

EQUAL ACCESS TO THE INTERNET AND PRIMARY EDUCATION

by Jose Guerrero

I. INTRODUCTION

{1}The Internet is taking the world by storm. Although the Internet began as a limited communications tool used by a small community of scientists, today, many educational institutions, businesses, and average people maintain "homepages" as a means of expression and as standard advertising and client servicing tools.⁽¹⁾ Business cards now include electronic mail addresses ("e-mail") as necessary fixtures to ensure all possible methods of communication remain open. In short, perhaps not since the advent of the automobile, plane, or the telephone, has a new technological innovation changed the way we live our lives.

{2}Perhaps the most promising application of the Internet is to education; libraries located on other continents become available to students, professors unable to travel to specific schools are able to communicate with school children, and children who become ill may soon be able to listen and participate in their classroom activities from the comfort of their own homes.⁽²⁾

{3}More importantly, the development of the Internet could not have occurred at a better time. The current plight facing public education is well documented. As Susan Bitensky explains, public education is in a state of crisis:

"Unacceptable numbers of children have been emerging from the public schools undereducated and frequently unprepared to join the work force even in

low-level jobs. An unmistakable phenomenon has surfaced: the public schools are ailing and ailing profoundly ... There is a crisis in public education of such menacing proportions that not only is the national self-concept of a free and independent people imperiled, but the very economic and political pre-eminence of the nation has been jeopardized."⁽³⁾

{4}In fact, economic viability for members of society in the United States has become increasingly tied to the level of education received.⁽⁴⁾ The importance of education was eloquently captured by the Supreme Court initially in Brown v. Board of Education, when Justice Warren stated:

{5}Today, education is perhaps the most important function of state and local governments ... It is required in the performance of our most basic public responsibilities, even service in the armed services. It is the very foundation of good citizenship ... 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.⁽⁵⁾

{6}The Internet, however, may help solve the educational crisis and help bolster the economic position of the U.S. First, the Internet provides access to material otherwise inaccessible. Second, providing Internet access to children necessarily exposes them to computer technology, thereby assisting them in becoming computer literate, a vitally important skill in a computer dominated society and job market. Lastly, as public education continues to flounder and fail to adequately educate our nation's children, the Internet may yet be the "great equalizer- and bring parity to the

quality of education offered to all children. Stated another way, access to the Internet is increasingly becoming more important to our children's education and success.

{7}The Internet, however, is not available to all school children. Recent studies indicate that access to the Internet is highest among affluent private and public schools.⁽⁶⁾ Conversely, access to the Internet is lowest among the poorer inner-city and rural school districts.⁽⁷⁾ The issue of equity and the Internet has peaked the interest of both educators and politicians. Leaders fear that students lacking access to the Internet receive an inferior education than those who have access, creating, in effect, a generation of "road kills on the information superhighways."⁽⁸⁾

{8}The fact that access to the Internet is often determined by the economics of each school district should not be surprising. Financially strapped school districts, already performing minor miracles with budget constraints, find the prospect of purchasing expensive computers, installing these computers along with appropriate telecommunication lines, and paying for teacher training and computer maintenance staff, a daunting task indeed.

{9}This paper suggests that access to the Internet should become a national educational priority. Part II details the advantages that access to the Internet adds to the educational experience of each child. This section also offers and responds to criticisms leveled against the use and expense of the Internet in primary education. Part III documents the technological disparity between students that have access to the Internet, versus those students that do not. Part IV briefly explores a variety of legal

avenues available to parents whose children have been denied access to the Internet. Lastly, Part V analyzes current proposals and policies being pursued to increase access to the Internet.

II. THE INTERNET: FRIEND OR FOE?

In the 21st century, technology [Internet] literacy will be a necessity, not a frill. Today we begin working to make that opportunity a reality so that the economic divide between the rich and the poor is not exacerbated by a digital divide between the haves and the have-nots.

--Reed Hundt, Federal Communications commission⁽⁹⁾

{10}The Internet offers the educational system an exciting new tool by which to better teach our nation's children. The Internet makes available to students resources that would otherwise be unavailable in the school library or even the local college or university. Outside of school, the Internet serves to bridge the physical gap between the school and teachers from both students and parents. Ultimately, access to the Internet -improves skills necessary for the modern day student to be competitive in the classroom and in the job market.

A. Educators and Parents Praise the Internet

{11}The Internet broadens the resources available to the instructor, as well as the information available to students left on their own to "surf" the Internet.⁽¹⁰⁾ For

example, on a typical day, students at a Chicago high school contact NASA, receive an e-mail from a famous author, and use the Internet as a necessary component to complete a class assignment.⁽¹¹⁾

{ 12}Students consider the Internet to be a vast improvement over books and other conventional teaching methods because it serves to engage students in an interactive manner.⁽¹²⁾ For example, students no longer search for a planet in an encyclopedia, rather, students now literally bring telescopes into focus and order that a picture be taken and sent to their school electronically.⁽¹³⁾ But perhaps as important, these students do not just use this information and then abandon it once the project is complete, rather, these students later post the pictures on their own school homepage, making their research findings available for use by other students in the same school, or by others located in other states or even other countries.⁽¹⁴⁾ Some have gone so far as to say that the Internet serves as a "link to the world", capable of transforming the way students learn and teachers teach.⁽¹⁵⁾

{ 13}The Internet, however, serves as more than a resource supplement. Countless educators and school administrators explain that the Internet also inspires and motivates students. As Nancy Carey, technology specialist for the Montgomery County schools, explains "It [the Internet] breaks down barriers; it totally empowers students ... We now have students coming in before school, coming in over their lunch hour, staying after school, to work on the computer -- students you wouldn't expect to put so much extra time into their school work."⁽¹⁶⁾ Often, the computer lab becomes a

popular alternative for kids that would otherwise be less productive.⁽¹⁷⁾ The importance of this point can not be overstated: the Internet may yet be the solution to the common criticism that education today fails to intellectually engage students and motivate students to explore and have a stake in their own education.⁽¹⁸⁾ Simply stated, the Internet makes school interesting again and may contribute to the success of students that may have otherwise given-up on their education.

{ 14}The benefits of the Internet, however, extend beyond the physical boundaries of school.⁽¹⁹⁾ Teachers use the Internet to communicate with students when the student is ill or otherwise unavailable to speak with the teacher.⁽²⁰⁾ For example, a Kentucky high school student e-mailed an entire paper on the due date, even though he was at home ill.⁽²¹⁾ In fact, students faced with questions over the weekend may e-mail their teachers or post their questions in user groups and have them answered by other students or by other professors.⁽²²⁾

{ 15}As important, access to the Internet by educators establishes open communication lines between parents and teachers.⁽²³⁾ For example, the Department of Education for Orange County is contemplating a plan to -see their children's homework assignments, review test results and look at field-trip reports via on-line electronic portfolios.⁽²⁴⁾ Too often parents are unaware, for a myriad of reasons, about their child's progress or problems in school. Educators often cite parental involvement in their child's education as a critical ingredient of their child's success. The Internet

allows for convenient communication that keeps parents abreast of developments at their child's school.

