Race, Education, and Technology: How the Expansion of “E-Rate” Could Alleviate Educational Inequalities from Online Education Exacerbated by COVID-19

Michael "Troy" Hatcher
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Michael Troy Hatcher, Jr.
Introduction

Technology is central to American life in the 21st Century, specifically in education where technology has become a multi-billion-dollar industry. Microsoft and Google have developed applications for creating presentations, papers, spreadsheets (and so much more) for students and teachers. Schools often have products manufactured by Promethean, an educational technology company with the vision:

We believe that the purpose of technology is not simply about automating the teaching and learning process, but to inspire and empower every student. At Promethean, our goal is to reimagine and reinvent educational technology solutions to create dynamic environments, communities, and tools, that empower teachers and motivate students to learn.2

These tools are used in the classroom to enhance student learning and convey general lessons that were once written with chalk on blackboards. Khan Academy, an online educational tutoring company that creates explanatory videos in practically every core subject and is backed by Bill Gates, is the leading online learning resource used and trusted by US teachers and students.3

However, this technology is typically used in conjunction with learning in a traditional classroom setting, and students are usually able to access these resources in schools or town/county libraries if they do not own personal computers or have home internet.

COVID-19, the novel coronavirus, spread throughout the United States beginning in 2020 and quickly escalated into a pandemic. State governments have issued stay-at-home orders with only “essential businesses” being designated to stay open and restricted travel only to these businesses or for recreational activity unless you are classified as an “essential worker.” Schools have closed in order to “flatten the curve,” meaning to slow the spread of the virus. In place of

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the traditional school setting, students are now forced to choose between two options to continue their studies – online education or packets of materials without an instructor physically present. This educational shift to an online platform exacerbates the ever-present “Homework Gap,” a gap in education (created by technology) that causes students of color and/or students from low socioeconomic backgrounds to fall behind their more privileged peers due to a lack of internet or technological resources to complete assignments. Students without adequate access to internet and technology struggle to succeed in education, both locally and nationally.

Part I of this paper will focus on the history behind racism and its impact on education, including the important civil rights cases of Dred Scott (1857), Plessy v. Ferguson (1896), McLaurin v. Oklahoma State Regents for Higher Education (1950), Sweatt v. Painter (1950), and Brown v. Board of Education (1954). Additionally, I will discuss the Federal Department of Education and Federal Communications Commission’s role in providing funding for educational technology through what is known as “E-Rate” and how COVID-19 has altered the education system. Part II of this paper will focus on the Fourteenth Amendment. First, I will analyze how the Supreme Court of the United States has interpreted the Equal Protection Clause (specifically looking at Brown to address school inequality with racial segregation). Second, I will discuss how education intersects with the Due Process Clause, including a landmark decision from the U.S. Court of Appeals for the 6th Circuit holding literacy as a fundamental right. Third, I will explain the need for agency action in lieu of judicial action: guidance is needed from the Department of Education to the Federal Communications Commission (FCC) to amend the “E-Rate” rules to allow technology resources such as tablets, laptops, and mobile hotspots to be

purchased through the Universal Service Fund. Part III will focus on the concerns/implications of altering the policy and fund to allow individualized student technology moving forward, as well as ethical implications of leaving the policy as-is.

It should not take a pandemic to address the growing technological divide in education in the 21st Century. It is imperative that students are provided access to all the resources needed in order to succeed in both education and society. The onus should not be on students or their families to supplement public education where attendance is mandatory.

**Background**

I. **History of Racism and its impact on Education**

In order to understand internet inequality, it is important to understand the racial inequality that has plagued the United States. The United States of America was founded (both literally and figuratively) on slavery. Slave labor was utilized to plant and harvest crops, construct buildings, clean houses, and sometimes even educate white children. However, states such as South Carolina (1740) and Virginia (1819) passed acts that made it illegal to educate slaves. This shows that from an early time, white people knew the importance of education and utilized it to enforce a classist system.

In 1857, Chief Justice Taney of the Supreme Court of the United States (SCOTUS) held in *Dred Scott v. Sandford* that people of African descent and their descendants (either slave or free) that brought to the United States and held as slaves were not considered citizens of the United States and were not entitled to the protections and rights of the Constitution. Drawing heavily from the intent of the Framers of the Constitution, the Court allowed a classist system of

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7 Id. at 410-12.
white superiority to continue in the United States. The Court attempted to absolve responsibility for this by asserting that the judiciary’s role is to solely interpret the Constitution but continued to reinforce the principle that individuals of African descent were inferior to whites. In referencing the phrase “all men are created equal” within the Declaration of Independence, the Court concluded that “it is too clear for dispute, that the enslaved African race were not intended to be included, and formed no part of the people who framed and adopted this declaration” based on the society those words were written in. The negative view of African Americans at that time meant that the rights afforded to “all men” did not include them; African Americans were brought to the United States as property and were continued to be viewed as such. Dred Scott was found to be property in Missouri and not a citizen, therefore he could not sue in state nor federal court. Additionally, the Congressional Act that abolished slavery in the northern States of Illinois and Wisconsin where Dred Scott had lived were found to be unconstitutional. Thus, neither Dred Scott nor his family were made free by being carried into these states by their owner with the intention of becoming a permanent resident.

