

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

**Lifeline and Link Up Reform and
Modernization**

WC Docket No. 11-42

Lifeline and Link Up

WC Docket No. 03-109

Federal-State Joint Board on Univers:

CC Docket No. 96-45

**Advancing Broadband Availability Th
Literacy Training**

WC Docket No. 12-23

**Digital Literacy
Reply Comments of the University of Alaska
Office of Information Technology
May 1, 2012**

Summary

The University of Alaska (UA) supports the FCC's ambitious goal of expanding digital literacy training opportunities to all 103 million low-income and impoverished Americans, especially in those communities where broadband adoption is low. Nevertheless, UA has the following concerns:

1. UA finds that the concept of universal service is neither accepted nor understood nationwide. We encourage the FCC to openly and actively re-embrace and promote the concept of universal service in its thinking about how best to ensure that all Americans become digitally literate.
2. UA has reservations as to the limited funding proposed for the project, the source of that funding, the means used to identify communities in need of digital literacy training opportunities, and the potential overlap and duplication with other federal and state agency digital literacy programs. UA recommends that the FCC step back and concentrate on raising national awareness of the importance and value of digital literacy, while commissioning a report on the state of digital literacy training in the U.S. and how the lack of digital literacy impacts broadband adoption.
3. Further, UA feels it is not an appropriate time to launch a \$200 million USF-funded digital literacy initiative when the \$5.237 million demand for E-Rate support is almost twice the available funding and when Priority 2 E-Rate funding may not be awarded for the first time in program history because of the sheer scale of Priority 1 demand; instead, UA recommends that the FCC concentrate on

strengthening the E-Rate program to better meet the current demand by full funding all Priority 2 requests; and,

4. Finally, while U.A. does believe that working through schools and libraries would be an efficient approach to digital literacy training, but that if the FCC chooses to proceed with a digital literacy training initiative, it should not work *solely* through these anchor institutions to reach out to low-income populations simply because not all communities – particularly low income communities – have these anchor institutions and because tens of millions of Americans live in Census Designated Places (CDPs) - rather than Census recognized communities - in which there are few if any anchor institutions or where the nearest anchor institutions are at a considerable distance. We recommend that in addition to schools and libraries, other anchor institutions such as community colleges, tribal organizations, and community groups, be eligible to provide such digital literacy training.

Who We Are

The University of Alaska (UA) provides post-secondary education, certificate and degree programs, and vocational and workforce development throughout Alaska and, increasingly, it does this by providing distance education opportunities throughout the state. With campuses in three major urban centers (Anchorage, Fairbanks and Juneau) and community colleges in eleven rural hub communities, the University relies heavily on broadband in its daily operations for the delivery of educational content throughout the state. A significant part of UA's budget already goes to telecommunication costs and to the maintenance of what the FNPRM has described as "sufficiently robust" bandwidth, whenever and wherever it is available. Yet UA continues to find itself at a disadvantage in providing educational services to its most needy constituents: those in isolated, remote communities. UA has found that satellite-delivered broadband, which serves the greater part of the state, is simply not robust nor affordable enough for purposes of distance education and does not provide the same quality of service as terrestrial broadband technologies.

UA's interest in USF reform in general and these dockets in particular is due to our commitment to the many enrolled and potential students in rural and remote areas of Alaska who need faster, more reliable and affordable connectivity for purposes of distance education. UA believes that maintaining an informed state citizenry - one interested in and knowledgeable about developments in advanced telecommunication technologies and their deployments - is an essential component in maintaining public support for universal service and the key to the eventual deployment of robust broadband to all Alaska communities. Familiarity with the modes of broadband delivery and availability in one's own community in order to make informed consumer choices is a basic component of digital literacy. Furthermore, the concept of universal service is itself fundamental to the very meaning of 21st century nationhood: as the United States commits to a digital, networked future, Americans must have a common, continuously evolving basic level of digital literacy so that these skills can be used to efficiently work together to successfully meet the many challenges the nation faces.

Digital Literacy and The Concept of Universal Service

Today, to be an active, informed and fully enfranchised citizen participating in the public arena means that one must be connected to the national network and not at some vague point in time in the future. The FCC is to be congratulated for initiating this public discussion of digital literacy but seriously underestimates the scope and scale of the problem. As we embark on a multi-faceted, long-term effort to make all Americans aware of the value and benefits - if not the necessity - of becoming digitally literate, we must also be prepared to assist low income Americans and populations as required.

To this end, the FCC must actively re-embrace the concept of universal telecommunication service, which seems to have been forgotten if not rejected in the National Broadband Plan. Universal service does not mean *some*, nor *most*, but *all*. By definition, universal service is meant to be all-inclusive, leaving no community, household, or individual behind in terms of the opportunity to access advanced broadband services, however these may be defined at any given point in time in the future. Universal service is not just some vague sense of duty to others, but a specific commitment by those in the network to enable those outside the network to join in, whether the obstacle to accessing advanced network service is availability, affordability, or digital literacy.

In the absence of a sustained telecommunications research and development agenda by the FCC or another federal agency for broadband deployment technologies in rural and remote area, blithely writing off at least 250,000 people - as the National Broadband Plan did when it said it would be prohibitively expensive to connect these rural and remote users, who must instead content themselves with satellite services – is neither universal, nor is it reasonable or comparable.¹ By drawing this exclusionary conclusion with little research or any on-going effort in deployment technology innovation, the National Broadband Plan created a category of second-class citizenship in terms of digital literacy; unfortunately, a national citizenry will never be fully literate in the digital sense in the absence of *equitable* access to advanced network services and applications. The reluctance of the FCC to adequately explain and clearly advocate for universal service is undermining its statutory obligations and goes counter to the explicit statutory intent of the 1996 Telecommunications Act.

Rural and remote areas know what it means to be left behind. The only question is “for how long?” The FCC is moving rapidly in the right direction in many areas and yet the digital divide between those with access to fiber and those relegated to relying on satellites is rapidly growing, despite the half-step transition in many communities to microwave deployments, which is a demonstrably inferior terrestrial build-out technology. Unfortunately, merely reforming the High Cost Fund into a Connect America Fund does not remove or even reduce the high costs of rural and remote networks: waste, fraud and abuse aside (WFA), these costs remain essentially the same, whether expenditures are on broadband services or digital telephony. The Commission’s efforts to contain the Universal Service Fund by capping and reorganizing its individual programs, while perhaps necessary from a WFA perspective, is being interpreted by some as the first step toward the elimination of universal

¹¹ Who is it that decided spending \$14 billion on universal telecommunication services is too expensive? Where are the FCC reports on U.S. battlefield broadband technologies and how those can be deployed ubiquitously throughout the U.S., including to the 250,000 consigned to traditional commercial satellite services? And what will be the cost to society of hundreds of thousands if not millions of children born and raised off the network?

service. The Commission must work to re-build popular support for, and a common understanding of, the continued need for universal service.

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UA Reply Comments are organized by FNPRM paragraphs 423 – 447. Each paragraph number is followed by the FCC text and queries in italics and then the corresponding UA comment in un-italicized fonts.

B.

Advan

cing Broadband Availability for Low-Income Americans through Digital Literacy Training

423. Against this statutory backdrop, we seek comment on our legal authority to use universal service funds to support digital literacy in general and digital literacy training in particular. Should the directive to provide “access” be understood to include the ability for consumers to use the services once they have access to them?

Yes. The concept of access, defined as “permitting use” of a thing or service, must include the removal of major obstacles to accessibility if access is to be achieved. A service that is essentially not accessible one that is incapable of being used even when it may be technically “available.” The unavailability of broadband services is itself the first obstacle to broadband access, which, once resolved, may be followed by lack of broadband affordability, and then lack of ability to make effective use of broadband, i.e., lack of understandability. For example, making a traditional library available to someone who cannot read is not making that library useful - or truly accessible - to the person who is illiterate. Similarly, the availability and affordability of broadband services alone may not make it accessible to the potential user who is without the needed skills and abilities, i.e., *the digital literacy*, to make effective use of the service.

