
access to the Internet and media technologies is improving for young people, access to dynamic educational (i.e., formal curricula) and social (i.e., informal knowledge networks) resources that sustain more capital-enhancing forms of digital participation remains tenuous for teens in resource-constrained settings.

In our fieldwork we tracked two classes—a game design course and a video and technology applications course—to better understand the challenges and opportunities associated with efforts to design and implement digital media and learning in the formal classroom. These were the two main Career and Technology Education courses at Freeway. Consequently, the teachers of these classes were charged with orienting students toward information, technology, and creative careers. Both classes were burdened by the legacy problems associated with vocational education in the United States. More specifically, the classes were oriented toward “tools literacy” rather than more academic and design-oriented literacies. Tools literacy skills such as learning how to use basic software applications like Word or PowerPoint are foundational. By contrast, academic oriented skills such as coding and design thinking are transformational. In the chapters that follow we fully consider the limits of vocational technical education and the implication for learning and future opportunity.

Additionally, we spent tens of hours observing the activities in the after-school spaces that were devoted to the digital media arts, including, for example, video and film production, social media, graphic design, and game development. The students involved in these activities devoted substantial amounts of time and energy to pursuing creative activities, social relations, and learning experiences that often exceeded what was available during the school day to grow their skills and aspirations as digital media content creators.

Like their counterparts in many schools, Freeway teachers and administrators believed that the mere use of technology in the classroom was a source of achievement. We dispute this view in our analysis but also maintain that Freeway was the most important node in the digital media ecology of students from lower-income households for two main reasons. First, Freeway was the most reliable source for them to access computers, the Internet, and the software applications that supported sustained engagement in production-centered digital media practices.
Similar to national trends, home broadband Internet adoption was irregular and intermittent for many in our study.\textsuperscript{44} Second, some of the classes and after-school settings offered access to the kinds of social milieus and creative spaces that support deeper engagement in the production of digital media content.\textsuperscript{45} While access to technology—hardware and software—is commonly recognized as important to enabling robust participation in the digital world, access to vibrant social spaces, knowledge-rich peer networks, and supportive communities is often overlooked.

We entered this study excited about the opportunity to see up close the use of technology in a school populated by teens from black, Latino, immigrant, and lower-income households. Freeway had just launched a game development track that aspired to enhance the STEM literacies of students and prepare them for entry into a knowledge-driven economy. The technology applications course intended to expose students to media production, digital storytelling, and elements of design. Finally, we were intrigued to learn about the digital media club, an extracurricular activity that created a space and a community for the school’s most passionate digital media makers. These were all indicators of a school that appeared to embrace new learning futures that included technology-rich courses, STEM education, and extracurricular activities that spark the development of what are often characterized as twenty-first-century skills and new media literacies.\textsuperscript{46}

But as our time in the school grew so did the questions that we felt obligated to ask. What is the role of education in a knowledge-driven economy? What kinds of curricular resources should schools cultivate to provide rich digital media and learning opportunities? What kinds of skills—social, cognitive, technological—should schools be cultivating among their students? Moreover, why do school officials put more faith in the acquisition of technology than in the development of rich curriculum and instruction?

We engaged these questions through long, deep, and up close observation. The world that we became intimate with at Freeway—the world of formal schooling and learning—is remarkably complex. As we contend in the following pages, studying Freeway provided us with a detailed glimpse of one of the most pivotal challenges our country faces—preparing the nation’s most diverse student population in history.
for a rapidly evolving society and economy. The teachers, administrators, students, and parents that we discuss in the book opened up their world to us. They gave us access to their classrooms, extracurricular activities, home life, and more. In addition, they participated in candid, in-depth conversations about many issues. Without their generosity this book would not be possible.

As researchers we are obligated to document and analyze what we observed as fairly and rigorously as we possibly can. This means being critical of people we came to know and respect. If you have ever spent time in a U.S. public school, you know that it consists mainly of noble people striving to do the good work of education. In a time of growing economic uncertainty and societal change, the work of education may be tougher than ever. Schools are trying valiantly to remain relevant even as they appear to be losing ground in the face of historical changes and mounting pressure. It is an epic struggle and one that produces stunning disparities in the quality of education that black, Latino, and lower-income students receive.

We discuss these and other outcomes not to be critical of the school and teachers that invited us in but rather to be as forthcoming as we can about the challenges our nation faces. Only through persistent documentation and analysis can we design schools that are capable of building better futures. For all of the shortcomings that we observed at Freeway, one thing was strikingly clear: the school was the last, best chance for many of the students in our study to find their unique pathway to opportunity.

Freeway was the only place students could reliably pursue both formal and informal learning opportunities that were connected to their interest in digital media. Also, Freeway was the only place students could access the hardware and software that enabled them to join in robust forms of digital media learning and participatory cultures. Freeway, moreover, was a crucial source of community, offering access to peers, teachers, mentors, and a cluster of media makers that helped students transform the school into a place that, at times, was relevant and inspiring. In short, Freeway was a source of human capital, techno-capital, and social capital for many students.

The teachers that we met at Freeway struggled to design and implement a curriculum that supported deep learning. Some even taught
courses that they were not qualified to teach. Still, teachers like the ones that you meet in the book—Mr. Warren and Mr. Lopez—gave students more than we could ever credit them for in this book. In addition to sharing their knowledge with students, they shared their time and their social ties. Mr. Warren and Mr. Lopez stayed late after school to share their classrooms and the technology they supervised, allowing students to take laptops, software, and digital cameras home to work on a variety of creative projects such as films, games, music, and graphic art. In the face of diminishing resources, the teachers empowered several of the students and their extraordinary struggle to make school matter.

Ethnographic accounts of schools provide a glimpse into the practices, experiences, and social relations that are fluid and messy but also vital to understanding schools as complex social systems. In theory, schools are places where students go for academic-oriented learning. In addition, schools are supposed to prepare students for the transition to young adulthood, including work or postsecondary education. Still, it is common knowledge that some schools are better resourced to prepare their students for life’s transitions than others. Not surprisingly, the economic and population shifts that remade the student body at Freeway severely challenged the school’s ability to build and sustain high-quality instructional environments and viable future-oriented pathways.

The chapters draw from our extensive fieldwork to share our insights regarding the challenges that schools face in preparing students for the world of tomorrow. Even as technology has spread to more schools, disparities in academic achievement, economic opportunity, and social mobility persist. This suggests two things: first, that a technology-driven solution to the education crisis is a solution that is certain to fail; and second, that a substantive remake of education requires engagement with broader social and economic forces. In short, the challenges that schools like Freeway face are far more severe than any technology or in-school-only solution can adequately resolve.