

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Schools and Libraries Universal Services) CC Docket No. 02-6
Support Mechanism)
)
A National Broadband Plan for Our Future) GN Docket No. 09-51

REPLY COMMENTS ON PUBLIC NOTICE SEEKING COMMENTS
ON
E-RATE SUPPORT MECHANISM AND BROADBAND PLAN
BY
COMPUTERS FOR YOUTH FOUNDATION, INC.
AND
MEMBERS OF THE COMPUTERS FOR YOUTH AFFILIATE NETWORK

INTRODUCTION

In the Federal Communications Commission’s (“FCC”) Public Notice (FCC 10-83) released on June 9, 2010, the FCC asked for comments and reply comments on one NPRM in a series of rulemaking proceedings to implement the National Broadband Plan’s vision of improving the universal service program. The reply comments contained in this document are focused exclusively on the FCC’s proposal to “adopt the National Broadband Plan recommendation to provide full E-rate support for wireless Internet access service used with portable learning devices that are used off premises.”

These reply comments represent the opinion of Computers for Youth (CFY) and key members of our Affiliate Network: Computers for Classrooms, Computers 2 San Diego Kids, Community Computer Connection, Computer Mentors Group, Texcellence Computer Program, Digital Divide Initiative, PC Rebuilders & Recyclers, Center for Community Technology Services, ArtsTech, Computer Based Learning, Tech Corps Texas, Closing the Digital Gap, CyberMill Technology Center, Semper Fi Community Task Force, and Recycled-PC . CFY is the nation's leader in improving the Home Learning Environment of low-income schoolchildren. For over 10 years, CFY has provided a combination of training, educational software, and technology access for low-income families which has had a direct, positive impact on school performance. To strengthen the home learning field, CFY began building an affiliate network a number of years ago. Currently, the network is comprised of 35 organizations in 23 states and the District of Columbia. Based on the experience of CFY and the affiliate member organizations that have joined us in these reply comments, and based on a solid research foundation, **we strongly recommend providing full E-rate support for Internet access service used with learning devices that are off-premises.**

RESEARCH BASIS FOR OFF-PREMISES INTERNET ACCESS

Research has shown that home Internet access coupled with targeted wrap-around programming¹ can have a positive impact on student achievement. In the FCC's Public Notice (FCC 10-83) released on June 9, 2010, the FCC mentions the Maine Learning Technology Initiative and the 1-to-1 laptop program in Henrico County, Richmond, VA, as examples. We would like to add two more examples because they illustrate two important points:

- That for school-based technology immersion programs, home access is not just a “nice to have,” but rather a “need to have” for achieving strong academic gains.
- That devices need not be “portable” and the Internet access need not be “wireless” to accomplish these academic gains.

A study of the Texas Technology Immersion Program (Shapley, 2009) found that the strongest predictor of students' test scores was the amount of time students used their computers outside of school for homework or learning games. This program targeted high-need schools and served more than 7,000 students over three years. The program, which also included educational software and teacher training, was found to improve low-income students' test scores in reading and math by 7% and 20% of a standard deviation, respectively. This is a sizable impact—a 9% change in a standard deviation in math each year is considered sufficient to close most of the “Scarsdale-Harlem” achievement gap (Hoxby & Muraka, 2009).

A study done in conjunction with ETS of the CFY program (Tsikalas, Lee, & Newkirk, 2008) also found a positive and statistically significant impact on math test scores. The CFY program, which partners with schools that have 75% or more students eligible for free/reduced lunch, to date has served more than 23,000 families across the nation. Like the Texas program, this program is comprehensive: Participating families receive home computers, award-winning educational software, and training for both teachers and families. What is interesting about the CFY program (and ETS's finding of academic impact) is the following:

- **The CFY program, at the time, did not make use of “portable” learning devices (e.g., laptops), but rather used far less expensive, fixed devices (desktops).**
- **The CFY program passed the ownership of the device to the family, rather than having the school own the devices.**
- **The CFY participants in the study that purchased home Internet access did not use wireless Internet service, but rather “wired” service.**

We therefore urge the FCC to boldly push for providing full E-rate support for Internet access service for learning outside of school. We also urge the FCC to widen its

¹ Wrap-around programming includes on-line learning resources, teacher professional development, family training and technical support.

definition regarding what type of devices and Internet service can be used. Later, we will discuss the importance of allowing schools and school districts to leverage the technology resources that already exist in the home.