If functional accessibility requires the removal of major obstacles to effective use of an available service, then those obstacles should be removed whenever it is reasonably possible, with priority given to the greatest number of people deprived from broadband access by any particular obstacle. While lack of availability and affordability still remain large obstacles to broadband adoption, lack of digital literacy differs in that it can be resolved through self-education. The mere availability and affordability of broadband services can often in themselves serve as adequate incentive for non-adopters to become digitally literate *when an opportunity to do so is encountered, whether formal or informal in nature.*

Outside of schools and libraries and job development programs, the on-going spread of digital literacy mostly occurs through traditional face-to-face social networking: more often than not, the trainer is a colleague, family member or friend and the “training” occurs when there is a particular problem to be solved or need to be met. The motivation for achieving digital literacy which comes from within the individual is usually more successful and continuous than that brought about through external, coercive methods. The goals of the FCC in the promotion of digital literacy should be limited to providing broadband awareness and support for the expansion of existing training opportunities, especially to low income communities by the many organizations currently involved in this arena:

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Just as the Commission has long relied upon sections 254(c)(3) and 254(h)(2) to provide support for internal connections to enable access to the Internet in classrooms, could we also authorize funding for training to enable library patrons to effectively utilize the Internet access provided at libraries

This is not particularly clear. While effective utilization of the Internet should be a national priority, digital literacy training should not be funded from E-Rate, Rural Health Care monies or any other USF program until it is clear that these programs are stable and adequately funded to meet their own purposes and goals. When the FCC is having great difficulty in maintaining its current programs without a continuous rise in the contributions factor, which is now at an all time high, a digital literacy initiative would represent mission creep.

To achieve widespread availability of digital literacy training with its limited funding, the Commission might better concentrate on raising national awareness of the value and benefits of digital literacy using traditional media for outreach (i.e., television, radio, newspapers, magazines, websites, etc.), thereby encouraging the private sector, especially non-profits, to fill the actual training gap. Remarkably, both widespread digital cell phone adoption and use – including World Wide Web searches, YouTube video creation and viewing, Tweeting, etc. – has succeeded even in the absence of any FCC-funded training for cell phones. The FCC might promote inexpensive tools to bridge the gap between smart phone use, table devices, and traditional computers, e.g., development of free smart phone apps that teach and measure digital literacy skills and knowledge.

or to enable parents and other members of the community to learn the skills to use E-rate funded connections at School Spots across the country?

Yes, certainly so, but before basing a digital literacy program *solely on the participation of schools and libraries*, the national importance of Census Designated Places (CDPs),² unincorporated communities³ without municipal governments, should be recognized and fully understood since these are often communities where high percentages of low income families can be found.

A CDP constitutes a single, closely settled center of population that is named but unincorporated.⁴ CDPs have no population minimum and the Census Bureau even recognizes that some communities are seasonal and may lack populations at certain times of the year. This is particularly true in Alaska where communities (e.g., fish camps and canneries) flourish when the weather is warm but close down in winter, though even in winter there is always some evidence of a permanent community in the form of "...houses, barracks, dormitories, commercial buildings and/or other structures..." as the Census Bureau requires this for a CDP designation.

In Alaska, there are well over three hundred CDPs;⁵ nationally, there are probably around 5,000 CDPs, *in addition* to the 25,000 or so incorporated places in the U.S. In 1990, some 66 million people – more than 20%

² See http://www.census.gov/geo/www/cob/pl_metadata.html#cdp

³ In 1980, the Census Bureau replaced "unincorporated community" with "census designated place." <http://www.census.gov/population/www/documentation/twps0027/twps0027.html>

⁴ See http://www.census.gov/geo/www/psap2010/cdp_criteria.html

⁵ See Census Designated Places (CDPs) by Proclamation District, Prepared by the Alaska Redistricting Board http://www.akredistricting.org/Files/PROCLAMATION_COMMUNITIES.pdf

of the national population at the time— lived in CDPs.⁶ As unincorporated communities without municipal services *and often without any anchor institutions*, these communities compose the heartland of the unserved and underserved. If the FCC is to meet its “... goal of ensuring the availability of broadband service for low-income Americans” using broadband penetration rates among low-income Americans as an outcome measure for this goal, then it must also take into account the significant presence of low-income Americans in communities without anchor institutions.

The distribution of anchor institutions varies widely across the United States. On average, only about half of US “places” have public libraries. Do not confuse a public library (where there may or may not be a public computer center available for purposes of training) with its service area (where patrons must drive from another community for service or else be served by bookmobile). ALA may argue that every US community is served by a library (e.g., through a state-wide books-by-mail program), but with only 17,000 or so libraries (including branches and outlets) and more than 30,000 communities (incorporated and CDPs), it is clear that only every other community actually has a *local library*. UA fully supports the comments of the Alaska State Library on behalf of Alaska public libraries, at the same time, however, UA that digital literacy in Alaska cannot be fully addressed by libraries, or even schools and libraries. In Alaska, schools must have a minimum of ten students to receive state support; communities with fewer students with fewer students must rely on flying, boating, ATVing, snowmobiling, busing, or home-schooling.

While there are over 300 recognized communities in Alaska there are only around 100 Alaska libraries. In contrast, almost every Alaska community has a Rural Health Care center, where bandwidth is not multi-purpose and still not accessible to the community at large.⁷ In other states, however, there may be hundreds of communities without rural health care centers. Obviously, in the absence of schools and libraries, what anchor institutions communities have will vary widely from state-to-state and according to the vibrancy of a local economy, and, in a CDP or an unnamed place, the sense of community and of volunteerism. *The problem is that the communities most in need of digital literacy assistance may have neither public libraries, nor school spots, nor even schools themselves.*

Communities without schools transport their students by bus (in Alaska, by plane, boat, etc.) to communities with schools. If the FCC chooses to rely only on schools and libraries to deliver digital literacy services, will it also support the transportation of adult residents of communities without anchor institutions to communities which have such institutions? Low-income Americans value their time just as everyone else, especially if they are working more than one job, will they, given the high price of gas, be willing and able to drive to the nearest community digital literacy program for training?

Perhaps a more efficient and economic alternative, or complement, to digital literacy training through anchor institutions would be a series of free, online training and testing module (resulting in a certificate?), and/or a series of widely distributed half-hour television shows on public television and cable channels, with interaction via email support for those already connected.

The FCC’s digital literacy training initiative must be flexible enough to include America’s outliers, those isolated communities without schools or libraries. These are the very communities which should be receiving priority in digital literacy training funding and which should be able to substitute the most logical alternative

⁶ “Not everyone resides in a place; in 1990, approximately 66 million people (26 percent) in the United States lived outside of any place, either in small settlements, in the open countryside, or in the densely settled fringe of large cities in areas that were built-up, but not identifiable as places.” <http://www.census.gov/geo/www/GARM/Ch9GARM.pdf>

⁷ Although a sensitive topic, the idea of making rural health care clinic bandwidth available after hours and when not needed for higher-priority medical purposes, much in the way school bandwidth is now available to the wider community at the discretion of school authorities, may be worth further investigation.

locations for training projects, e.g., a community meeting hall, youth center, town hall, church, etc., in which to hold the training. Digital literacy trainers may have to be much like judicial circuit riders of centuries past and travel to where low-income residents live, whether or not there is a local school or library there. This means thinking more imaginatively about how to raise digital literacy awareness, e.g., through mass mailings, radio, cable TV programming.

424. We seek comment on whether promoting digital literacy would serve the objective of providing support that is sufficient but not excessive, so as to not impose an excessive burden on consumers and businesses who ultimately pay to support USF.

Without doubt, digital literacy skills will continue to migrate toward more and more advanced applications (i.e., past Web 2.0 to Web 3.0 and beyond) just as greater broadband speeds and platforms enable an increasingly immersive and integrated digital environment. What is important in the next 5-10 years is to: (a) reach out and teach *the generations who were not “born digital”* (and therefore not introduced to computers and the digital world by the time they were in high school, i.e., those who are over 45 years of age or older) the skills they need to succeed and prosper in this new digital environment; and, (2) to set high standards for children and students in K-12 and higher education for digital literacy training that will continually evolve and turn three students into life-long learners of digital literacy skills.

By providing more consumers with the requisite skills to use broadband, we could expect to see more demand for broadband, which would improve the business case for broadband providers to deploy and expand networks and offer services to all consumers. Increased broadband penetration rates could reduce the need for Connect America Fund subsidies to enable broadband networks in high cost areas to provide service at reasonably comparable rates. As the Commission explained in its most recent Broadband Progress Report, obstacles to broadband adoption, such as poor digital literacy, are barriers to infrastructure investment because they reduce the revenue available to providers who invest in broadband.