Fast-forward almost forty years to 1896, and SCOTUS once again dealt with the question of race equality. In Plessy v. Ferguson, Justice Brown issued the opinion that upheld the doctrine of “separate but equal.” Louisiana had enacted a state law that provided for separate railway cars for African Americans and Caucasians. Plessy bought a ticket to travel by train from New Orleans to Covington, both cities that are within Louisiana’s border; he took a seat in a passenger car that was designated for whites only; he refused to move to the appropriate car after being

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8 Id. at 405.
9 Id. at 410.
10 Id. at 406.
11 Id. at 455.
12 Id. at 452.
13 See Plessy v. Ferguson, 163 U.S. 537, 540 (1896).
asked, and was subsequently forcibly removed, incarcerated, charged, and convicted of violating the Louisiana law by Judge Ferguson. Afterwards, Plessy filed a writ of prohibition against Ferguson that argued he [Plessy] was 7/8 Caucasian and 1/8 African American and “that the mixture of colored blood was not discernible in him, and that he was entitled to every recognition, right, privilege, and immunity secured to the citizens of the United States of the white race by its constitution and laws;” Ferguson upheld the constitutionality of the Louisiana statute, and the Louisiana State Supreme Court affirmed. SCOTUS held that public accommodations that were segregated according to racial classifications but were otherwise equal did not violate the Equal Protection Clause of the Fourteenth Amendment. In upholding the doctrine, the Court analyzed the Fourteenth Amendment by stating:

The object of the amendment was undoubtedly to enforce the absolute equality of the two races before the law, but . . . it could not have been intended to abolish distinctions based upon color, or to enforce social, as distinguished from political, equality, or a commingling of the two races upon terms unsatisfactory to either.

To prove its point, the Court recognized the constitutionality of state legislatures to exercise their police powers, often referencing the education system in America:

The most common instance of this is connected with the establishment of separate schools for white and colored children, which have been held to be a valid exercise of the legislative power even by courts of states where the political rights of the colored race have been longest and most earnestly enforced.

. . . .

The question whether the statute of Louisiana is a reasonable regulation . . . In determining the question of reasonableness, it is at liberty to act with reference to the established usages, customs, and traditions of the people, and with a view to the promotion of their comfort, and the preservation of the public peace and good order . . . we cannot say that a law which authorizes or even requires the

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14 Id. at 541–42.
15 Id. at 538–41.
16 Id. at 548.
17 Id. at 544.
18 Id.
separation of the two races in public conveyances is unreasonable, or more obnoxious to the fourteenth amendment than the acts of congress requiring separate schools for colored children in the District of Columbia, the constitutionality of which does not seem to have been questioned, or the corresponding acts of state legislatures.\textsuperscript{19}

Under the Court’s reasoning, by determining that the civil and political rights of both groups are still equal but separate, there could be no racial inferiority or violation of the Equal Protection Clause of the Fourteenth Amendment; if there were feelings of inferiority by African Americans, then it was placed upon the race by itself.\textsuperscript{20}

“Separate but equal” was upheld throughout all of education until SCOTUS decided the cases of \textit{McLaurin v. Oklahoma State Regents for Higher Education} and \textit{Sweatt v. Painter} in 1950. These cases together overturned “separate but equal” in graduate and professional education. In \textit{McLaurin}, the plaintiff was rejected from the University of Oklahoma to pursue his Doctorate in Education.\textsuperscript{21} Per Oklahoma law, black and white students were not allowed to attend school together and must have separate facilities; however, the University of Oklahoma had not provided separate facilities for black students to have the opportunity to gain an education.\textsuperscript{22} The US District Court for the Western District of Oklahoma forced the University to admit McLaurin but provided no guidelines under the assumption that the University would comply with state law.\textsuperscript{23} McLaurin was provided with separate facilities, such as a special table in the cafeteria, a designated desk in the library, a desk just outside the classroom doorway; sometimes he was forced to eat at different times than the other students.\textsuperscript{24} McLaurin filed suit against the University again to remove these barriers to his education and allow him to interact

\begin{footnotes}
\footnotetext[19]{\textit{Id.} at 550-51.}
\footnotetext[20]{\textit{Id.} at 551-52.}
\footnotetext[21]{See \textit{McLaurin v. Oklahoma State Regents for Higher Ed.}, 339 U.S. 637, 638 (1950).}
\footnotetext[22]{\textit{Id.}}
\footnotetext[23]{\textit{Id.} at 639.}
\footnotetext[24]{\textit{Id.} at 640.}
\end{footnotes}
with other students, but the District Court denied the request. SCOTUS reversed the lower court, holding that a public institution of higher learning could not provide different treatment to a student solely based on his/her race because doing so deprived the student of his/her Fourteenth Amendment rights of Equal Protection; the University of Oklahoma was required to remove the restrictions it imposed on McLaurin. Regardless of whether students would accept McLaurin, the Court reasoned “There is a vast difference—a Constitutional difference—between restrictions imposed by the state which prohibit the intellectual commingling of students, and the refusal of individuals to commingle where the state presents no such bar.”