{16}The expanded resources and increased teacher parent/student contact translates into tangible results for students. Studies indicate that students with access to the Internet "perform better in key comprehension, communication and presentation skills than those with no such access.⁽²⁵⁾ The Internet produces students that are better prepared to perform on college entrance exams, better prepared to perform in college or universities, and better prepared to compete for jobs in today's challenging job market.⁽²⁶⁾ Moreover, many are beginning to believe that the Internet is the advantage necessary to compete today, and tomorrow.⁽²⁷⁾

{17}The bottom-line is clear: students with access to the Internet are offered a special education, one that not only opens the coffers to material and experiences once unknown to students in primary education, but also provides students with real and important skills that are necessary to be competitive today. Although the benefits that come with access to the Internet are clear, the gap in the quality of education for those that do not have access to the Internet is dramatic.

B. Critics Fear the Internet

America has a serious grade-school education problem; tests consistently show that we trail most of the developed world. Like many people, the President sees the Internet as a key part of the solution. ... Internet promoters also ignore the

fact that just about every new medium, including TV, cable TV and the VCR, has been hailed as an educational wonder, only to eventually be seen as part of the problem.

-- David Moschella, S.V.P. of Research, Computerworld⁽²⁸⁾

{18} There is currently no regulatory board that reviews or statutory scheme that sets standards for the content of material available on the Internet.⁽²⁹⁾ As a result, anyone with the necessary technology can post material on the Internet. Critics note that there are significant dangers associated with some material available on the Internet, technological limitations associated with current Internet software, and unreasonable expectations associated with the application of the Internet to primary education, to warrant any effort toward providing access. Although each of these criticisms may, in certain circumstances be valid, each is not without viable solutions, and is certainly outweighed by the huge potential benefits possible from access to the net.

{19} Perhaps the most frequently cited problem is the plethora of pornography instantly available on the Internet. Currently, the Internet houses hundreds of sites that contain sexually

{20} explicit material.⁽³⁰⁾ Safety features, such as adult age verification systems put in place by pornography providers are a joke; most consist of liability waivers for providers, requiring individuals to promise they are over 18 by clicking on a box in order to obtain access to sexually explicit material.

{21} There are, however, several possible solutions to this problem. First, software that screens sites before access is allowed can be effective.⁽³¹⁾ The problem, however, is that searches utilizing common words may unknowingly bring up sexually explicit material.⁽³²⁾ Also, if the student is creative enough, a student can find a way to circumvent the protective software. Perhaps as important, filtering software is expensive and may be cost prohibitive.

{22} Other educators are teaching students to be "responsible" Internet users by creating user guidelines and requiring both students and parents to read and sign the guidelines.⁽³³⁾ This solution is attractive because it allows students to police themselves, thereby empowering them through the responsibility given to them. Also, this solution is free, a critical consideration considering tight school budgets.⁽³⁴⁾

{23} The best solution to accessing inappropriate material on the Internet is a combination of all three methods explained; software, student self-regulation, and teacher supervision. The obvious danger is over-regulation and over-limiting access to the Internet. To err on the side of over-limiting access may result in stifled learning and eventually, censorship.

{24} Another significant problem includes the personal safety of Internet users. well-publicized accounts of militia groups posting instructions on how to build bombs, to cult groups recruiting new members through the Internet have frequently captured the attention, and ink, of the media.⁽³⁵⁾ Also, the recent luring of a child by a pedophile has raised genuine issue of student safety.⁽³⁶⁾ In addition, "Cyber-stalking,"

the act of harassing an individual over the Internet, though less publicized, is also a legitimate concern for educators and parents. The solution to these problems may prove to be more challenging considering the balance that must be struck between encouraging open dialog and the free flow of ideas, with the desire to protect students from deceptive or injurious communications. commentators suggest that schools will turn to increased awareness and education concerning the dangers of the Internet.⁽³⁷⁾ For example, educators are proposing the adoption of rules from the Center for missing and Exploited Children, which teach children not to dispense personal information over the Internet.⁽³⁸⁾ These rules essentially add up to what parents teach their children: never talk to strangers. Although the point of the Internet is to speak to strangers, the line between academic discussion versus dissemination of personal information can be easily taught to children. The solution is not difficult, but the onus falls squarely on educators and parents.⁽³⁹⁾

{25} Other critics complain that the Internet may be too technologically young to benefit education. Critics note that search engine technology is too imprecise to be useful in an educational setting. For example, one critic compared an Internet search engine to an "open market produce market: Any of them will cheerfully hand you hundreds of thousands of unprocessed hits, . . . [yet] easily fail to mention the one Web page that was just what you were looking for, until you rephrase your search request and find the magical combination of terms."⁽⁴⁰⁾ This critic concludes that search engines leave a student with either "revelation or frustration," but more often the

former because it takes only a certain minimum level of intelligence and creativity to successfully navigate through the Internet. In other words, the Internet amounts to a tool for the learned, not the learning.

{26}The creativity necessary to use the Internet is precisely the engaging, critical thinking component of the Internet that makes on-line research fun and instructive. Often, it is not what the student was looking for that is beneficial, rather, it is all the information and sites that were found in the process that is most enriching. This critic also envisions a student facing an ocean of information alone. The problem of free falling through cyber-space can be remedied by providing students with an appropriate balance of teacher-guided research, where it is certain that a student will find relevant information, and time to search for relevant, yet perhaps tangential information. Moreover, frustration is a basic part of learning; one must go through the process of struggling with the material before the answer becomes apparent. The same criticism may be leveled against periodical indexes, encyclopedias, or any other research tool, the difference is that the Internet is interactive and capable of providing a wider variety of information than other sources. Also, to a certain extent, the technology is still in its infant stages. But technology is changing with every day, and it seems better to provide access now, because today's problems may be gone by tomorrow.

{27}Some educators openly challenge whether there are sound pedagogical reasons for incorporating the Internet in education. As C.D. Maddux noted, some

educators use the Internet simply because it is available to them, lacking a clear educational purpose for the use of the Internet.⁽⁴¹⁾ In other words, some teachers are using the Internet because it amounts to the latest "fad" among educators. Moreover, as discussed earlier, some teachers also lack basic Internet skills, and are often overwhelmed by the amount of information available on the Internet.⁽⁴²⁾ Hence the problem is two fold: there is insufficient direction given to teachers for Internet usage, and teacher training on the Internet is lacking.