This will only be the case where low-income Americans value broadband and can invest in it as a monthly payment *as soon as they have received digital literacy training*. It also assumes that their disposable monthly income is sufficient – once basic necessities (e.g., housing,⁸ heat, food, clothing, medical assistance, etc.) are paid – to also pay for an on-going broadband subscription, or, in the alternative, that the household is eligible for an adequate future broadband subsidy under Lifeline. The third possibility is that the newly digitally literate can use a local public computer center or facility, which, despite increasing demand, would still be able to provide sufficient bandwidth through its traditional funding sources, e.g., E-Rate, and thereby indirectly promote local broadband infrastructure investment. It should also be noted that when we offer digital literacy training for broadband services in rural Alaska, we have been accused of raising false expectations by those who have been trained many times before and how frustrated they are to learn about applications which are not currently supported by the bandwidth available locally.

⁸ “With more households choose renting over homeownership, the demand for affordably priced rental housing is surging, pushing rents upward and vacancy rates down. These trends have the most severe implications for extremely low income (ELI) households (those earning at or below 30% of area median income). *Out of Reach 2012* findings show that for extremely low income Americans, including those on fixed incomes, finding an affordable, decent apartment continues to be incredibly challenging.”
<http://nlihc.org/oor/2012>

The Commission recognized that one of the most significant barriers to investment in broadband infrastructure is the lack of a “business case for operating a broadband network” in high-cost areas “[i]n the absence of programs that provide additional support.” In addition, to the extent digital literacy contributes to consumers’ ability to search for, secure, and keep jobs, targeted investment in digital literacy could, over time, help reduce demand on Lifeline by reducing unemployment. Consistent with court holdings that the “purpose of universal service is to benefit the customer, not the carrier,” would providing digital literacy training be a way to lessen demand for both low-income and high-cost funding, and thereby reduce contribution obligations on consumers and businesses?

No, rather the opposite. Digital literacy will *not* suddenly elevate those who receive training out of poverty or even, by itself, enable them to afford broadband services by getting a job *when there are no jobs available*; over the long-term, telework employment could gradually increase, but that remains to be seen and is largely dependent on overall recovery of the economy and job market. In the short term, digital literacy training will actually *increase* demand for both low-income and high-cost funding: (a) by increasing participation in Lifeline among the more than 50% of low-income Americans who are eligible but un-enrolled; and, (b) by creating an abrupt jump in demand for increased bandwidth in unserved and underserved areas where network investments cannot be recouped through subscription rates alone and still remain “affordable,” even with Lifeline support. The additional publicity provided by sites like *cheapinternet.com* and the programs being offered by Connect to Compete partners like Best Buy and Microsoft will only further serve to increase the demand for Lifeline subsidies.⁹

425. In the wake of the 1996 Act, the Commission implemented the directives in section 254 by adopting rules to administer universal service through four functionally separate programs – high cost, low-income, E-rate, and rural health care. Our current rules direct USAC, the USF program administrator, to project program demand separately for those four programs, and to keep separate accounts for the amounts of money collected and disbursed for each program. Nothing in the statutory framework, however, dictates that the Commission must keep these four programs functionally separate from one another, or precludes the Commission from creating a new program that is administered separately from existing programs, so long as that program is consistent with our statutory authority. We therefore seek comment on whether a digital literacy program should be administered through the existing E-rate program, the low-income program, or as a separate program outside of the current structure of any of the existing programs. What are the practical and administrative implications of each of these alternatives?

The best use of any Low Income reform savings might be to raise the cap on the E-Rate program from the current \$2.25 billion to meet the existing demand for E-rate funding. Provided projected savings are actually achieved¹⁰ and *if the Commission finds that digital literacy training is more important than providing schools and libraries with full funding for improved Internet connectivity*, then it might make sense to administer this

⁹ “So the Best Buy Geek Squad’s contribution is to offer basic digital literacy training sessions in 20 major cities around the country. But they don’t stop there. The Geek Squad will work with work with community non-profits to train them how to train additional people. Finally, industry leader Microsoft has agreed to build an online digital literacy training center for people who live in smaller cities that aren’t large enough for in-person digital literacy classes. And that’s just the beginning. Microsoft will also offer valuable Microsoft Certification training sessions in 15 states. These certifications, normally quite expensive, can help you land a job or improve your career.” <http://www.cheapinternet.com/low-income-internet/connect-to-competite> You can bet Alaska is not one of these 15 states: the Matthew principle strikes again!

¹⁰ See the Comments of the Montana Telecommunications Association, among others.

new, short-term (4-year) program within an existing program. E-Rate and/ or Low Income are the logical programs to host the digital literacy training initiative. *In any event, current e-rate monies, including roll-over funds now being used to pay for Priority 1, should not be used to fund digital literacy training.*

426. *Digital Literacy Training. We seek comment on whether universal service funding for digital literacy should be focused on training programs. By reducing the digital literacy skills gap, training programs could help consumers, and particularly low-income Americans, who have not yet adopted broadband to gain the digital skills necessary to adopt broadband. Connect Ohio, a BTOP grantee that offers digital literacy training classes in libraries and community centers across Ohio, found that approximately 87 percent of consumers who took formal digital literacy classes said they intended to subscribe to broadband at home within a year as a result of the training, demonstrating the effectiveness of digital literacy training as a tool for increasing broadband adoption.*

Unfortunately this study only documents the *stated intention* of those trained in digital literacy to subscribe to broadband, not whether they actually have subscribed. This finding is reminiscent of the well known story told in MBA programs about the marketing launch of a salt free pickle, which everyone said they would buy but which no one did buy when it was brought to market. There are still many other obstacles which could intervene to prevent broadband adoption by the newly digitally literate, obstacles the FCC or others should identify and study before embarking on a digital literacy initiative. Among these are: (a) a lack of computer ownership or convenient access to a computer (e.g., at a local public library); (b) lack of affordable broadband services, and (c) a lack of on-going, local IT assistance as needed; and, (c) lack of perceived need for or value in broadband adoption and use.

In addition, the FNPRM neglects to query about the negative aspects of digital services, e.g., lack of security and loss of privacy. As a society we have yet to successfully confront or manage these issues, though the Chairman has recently been drawing attention to former.¹¹ These are increasingly serious problems that are not being adequately addressed at industry or government levels and therefore present an ever- growing obstacle to broadband use as more and more Americans have their identifies stolen online, their credit cards phished, their medical information compromised, or their computers infected by viruses and taken over by bots, etc.

All of these dangers and maladies of the digital environment must be sufficiently explained in digital literacy training so that broadband users understand the risks and are prepared to take reasonable precautions. It may well be that many Americans have already made a deliberate decision, well informed or not, to forego learning digital literacy skills because of their understanding of the current risks. In the long run, digital literacy training must overcome this reluctance on the part of many Americans to enter the digital world by realistically confronting the negative features of digital life and showing how these are far outweighed by the increasing benefits of broadband services and applications.

We seek comment and data on the effectiveness of formal digital literacy training classes, and the benefits such training provides as compared to informal digital literacy guidance that may be provided by librarians and others to consumers who have not adopted broadband.

Both are forms of training are definitely needed, formal training to provide a foundation upon which on-going

¹¹ FCC Chairman Julius Genachowski. *Prepared Remarks on Cybersecurity*, March 22, 2012, at http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0322/DOC-313161A1.pdf

needs can be met and updates provided through informal guidance and periodic online training. Digital literacy is not a one-time event, but rather an on-going process, equivalent to life-long learning, Apart from what is learned at work or in school, higher levels of digital literacy are largely achieved through continuous consultations with friends, family and/or acquaintances with a broader and deeper knowledge of digital literacy skills..

Today, digital literacy is neither well-defined nor well-developed as a curriculum, nor is it widely recognized as a profession or even a specialization, despite the expectation that it will be with us as a competitive area of knowledge acquisition and skill development for the rest of our lives. At this point in time, digital literacy is largely attained through experimentation and experience with digital products and driven by the industries developing digital tools and applications. Children and youths are not waiting for formal training or informal guidance but learning on their own and from one another. It is extremely difficult for adults, even teachers, to stay on the cutting edge of digital literacy, given their other responsibilities. Digital literacy training has gone viral among youth and it is a bit of an anachronism to even promote formal digital literacy training since the Internet and its end user devices are designed to be learned through exploration and experimentation, with young people actually encouraged to try and break these tools, if possible, so that better ones can be constructed.

Only adults seem to have inadequate time and contacts to follow this trial and error approach to digital literacy. It is even a fair question to ask whether digital literacy can be taught at all, particularly without hands-on training. Perhaps what can be taught is more precisely described as learning behaviors and techniques appropriate to a digital environment that enable lifelong self-learning.