In Sweatt, a black person (Sweatt) was rejected from the University of Texas Law School because he was black, and he filed a writ of mandamus demanding to be admitted. When he applied to the school, no separate facility existed for black individuals to attend law school; however, the state district court initially continued the case for six months, which allowed the state to build a separate facility. Sweatt refused to register for the new school, and on remand from the state Court of Appeals, the trial court found that the new school was substantially equivalent to the University of Texas Law School. The state Court of Appeals upheld the decision and Texas’s Supreme Court denied a writ of error, and SCOTUS granted cert. In its decision, SCOTUS reversed the Texas court’s ruling – simply because there was now a separate facility for black student, the facility was not equal. The Court referenced alumni networks, faculty, library resources, and lack of accreditation as some of the factors that made the black

25 Id.  
26 Id. at 642.  
27 Id. at 641 (citing Shelley v. Kraemer, 334 U.S. 1, 13-14 (1948)).  
29 Id. at 631-32.  
30 Id. at 632.  
31 Id.
law school inferior. Thus, SCOTUS held that the separate law school was not equal, and the University of Texas Law School was instructed to admit Sweatt, ending the use of the doctrine of “separate but equal” in graduate and professional education.

Finally, in 1954, SCOTUS overturned the doctrine of “separate but equal” in public education in Brown v. Board of Education (Brown I). Here, a joint suit was argued before the Supreme Court after Plaintiffs from Delaware, Kansas, South Carolina, and Virginia sued in their respective states to be admitted in the public schools in their communities on an unsegregated basis. Plaintiffs argued “that segregated public schools are not ‘equal’ and cannot be made ‘equal,’ and that hence they are deprived of the equal protection of the laws.” The Court delved into a historical analysis of the Fourteenth Amendment and the doctrine of “separate but equal,” and distinguished the present case from Sweatt – “Here, unlike Sweatt v. Painter, there are findings below that the Negro and white schools involved have been equalized, or are being equalized, with respect to buildings, curricula, qualifications and salaries of teachers, and other ‘tangible’ factors.” The Court further analyzed the effect segregation has on public education – “We must consider public education in the light of its full development and its present place in American life throughout the Nation. Only in this way can it be determined if segregation in public schools deprives these plaintiffs of the equal protection of the laws.” Based on this analysis and how important education is to the function of government, the Court found that segregation in public schools based on race, even though the physical facilities and other tangible factors may be equal, deprived the children of the minority group of equal educational

32 Id. at 632-35.
33 Id. at 636.
35 Id. at 488.
36 Id. at 489-90.
37 Id. at 492.
38 Id. at 492-93.
opportunities. Additionally, the Court found that the considerations from *McLaurin* and *Sweatt* had added importance when considering grade and high school individuals, and asserted that segregation could create “feelings of inferiority in children that may not be undone” (which was supported by modern authority not known at the time of *Plessy*). The Court struck down racial segregation in public education based on the doctrine of “separate but equal” as a violation of the Equal Protection Clause of the Fourteenth Amendment.

II. E-Rate

The Communications Act of 1934 created the Federal Communications Commission with the goal of universal service - the principle that all Americans should have access to communications services. The Telecommunications Act of 1996 expanded the original program’s goal by adding “increased access to both telecommunications and advanced services – such as high-speed Internet – for all consumers at just, reasonable and affordable rates.” The Universal Service Fund (USF) within the Telecommunications Act of 1996 has four programs to help implement the new statute, with one being for Schools and Libraries, otherwise known as “E-Rate.” The USF is administered through the Universal Service Administrative Company (USAC) that provides “discounts of up to 90 percent to help eligible schools and libraries in the United States obtain affordable telecommunications and internet access.” USAC is a non-profit, independent corporation created in 1997 to collect universal service contributions from

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39 Id. at 493.
40 Id. at 494.
41 Id. at 494.
42 Id. at 495.
44 Id.
45 Id.
telecommunications carriers and administer programs designed to help communities secure affordable access to these services.\textsuperscript{47}

Under “E-Rate,” public (and most non-profit K-12) schools and all public libraries (and many private) submit competitive bids to select cost-effective companies to provide the goods and/or services requested.\textsuperscript{48} The discounts (ranging from twenty to ninety percent of the eligible services costs) are awarded based upon the poverty level and the urban/rural status of the population served.\textsuperscript{49} Five categories of service are telecommunications, telecommunications services, internet access, internal connections, and basic maintenance of internal connections.\textsuperscript{50}

Schools must meet the statutory definition of elementary and secondary schools found in the Elementary and Secondary Education Act to be eligible for support:\textsuperscript{51}

(18) ELEMENTARY SCHOOL- The term ‘elementary school’ means a nonprofit institutional day or residential school, including a public elementary charter school, that provides elementary education, as determined under State law.

\ldots

(38) SECONDARY SCHOOL- The term ‘secondary school’ means a nonprofit institutional day or residential school, including a public secondary charter school, that provides secondary education, as determined under State law, except that the term does not include any education beyond grade 12.\textsuperscript{52}

For-profit schools or schools that have endowments exceeding $50 million are not eligible for this program.\textsuperscript{53}

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\textsuperscript{47} Id.; see also Terms and definitions, 47 CFR § 54.5 (1997).
\textsuperscript{51} Id.
\textsuperscript{52} No Child Left Behind Act of 2001, 20 U.S.C. § 7801(18) and (38).
\end{flushleft}
The services eligible under “E-Rate” are listed in an Eligible Services List (ESL)\(^54\) divided into Category One – telecommunications services, telecommunications, and Internet access – and Category Two – internal connections, basic maintenance, and managed internal broadband services.\(^55\) Category One consists of the services that provide broadband to eligible locations including data links that connect multiple points, services used to connect eligible locations to the Internet, and services that provide basic conduit access to the Internet.\(^56\) Category Two includes the internal connections needed for broadband connectivity within schools and libraries. Support is limited to the internal connections necessary to bring broadband into, and provide it throughout, schools and libraries. These are broadband connections used for educational purposes within, between, or among instructional buildings that comprise a school campus.\(^57\) The 2020 Eligible Services List located on USCA’s website links to FCC Order DA 19-1249, adopted December 9, 2019. Appendix A to this Order lists the “Eligible Services List for Funding Year 2020 Schools and Libraries Universal Service Support Mechanism.” Under “Eligibility Explanations for Certain Category One and Category Two Services,” examples of Internet access/ISP services that are ineligible components of Internet access services include applications, content, e-mail, and end user devices and equipment such as computers, laptops, and tablets.\(^58\) In clarifying “Wireless Services and Wireless Internet Access,” the Order states “Off-campus use, even if used for an educational purpose, is ineligible for support and must be cost allocated out of any funding request.”\(^59\)