{28} However, as Brauch et al note, the problem may be solved by providing adequate "support," meaning, establishing programs to ensure that educators are well trained and providing curriculum that offers clear pedagogical reasons for using the Internet in the class room.⁽⁴³⁾ The Internet itself may be helpful in this regard. Several web sites, consisting of professional magazines and organizations offer teachers valuable assistance by providing web directories cataloged by subject.⁽⁴⁴⁾ By providing adequate training, the problem of lacking pedagogical justifications for using the Internet will solve itself. With proper training and support, the potential of the Internet in the class room will not only become self-evident, but simply being on-line will provide access to other educators that will offer ideas and sites to struggling teachers.⁽⁴⁵⁾

{29} Lastly, opponents of the Internet point to the huge expense associated with providing access to the Internet.⁽⁴⁶⁾ In light of the dire position of education, some leaders urge that educators concentrate on fixing the existing 39 federal programs

aimed at improving education.⁽⁴⁷⁾ Moreover, others hint that poverty-stricken students may be better off educationally if they were "connected" to discount supermarkets, rather than the Internet.⁽⁴⁸⁾

{ 30 } These criticisms are not unique to the Internet, they are attacks on the basic structural deficiencies that cause inequality and add to the poor state of education. These criticisms are also a product of each author's unreasonable expectations regarding the value and role of the Internet in education; the Internet should not be seen as the miracle cure for the ills of education, rather, the Internet is a valuable tool by which education can be expanded and allowed to assume different dimensions than traditionally expected. Books are replaced with interactive web sites that offer links to other related sites that build on the information provided. Information otherwise inaccessible becomes available in a form that may be retrieved, preserved and shared with many other students. The Internet should not be mistaken as a substitute for a sound, basic education, rather, it should be seen for what it is, an invaluable supplement that greatly expands the boundaries of the classrooms, expands the potential for creativity, and finally challenges each student intellectually in such a way that is not possible without access to the Internet.

III: WHO HAS ACCESS TO THE INTERNET?

Regardless of income, regardless of where you live, regardless of your ethnic origin, regardless of the type of school that you go to, the least we can do is to

ensure that each of America's children have access, basic access, to basic technological advances." -- Representative Bobby Rush, D-Ill.⁽⁴⁹⁾

{31} The wealth of information available on the Internet has not been made accessible to all of America's children. As a recent study published by the Department of Education indicates, half of all primary public education schools do not have access to the Internet.⁽⁵⁰⁾ To simply note the general lack of access to the Internet, however, is to only begin to scratch the surface of the problem. A closer analysis of the Department of Education study suggests that Internet access is worst among students of color and low-income students.

{32} Smaller schools lack access to the Internet at disproportionate rates. Sixty-nine percent of schools with 1,000+ students reported having access to the Internet, while only thirty percent of schools with less than 300 reported having access to the Internet.⁽⁵¹⁾ Hence, it is understandable that rural schools, which draw from traditionally smaller demographic pools of children, tend to have the least access to the Internet.

{33} The problem of access is partially attributable to a rural school's location. Because rural areas are often the last to receive basic services (electricity, phone lines, etc.), it is extremely expensive to bring the necessary technology to those areas.⁽⁵²⁾ For example, rural schools in Maine are expecting to pay \$2,000 a month for basic Internet service.⁽⁵³⁾

{34}Economics are also a factor in the inner-city. Only thirty-one percent of low-income schools, defined as those students eligible to receive federal school lunches, can boast access to the Internet.⁽⁵⁴⁾ Noting the problem of access to the Internet is partially based on the economics of each individual school district, Secretary of Education Riley commented, "I am deeply concerned about the issue of equity. We already have a very large education gap between school districts that have a strong tax base and those that don't ... Some schools districts are on the cutting edge of technology already. The majority are not nearly as fortunate."⁽⁵⁵⁾

{35}At the very least, the economics of Internet Access can be understood: computers, software, and telecommunication capabilities are expensive. However, what is more difficult to explain is the fact that only forty percent of schools where minorities compose more than half of the students have access to the Internet, while fifty-eight percent of schools that only have between six and twenty percent minority students have access to the Internet.⁽⁵⁶⁾ Might this indicate systematic discrimination limiting minorities from access to the Internet? Jeanne Griffin, the acting commissioner for education statistics claims that the report is not sufficiently detailed to support a claim of discrimination.⁽⁵⁷⁾

{36}Griffin makes an important point: the Department of Education only report drew responses from 917 schools across the country. Also, the Department of Education study does not indicate the regional biases that may be inherent in the study. For example, the study breaks down access by general geographic area; the

northeast, southeast, central and western regions of the U.S. The problem, however, is that the study does not reveal whether those schools responding are located near each other, or if there are large areas that did not respond at all. Hence, there may yet be huge populations of children without access to the Internet. The study is still extremely valuable because it represents the only large-scale attempt to quantify the extent of access to the Internet. A larger, more comprehensive study needs to be sponsored to effectuate truly informed policy decisions regarding funding for access to the Internet.

{37}The issue of equity is further complicated because "access" alone does not consider the quality of access provided to each child. The difference for example, of modem speed, often determines how quickly a student may move from site to site and thus the amount of material a student may view. For example, in Massachusetts, more than half of the computers used in elementary schools are old and obsolete.⁽⁵⁸⁾ In fact, most can not even run educational software.⁽⁵⁹⁾

{38}The issue of equity can be broken down ad nauseum.⁽⁶⁰⁾ Equity extends to the quality of teachers, quality of teacher support and training, number of computers and instruction time available on-line, etc. The focus here, however, is limited. It seems a logical starting point to concentrate on obtaining access for students first, then to consider the quality of the access second.

{39}Regardless of how the Department of Education report is interpreted, the message is clear, access to the Internet is sorely lacking. of the schools that have

access to the Internet, only nine percent of those schools have Internet access in individual classrooms.⁽⁶¹⁾ As Edward Miller, former editor of the Harvard Education Letter, explains, "The impact of technology is simply reinforcing the disparity that already exists in public school systems, ... of the rich getting richer and the poor getting poorer."⁽⁶²⁾ The lack of access is creating a generation of students that lack the basic skills necessary to maximize their intellectual potential in higher education, as well as, being less competitive in an increasingly difficult job market.⁽⁶³⁾

IV. LEGAL RECOURSE FOR OUR CHILDREN

{40} The disparity of Internet access in public education has not been challenged in court, yet. Parents, however, have access to numerous potential legal theories from which to seek relief for their children. Although this section does not represent the entirety of legal theories available to parents., it does represent the more traditional, and in some instances, the legal theories most likely to succeed in pioneering a legal requirement for access to the Internet in American classrooms.

A. Equal Protection Clause of the Fourteenth Amendment and State Constitutions

{41} The Supreme Court first dealt with the issue of equity and education in Brown V. Board of Education.⁽⁶⁴⁾ As noted earlier, the Court in Brown clearly articulated the importance of education to society, and held that segregated school

systems did indeed violate the Equal Protection Clause. The Court, however, stopped short of categorizing education as a fundamental right under the U.S. Constitution.⁽⁶⁵⁾

{42} In San Antonio v. Rodriguez, however, the Court did state that education was not explicitly nor implicitly a fundamental right protected by the Constitution.⁽⁶⁶⁾ But the Court did go on to suggest that, although certain rights may not reach the level of "fundamental rights" under the U.S. Constitution, states may create fundamental right under their own state constitutions.⁽⁶⁷⁾ Hence, the Court made it clear that education may in fact represent a fundamental right if a state constitution deems it as such.