As a preliminary step, the FCC could make some attempt to distinguish digital literacy from digital competence, media literacy, technology literacy, ICT skills, financial literacy, etc. In other words, what would the grantees of any digital literacy program expected to teach? Has the FCC identified a core curriculum that should be taught at a minimum? According to a 2010 ACM and CSTA study, in K-12 education, states are "... focused almost exclusively on skill-based aspects of computing (such as, using a computer in other learning activities) and have few standards on the conceptual aspects of computer science that lay the foundation for innovation and deeper study in the field (for example, develop an understanding of an algorithm)."¹² From the text of the FNRPM, it would seem that the FCC has assumed a similar focus for its digital literacy program: learning with computers and online services. Here is one list for a core curriculum:

- Basic financial literacy: online banking, ATM use, etc.
- Resume writing
- Distance learning opportunities
- Personal healthcare
- Social network
- e-books

<http://www.ictliteracy.info/ICT-Training.htm>

¹² *Running on Empty: The Failure to Teach K-12 Computer Science in the Digital Age*, Association for Computing Machinery and the Computer Science Teachers Association, 2010. 74 pages
<http://www.acm.org/Runningonempty/> or <http://csta.acm.org/Runningonempty/>

Should it proceed, the FCC could use its digital literacy program to spur the definition of a basic level of digital literacy much like what is achieved through ESL classes. Nationwide, digital literacy training is highly uneven and compartmentalized. When taught formally, it is largely presented as slide presentations without hands-on experience or in task-specific, hands-on modules to selective audiences, broken out by age groups, by job descriptions, by vendor-specific products and services or other categories, or a combination of the two approaches.

Much as with the BTOP and BIP broadband grants, the FCC and the nation may be best served by looking at its multi-year investment in digital literacy training as producing a test bed for the identification of best practices, including: (1) the appropriate scope of digital literacy training; (2) the development of appropriate content, and (3) the most effective methodologies and best practices for digital literacy training of specific audiences, i.e., lower-income Americans, non-English speakers, seniors, etc. At a minimum, to foster networking and collaboration among grantees, the FCC should plan to host or fund an annual meeting where participating grantees share their training materials, experiences, and metrics so that data collected can be merged for nationwide analysis and comparison as to the most successful approaches.

427. Although some digital literacy training programs are already being offered, many Americans who haven't adopted broadband still may not have access to digital literacy training, because it may not be offered where they live or because the service may be offered through a program or institution that is only available to certain populations. For example, a local area senior center may provide computer or Internet classes, but the mission of these institutions and the people they serve is limited to the elderly. Of the approximately 16,800 public libraries in the United States,¹³ only about 38 percent currently provide formal digital literacy training.¹⁴ Providing additional funding for digital literacy training that is free and open to all consumers, for example through programs offered at libraries and schools, could help close that gap by ensuring that all Americans, particularly low-income Americans, can access the benefits of digital literacy training.

Yes, very true, though the FCC does not have sufficient funding to ensure that *all* low-income Americans – all 103.7 million of them¹⁵ - actually take digital literacy training. Unfortunately, the 68 million or so low-income and impoverished Americans who are non-adopters of broadband are probably unaware of existing online digital literacy opportunities and they have explicitly indicated in past Pew Foundation *Internet and American Life* surveys that they are not very interested in subscribing to broadband anyway: so how does one convince them to attend digital literacy training?

Obviously, the training has to be given at very low cost or for free and made as convenient as possible, but it must also be associated closely with events that people do want to attend, or be presented as a ticket that must

¹³ See Funding & Technology Access Study, Public Libraries and Access, Information Policy & Access Center at 1 (2010-2011 data presented) (*iPAC Information*), available at www.ala.org/plinternetfunding. See also How Libraries Stack Up: 2010, OCLC at 1 (2010) (*OCLC Research*), available at www.oclc.org/reports/stackup

¹⁴ See Library Tech Report at 33, Figure C-17.

¹⁵ A brief summary of the recent dispute as to whether 1 in 2 (48%) or 1 in 3 (32%) U.S. households are low-income or impoverished can be found in *The Slate* column of December 15, 2011, at http://slatest.slate.com/posts/2011/12/15/census_1_in_2_americans_are_poor_or_low_income.html and in *Census Bureau clarifies poverty numbers* by Sharon Bernstein, NBCLosAngeles.com <http://usnews.msnbc.msn.com/news/2011/12/16/9500721-census-bureau-clarifies-poverty-numbers>

be “punched” to receive additional benefits for which they may be eligible (e.g., Lifeline?). Are we, as a nation, simply going to subsidize Netflix and AppleTV to the home before the recipients have a basic knowledge of the wide variety of services and products available over the Internet, particularly those of an interactive nature which can turn passive couch potatoes into active minds, if not active bodies?

Furthermore, funding digital literacy training programs could provide not only an immediate infusion of resources, but also produce a more sustainable impact by fostering the development of curricula and training skills that would serve as building blocks for future digital literacy training programs run without USF support.

For a limited time period, possibly so, though less likely because digital literacy training materials can quickly date and need to be continually revised to be relevant and accurate. Over the past year, the NTIA’s digital.literacy.gov website has rapidly expanded its resource database and FCC funding of digital library programs throughout the nation could bring greater attention to this repository and greater use of the materials NTIA has indexed and evaluated. Grantees who develop digital literacy content of their own should be required to have it included at the digital.literacy.gov site.

Accordingly, we seek comment on whether funding digital literacy training is an effective way to help close the digital literacy gap and thereby increase demand for and the availability of broadband to low-income consumers and others.

Despite the growing collection of digital literacy training materials available for free over the Web, the long-term (e.g., 6 years) funding of high-quality, continuously updated digital training tools made freely available in multiple formats (printed materials, teachers manuals, online class curricula, digital videos, self-guided modules on DVDs, audio books, e-books, etc.) and their widespread marketing might be far more important than funding a limited number of digital literacy training classes at a limited number of locations to a small percentage of the low-income Americans who need such training. For example, the FCC could choose to invest \$5 million (\$1.5 million in years 1-2, and \$0.5 million in years 3-6) into the development and marketing of digital literacy tools and content, taking a centralized approach to publicizing and distribution of such materials, using existing high quality materials whenever possible, which grantees would be free to use as they see fit in their local training programs, but which low-income Americans (and, in fact, all Americans) could also directly access for purposes of self-learning.

This project could be accomplished through a competitive RFP process or by the convening of a blue-ribbon commission of experts charged with producing the materials.¹⁶ Communities can usually find volunteers (e.g., high-school seniors, retirees, etc.) who already have a greater level of digital literacy than the rest of the local population to provide training, but what these volunteers do not have, and what librarians and K-12 teachers do not have either, are quality, continuously updated course materials available for free, in a variety of convenient formats. The complexity of digital literacy extends from *devices* (smart phones, tablets, and

¹⁶ The FCC should take a close look, if it has done so not already, at the more than five years of work by the U.S. Department of Treasury and that Financial Literacy and Education Commission with respect to financial literacy, which overlaps directly with digital literacy when it comes to online banking. See <http://www.treasury.gov/resource-center/financial-education/Pages/commission-index.aspx>; the FCC might also consider a Presidential Proclamation of a “Digital Literacy Month,” in addition to the months’ already dedicated to traditional literacy (reading and writing) and financial literacy, i.e., <http://www.whitehouse.gov/the-press-office/2011/03/31/presidential-proclamation-national-financial-literacy-month>

computers) to *online systems and environments* (networks, the Internet, World Wide Web, cloud computing), and from *applications* (word processors, document layout and publishing, spreadsheets, web browsers, social networks) to *online tasks* (banking, job searches and employment applications, eGovernment uses, web searching, music and photo management). Advanced digital literacy is infinitely expandable in scope and depth and no one really knows what the future holds until the born-digital generations have lived out their life spans.

We also seek comment on how to ensure that the non-adopters we are targeting are aware of and can access the digital literacy training programs that are established as a result of our providing funding. Are there ways to utilize the expertise of other government agencies, groups or organizations to assist us in better targeting digital literacy training?