### III. COVID-19’s Impact on Education Thus Far

\(^{54}\) 47 CFR § 54.502(a)
\(^{55}\) 47 CFR §§ 54.500 et seq.
\(^{57}\) Id. at 5.
\(^{58}\) Id. at 9.
\(^{59}\) Id.
On March 11, 2020, the World Health Organization (WHO) Director-General announced at the COVID-19 media briefing that COVID-19 was officially classified as a pandemic. Since this classification, schools have stopped allowing students and most faculty/staff to enter the building in order to minimize transmission of the virus. However, most schools have not ceased “teaching,” meaning that assignments and lessons are still being given to students to learn at home. Some schools are utilizing online platforms like Google Classroom or learning portals such as Blackboard or Canvas to upload the assignments and lessons. However, this method can be faulty, especially if students do not have reliable access to these platforms through technology or the technology that the school uses is deficient. On March 23, 2020, Virginia Governor Ralph Northam closed all K-12 schools by Executive Order for the rest of the academic year. In Fairfax County, Virginia’s largest school system, distance learning was cancelled for the first week (around April 15, 2020) because of widespread technical issues preventing students from accessing distance learning tools – the main issue being that the system was crashing from the influx of users because Fairfax County had not updated the software in two years. Amid technological concerns, some school districts cannot ensure that all students have access to internet, and therefore have resulted to putting together physical packets of instructional materials for students. In Prince George’s County, Maryland, school officials could not ensure that all students (about 136,500) had reliable internet access at home, therefore the district could

not shift classes completely online and instead created educational packets to administer to students. This is not just a problem within the DMV (D.C., Virginia, Maryland). Pennsylvania, New York, Washington, Illinois, and many other states have all reported having issues with online/distance learning and how they were taking steps to combat internet inequality while continuing to educate students.

Another major effect coronavirus has had on education deals with grading policies. Many school districts are struggling to navigate this issue – are traditional letters grades important, should there be an option of whether to get a grade or simply “pass,” or should there be a mandatory “pass/fail” approach for all fourth-quarter classes? In Maryland, state officials looked into the last option, but the state superintendent gave no formal advice other than individual school systems were in charge of their grading policies. On April 19, 2020, Montgomery County (Maryland’s largest school system) announced that it was moving to a “pass” or “incomplete” system for the fourth quarter, but the school board is set to vote regarding alternatives on May 12, 2020. Prince George’s County opted for a pass/incomplete approach to the fourth quarter, with course grades based solely on the first three quarters, therefore holding students harmless for any difficulties in completing assignments due to distance learning and COVID-19. D.C. Public Schools (DCPS) is giving letter grades to middle and high school

64 Id.
66 Id.
67 Id.
students, but ultimately decided the fourth quarter grades can only help the final grade. Virginia officials recommended against grading – but once again, it is up to the school districts. Fairfax County adopted the DCPS approach, Loudon County is submitting final grades based solely on work through the third quarter, and Alexandria middle and high school students will “pass” with at least sixty percent of the fourth quarter work completed. New York City has similarly changed its traditional grading system in light of COVID-19, varying procedures based on age and allowing underperforming students the opportunity to attend virtual summer school. The full impact of COVID-19 on education will only be known after the pandemic ceases.

Argument/Solution

COVID-19 has highlighted a change in the traditional school system, but it is not necessarily the cause of the change – technology is. With the creation of the internet and portable technology, anywhere can be a classroom. Students can log on to portals such as PowerSchool to check grades, Blackboard to look at assignments, or Google Classroom to watch lessons from virtually anywhere with a smartphone, tablet, or laptop. The traditional school is no longer “brick and mortar,” and no longer the school explained in Brown v. Board of Education. The “Homework Gap” that was created by technology in education is being exacerbated and widened by COVID-19. Students are still entitled to the Equal Protection Clause in reference to educational resources laid out in Brown, but that will not always guarantee access to exact resources. If the Supreme Court would declare education as a fundamental right, students may be able to argue for technological resources under the Due Process Clause. However, the Supreme

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68 Id.
69 Id.
Court has declined to acknowledge education as a fundamental right every time the opportunity has presented itself. Therefore, the immediate solution to ensuring equal educational opportunities is simple—amend the “E-Rate” rules. The “E-Rate” fund was created in 1997 but not updated until 2014, seventeen years later. However, merely six years later, and COVID-19 is exposing holes in “E-Rate” that FCC commissioners pointed out at the time. This pandemic should push the Department of Education and FCC to amend the rules of “E-Rate” and allow schools to purchase computers, laptops, and mobile hotspots, items that are specifically excluded. In turn, this will help provide the educational resources students of color and those from low socio-economic backgrounds need in order to succeed.