HARNESSING THE HOME LEARNING ENVIRONMENT (HLE)

At this point, we want to make another case for full E-rate support for Internet access off-premises. We argue that Internet service is one of many critical components of a vibrant Home Learning Environment (HLE) and the evidence of the value of the HLE is abundant. Research has shown that parental involvement at home has an even greater effect on student achievement than school itself (Desforges & Abouchaar, 2003). A large longitudinal study of 3,100 students found that the HLE was one of the strongest predictors of achievement in reading and math for 10- and 11-year-olds. A related case-study on students who “succeeded against the odds” showed that what they had in common was a stronger Home Learning Environment (Sylva et al, 2008).

The United States is currently lagging behind Europe (particularly the U.K.) in designing programs that improve students’ HLE. Both studies cited above were conducted by U.K. researchers and the country has responded to this research by encouraging innovation to improve the HLE of its citizens.

We believe the U.S., with its history of education innovation, should be squarely in the lead on improving schoolchildren’s HLE and enhancing the school-home connection. It is time to harness the potential of the HLE to move the academic needle – and technology has a critical, though not singular, role to play.

THEMES DISCERNED FROM COMMENTS

We have done a cursory review of the comments from the Public Notice (FCC 10-83) released on June 9, 2010, and we have discerned some interesting trends. In general, the telecommunications providers are in favor of expanding Internet services to off-premise use (e.g., Verizon, Qualcomm, AT&T, and Motorola), while the school districts do not support this expansion (e.g., the Anchorage School District, Chicago Public Schools, the New York City Department of Education, the Wisconsin Department of Public Instruction, and the Council of the Great City Schools). The outliers were Qwest Communications (does not support), Pittsburgh Public Schools (does support), and Intel (does support, but using Lifeline funds).

It is important to note that non-supporters do not articulate arguments against the potential value of Internet services off-premise, but rather are concerned about obstacles to implementing the idea. The most frequently mentioned obstacles were:

- That, unless additional funding is made available for the E-rate program, expanding services to off-premise will risk reducing E-rate funding for other services that are being used on-premises.

- That it will be impossible to mitigate the risk that students will use off-premise Internet access for non-educational purposes.
- That it will create substantial administrative challenges for schools and school districts in providing the necessary oversight to ensure compliance with existing program requirements, in particular the requirement of acceptable use for educational purposes and compliance with CIPA.

We believe all these obstacles can be addressed and wish to propose one possible way the FCC could move forward.

PROPOSED APPROACH TO EXTENDING E-RATE OFF-PREMISES

As stated earlier, the benefit of extending funding for using Internet services off school premises is clear. What is not so clear is how the FCC might be able to turn this idea into a successful initiative.

This section of our document presents one possible plan for how the FCC could implement a successful initiative. It is meant to serve as a starting point for the FCC in thinking through key issues.

We purposefully designed this initiative to generate innovation in using technology to both improve students' Home Learning Environments and enhance the school-home connection. We also purposefully piggy-backed on current infrastructure created by the E-rate program. Whether funding comes from E-rate or Lifeline, we feel the E-rate/USAC infrastructure is a good place to start.

Finally, we designed this initiative to ensure as great an impact on student learning and achievement as possible. We have seen from the Vigdor and Ladd (2010) study (the "North Carolina study"), and the Malamud and Pop-Eleches (2008) study (the "Romania study"), that home computers and Internet *alone* can have a negative impact on the academic achievement of low-income children. (Both these studies have received a lot of media attention over the last few weeks.)

It is, therefore, critical that E-rate only fund activities (or programs) designed to yield positive and sizable impacts, such as those seen in the Texas Technology Immersion Program, the CFY program, the Maine Learning Technology Initiative, and the 1-to-1 laptop program in Henrico County, Richmond, VA. In other words, we argue that the goal of the FCC should not be to fund *all* school-home connection programs happening across the country, but to *fund only the ones that meet the criteria* we lay out on the next page, to thereby ensure that they have the greatest likelihood of moving the academic needle.