Besides cooperation and coordination with the Financial Literacy program of the U.S. Department of The Treasury, which clearly overlaps with broader and more general digital literacy requirements, the FCC should also seek advice and assistance from such centers of as the Syracuse Center for Digital Literacy,¹⁷ which is updating its S.O.S Information Literacy project (2001-2010) materials from 2008 Information Literacy Standards for the 21st Century Learner,¹⁸ and which has partnered with Syracuse University's School of Information Studies and Burton Blatt Institute to provide a high quality, comprehensive, train-the-trainer continuing education program for school librarians teaching students with disabilities.¹⁹

428. Funded Entities. We seek comment on what types of entities should be eligible to receive digital literacy training funds, consistent with our statutory authority, efficient program design, and the targeting of the funding towards low-income consumers. Many have advocated that libraries are effective institutions for digital literacy training, while schools, particularly those offering School Spots pursuant to the E-rate Community Use Order and NPRM, could be effective as well. Does our authority allow funding received from savings in the Lifeline program to be directed to libraries and schools through our current E-rate program?

Yes. The Commission's authority would also permit any savings from Lifeline – should they be realized - to be used to raise the E-Rate cap to fund the unmet demand for E-Rate support, which might be a better and more efficient use, especially if schools can be offered incentives to be open after school hours in order to serve the broader community. To date there are very few School Spots nationwide and there will not be more until additional incentives are given to pay schools for overhead and staff salary supplements for extended hours to provide for digital literacy training.

On the other hand, the FCC should realize that School Spots will never be entirely free to the schools: when schools renew their broadband service contracts, their broadband rates will inevitably go up because of the additional usage. It is naïve to assume that contracted broadband which is not being used is somehow “wasted” and that therefore additional users can be added at no cost after school hours. Broadband providers manage their networks based on usage patterns and overall data throughput; they adjust their pricing accordingly. Although in the initial installation of fiber - when the network has not been saturated - vendors may allow anchor tenants to exceed contracted bandwidth speeds and throughput, bandwidth is never “dedicated” in any real sense except by an SLA (Service Level Agreement) which provides a guaranteed rather than “best effort” bandwidth, but for which a premium must be paid.

¹⁷ <http://digital-literacy.syr.edu/>

¹⁸ See <http://digital-literacy.syr.edu/projects/view/62>

¹⁹ The Center received a 2010 IMLS Laura Bush 21st Century Librarian grant for [Project ENABLE](#) (Expanding Nondiscriminatory Access By Librarians Everywhere).

Could this minimize administrative overhead and provide a ready means to prioritize or limit receipt of funds to libraries and schools in low-income areas?

Yes, should the FCC decide to proceed with its digital literacy initiative, this would be a good approach, but as mentioned above, the FCC should be careful not to limit its digital literacy outreach to only those communities with public schools and libraries: it should provide an alternative form of outreach and training for communities without public libraries or schools. However, if this mechanism were chosen, an additional priority funding category of Digital Literacy could be added streamlining paperwork for these entities.

Alternatively, as part of the low-income program, could USF funding be provided to ETCs that apply for additional support for the purpose of providing digital literacy training in locations like libraries that are targeted to low-income communities?

In the absence of community anchor institutions, this might be a possibility but this approach would create conflicts of interest for ETCs, or at least the appearance of conflicts of interest, in that ETCs would be using their own products and services to teach digital literacy, as opposed to a neutral trainer like a librarian or teacher, who might cover a variety of devices in their training.

In addition, ETCs receiving grants for digital literacy training offerings would have an unfair advantage against competitors who do not receive grants, and would be naturally inclined to teach what they know best, i.e., their own and their partners products, services and content.

As a last resort and where no other expertise is available, this approach may be necessary in small, isolated communities with little or no competition broadband services, through periodic on-site visits by ETC staff. The location of the training could still be a problem.

We also seek comment on whether to provide funding to ETCs that participate in the high-cost program, conditioned on their offering digital literacy training to consumers in their service territory

More logically, the FCC might consider making ETC participation in the Lifeline program conditional on a formal or informal digital literacy training program services to be given at public locations such as schools and libraries. However, it should also be noted that general experiences with such vendor-sponsored training have been mixed, with many sessions sparsely attended. Nevertheless, ETCs already invest heavily in television, radio, and newspaper advertising; direct mail campaigns; and partnerships with organizations and agencies that serve Lifeline-eligible consumers as documented in Paragraph 416 of the Order. These forms of outreach could be refocused to promote digital literacy awareness and elementary digital literacy tips.

Are there anchor institutions better suited to serve low-income non-adopters than schools and libraries, or perhaps in addition to schools and libraries?

In some cases, yes, especially where there are no schools or libraries.

If so, what are they, and how could we target them? If so, what are those terms and how should those terms be defined, given the stated purposes of the Recovery Act?

In the context of digital literacy, a “community anchor institution” could be any organization that offers free or low-priced broadband access and ICT training and assistance on a continuing basis. The problem with such a definition is that very few institutions, even among those currently listed in the statute, actually do serve the entire public at large rather than a defined subset which is often created by means of a business relationship requiring membership and/or a payment of some kind. The major institutional exception to this is public libraries, where membership is generally defined geographically and where most payments are indirect via local taxes, and yet tourists from anywhere are generally served (the notable exception being the borrowing of materials, though this too is occasionally allowed with a covering deposit).

Even if it is possible to draw a hard line between “public” and “private” organizations, as long as private organizations are willing to provide broadband and ICT services to the general public they should not be excluded. In fact, most community colleges, like K-12 and higher education institutions, serve relatively defined clienteles which pay directly or through taxes for their services. Besides libraries, community colleges, and other institutions mentioned in the act, senior centers; youth centers (e.g., YMCAs); tribal centers and other organizations with public service programs (e.g., unions, farmer associations, broadband providers, etc.) should be added to the list, which should remain flexible and open to even further additions.

The important distinction is between profit-making and non-profit operations. In unserved and underserved areas, where there is rarely a public library in every community, the anchor institution might turn out to be the local computer store, or even the local cable company or telco, whether ILEC or CLEC. Additional candidates for anchor institution status might include the following:

- Community stores (single, all-purpose stores that serve as gathering points)
- Fire Stations
- Police Stations
- Post Offices
- Tribal Offices

The other important distinction between anchor institutions is whether they are “public” or not. Libraries are public in the absolute sense of serving the general public in a given community; schools, however, are public in a more limited sense, i.e., they serve children and their parents, but not adults in general. Health care facilities are public as well, but are defined narrowly in terms of their functions. Thus, schools and health care facilities do not provide public broadband access, nor do they generally teach ICT skills to the broader public, but rather use broadband access on behalf of their specific clienteles, namely children and the sick. The majority of public anchor institutions do not directly facilitate broadband deployment in terms of increasing awareness and demand, but rather facilitate residential deployment indirectly by strengthening the business case for bringing broadband to the community in the first place.

For example, would Tribal government administrative buildings or other community centers be more accessible and better suited to serve low-income non-adopters on Tribal lands?

Yes, the entire \$200 million over four years could be put to good use by tribal libraries and centers, which would allow the program to be tailored to the needs of Native Americans. For example, the Maniilaq Tribal Association in Northwest Alaska, provides community computer support to remote villages through its Inutek program. It also provides remote training to village health aides via its videoconferencing network. Expansion of programs such as this could serve a broader segment of the rural population.

429. Libraries are open to the general public during operating hours, while digital literacy training offered by schools to non-students would presumably be offered only outside of school hours. In addition, libraries may be open during the evenings and on weekends, which could increase the opportunities for digital literacy classes to be held at times when people could attend them. Furthermore, for millions of Americans, libraries have become established institutions where people feel comfortable accessing the Internet, and libraries are a known place in the community where people may already go to seek help in becoming digitally literate. For example, data shows that approximately 32 percent of the American public 14 years or older have accessed the Internet using a library computer or wireless network at least once in the last 12 months. Additionally, this access is highest among low-income and working poor, people of mixed race, 14-18 year olds, men, and non-English speakers. Schools can also provide meaningful opportunities for digital literacy courses and potentially reach non-adopters, although they may be more limited in their reach and purpose – focusing primarily on students and their immediate families and on digital citizenship, a concept that teaches how to appropriately and safely use technology and the Internet in a technology-rich society.

This may all be true but addressing the problem of digital literacy through schools and libraries alone will not reach a majority of the digitally illiterate for these reasons stated in the reply comments for other paragraphs.

430. We propose to limit funds to entities that do not already offer formal digital literacy training services so that USF does not displace existing funding sources for such training, whether derived from public or private sector sources. Further, to encourage outreach to the community, we propose that any digital literacy training supported in schools be limited to those schools that offer community access after regular school hours.