{43} In Serrano I, the California Supreme Court ruled that the public school finance scheme effectively denied students equity in education.⁽⁶⁸⁾ More importantly, the California court held that education did indeed qualify as a fundamental right under Article IX of the California Constitution.⁽⁶⁹⁾ The California court, much like the Court in Brown, felt that education was such an important and necessary part of society, that it demanded state constitutional protection. In fact, the California Supreme Court responded to the Rodriguez decision by reconvening and issuing a clarification of Serrano I. The state court left no doubt regarding the standing of education under the California constitution. Serrano II held that, although the Supreme Court could not find an implicit right to education from the Bill of Rights, the "*Conclusion* [that education is a fundamental right] *Thunders* from the words of the [California] Constitution itself!"⁽⁷⁰⁾

{44} Soon after both Serrano cases, the principles created therein were applied in Thomas K. Butt v. State of California, where the Richmond Unified School district, nearing insolvency, decided to close all schools six weeks before the end of the scheduled school year.⁽⁷¹⁾ The Court again reaffirmed that education was indeed a fundamental right under the California Constitution, and held that once a heightened level of scrutiny was applied to state action, there must be a showing that a "disfavored class is suspect or the disparate treatment has a real and appreciable impact on a fundamental right or interest."⁽⁷²⁾ The affected school children in Thomas K Butt, were able to prove that, by closing the schools six weeks before the rest of the state, they would suffer a "real and appreciable impact" because they would be prevented from grade promotion, grading, and consequently would be unable to seek admission into colleges and universities.⁽⁷³⁾

{45} Parents may argue that, like the children in Brown, their children are being denied equal access to education stemming from their school's lack of Internet access. This may be a difficult argument to advance for two reasons. First, a critical factor in Brown was that the denial of equity in education was based on race. Here, the Department of Education report, cited earlier, seems to indicate that lack of access occurs primarily among students of color. Yet that fact that not all students of color are denied access to the Internet, or the fact that they are not being denied access based solely on race, may cut strongly against parents. Moreover, students are not being denied an education *per se*, they are just being denied a component of education

that, and depending on the expert testifying, may prove to be less than necessary for educational purposes.

{46} Secondly, because education is not a fundamental right under federal law, the level of scrutiny applied to this scenario will allow a state to merely put forth a rational basis for not providing Internet access to all children. This standard would be easily met if a state argues that the economics of each district prohibit mass access to the Internet, or that the school district does not have a pedagogical reason for providing access.⁽⁷⁴⁾ Consequently, a federal equal protection claim may be difficult to pursue.

{47} Parents, however, should have better chances of success if they seek relief through state courts. As *Serrano I* holds, education is a fundamental right and protectable under the California constitution. Parents may argue that, as in *Serrano I*, the disparity of spending toward technology between school districts violates state equal protection laws.⁽⁷⁵⁾ Or, that the Internet is such a critical component of a child's educational experience, that to deny access to the Internet is effectively denying a child an education.

{48} Moreover, this argument is important as applied to the "real and appreciable impact- prong of the equal protection analysis articulated in *Thomas K. Butt*. Parents will have to prove that lacking Internet access renders students less prepared than others, translating into denial of better grades (assuming some children have access in the same school while others do not), or as indicated earlier, resulting

in poorer scores on standardized exams, which are often critical when seeking admission at most top-tier universities.⁽⁷⁶⁾ Moreover, even if the students are admitted to a school of higher education, they may not be as prepared to excel academically, or if not admitted into a post primary school, may not be as prepared to compete in the job market. Although these arguments may be difficult to prove outright, the research and evidence beginning to surface regarding the impact of the Internet on education may soon make this argument more feasible, and thus, successful.

{49} Lastly, because California courts have empirically been keen protectors of education, these arguments may indeed lead to educational policy reform on a statewide level. The potential remedy will have to include parity in spending on technology between school districts and therefore force access to the Internet for all children.

B. Title VI Civil Rights Act of 1964, 42 U.S.C. Section 2000d

{50} As noted earlier, students of color are much more likely to attend a school that does not have access to the Internet.⁽⁷⁷⁾ Parents may wish to seek relief based on race discrimination under Title VI of the Civil Rights Act of 1964. Because plaintiffs have already been successful in the educational context, this framework may prove just as promising to parents seeking equity in educational access to the Internet.⁽⁷⁸⁾

{51} Under Title VI, parents will have to first show that educational policy results in a disparate impact on students of color, meaning, educational policies

effectively result in students of color lacking access to the internet.⁽⁷⁹⁾ Parents may wish to attack individual school districts which have issues of equity since a school district is more apt to have a specific policy involving access to the Internet (e.g. magnet programs in which only those schools specializing in the sciences are provided access to the Internet). Parents may instead wish to file a claim against an entire state educational policy that results in unequal access to the Internet. An action against a sole school district may prove the easiest to win because the results of specific policies and statistical disparate impact may be easier to show and thus, more likely to succeed.

{52}Once a policy is identified, the parents need only show that the policy has a disparate impact on students of color, rather than having to prove that the policy was instituted based on discriminatory intent.⁽⁸⁰⁾ The ability to prove intent by showing disparate impact serves to remove the most difficult hurdle confronting potential plaintiff's suing under traditional equal protection law.⁽⁸¹⁾ Most discrimination claims fail because it is difficult to prove discriminatory intent for the simple reason that most who intentionally discriminate do not memorialize their intentions or justifications when implementing policy. For this reason, parents seeking to file an action based on discrimination should choose title VI, instead of equal protection.

{53}Once the plaintiff establishes both a policy and a discriminatory result, the burden is then shifted to the defendant to prove that the educational policy was "required by educational necessity."⁽⁸²⁾ Any policy having a clear discriminatory

impact will be difficult to justify. However, assuming the defendant meets its burden, the plaintiff will be required to show that there are other alternatives available that meet the same educational benefit.

{54} Again, as stated earlier, relief under Title VI turns exclusively on the parent's ability to prove statistically disparate impact. The Department of Education report does indicate some racial bias against access to the Internet by students of color.⁽⁸³⁾ Defendant school districts will argue that the DOE report is based on a national survey and therefore not necessarily relevant to any individual state or school district. Parents will be required to conduct their own study to determine the extent of racial bias within their state or school district. Again, however, this burden is minimal compared to the requirements under federal equal protection doctrine because the parents will not have to uncover the proverbial "smoking gun" sometimes necessary to show discriminatory intent. Hence, a careful factual analysis of local access to the Internet will be required before a promising Title VI action may be filed.

C. Adequacy Based Actions Under State Constitutions

{55} State constitutions may offer parents other legal avenues to challenge their child's lack of access to the Internet. For example, in Kentucky, the state's highest court ruled that under its constitution, education was not only a fundamental right, but the framers intended that public education offer "equal opportunities for all students to

acquire the same education."⁽⁸⁴⁾ As a result, the Kentucky constitution creates an educational "adequacy" based cause of action.