The initiative herein will be called the *Home Learning Environment Enhancement Program*. It can be rolled-out as a pilot or as a full-fledged program.

Step 1:

- The FCC creates an advisory group to work with the USAC. This group will be comprised of individuals with experience in leveraging the HLE to move the academic needle. Ideally, there would be representation from the U.S. Department of Education and the non-profit sector.
- The advisory group is charged with setting standards for what types of HLE programs at the school level the FCC will fund with E-rate. The group is also charged with creating an easy-to-use rubric for scoring proposals from schools or school districts. (We present proposed standards later in this section. These standards will be difficult to meet for many schools and school districts, and, we believe, will greatly reduce the applicant pool, thereby mitigating the risk that the *Home Learning Environment Enhancement Program* will reduce E-rate funding for other services that are being used on school premises.)
- The FCC also creates an evaluative body to analyze results and identify and disseminate best practices.

Step 2:

- School districts or schools that wish to participate in the *Home Learning Environment Enhancement Program* must prepare a proposal that is separate from their technology plan.
- The FCC could either have the State Departments of Education review proposals using the rubric described above or the FCC could have the USAC do it. We recommend having the USAC manage this function for the first few years of the program, to ease the process of determining what is and is not working, and then moving this function to the State Departments of Education.
- Accepted proposals will receive E-rate funding based on the same discount formula currently being used by the FCC.

STANDARDS THAT PROPOSALS MUST MEET TO BE AWARDED E-RATE FUNDING.

Based upon more than a decade of experience working with low-income schools to improve the HLE of their students, we recommend that proposed school programs must meet the following criteria, at a minimum, to be eligible for this program:

- Programs must be implemented in schools with at least 75% of students eligible for free/reduced lunch.
- Programs must provide off-premises Internet access to students grade-by-grade or school-wide, but not child-by-child. Selecting students grade-by-grade or school-wide encourages a network effect (or “tipping point”), whereby teachers know that every student in their class has the service. This knowledge, in turn, encourages teachers to make full use of the resource to

connect the learning that is happening in the classroom with the learning students do at home.

- Programs should be able to demonstrate that they have committed funding for the following components:

Required

1. Online learning software (free, donated, and/or purchased) for students and their families.
2. Training for teachers around using the Internet to promote the school-home connection.
3. Training for students and parents on (a) the educational use of the Internet and (b) Internet safety. Ideally, this training should be a minimum of three hours and should be conducted on a weekend when parents and students are not exhausted from a full day of school and work.
4. Technology solution to comply with the requirement of acceptable use for educational purposes. Two examples of solutions are listed below:
 - Using a solution like OpenDNS to ensure families use only school-approved online learning software.
 - Using software that monitors usage to discern whether students are using the Internet for educational purposes. As an example, CFY has developed a software product that can selectively monitor use of specific software on a computer's hard drive and selectively monitor specified on-line sites. If this option is selected by a school or school district, we recommend that the program insist that participating families sign a specific use policy.

Extra points

Extra points will be given to proposals that include one or more of the following components:

- An RFP process with local Internet providers to secure discounts for participating families. As a proof of concept, CFY has conducted an RFP process exactly like this in New York City and we have received discounted offers from all the major Internet service providers in the city.
- Data collection on what educational software students use the most (the CFY software product mentioned above can be used for this purpose and can provide a "live dashboard" for school or school district personnel to see exactly how the computers are being used at home for learning purposes).
- If appropriate, assistance for families to obtain free/discounted home computers with technical support.

ADDITIONAL CONSIDERATIONS

1. Be Hardware Agnostic

We recommend that the program be completely hardware agnostic in terms of the ownership and type of device. We are proposing this consideration for two reasons. First, as described earlier, programs that have proven themselves successful have used a broad spectrum of devices, from laptops to refurbished desktops. Second, a wider definition of the type of device will enable school districts to find a solution that works best for their situation, in terms of cost, effectiveness and safety. For example, rural school districts, where students must travel more than an hour to school each day, may choose to purchase laptops so students can then use the device for learning while in transit. Urban school districts, where some students live in unsafe neighborhoods, may instead choose to combine “thin-client” desktops on school premises with refurbished desktops in students’ homes. This approach allows students to have access at school and home but does not require them to carry expensive equipment while in transit. This approach can also enable schools and school districts to piggy-back on devices families already own. So, to reiterate: There should be no requirement that the equipment be owned by the school or that laptops must be used.