School digital literacy funding by itself will not have the desired effect unless schools are provided with additional financial incentives to offer community access after regular school hours. These incentives would need to include funding for additional staff salaries or overtime, for actual overhead expenses incurred (e.g., heating, lighting, etc.). In most states, school funding is legally limited to providing K-12 *student education and services* and cannot in most instances be easily expanded to the community at the discretion of the school. Those kind of actions, which might indirectly reduce financial resources available for student education and services, would require school board approval which is unlikely if the expansion of services to the community can be shown to have a negative impact on educational funding available for students.

We propose to establish these eligibility criteria to encourage the development of new digital literacy training programs for the purpose of helping those people without digital literacy skills gain access to digital literacy training. We believe these criteria will further the goal of promoting universal service, instead of simply funding programs that already exist. We seek comment on these criteria, and whether they will promote the goal of expanding access to and demand for broadband among populations that disproportionately lack digital literacy skills, particularly low-income consumers. We also seek comment on whether we should limit funding only to “communities” that are not already served by digital literacy programs, such as BTOP-funded programs designed to teach digital literacy skills. For purposes of administering such a requirement, how should we define a “community” such that we could determine what community would not be eligible for digital literacy training funding?

Given the FCC’s goal articulated in Paragraph 416 of the FNPRM, communities with less than 10-25% low-income residents should not be eligible for the digital literacy training funding. Those communities should be able to structure and fund digital literacy programs of their own, if they do not already have such programs.

Should the Commission establish additional eligibility criteria, and, if so, what should those criteria include?

No comment.

431. We also seek comment on the criteria for selection of recipients in the event that demand exceeds available funding. Research shows that certain demographic populations, such as the elderly, disabled, low-income, and non-English speaking populations, need more help with digital literacy. Accordingly, for example, funding could be prioritized to areas, such as census tracts, that have more low-income consumers. Should we direct funding to low-income areas?

Yes. That should be the top priority. It has the added advantage of being objectively adjusted by the % of low income population in the event demand exceeds available funding.

432. If so, at what level and based on what criteria?

At the most granular level possible to provide digital literacy training opportunities to the smallest pockets of poverty.

433. Should we direct funding to entities serving elderly, disabled, bilingual, Tribal or non-English speaking populations?

Yes, but the proposed funding is *inadequate* for that purpose unless these populations are to be given priority. Even then it is probably not enough since bilingual and non-English language training is disproportionately more expensive.

434. How would we verify that these entities serve the targeted population? The census data show that rural areas generally have higher non-adoption rates than urban areas. Should we establish a rural priority for the funding if the demand exceeds the amount we ultimately adopt for this program?

Yes, that would seem to logically follow.

432. On the other hand, if demand does not exceed available funding, should we consider funding existing programs or entities that have already received funding for digital literacy training?

Yes, especially if they can demonstrate continued unmet need for such training among low-income patrons, clients or local residents. Any community with large populations of untrained, low-income non-adopters should be eligible for funding, even if they have an existing digital literacy program, if the demand for training has not yet been met.

Should we consider funding programs focused on particular digital literacy skills, e.g., job searching, e-government services, or financial services?

Yes, those should make up part of a common core of basic digital literacy skills that the FCC program should first identify; this is the approach already taken by most libraries, i.e., to meet the expressed needs of their

patrons first, though these specific task-oriented training session can be part of or supplemented by a formal digital literacy core curriculum. Student motivation is always higher when the knowledge transfer proceeds through the “pull” of student need and interest, rather than trainer “push” of what it is thought the student should know.

We propose that the Wireline Competition Bureau provide USAC with detailed criteria and guidelines for determining which applicants receive funding if the demand exceeds the amount available. We seek comment on delegating this authority to the Bureau.

It is recommended that the FCC or the Wireline Competition Bureau develop an objective mechanism in advance for determining awards in the case of excessive demand. This mechanism should be described in the program rules issued prior to the opening of the application window. For example, priority could be given to those applicants who have a higher percentage of low-income population in their service area in order to reach those most in need of training.

433. Funding Levels and Duration. We seek comment on how to fund digital literacy training without increasing the overall size of the Universal Service Fund. Could we use funding reclaimed through savings in one USF program to advance digital literacy, potentially administered through another program?

Yes, but this would set a bad precedent and would create anxiety among the different program participants, creating divisive acrimony if the remaining funds for any program are insufficient to achieve its goals and purpose. For this reason, the majority of existing program participants probably see this as an unfunded self-imposed mandate of the FCC symptomatic of mission-creep which, if it is to proceed, should find its funding outside the USF and be administered outside of USAC.

Could, for instance, digital literacy training be administered in conjunction with the current E-rate program, but be funded through savings realized by measures we adopt today to eliminate waste, fraud, and abuse in the Lifeline program, or by savings realized in high-cost support?

Yes. But this is a bad idea for the reasons sated above. First use of the savings should be used to meet other needs of the program from which the savings were derived, e.g., as E-Rate roll-over funds have been used. When a program is functioning smoothly and meeting all of its mandated goals and purpose, then and only then might the savings be used to assist another program which is not meeting its goals or achieving its purposes. The burden of proof for such a transfer of funds should be set high.

434. Would up to \$50 million in annual funding over a four-year period appropriately balance the goal of advancing digital literacy for Americas that lack such skills, such as low-income consumers, with minimizing the USF contribution burden on consumers and businesses?

No, the FCC has seriously underestimated the number of low-income Americans, the scale of the digital literacy problem, and its enduring nature: \$50 million for face-to-face training would be a mere band-aid on a national malaise that has its roots in language illiteracy.

There are currently estimated to be 53.8 million low-income and 49.9 million impoverished Americans, for a

total of 103.7 million, about 32% of the U.S. population.²⁰ If it is true that 64% of low-income Americans do not subscribe to broadband (as implied in Paragraph 116: "... 32 percent of the American population has not adopted high-speed Internet at home, and the percentage of non-adopters among low-income Americans may be as much as double the national rate".) of the FNRPM, then the FCC's digital literacy program's top priority goal is to provide digital literacy training opportunities to 66,368,000 low-income and impoverished Americans. In response to this challenge, the FCC has proposed a four-year program with a total funding of \$200 million. Unfortunately, digital training can not be delivered to almost 66 million people for a cost of something over \$3 per person, even if all of those people actively wanted to attend such training, which – at this point in time – they do not. They will need convincing and that means publicity, which is expensive. The FCC's entire proposed funding might be better spent on a national publicity campaign as to why digital literacy is important (and becoming more important) to everyone if the U.S. is to remain economically competitive.

Would this level and duration of funding appropriately balance advancing digital literacy for Americas [sic] that lack such skills, such as low-income consumers, with minimizing the USF contribution burden on consumers and businesses?

No, it would fail to meet the ambitious goal set out in paragraph 416 of the FNPRM: to ensure "... the availability of broadband service for low-income Americans and adopted broadband penetration rates among low-income Americans as an outcome measure for this goal. The overall impact of the proposed plan on digital literacy would be significant but would fall short of providing training opportunity to all low-income Americans.

To aid commentators in addressing the impact of this amount of funding, we offer an example of how a digital literacy training program could be structured if libraries and schools were the primary recipients of funding and the program were administered through E-rate; we also estimate the likely number of libraries and schools such a program could reach.

435. Through E-rate, eligible schools and libraries may receive discounts from for eligible services, including telecommunications services, Internet access, and internal connections As noted above, section 254 gives the Commission authority to designate additional services eligible for support through E-rate. The Commission also has determined that it has the authority to designate services eligible for E-rate support as part of its authority to enhance access to advanced telecommunications and information services for all public and non-profit elementary and secondary school classrooms and libraries, to the extent technically feasible and economically reasonable If we were to administer support for digital literacy training through E-rate, we seek comment on designating certain additional services as eligible for funding for entities that separately apply and are authorized to receive such funding. We also seek comment on whether we can designate these services as eligible under a different USF program.

UA feels it is not an appropriate time to launch a \$200 million USF-funded digital literacy initiative when the \$5.237 million demand for E-Rate support is almost twice the available funding and when

²⁰ *The Slate* of December 15, 2011, at http://slate.slate.com/posts/2011/12/15/census_1_in_2_americans_are_poor_or_low_income.html, provides this figure, together with a more accurate interpretation of Census data than appeared in many other news sources, e.g., [Census shows 1 in 2 people are poor or low-income](#), USA Today, December 15, 2011.