{56} Depending on the language and history of a parent's state constitution, an adequacy-based claim may prove successful. Many states are ripe for this kind of litigation because the disparity in spending from district to district will be immense, since providing access to the Internet is a very expensive process. Moreover, given the evidence available, the Internet will quickly become a necessary component to any child's education based on the potential exposure to educational material on the Internet.

{57} Parents have a wide range of legal tools to choose from when deciding whether to pursue legal action in an effort to provide their child's school with access to the Internet. Although there are other legal remedies available to solve this problem, those presented reflect some legal theories that are more traditional and likely to succeed.⁽⁸⁵⁾ Because the Internet is a recent phenomenon, the courts have not had the opportunity to address the issue of equity, the Internet, and education. It will be exciting to see which legal theories parents choose to employ and how receptive the courts are to them.

V. A NATION BUILDING ON-RAMPS TO THE INFORKATION SUPERHIGHWAY: CURRENT POLICIES AND SUGGESTED DIRECTION FOR INCREASED ACCESS TO THE INTERNET IN PRIMARY EDUCATION

{58}The goal must be to provide access to the Internet for all children in primary public education. The benefits of access to the Internet are clear and persuasive. The potential pitfalls associated with access to the Internet are also real, but they are predictable and thus avoidable. Mere access, however, is simply an initial step. Education policy must be established to set minimum use and literacy standards for Internet use in order to ensure that the Internet is not just being provided, but taught as well. Access, however, will not occur overnight, a concerted national effort drawing from both the state and federal government and from the private sector will be necessary to close the technological gap that divides American education, and ultimately determines who will share in the American dream.

{59}The federal government has taken an active role in helping schools link to the Internet. President Clinton, in his 1997 State of the Union address, outlined his primary educational goal during his next administration: to provide Internet access to all children by the year 2000.⁽⁸⁶⁾ The Clinton administration has proposed three programs to attain this goal. First, the current administration has earmarked \$200 million in "computer literacy grants" aimed at providing schools with funds to purchase the technology necessary to gain access to the Internet.⁽⁸⁷⁾ The second program, which was recently approved by the Federal Communications Commission ("FCC"), is the Telecommunications Act, which establishes an "education-rate" or "e-rate;" a fee arrangement program that provides discounted access to the Internet, with the communications industry paying the difference.⁽⁸⁸⁾ This new discount program

gives discounts on a sliding scale; the poorer schools would receive virtually free access while wealthier schools would receive a more modest discount. Lastly, the Clinton administration is actively promoting an annual "Net-day", in which schools and members of the community work together to provide access to the Internet for local schools.⁽⁸⁹⁾

{ 60 } State and federal government cannot fight have the war on Internet access alone. The private sector, consisting of primarily high-tech business, has also come to the aid of local school districts in their efforts to provide Internet access to local school children. For example, BellSouth, a large high-tech corporation located in the southeast U.S., committed to providing 4,000 schools with the required technology to access the Internet.⁽⁹⁰⁾ BellSouth will not only provide the necessary hardware and communications access, but also furnish important teacher training and curriculum development to make the implementation of Internet access effective.⁽⁹¹⁾ Moreover, other large technology corporations have joined forces and created consortiums to provide more complete assistance to local schools.⁽⁹²⁾ The impetus for community involvement is self-serving, corporate America believes it is building human capital in an effort to create a larger, more qualified pool of talent from which to draw in the future.⁽⁹³⁾ Regardless of corporate America's motive, the result is clear: the private sector is a valuable asset is helping bridge the technological gap in American education.⁽⁹⁴⁾

{61} Educational policy makers find themselves in a unique and exciting position to impact one of the most important issues to face education in the last two decades. The goal, however, should extend much further than mere access to the Internet; teachers must be specifically trained to incorporate the Internet into school curriculum, and students must be required to obtain and maintain certain minimum levels of Internet literacy. As Professor Biegel notes in a recent article, the proposed Goals 2000 may be an ideal place to include "assessment and compliance" procedures for Internet use in public education.⁽⁹⁵⁾ This suggestion may take many forms, from required teacher training hours, to student minimum Internet skills levels. Professor Biegel's suggestion is valuable because it effectively deals with two potential equity issues. First, by incorporating the Internet into federal educational policy, the statute necessarily mandates access to the Internet at a national level. Second, if Goals 2000 mandates a form of minimum standards for quality of Internet teacher training or minimum student Internet competence levels, Goals 200 would ensure that all children learn, at minimum, the same basic set of skills.

{62} This approach would also solve the most frequent criticism of Internet usage in education: that teachers lack appropriate training and pedagogical justifications for using the Internet in the classrooms. After training, teachers would be equipped with clear goals and materials to effectively incorporate the Internet into the classroom. Moreover, students themselves will become more focused and motivated to apply the Internet to their education because teachers will provide

adequate instruction. This avoids sending students into cyberspace without clear direction, so students will feel compelled to learn how to use the Internet with the knowledge that their competence will later be evaluated.

{63} Regardless of what scheme is used by policy makers, it seems clear that an effective policy will include participation by both local and federal government, the private sector, as well as new education legislation relevant to the demands of the Internet.

VI. CONCLUSION

{64} The Internet is quickly becoming a fixture in American society. The Internet, as applied to education, offers a wealth of resources that have yet to be fully realized. The fact, however, that not all students have access to the Internet is exacerbating the existing gap between students having the basic skills to succeed versus those who do not. Although the government and the private sector have taken bold steps toward increasing access for education, the statistics show that much more needs to be accomplished before access equity can be fully achieved. Parents should feel optimistic, however, because several legal theories are available to force greater action toward providing access, especially under state constitutions. But action needs to be taken soon, because an entire generation of children will never experience the wealth of knowledge, nor the plain fun, that the Internet adds to education.

1. A. Carvin, *WWW History: The Birth of On-Line Multimedia*, Edweb <http://edweb.cnidr.org/web.future.html>. See also, William Burrington, *False Advertising and the Law: Coping with Today's Challenges*, 954 Practicing Law Institute, Corporations 369, 402-403 (1996).

2. A. Carvin, *Conclusion: What Next for the Web and Education?* Edweb (1996) <http://edweb.cnidr.org/web.future.html>.

3. Susan H. Bitensky, *Theoretical Foundations of a Right to Education Under the U.S. Constitution: A Beginning to the End of the National Education Crisis*, 86 NW. U. L. Rev. 550, 551-552 (1992).

Indeed, the role of education and educators has even been compared to 'Playing God': "The basic moral problem . . . is inherent in education itself. If you are engaged in an effort to influence the course of children's development . . . [It] is to determine, in part, what kinds of people they turn out to be. It is to create human beings. It is, therefore, to play God."

Bereiter, *Moral Alternatives to Education*, 3 Interchange, Jan. - Mar. at 25 quoted in William B. Senhauser, *Education and the Court: The Supreme Court's Educational Ideology*, 40 Vand. L. Rev. 939, 940 (1987).

4. Bitensky, *supra* note 3, at 550.

5. 347 U.S. 483, 493 (1954).