I. The Supreme Court and the Equal Protection Clause

In Brown, the Court analyzed the application of the Equal Protection Clause of the Fourteenth Amendment. Specifically, the Court looked at whether the segregation of children in public schools based solely on race, even though the physical facilities and other tangible factors may be equal, deprived the children of the minority group of equal educational opportunities.71 In looking at the effect of segregation on education, the Court relied on the educational system at the time these cases were heard—“We must consider public education in the light of its full development and its present place in American life throughout the Nation. Only in this way can it be determined if segregation in public schools deprives these plaintiffs of the equal protection of the laws.”72 The Court also recognized how central education is to everything in society:

Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural

71 Brown, 347 U.S. at 493.
72 Id. at 492-93.
values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms.\textsuperscript{73}

In applying \textit{McLaurin}, the Court held that the “intangible considerations” of McLaurin’s ability to study, to engage in discussions and exchange views with other students, and learn his profession applied with added force to children in grade and high schools.\textsuperscript{74} Most importantly, the Court acknowledged the sense of inferiority that segregation imposed upon the minority group – how it may affect individuals’ “hearts and minds” and how the impact of feeling of inferiority may never be repaired.\textsuperscript{75} The Court validated their reasoning from modern authority at the time, citing numerous psychological references.\textsuperscript{76} All of these factors contributed to the finding that separate facilities were inherently unequal.

Starting with the first part of the analysis in \textit{Brown}, today’s school is not the same. The Court recognized the importance of not looking in the past for a basis of law, but instead to look at the current situation and how the law is affecting society. In 1954, the internet did not exist, nor did much technology in general. The school building or library was the only place for access to educational materials and to learn. This is not the case for today’s society – “public education in the light of its full development and its present place in American life throughout the Nation.”\textsuperscript{77} The technological advancements over the years were inconceivable at the time of

\begin{itemize}
\item \textsuperscript{73} \textit{Id.} at 493.
\item \textsuperscript{74} \textit{Id.} at 493-94.
\item \textsuperscript{75} \textit{Id.} at 494.
\item \textsuperscript{77} \textit{Brown}, 347 U.S. at 492-93.
\end{itemize}
Brown – the school is no longer completely reliant on teachers and textbooks. Instead, YouTube can be utilized for cartoons to break down difficult concepts, Khan Academy can walk through algebra problems step-by-step, and Skype calls allow teachers to have experts speak directly to their classes. Teachers have transitioned from physical lesson plans, blackboards and chalk, and overhead projectors to PowerPoint presentations and interactive SmartBoards. Assignments can be written in Microsoft Word and uploaded to an online platform such as Blackboard. The way a school operates and effectively teaches students has changed. Viewing education in light of its full development and present place in American life shows just how central technology is to the educational model.

While Brown focused on the impact of segregation on education, the same rationale is applicable to today’s society because of the way the Court focused on segregation’s impact on one’s sense of inferiority. By acknowledging the sense of inferiority that segregation imposed on students, the Court saw the irreparable harm and chose to eliminate segregation. Today, segregation is not a legal doctrine, but senses of inferiority are still imposed through different aspects of society. Socio-economic status and education level are two areas that can cause one to feel inferior, which also coincide with race. The Annie E. Casey Foundation released the 2019 Kids Count Data Book and found that in the District of Columbia one in four children live in poverty; seventy-one percent of fourth graders were not proficient in reading; seventy-nine percent of eighth graders were not proficient in math; and twenty-seven percent of high schoolers did not graduate on time. These statistics could be influenced by households without access to high-speed internet. Fifteen percent of U.S. households with school-age children do not have a

78 See id. at 494.
high-speed internet connection at home.80 Couple this fact with socio-economic status—roughly one-third of households with children ages 6 to 17 with an income below $30,000/year do not have high-speed internet at home as compared to only six percent of households earning $75,000 or more per year.81 These broadband disparities are elevated for Black and Hispanic households with school-age children, especially those with low household incomes.82 About forty-one percent of Black and thirty-eight percent of Hispanic households below the $30,000/year mark do not have high-speed internet connection compared to twenty-eight percent of white households.83 The percentages are still higher for Black and Hispanics households between $30,000 and $74,999 than White households (twenty-one and twenty-two percent, respectively, as compared to thirteen percent).84 For households earning more than $75,000/year, nine percent of Black and Hispanic households lack high-speed internet versus four percent of White households.85

Pew Research Center also found that seventeen percent of teens say they are often or sometimes unable to complete homework assignments because they do not have reliable access to a computer or internet connection.86 Within this, twenty-five percent of Black teens say they are at least sometimes unable to complete their homework due to a lack of digital access, including thirteen percent that say it happens often.87 In contrast, four percent of white teens and six percent of Hispanic teens say this often happens to them.88 Additionally, twenty-four percent

81 Id.
82 Id.
83 Id.
84 Id.
85 Id.
86 Id.
87 Id.
88 Id.
of teens with household income of less than $30,000 say the lack of a dependable computer or internet connection often or sometimes prohibits them from finishing their homework; that drops to merely nine percent for teens from households of $75,000 or more per year.\textsuperscript{89}