Priority 2 E-Rate funding may not be awarded for the first time in program history because of the sheer scale of Priority 1 demand; instead, UA recommends that the FCC concentrate on strengthening the E-Rate program to better meet the current demand by full funding all Priority 2 requests.

436. A recent study of libraries shows that there are a number of challenges to establishing and maintaining a robust digital literacy program, including limited funds to hire staff, provide training, and acquire the tools and resources to provide digital literacy training to patrons. Accordingly, we seek comment as to whether any of the following specific services to advance digital literacy should be added to the Eligible Services List (ESL) as supported services eligible for E-rate program funding support if digital literacy support were administered through the E-rate program:

- *Labor costs for trainers: dedicated personnel to provide digital literacy training for a minimum number of hours per week;*
- *Staff training for the trainers: providing effective in-person digital literacy training courses, including supporting costs for in-person training, conferences, and online training;*
- *Curriculum development: staff time developing curriculum, purchase of training content for in-person digital literacy classroom courses, one-on-one training, and online tutorials;*
- *Software and materials to facilitate in-person digital literacy training;*
- *Marketing: staff time spent on marketing the training classes, including time spent developing marketing materials as well as printing and advertising costs;*
- *Volunteer recruitment: staff time spent on recruiting and training volunteer digital literacy trainers; and*
- *Administrative costs: staff time spent administering the program, including scheduling the classes and reserving rooms.*

In the alternative, if the digital literacy program were administered through the low-income or the high-cost program, would the costs of these specific services or activities be appropriate to support and how would the support be disbursed through those existing programs?

437. We seek comment on whether these are the digital literacy resources that USF funding should support. Are there other necessary resources that digital literacy training funding should support?

Publicity and advertising for existing training programs; a national public awareness program about the growing importance of digital literacy.

If so, what are they and why are they vital to providing digital literacy training?

Where there are public libraries with existing digital literacy training programs that have been unable to reach out fully to their low income patrons, it makes sense that they receive funding to do so.

438. We also seek comment on whether and how funding should be allocated across libraries and schools. Is it reasonable to assume that libraries are better situated to provide digital literacy training to low-income consumers, and therefore that an allocation of digital literacy funding such as 80 percent to libraries and 20 percent to schools would be appropriate?

No. Low-income communities are less likely to have libraries than high-income communities, while schools are found more or less equally in both low- income and high-income communities. There are over more than 81,000 public schools with libraries in the U.S. but less than 10,000 public library administrative units with less than 17,000 buildings.²¹ Funding libraries at 80% and schools at 20% would not make sense: it would only strengthen the existing infrastructure imbalance by rewarding those communities which already have multiple anchor institutions. Digital literacy funding priorities should be the following: (1) communities without schools or libraries; (2) communities with a school but no public library; and (3) communities with public libraries which do not currently offer technology or digital literacy training, i.e., approximately 2/3 of public libraries.

Does this allocation between two groups of eligible entities allow for sufficient funding to encourage the development of sustainable digital literacy training programs?

If distributed in a competitive grants process, probably yes, but only in a hodge-podge of selected communities not in most low-income communities. Low-income communities will not be able to sustain digital literacy training programs without continuous funding. They are finding it hard enough to sustain their public libraries, if they are lucky enough to have one.

If not, what would be a better allocation.

A better allocation would be to weight the distribution of funds to communities with the largest percentage of students on the school free lunch program, data already collected by E-Rate, until the funding is expended, much like Priority 2 is distributed under current E-Rate procedures.

439. We estimate that approximately \$15,000 a year would be sufficient to cover the cost of approximately eight to 10 hours of digital literacy training per week at one funded location (e.g., one library or school) If we structured the support to provide up to \$10,500 per library or school per year, requiring that the participant matches [sic] this funding by providing an additional \$4,500 per year, each entity would have a total of \$15,000 per year to use for digital literacy training.

Many schools and libraries cannot come up with adequate E-Rate local match in today's economy and will be unable to find \$4500 for digital literacy training.

A program structured in this way could provide funding to nearly 4,800 entities annually within a \$50 million annual budget.

²¹ American Library Association at <http://www.ala.org/tools/libfactsheets/alalibraryfactsheet01>

Given that there are over 100,000 public schools and libraries, the proposed structure will only fund 5% of the eligible entities. Since the FCC's goal is to ensure "...the availability of broadband service for low-income Americans..." and to adopt "... broadband penetration rates among low-income Americans as an outcome measure for this goal," then the FCC must restrict its funding based on need, i.e., on a showing of general poverty or low income within a community.

We note that providing funding for digital literacy training to 4,000 libraries could increase the percentage of public libraries that provide formal digital literacy training from 38 percent to about 60 percent.

Yes, but this is irrelevant to meeting the FCC's goals if these additional libraries are not located in low-income communities or economically depressed regions. Even if they are, 60% of libraries only represents something over 30% of U.S. communities (25,000 incorporated + 5,000 unincorporated), so there should be no illusion that the proposed program is effectively addressing the size of the digital literacy divide between haves and have-nots.

Nevertheless, in terms of potentially training the maximum number of people for the minimal cost, the FCC's proposal would seem to be the most efficient way to proceed with limited funding; however, given its much broader responsibility, should that be the FCC's goal? Is it an appropriate first step to offer digital literacy training opportunities to a mix of high-, medium- and the most well-off of low-income people, living in communities with anchor institutions, or is it's a more appropriate goal for the FCC to provide training opportunities to the true outliers in the U.S. economy, whose who live in communities largely without anchor institutions or infrastructure? Obviously, monies spent on these communities will not go as far because they are harder to reach, may not have a suitable building for teaching digital literacy, and may not have robust bandwidth available because they are limited to satellite, with its many deficiencies.

440. We seek comment on this structure and its impact. Would a \$15,000 annual program budget per entity be sufficient to support a digital literacy training program?

That would all depend on the size of the community being served. Independent of number of persons trained, only a few costs are fixed. Funding based on per trainee/attendee costs would seem more appropriate than funding per entity. Training costs in small, isolated low-income communities will be significantly higher than in larger, urban low-income communities, particularly if face-to-face trainers need to be flown in and housed for one or more nights.

Would that level of support allow eligible entities to provide meaningful training programs in the community?

In some cases, it might be somewhat excessive, e.g., in a single, small public library with just a few computers in a small community of 100 or less; while in others, e.g., a large public library system with a dozen branches and 10,000 low income patrons, it would prove totally inadequate.

How many low-income non-adopters could be reached with such a digital literacy training budget?

At most, perhaps one million at a bargain basement price of \$50 per head. This would represent approximately 1% of the 66 or so million low-income Americans (25-30 million households) who have not

adopted broadband. Because of the FCC's limited proposed budget, perhaps the entire initiative should be looked at as a train-the-trainer exercise with a "pass-it-on" obligation. The only way to lower will already be low face-to-face training cost is to provide training through video-conferencing and/or online. But the program is caught in a Catch-22 since if one is trying to reach low income Americans who are not connected and who may not own computers. This is why the key eligible entities should be *schools and libraries serving low income populations*. If even 100,000 low income Americans could be trained each year, it might be deemed successful beginning, which is all that one can hope for with the allocated funding which has been proposed..

Would ensuring digital literacy training is available in 60 percent of libraries as well as nearly a thousand schools be sufficient to ensure that all or nearly all low-income Americans who have not adopted broadband have access to a digital literacy training program?

No, not as calculated in answers given above. How could it possibly if there are 50% of communities without libraries and the program as proposed would only reach 1,000 of 80,000 schools?

Should a priority be established for schools and libraries on Tribal lands, which historically have lagged behind in terms of both infrastructure deployment and subscribership?

Yes, but may not be necessary. A needs-based disbursement of funds will probably include all but the very richest tribes. The important thing is to get the participation of schools and libraries on Tribal lands: what is their current participation in E-Rate? How many tribal communities are in areas without libraries? Without schools?

Is the \$10,500 USF/\$4,500 entity contribution (i.e., a 30 percent match, equivalent to the 70 percent discount rate in the E-rate program) a reasonable balance between USF funding and entity contribution, or would there be a greater impact if we required a smaller match and funded a smaller number of entities?

A smaller match AND greater number of entities is required, therefore smaller grants with free materials are necessary. Perhaps larger grants could go to statewide organizations on a competitive basis for a centralized, cookie-cutter approach to achieve an economy of scale, e.g., just 50 grants awarded, with an emphasis on video conferencing and online training, coordinated with a national publicity campaign promoting digital literacy awareness.