6. Shiela Heaviside, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools*, Department of Education, February 1996, at p. 6.
7. Id.
8. Deb Riechmann, *Education Secretary wants Free Internet Access for Schools*, The Associated Press, Jun. 27, 1998/27/96, quoting Rep. Bobby Rush, D-Ill.
9. Associated Press, *FCC Chief Pushes On-line access, schools need Internet, politicians need convincing*, Peoria Journal Star, Oct. 17, 1996, quoting FCC Chief Reed Hundt.
10. "Surf" is a term used to describe on-line research.
11. Michael Fitzpatrick, *The Global Classroom*, Chicago Tribune, Jun. 25, 1995, Section 18, at 3.
12. Charles Hurt, *Metro Detroit Schools Increase Computer Access, Add Internet Class Work*, The Detroit News, Oct. 29, 1996, quoting a student that claims the Internet is " ... more than just instruction ... It's like television that you can talk to. It's part of life that enriches you. See also, Kris Lovekin, *What's Best...Library or the Net?* The Press Enterprise, Apr. 28, 1997 (quoting a six grade boy when asked what he preferred to work with, books or the Internet, he responded, "I'm more interested in computers. You can print out the page instead of having to look through a whole encyclopedia." The article also cites the local school librarian, who unlike the child, prefer to perform her research through the conventional use of books. It is interesting

to note the different perspective given the generation differences between both people asked the same question).

13. Victoria Benning, *Internet Access Weaves a Tangled Web for Schools*, The Washington Post, May 30, 1996 , B5.

14. *Id.*

15. Fitzpatrick, *supra* note 11.

16. Benning, *supra* note 13.

17. Charles Hurt, *Metro Detroit Schools Increase Computer Access, Add Internet Class Work*, The Detroit News, Oct. 29, 1996.

18. *See* Venda Morgan, *Technology Rules in Cyber School': students embrace Internet although some schools have been slow to offer access to the Internet, Trinity High uses it to make education more interesting*, The Courier-Journal, Jan. 9, 1997.

19. This scenario obviously assumes that students have access to a computer with Internet capabilities at home.

20. *See* <http://www.relay.co.uk/info/benefits.html>, a homepage that explains the benefits of Internet access to education.

21. Morgan, *supra* note 18.

22. *Id.*

23. *See* <http://www.cwo.com/school.html>, describing benefits available to those with access to the Internet.

24. Brian Hecht, *Net loss: Clinton's Internet Delusion*, 216 *The New Republic*, Feb. 17, 1997, at 18. This article criticizes the use of the Internet and proposes a limited form of the Internet dubbed the "intranet", amounting to a network among schools within a school district. Yet the goals of the Internet can be easily accomplished through use of the Internet and serves as an example of the potential value of the Internet to education.

25. Associated Press, *FCC Chief Pushes On-line access, schools need Internet, politicians need convincing*, *Peoria Journal Star*, Oct. 17, 1996 (quoting FCC Chief Reed Hundt, presenting the results of studies sponsored by education groups).

26. It is interesting to note that the Internet may prove to be a college requirement in the near future, as post secondary institutions begin to offer virtual degrees, meaning, students simply log on to lecture, study groups, and exams. There are currently over 300 colleges and universities that offer degrees via the Internet. See K. Hamilton and S. Miller, *Internet U -- No ivy, No Walls, No Keg Parties*, *Newsweek*, Mar. 10, 1997.

27. Morgan, *Technology Rules in 'Cyber School'*, *The Courier-Journal*, Jan. 9, 1997.

28. Moschella, *Dangerous Expectations*, *Computer World*, Feb. 17, 1997. See also, Amy Virshup, *Surfing Tidal Wave; Some Educators Think the Internet's Rise Should Change Fundamentally How We Think about Teaching, Learning and Testing*.

Skeptics Reply: Remember the Film Strip, *The Washington Post*, Feb. 2, 1997 (citing Clifford Stoll, *Silicon Snake Oil*, a book that openly criticizes the value and utility of the Internet, compares the hailed Internet to the once hailed filmstrip; both, he

believes, will suffer the same fate, meaning, neither will prove to be truly helpful in educating America's children. Stoll claims the Internet is "technologically cutting edge, but educationally empty" because the Internet is mostly comprised of useless information and the truly educational sites are few and almost impossible to find given the currently poor search engine technology.).

29. Content regulation, a solution to dangerous material on the Internet, immediately raises First Amendment concerns. Though interesting, First Amendment implications of Internet content regulation are beyond the scope of this paper.

30. Christine Wolff, *Schools Policing Internet Use: Increasing Access to Adult Material Prompts More Regulations*, *The Cincinnati Enquirer*, Jan. 5, 1996.

31. An often-cited problem with -filter- programs is that educators may inadvertently screen out wanted, educational material. For example, as Odvard Dyrli points out, by screening certain sites containing words associated with pornography providers, one may also prohibit access to sites with important information regarding

AIDS. See Odvard Dyrli, *Does Your School Have an Acceptable Use Policy?*, *Technology & Learning*, Jan. 1, 1996. See also, B. Kievera, *Internet Surfers Losing Freedom: Schools, Businesses Using Software Filters to Restrict Web Access*, *Sunday Telegram Worcester*, Dec. 12, 1996.

32. Al Lara, *Clearing Hazards Along the Internet*, *The Hartford Courant*, Aug. 8, 1997.

33. *See id.* *See also*, Stephen Marcus, *Truth and Consequences*, *Electronic Learning*, May/ June 1996, WL 908225; B. Kievera, *Internet Surfers Losing Freedom: Schools, Businesses Using Software Filters to Restrict Web Access*, *Sunday Telegram Worcester*, Dec. 2, 1996.

34. DeWayne Smith, *Tempe Elementary Vows to Control Net Access*, *The Arizona Republic*, Aug. 3, 1996.

35. Julia Angwin, *Group Posted Contrasting Web Pages: Computer Expertise on One Site, Religious Tracts on Other*, *San Francisco Chronicle*, March 28, 1997, at A14 (documenting the use of the Internet as a tool to spread the New Heaven Cult message through the Internet).

36. Al Lara, *Clearing Hazards Along the Internet*, *The Hartford Courant*, Aug. 8, 1997.

37. *See id.* Interestingly, the issue of Internet use and safety has **also** mobilized the private business sector in efforts to educate children regarding basic Internet safety precautions. *Safety Net for Kids Program Kicks Off in L.A.*, *Business Wire*, Apr. 8, 1997 (noting the joint participation of parents, police, GTE and Ronald McDonald in educating children regarding basic safety issues while using the Internet).

38. *See id.*

39. This raises an interesting issue. May there be educator liability if a student is either exposed to inappropriate material or suffers injury as a result of Internet use.

Does the student-parent signature of on-line rules discussed earlier constitute a waiver from liability if the conduct falls outside permitted uses of the Internet?