But internet access is everywhere, not just in the home, right? Twelve percent of teens say they at least sometimes use public Wi-Fi to complete assignments because they do not have an internet connection at home.\textsuperscript{90} However, this problem is much more prevalent for students of color and low socio-economic status. Twenty-one percent of Black teens reported having to at least sometimes use public Wi-Fi, with ten percent admitted to doing this often.\textsuperscript{91} Twenty-one percent of teens from households below $30,000/year reported using public Wi-Fi as opposed to nine percent of teens from households of $30,000 or higher.\textsuperscript{92} Thirty-five percent of teens say they often or sometimes have to do their homework on their cellphone,\textsuperscript{93} which is not uncommon in today’s digital age. Unsurprisingly, though, the percentage is higher for teens from households of $30,000 or less – forty-five percent.\textsuperscript{94} The inferiority that comes from not having access to these resources to succeed in school is immeasurable, as are the stress-levels involved with finding an alternate internet source outside of the comfort of their own home. Due to COVID-19, students have been given two choices to continue their education: learn online or learn by physical packet. However, students without internet access at home do not really have the option to use public Wi-Fi due to stay-at-home orders. By not providing personal technology such as laptops and mobiles hotspots, students of color and students from low socio-economic status households are not going to succeed in their educational studies, and thus are made to feel

\textsuperscript{89} Id.  
\textsuperscript{90} Id.  
\textsuperscript{91} Id.  
\textsuperscript{92} Id.  
\textsuperscript{93} Id.  
\textsuperscript{94} Id.
inferior to their more-privileged colleagues. Such inferiority and lack of equal educational opportunities by the State are expressly prohibited by the Equal Protection Clause as affirmed in Brown.95

In order to succeed with a violation of the Equal Protection Clause, there would have to be a showing that the State deprived a specific group of people of resources. As explained above, there is concrete data on how students of color and students from low socio-economic backgrounds have disproportionate access to internet and technology. However, showing that the State deprived the students of these resources would be difficult, seeing as schools are providing electronic and physical materials that contain the exact same content to continue educating students. In reality, though, it is hard to imagine that a student with the digital education materials, a computer, and high-speed internet access would take just as long to complete an assignment as a student with the physical packet. In the 21st Century, technology is the norm and the future. Providing students with the proper resources to participate in society is something the court in Brown stressed, as well as subsequent rulings in Plyer v. Doe and San Antonio Independent School District v. Rodriguez.96 Therefore, not ensuring internet access to students may very well be a violation of the Equal Protection Clause in the future.

II. The Due Process Clause

The Court’s explanation of the vital role education plays in society in Brown is important for two reasons: (1) education is being recognized by the highest court in the United States as the cornerstone for everything in society and (2) the Court is recognizing that when the state provides education, it has a duty to provide an equal education to everyone.97 However,  

95 See Brown, 347 U.S. at 494.
97 See Brown, 347 U.S. at 493.
education is not an expressed right within the Constitution of the United States. Even in Brown, with references the vital importance of education, the Court declined to rule on whether segregation in education violated the Due Process Clause because it already decided segregation violated the Equal Protection Clause.\(^98\) Sixty-six years later, in the year 2020, and the Court has still not found a constitutional right to education.

In Rodriguez, the court assumed “that some quantum of education could be constitutionally protected as preservative of the right to speech and the right to vote.”\(^99\) This was in reference to the appellee’s argument that education was instrumental in being able to exercise the fundamental right to vote.\(^100\) However, the court asserted that it did not have “the ability or the authority to guarantee to the citizenry the most effective speech or the most informed electoral choice.”\(^101\) The court reserved Texas’s right to fund schools as it saw fit because there was no failure to provide students with the opportunity to learn the minimum skills needed to exercise other constitutional rights.\(^102\) In Papasan v. Allain, the Supreme Court acknowledged that Rodriguez did not settle whether or not a minimally adequate education was a fundamental right.\(^103\) However, in a landmark decision, a federal appellate court has found literacy to be a constitutional right.

On April 23, 2020, the U.S. Court of Appeals for the 6th Circuit recognized a basic minimum education as a fundamental right.\(^104\) In Gary B, et al. v. Whitmer, et al., Plaintiffs from five of Detroit’s lowest-performing schools brought a suit against several Michigan state officers

\(^98\) Id. at 495.
\(^99\) See The Right to Education After Obergefell, 43 Harbinger at 76 (citing Rodriguez, 411 U.S. 1, 93 S. Ct. 1278, 36 L. Ed. 2d 16 (1973)).
\(^100\) Rodriguez, 411 U.S. 1 at 35-36.
\(^101\) Id. at 36.
\(^102\) Id. at 37.
\(^103\) 43 Harbinger at 77.
alleging that school conditions failed to provide students the access to literacy. The Court asserted that without the literacy provided by a basic minimum education, it is impossible to participate in our democracy. Under the Due Process Clause of the Fourteenth Amendment, the Court found that:

The denial of education has long been viewed as a particularly serious injustice, the role of basic literacy education within our broader constitutional framework suggests it is essential to the exercise of other fundamental rights, and the unique role of public education as a source of opportunity separate from the means of a child’s parents creates a heightened social burden to provide at least a minimal education and the exclusion of a child from a meaningful education by no fault of her own should be viewed as especially suspect.

However, it is important to note that the court was simply acknowledging a right to a basic minimum education “needed to provide access to skills that are essential for the basic exercise of other fundamental rights and liberties, most importantly participation in our political system” and not “guarantee an education at the quality that most have come to expect in today’s America (but that many are nevertheless denied).”