2. Contracting with the ISP - Family or School?

One other consideration that we want to put before the FCC is that of who owns the contract with the ISP: It could either be the school or the family and there are pros and cons to each. If families own the contract, this promotes the family “taking ownership” of broadband, which is in keeping with the National Broadband Plan. If and when the E-rate program ends, it is far more likely that the family will continue paying for Internet service. The benefits of the schools owning the contract is that they will not have to be concerned about the ability of their families to pay their bills consistently. In addition, schools would have authority as the owner of the account to cancel it if a family was not in compliance.

3. Displacing Commercial Revenue

There are some who may raise concerns about E-rate displacing commercial revenue the ISP providers receive from households. We feel we have mitigated this effect to a great degree by insisting that E-rate funding only be provided for schools with high poverty statistics. This effect will be further mitigated for schools or school districts that choose to use an option like OpenDNS to allow access only to school-selected sites because, in this case, families must purchase a separate broadband service if they wish to use it for non-educational purposes.

HOW THIS INITIATIVE WOULD PLAY OUT -- A SCENARIO

Just to give a scenario of how the *Home Learning Environment Enhancement Program* would work, imagine this: The “America School District” puts forward a proposal for initiating a school-home program with the entire sixth grade of “Our School” – a school with 90% of the students eligible for free/reduced lunch. The “America School District” proposal includes rolling out a suite of highly-rated online software, training for teachers, and special Saturday workshops for students and their parents. The proposal also includes using a software product like CFY’s to monitor usage of the Internet at home and insists that parents sign a use policy document. If their proposal is funded, the “America School District” has stated that they plan to secure discounted Internet service from a local provider.

The USAC reviews the proposal and decides to fund it. (Based on the district’s overall percentage of free/reduced lunch, it is eligible for a 50% discount from the E-rate program.)

The school district now releases an RFP for discounted Internet service. The Internet Service Provider that responds with the best discount is “Mars, Inc.” This company offers service at \$20 per month, which is \$10 less than the usual \$30 per month they require. The “America School District” selects “Mars, Inc.” as the winner of the RFP. E-rate now pays \$10 of the monthly costs for all the families served. For the remaining \$10 per month, the school can either pay this amount or it could structure an agreement with “Mars, Inc.” so that the company itself has a relationship with each family. In this case, each family would pay the remaining \$10 per month for themselves.

CONCLUSION AND RECOMMENDATIONS

A vibrant Home Learning Environment, including technology-based resources, is integrally connected with school and student success. Research has shown that, for school-based technology immersion efforts to be successful, expanding Internet access at home with the right training and support for both parents and teachers is essential.

Recommendation #1: We urge the FCC to boldly push for providing full E-rate support for Internet access service for learning outside of school.

Recommendation #2: We urge the FCC to frame this issue in terms of the value of the Home Learning Environment and the school-home connection. The United States is currently lagging behind Europe (particularly the U.K.) in designing programs to improve students’ HLE. We believe that by expanding E-rate support for use off-premises, the FCC can enable the U.S. to become the global leader on this issue.

Recommendation #3: We urge the FCC to widen its definition regarding what type of devices and Internet service can be used. There should also be no requirement that the equipment be owned by the school.

Recommendation #4: We urge the FCC to consider our proposed *Home Learning Environment Enhancement Program* as a viable path to expanding E-rate support for Internet access off-premises. This program was purposefully designed to piggy-back on the current E-rate infrastructure. It also incorporates findings from the current academic literature to ensure as great an impact as possible on student learning and achievement. In short, this program addresses identified obstacles and considers the needs and goals of all key constituents including schools, families, service providers, and the FCC.

Recommendation #5: We urge the FCC to consider using additional funding sources for the *Home Learning Environment Enhancement Program*, such as Lifeline.

Sincerely,



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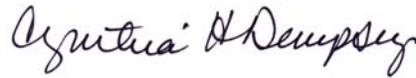
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