40. Peter Coffee, *Cheap Connections Don't Cure Schoolrooms*, PC Week, 2/10/97.

41. Brauch, *Directions in World Wide Web Use: A Mapping of Potential*, (last modified June 1996) <http://www.seattle.edu/~adamb/research.html> (citing C.D. Maddux, *The Internet: Educational Problems and Perspectives*, 34 *Educational Technology*, 7, 37 (1994)).

In fact, critics point to the latest findings that seem to indicate that kids use the Internet more for fun rather than education, thereby fueling the argument that the Internet has no place in primary education. *See* George Raine, *Net Survey: Surprise! Teens Are Not Doing Homework*, San Francisco Examiner, Mar. 31, 1997. (This survey, which reached high school kids from across the country, found that students prefer to use the Internet in search of entertainment sites, *such as* on-line chatting and sending email, rather than using the Internet for school work. In fact, using the Internet for school purposes ranked near the bottom in order of preference among school children. This finding, though telling of personal preferences regarding use of the Internet, does not detract from the value of the Internet to education. In fact, it is possible that as kids spend more time on the Internet exploring entertainment sites, kids are unknowingly building search skills that will invariably aid them with their school related research assignments. Ultimately, so long as the Internet is used to

perform and complete school assignments, the activities of children during their free time should be of little importance.).

42. Victoria Benning, *Internet Access Weaves a Tangled Web for Schools*, The Washington Post, May 30, 1996.

43. *See Brauch, supra note 41; Clinton Memo On Expanding Access to Internet Based Education, U.S. Newswire, Apr. 19, 1997. (Department of Education supports Web site that provides a forum for teachers to ask questions and receive answers within 48 hours. This alleviates the feeling of frustration when teachers are faced with technical questions regarding the Internet and no support staff to assist in answering them. This site also provides access to over 900 lesson plans aimed at Internet education for primary education).*

44. *See Benning supra note 42.*

45. Indeed, help is on the way. The creation of "Edscape-, a multimedia, interactive web site has been developed to aid teachers in developing their curriculum. This site is aimed at teachers with little or no experience with applying the resources available on the Internet to a class room environment. *See Simon and Schuster Launches Innovative Internet Education Network; Edscape Web Sites Aligns Interactive On-line Content with Textbooks, Software and Video to Empower Teachers*, June 6, 1997.

In fact, a host of new sites are being developed daily. For example, www.Education-world.com is a new site that, aside from being free, allows teachers to download lesson plans and engage in cross-country Internet competition. Moreover, this Bite

represents the single largest education based search engine on the Internet, with links to 35,000 educationally focused sites. *See* Bill Pietrucha, *Education World Provides Free Resources for Teachers*, Newsbytes News Network, May 5, 1997.

46. *U.S. Starts \$200 million Computer Upgrade of School*, Times Union, Feb, 9, 1997.

47. *See id.* (quoting Okl. Sen. Don Nickles).

48. *See* Peter Coffee, *Cheap Connections Don't Cure Schoolrooms*, PC Week, Feb. 10, 1997.

49. Deb Riechmann, *Education Secretary wants Free Internet Access for Schools*, The Associated Press, June 27, 1996.

50. Judi Carpenter, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools*, (Dept. of Educ., Feb. 1996). *But cf.* President Clinton and Vice-President Gore Radio Address to the Nation (Feb. 10, 1997), *in* M2 Presswire.

(President Clinton, however, recently disclosed the results of a new study conducted by the Department of Education, revealing that access to the Internet increased to 65%. The report, however, has not been released to the public.).

51. *Id.* at 3.

52. *See* Doug Kesseli, *Computer Fees May Knock Rural Schools Off-Line: Monthly Costs for Hookup and Internet Access Will Reach \$2,000*, Bangor Daily News, Oct. 10, 1996. *See also* *Rural Schools have Rough Time Getting Enough Internet Access*, The Associated Press Political Service, Feb. 28, 1997.

53. *See id.*

54. *See* Carpenter *supra* note 50 at 3. There are some school districts that, although considered impoverished by D.O.E. standards, may in fact be preparing to spend millions of dollars to upgrade their computer technology. Please note that the San Francisco School District, as part of a desegregation consent decree, has recently budgeted financial resources to upgrade the districts technology. However, school districts such as San Francisco almost assuredly represent the exception, rather than the rule. Most school districts can barely afford to continue paying their teachers salaries, much less spend money on computer upgrades.

55. Riechmann, *Education Secretary Wants Free Internet Access for Schools*, The Associated Press, June 27, 1996.

56. *See* Carpenter *supra* note 50 at 3.

57. Randolph Schmid, *Survey: Half Nation's Public Schools Have Internet Access*, The Associated Press, Feb. 16, 1996.

58. Stephanie Schorow, *Education Upgrade State Program Links School Computers with Internet Access*, Boston Herald, Oct. 25, 1996. (The article also notes the irony here: Massachusetts houses some of the best technical universities in the world, yet the state's elementary schools lack basic technology.)

59. *See supra*. *See also* Eric Blom, *Volunteers to Link Schools to Internet: Netday96 Organizers Hope to Wire Every School and Library for Access to the Worldwide Network*, Portland Press Herald, Aug. 26, 1996 (Cites a recent survey conducted in

Maine that concluded that although NetDay will provide schools with Internet connections, many "will have trouble using these Internet connections because they lack the modern computers and computer networks necessary to access the system." In fact, "five out of six Maine schools lack computer networks, ... and many existing networks are obsolete.").

60. Amy Virshup, *Surfing Tidal Wave; Some Educators Think the Internet's Rise Should Change Fundamentally How We Think about Teaching, Learning, and Testing. Skeptics Reply: Remember the Film Strip*, The Washington Post, Feb. 2, 1997 (The issue is not just buying computers. According to a 1995 survey by the General Accounting Office, "the majority of schools lacked basic equipment needed to fully use new technology: phone lines, modems, networking cables, conduits through which all this can run, and even electrical outlets. In central cities, more than 60% of schools lacked the right infrastructure. ... It's a long -- and expensive -- bridge to the 21st century."

61. Reichman, *Education secretary Wants Free Internet Access For Schools*, The Associated Press, June 27, 1996.

62. *See supra* note 60.

63. *Id.* (citing Archie Prioleau, head of the Foundation for Educational Learning, comparing a child exposed to the Internet versus one who has not, "Who Will succeed as an adult? The stumbling blocks of the 21st century are not going to be the 'ISMB' --

racism, sexism, what have you. But skills and knowledge. I want my kids to have the same shot -- and right now they can't compete.")

64. 347 U.S. 483, 493 (1954).

65. The Court later held that education could not be denied to the children of illegal aliens in Texas because they constituted -discreet, insular minorities- under the Equal Protection Clause. *Plyler v. Doe*, 457 U.S. 202 (1982) (citing *U.S. v. Carolene Products Co.*, 304 U.S. 144 (1938)). Again, however, the Court stopped short of identifying education as a fundamental right.).

66. *San Antonio Indep. Sch. Dist. v. Rodriguez*, 93 S.Ct. 1278 (1971).

67. *Id.* (White, J. dissenting) at 572 - 575.