The 6th Circuit recognizes the fundamental right to literacy in order to participate in other constitutional rights, such as voting. But why are we stopping there? To answer simply, the Supreme Court has not made education as a whole a fundamental right. Because of this shortfall, the Plaintiff’s in Whitmer were arguing that their school building, textbooks, and even teachers were not ensuring them the right to literacy; technology would not be mandatory to be literate – or would it? In the 21st Century, technological literacy is a type of educational standard taught in schools in order to help students succeed in the real-world. The creation of “E-Rate” was to help schools take full advantage of feature-rich educational technologies that allow for individualized

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105 Id. at 7.
106 Id. at 33.
107 Id. at 41-42.
108 Id. at 56.
digital learning, access to interactive content, and online assessments.\textsuperscript{109} By not ensuring all students, especially students of color and students from low socio-economic households have internet access and technology, the education system is failing to prepare them for the future. While students are not guaranteed the best resources, they should at least be guaranteed resources that would be available to them at school. Because COVID-19 has closed schools, students no longer have access to these resources; thus, schools should have the resources to supply students with the technology to continue education at home.

The idea is that students of color and students from low socio-economic households are falling behind in today’s digital education system. COVID-19 may allow schools to re-open in the fall like normal, but the “Homework Gap” will still be present. If the Supreme Court would recognize the fundamental right to education, then technology could be used to support educational standards. However, one cannot make the Supreme Court find a right that it has refused to acknowledge for decades. Therefore, agency-level decisions are the next best thing to authorize schools to purchase individualized technology resources for educational purposes. The technological resources should be made readily available to all students in their individual capacity to ensure equal educational opportunities. This means allowing schools to purchase personal technology such as computers/iPads/mobile hotspots and provide this technology to students in need at the beginning of each school year, thus ensuring that all students have equal access to educational resources during the academic year.

III. Expansion of “E-Rate”

In the “Second E-rate Modernization Report and Order and Order on Reconsideration” released by the FCC in 2014 (“2014 Order”), the Commission sought to modernize the program and recognized that investments from the E-rate program help schools take full advantage of feature-rich educational technologies that allow for individualized digital learning, access to interactive content, and online assessments.\(^{110}\) Additionally, the FCC recognized that E-Rate provides a vital link to the digital world and new opportunities by helping to connect every student and every library patron to high-speed broadband, no matter where they live or their income level.\(^{111}\) The program is designed to help schools and libraries \textit{internally}, but it acknowledged that the program may need developments in the future – “Further modernization of the program will help us close these connectivity gaps . . . and ensure the program provides support for the connectivity necessary for schools and libraries to take advantage of all of the digital learning and educational content available today and in the future.”\(^{112}\) The E-Rate funding cap was raised to $3.9 billion in 2014,\(^{113}\) but schools are not allowed to purchase items such as computers, laptops, and tablets; technology for off-campus use, even for educational purposes, is also ineligible.\(^{114}\)

Within the 2014 Order, Chairman Tom Wheeler stated that sixty-three percent of American schools (about forty million students) did not have an Internet connection capable of supporting modern digital learning.\(^{115}\) This is one of the purposes of “E-Rate,” to connect students to online resources \textit{within} the classroom.\(^{116}\) However, the COVID-19 pandemic has

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110 \textit{Id.} at Para. 1-2.
111 \textit{Id.} at Para. 2.
112 \textit{Id.} at Para. 5.
113 \textit{Id.} at Para. 6.
115 \textit{See} Order ECC 14-189 at 91.
116 \textit{See} Order DA 19-1249 at Para. 4.
}
made schools and libraries inaccessible. While the percentage stated above may have gone down in the past six years, the resources are currently obsolete to the students “E-rate” wishes to provide for. The Chairman also acknowledged a process to determine the future needs of the program like long-term funding and rule changes.\textsuperscript{117} The Chairman inadvertently acknowledged Brown’s current-educational system approach by speaking on how the “E-rate” program was refocused from funding 20th Century technologies (i.e. pagers and dial-up phone service) to 21st Century high-speed broadband connectivity such as Wi-Fi.\textsuperscript{118} Digital learning is critical to success in the digital age,\textsuperscript{119} and the pandemic is now showing what rules need to be amended: allow schools to use “E-rate” to purchase supplies like laptops, tablets, and mobile hotspots in order to support students’ off-campus access to education.

Commissioner Jessica Rosenworcel also spoke on the changes to the traditional classroom in the 2014 Order, but she also suggested an E-Rate 2.0 that would address the “Homework Gap.”\textsuperscript{120} She recognized that learning does not stop when school is over – “Because going forward we need to recognize that expanding opportunity goes beyond the school doors. We can’t forget that in a world where students rely on online resources and digital content in the classroom, they also need access to broadband when they go home.”\textsuperscript{121} She went even further to show just how important student access to the internet and technology is by alluding to societal advancement – “So not only are students who lack access at home struggling to keep up, their lack of access is holding our education system back. It means too many young people will go through school without fully developing the skills that give them a fair shot in the digital age.”\textsuperscript{122}

\textsuperscript{117} See Order FCC 14-189 at 91.
\textsuperscript{118} Id. at 92.
\textsuperscript{119} Id.
\textsuperscript{120} Id. at 96-97.
\textsuperscript{121} Id. at 97.
\textsuperscript{122} Id.
All of this goes to show that the answer is simple – amend the “E-Rate” rules. While education is not a fundamental right, it is still the cornerstone of society as explained in Brown and countless other court decisions. The Fourteenth Amendment provides for Equal Protection and Due Process, and when students are excluded from the educational system based on lack of resources, they are being deprived of these rights. Instead of waiting for the Supreme Court to designate a fundamental right and therefore require adequate resources, the Department of Education should partner with the FCC to amend the “E-Rate” rules and allow schools to purchase the technological resources that students have no access to due to the COVID-19 pandemic. Instead of having reactionary responses to the pandemic, as companies such as AT&T and others have done by pledging services for the next sixty-days during the pandemic at the direction of FCC Chairman Pai, the rules should be amended so that in the future schools will already be equipped with the services needed to aid education. Natural disasters can occur at any moment – the current one just happens to be a pandemic. Schools should be able to purchase laptops, tablets, and mobile hotspots to lend out to students for educational purposes during the school year, ensuring that learning can occur at any time and at any location, not just when the school is forcibly closed.