Is a \$4,500 entity contribution an attainable amount for most libraries and schools?

No.

If not, what would be a reasonable amount?

In the current economy, \$1000 to \$50 on a sliding scale based on the budget of the school or library is about all that many libraries can afford.

Should the contribution amount be different for libraries and schools?

Yes.

If so, on what basis and what should the amount be?

Provide materials in advance for free and base the amount awarded on the number of people actually trained. Pay the full amount to trainers or their organizations only after the training has been completed and documented. Make initial commitment letters based on the poverty level in the community and number of expected attendees. Reduce the payment if attendance is less than expected, increase it if there still is community demand from savings resulting for low attendance in other communities. Make payment within 30 days of invoicing.

Should we establish different discount rates or match requirements for libraries and schools?

No.

If so, on what basis and what should they be?

Dispense with match altogether. Pay communities simply on the basis of the number of people trained.

We note that providing a set amount per entity, regardless of poverty level or urban versus rural location, is different from the way libraries currently receive USF funding. However, libraries have consistently maintained that the current structure is not ideal for the way libraries serve their communities. Given the objective of increasing the number of and access to digital literacy training programs, a funding framework different from the current USF funding structure could be beneficial. We seek comment on providing a set discount level for funding all eligible entities.

To repeat, schools and libraries should not be eligible unless they serve a local *low-income* community or area which compromises more than 25% of their students or patrons.

441. We seek comment on whether four years is an appropriate length of time to provide funding for digital literacy training. Should it be longer or shorter?

Four years is probably adequate to fully test this relatively small program. If it is successful, it should be expanded to new, unserved low-income areas.

Is four years sufficient time to improve significantly the digital literacy skills of low-income Americans and thereby increase broadband adoption?

Probably not, given the limited number of low income Americans who will be served and the fact that broadband is still not available in many rural, remote areas, which also tend to be those most affected by poverty.

Would funding for a shorter period of time discourage recipients from hiring permanent staff, fully implementing a digital literacy curriculum, and providing training?

Yes, probably so. On the other hand, residents in very small communities can all be trained in less than two years.

Will there be a continued need for digital literacy funding in the future?

Yes. Digital literacy has become a subject matter for life-long learning, a prerequisite and inherent component of social networks and interactions. Future funding will depend largely whether digital literacy training and curricula are fully adopted, supported and given priority in public and private schools, even when schools which are financially stressed as many of them are today. There will always be outliers, e.g., the 250,000 households that will cost \$14 billion to connect. If these residents are given adequate digital literacy training, perhaps they will be energized to go out and find the \$14 billion required to get themselves connected!

**442. *Admin*
*istrative Structure. We propose that any digital literacy training funding that might be established be administered through USAC. We anticipate the number of entities applying for funding to offer digital literacy training could be high, and USAC has the experience and the resources to process applications and distribute funding. We seek comment on this proposal. Is an alternative approach to administration preferable, and, if so, why and what should that approach be?***

Administration through USAC will probably mean that those public schools and libraries not participating in E-Rate will not participate in the digital literacy funding program: applying is simply not worth the administrative effort, or for lack of match. There may not be any of these left, but they are just the institutions in communities most in need of digital literacy training. Furthermore, limiting program administration to USAC probably means that those communities most in need of digital literacy training will not themselves apply and that someone will have to apply on their behalf and deliver the training to those communities. This is where the ETCs might be particularly effective, i.e., in institutions without anchor institutions. In those instances, ETCs can reach out not only to their existing customers but to all prospective customers in their areas of coverage.

443. We seek comment on whether there should be an annual application process, comparable to the E-rate process, or whether an eligible entity should be authorized to receive funding for the full four years upon initially satisfying any applicable requirements. Are there other methods of disbursing support that are more appropriate or more efficient considering the amount of support for each recipient and the number of anticipated recipients?

Could we utilize another government agency or organization to review applications or distribute the funds to recipients?

No, agencies external to the FCC should not be used to review applications or distribute funds to recipients. However, in publicizing the availability of digital literacy training, the FCC should partner with every agency that is already giving US citizens “online” deadlines, i.e., every agency which is requiring online banking and

ATM or credit card ownership by 2013.²² For example:

“The Department of the Treasury (Treasury), Financial Management Service (FMS), is amending its regulation to require recipients of Federal non-tax payments to receive payment by electronic funds transfer (EFT), effective May 1, 2011. The effective date is delayed until March 1, 2013, for individuals receiving Federal payments by check on May 1, 2011; and for individuals who file claims for Federal benefits before May 1, 2011, and request check payments when they file. Individuals who do not choose direct deposit of their payments to an account at a financial institution would be enrolled in the Direct Express→ Debit MasterCard→ card program, a prepaid card program established pursuant to terms and conditions approved by FMS. Treasury waives the EFT requirement for recipients born prior to May 1, 1921, who are receiving payments by paper check on March 1, 2013; for payments not eligible for deposit to a Direct Express→ prepaid card account; and for recipients whose Direct Express→ card has been suspended or cancelled. In addition, this rule establishes the criteria under which a payment recipient may request a waiver if the EFT requirement creates a hardship due to his or her mental impairment or remote geographic location.

Ironically, to follow and comment on eGovernment rule-making, one must already be digitally literate:

“In accordance with the U.S. government’s eRulemaking Initiative, FMS publishes rulemaking information on <http://www.regulations.gov>. Regulations.gov offers the public the ability to comment on, search, and view publicly available rulemaking materials, including comments received on rules. Comments on this rule, identified by docket FISCAL–FMS–2010–0003, should only be submitted using the following methods: Federal eRulemaking Portal: [http:// www.regulations.gov](http://www.regulations.gov). Follow the instructions on the Web site for submitting comments.”

444. If the funding were to be administered as part of E-rate, should we establish a separate filing window for digital literacy training applications?

No comment.

If a majority of funding is provided to libraries, would there be less need to tie the funding cycle to the calendar of a typical school year?

No comment.

Given the idea to provide a set amount of funding per applicant, linked to a specified number of hours of training per week, there may be less of a need for a competitive bidding process for eligible recipients to procure the necessary training resources and services. Does it generally make sense to apply the E-rate rules to this program?

No.

If not, why not?

The FCC should keep its eyes on the prize, which is continued high-speed connectivity to schools and libraries and not create new complications or distractions in the existing E-Rate program, which is complicated enough. The digital literacy initiative should be funded and administered outside the USF/USAC program so that it has no direct impact on the efficiency of program administration and funding.

If so, are there existing E-rate program rules that should not apply?

NSLP rules might be used to identify low-income communities.

²² *Don't wait for Social Security check in the mail*, Associated Press, April 16, 2012 at http://www.cbsnews.com/8301-501363_162-57414430/dont-wait-for-social-security-check-in-the-mail/

445. If digital literacy funding were to be administered as part of another USF program, what modifications to existing rules for that program rules should be made? Are there other USF program rules or requirements we should consider waiving or should not apply?

No. See above, Paragraph 444.

446. We also seek comment on the content and the format of the application forms. Should we amend any of our current forms or create new forms only for the purpose of providing digital literacy training support? What data should be submitted along with the digital literacy funding application?

New forms should be created in order to keep the digital literacy initiative as simple as possible.

How would applicants be required to demonstrate they are contributing the requisite amount of funding?

They would demonstrate this through their contribution times the number of people trained.

We propose to delegate the development of any new forms to the Bureau, and we seek comment on this proposal.

447. What reporting requirements and certifications should be imposed on recipients of funding, and how would we ensure that the minimum number of hours of training per week are provided?

The easiest solution is to pay for the training (as opposed to curricula development) – perhaps in 30 days or on a quarterly basis - after the training has been provided, i.e., a reasonable billing cycle.

Should we require recipients to report to the Commission and/or to the public the number of individuals that receive training, the number of individuals receiving training that go on to adopt broadband at home, and/or any other metrics?

Absolutely

If so, how frequently should such data be reported?

Quarterly.

Is there other information that would enable us to monitor the impact of using universal service funds for this purpose?

Without asking for personally identifiable information, require each trainee to send you an email or fill out an online questionnaire as part of the training curriculum. This could be as part of a form evaluating the training. In and of itself, this would also serve as an indication of some level of digital literacy.

How often should funding be disbursed – annually, quarterly, monthly, or some other interval?

See above.