68. *Serrano v. Priest*, 5 Cal.3d 584 (1971).

69. *Id.* at 610.

70. *Serrano v. Priest (II)*, 18 Cal.3d 345 n.42 (1976) (emphasis added).

71. 4 Cal. 4th 668 (1992) (holding that state has a duty of insuring uniform education statewide).

72. *Id.* at 686.

73. *Id.* at 687.

74. A related issue could be a claim quality of education under the Constitution, meaning, parents may claim that the disparity in quality of education may rise to the level of violating the Equal Protection Clause. Again, because education is not a

fundamental right under the Constitution, the state may simply argue that a child is entitled to an education, not necessarily a particular quality level education.

75. *See also* *Butt v. State of California*, 4 Cal. 4th 668, 692 (1992) (holding that state has a duty of ensuring uniform education statewide).

76. *See* Section Part II (A).

77. *See supra* note 55 .

78. *See* Stuart Biegel, *School Choice Policy and Title VI: Maximizing Equal Access for K-12 Students in a Substantially Deregulated Educational Environment*, 46 *Hastings L. Journal* 1533 (Winter 1995).

79. *Larry P. v. Riles* 793 F.2d 969 (9th Cir. 1984).

80. *Id.* at 982.

81. *See* *Washington v. Davis*, 426 U.S. 229 (1976). The ability to prove intent by showing disparate impact represents a huge advantage over traditional discrimination claims.

82. *Larry P.*, 793 F.2d at 982.

83. Reichmann, note 55, *supra*.

84. *Rose v. The Council for Better Education, Inc.*, 790 S.W. 2d. 186, 205-207 (Ky. 1989). For more examples of parents using state constitutions to bring educational adequacy claims, *see* *Alabama Coalition for Equity, Inc. v Folsom*, CV 91-0117-R (Montgomery County Cir. 1993) (holding that under the Alabama state constitution, the state had failed to provide equitable and adequate educational opportunities to

children, including those with disabilities) and *Duffy v. Secretary of the Executive Office of Education*, 615 N.E. 2d. 516 (Mass. 1993) (holding that under the Massachusetts state constitution, the state is required to provide all children with an adequate education).

85. See Stuart Biegel, *Access Time: Employing Cyberspace Technology to Enhance Educational Programs*, Los Angeles Daily Journal, Jun. 27, 1996 (Professor Biegel provides an overview of several legal avenues available to parents).

86. Staff reporter, The White House: Radio address of the President and the Vice President to the Nation, M2 Presswire, Feb. 10, 1997. See also Amy Virshup, *Surfing Tidal Wave*, The Washington Post MAGAZINE, Feb. 2, 1997, 12, quoting President Clinton, "We know, purely and simply, that every child must have access to a computer ... must have access to good software and good teachers and, yes, to the Internet, so that every person will have the opportunity to make the most of his or her own life.

87. Virshup, *supra*, at 11-12.

88. Frank James, *Shakeup in Phoning, Internet Costs Schools Libraries, Health-Care Providers In Rural Areas to Receive On-Line Subsidies*, Chicago Tribune, May 8, 1997 (Ree Hundt, Chairman of the FCC hailed the FCC decision to approve the "e-rate" program as "a testament to our willingness in America to make sure we have opportunities for everyone, that we believe in equality." *But see* Staff Reporter, *Hill Leaders Blast FCC Decisions On Access, Universal Service*, Communications Daily,

May 8, 1997 (citing concerns raised by leaders regarding the implementation of the "e-rate". Leaders fear the program will result in higher phone bills because the communications companies are being asked to subsidize educational access to the Internet, loss of jobs as a result of higher productivity standards necessary to service the new demand. Although the first argument may materialize, the question becomes, will the raise in rates be significant per household? The second argument is difficult to understand, if the demand for communications service increases, it seems only logical that communications companies will actually have to increase the number of employees in order to meet the new demands). More importantly, educators feel that the Telecommunications Act is an important first step in providing access to all school children. Staff Reporter, *Internet May Be Coming to a School Near You: FCC Plans to Discount Costs For Public and Private Schools*, Star-Tribune, May 8, 1997.

89. *Id.* See Bill McAllister, *President Boosts Internet Education; Netday Volunteers Work on Wiring 23 Area Schools to World Wide Web*, Washington Post, Apr. 20, 1997 at A18 (citing that NetDay Volunteers worked to wire schools to the Internet in over 40 states). See also D. Morgan McVicar, *NetDay Volunteers Work to Wire R.I. Schools into the Internet: The Tech Corps Workers Will Donate Expertise and Equipment to Improve On-line Access at 10 Schools*, The Providence Journal Star, Oct. 29, 1996; Lydia Bell, *Volunteers Help Schools Gain Internet Access*, The New Orleans Times-Picayune, Oct. 27, 1996; Richard Lee Colvin, *Volunteers to Link Up School Computers Education: Thousands in California and Seven Other States Will*

Take Part in NetDaV2 on Saturday, Wiring Classrooms for Access to the Internet, Los Angeles Times, Oct. 11, 1996 at A21. Each article documents the efforts of community residents aimed at providing Internet access for local school children. These "Tech Corps" volunteers gather support from private businesses and receive donations of either computer hardware, software, and/or money. As part of this concerted effort, community volunteers converge on a school during a weekend day and install and wire the schools newly donated resources. NetDay activities has had a tremendous impact on providing Internet access across the United States.

90. *Bellsouth to Provide Internet Access in Schools*, PR Newswire, Sep. 9, 1996.

91. *Id.*

92. *8 High-Tech Companies Team Up to Assist Schools with Internet Access on NetDay*, Business Wire, Sept. 12, 1996. The consortium includes Apple Computer, Cisco Systems, Farallon Communications, NETCOM, Netacape, Spyglass/Surfwatch, 3Com, and U.S. Robotics. Aside from participating in the consortium, Cisco Systems has proven to be a generous donor in helping school districts gain Internet access. *See Cisco Systems Announces Second Annual Nationwide Program to Provide Equipment to Enable Internet Access for k-12 Students; Virtual Schoolhouse Grant Program Continues World Wide Web and Internet Integration in the Classroom*, Business Wire, Oct. 23, 1996 (Cisco has committed to giving 50 awards worth \$500,000, comprised of hardware, software, installation, and computer training for teachers this year).

93. Peter Dujardin, *Businesses Boost Internet Access for Grade School*, The Providence Journal-Bulletin, Oct. 25, 1996. *See also Bellsouth to Provide Internet Access in Schools*, PR Newswire, Sept. 9, 1996 (Bellsouth committed to providing 4,000 k-12 schools with Internet access and training).

94. In fact, some telecommunications companies are not only contributing the kind of financial support to begin Internet access at local schools, but are beginning to offer discounted rates for education after schools have established a link to the Internet. *Pacific Bell: Special Offer for high Speed Internet Access Pack*, M2 Newswire, May 7, 1997.

95. Biegel, *supra* note 85.

Date of BLT Publication: July 28, 1998

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