Additional Questions/Concerns/Implications

One of the main concerns of amending the “E-rate” rules to include purchases of laptops, tablets, and mobile hotspots is monetary. The budget was raised to $3.9 billion in 2014, indexed

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to inflation moving forward; for 2019, the budget is $4.15 billion.\textsuperscript{124} Then-Commissioner Pai laid out some issues with the increase in his dissent:

Universal service contribution rates have jumped 60% under this Administration, from 9.5% to 16.1%. With today’s new spending, they’ll go up again. The contribution factor could rise as high as 20.3% next year. That would be more than double the rate from January 2009, and it would be the first time in history that the factor has cracked the 20% mark.\textsuperscript{125}

However, then-Chairman Wheeler justified the increase in a different way:

The increase in the cap on what Americans contribute to the E-rate fund means that over time, the support paid by consumers could grow by approximately 16 cents a month for a telephone line. Let’s put that in perspective. Over the course of the year that represents one cup of coffee at Dunkin Donuts or one large soda at McDonald’s – per year.\textsuperscript{126}

Wheeler understood the duty he had to invest the taxpayer money that funds “E-Rate” wisely and maximize cost-effectiveness; once again, “E-Rate” had not been adjusted for inflation in thirteen years.\textsuperscript{127} In understanding both of these arguments, being cost-effective is in the best interest of the public. To support a change to the “E-Rate” rules, though, does not equate to an increase in taxes – it simply allows schools to be able to utilize the available funds to purchase products for students. However, almost the entire commission acknowledges that “E-Rate” should constantly be reevaluated in order to provide the most benefit for schools and libraries, which would therefore justify altering the rules post-COVID-19.

Another possible concern is the misuse of technology by students. By providing students with “free” laptops, tablets, and/or mobile hotspots, they may sell them or use

\textsuperscript{125} See Order FCC 14-189 at 98.
\textsuperscript{126} Id. at 92.
\textsuperscript{127} Id. at 92-93.
them for non-academic purposes. The odds of this happening may very well be slim.

However, to preempt this occurrence, the suggestion is still for schools to provide the technology to students during the academic school year (or in some cases, during summer school). The school would number the technology, log what student it is assigned to, and mandate checks at the end of each quarter until the school year is over. Then, the students will return the products until the start of the next academic year. This would ensure that students are able have to reliable access to internet and devices to ensure academic success during the school year, hopefully closing the “Homework Gap.”

Ethically, the transition by schools to online education and not supplying those students without adequate technological resources could have major repercussions. As stated earlier, a student with digital resources is going to complete assignments more quickly than one with a physical packet. Additionally, students with internet access and technology will be able to use online resources to explain content that they do not understand; students with physical packets do not have this luxury. School districts all over the country are simply “passing” students, but there are no indications if all students will be on grade-level. A student with reliable internet and a safe space to do work is more likely to understand the material drastically better than one that has limited or no access to these resources. By “passing” students, schools are not able to assess the quality of education that each student has received. Students of color and students from low socio-economic households will be left further behind with virtually no way to make up the difference, restricting future growth in both education and society.

Conclusion
While the Supreme Court has not found education to be a fundamental right afforded to all under the Constitution, it has found that access to equal educational opportunities are ensured through the Equal Protection Clause of the Fourteenth Amendment. The United States Court of Appeals for the 6th Circuit recently found the right to literacy to be a fundamental right under the Due Process Clause of the Fourteenth Amendment. Almost all educational cases have found that education is the cornerstone of accessing all other rights afforded in the Constitution. However, technological developments in the 21st Century have shown that education is not just supplied through a physical school building but anywhere through devices and internet access. Because of the COVID-19 pandemic, this realization has become crystal clear – homes have become the new school building and the internet has become the main teacher. However, not all students are afforded the luxury of reliable internet access or technology to adequately continue their education while at home. While “E-Rate” was created to help foster internet connectivity and digital learning within schools and libraries, the pandemic has shown that technology itself and not where the technology is located is what is important to further education. Students cannot physically access schools or libraries to complete assignments or learn. The Department of Education needs to partner with the Federal Communications Commission to amend the “E-Rate” rules and allow schools to purchase laptops, tablets, and mobile hotspots to ensure students’ learning capabilities are accessible at all times during the academic year. No one knows how long this pandemic will last – schools may be closed for the entirety of 2020. However, the access to school can be shut off by any natural disaster, such as a tornado or fire. In that instance, the educational system will once again lean on distance learning and technology to educate students. Schools should be prepared to combat this issue in the future by equipping students with technological and internet resources to ensure that all students are afforded an equal
education, and no student feels inferior to another because of how they are forced to learn based on their race or socioeconomic status.