

TABLE OF CONTENTS

I. INTRODUCTION 1

II. PRESERVING AN OPEN INTERNET IS ESSENTIAL FOR RESEARCH, EDUCATION, THE FREE FLOW OF INFORMATION, AND OTHER PUBLIC INTEREST BENEFITS PROVIDED BY INSTITUTIONS OF HIGHER EDUCATION AND LIBRARIES 4

 A. The Values of Openness, Research, Learning and Freedom of Expression that Define the Internet Reflect the Higher Education Culture in Which the Internet was Conceived 5

 B. Higher Education and Libraries Bring the Benefits of the Internet to Segments of the Population that are Often Not Served by the Commercial Sector 6

 C. Higher Education and Libraries Remain at the Forefront of Internet Innovation... 9

III. ENFORCEABLE NET NEUTRALITY RULES ARE ESSENTIAL FOR PRESERVING THE UNIQUE AND VITALLY IMPORTANT CHARACTER OF THE INTERNET TO PROMOTE RESEARCH, LEARNING, EDUCATION AND THE FREE FLOW OF INFORMATION..... 11

 A. The Commission Should Retain its Ban on Paid Prioritization..... 11

 B. The Commission Should Retain Its Firm “No Blocking” Policy for Both Mobile and Fixed Broadband Providers..... 14

 C. Net Neutrality Rules Should Be Technology-Neutral 17

 D. Net Neutrality Rules Should Continue to Apply to Public Broadband Providers and Not to Private Networks or End Users..... 17

 E. The Commission Should Retain Transparency Rules Which Ensure Information about Data Caps and Bandwidth Speeds are Displayed Prominently and Clearly to Consumers and Edge Providers 18

IV. AS MARKETS EVOLVE AND INTERNET PROVIDERS CONSOLIDATE, THE COMMISSION HAS ALL NECESSARY AUTHORITY TO MAINTAIN OPEN INTERNET RULES SUFFICIENT TO PRESERVE THE CHARACTER OF THE INTERNET AS AN OPEN PLATFORM FOR EDUCATION, RESEARCH AND FREE SPEECH..... 20

 A. The Classification of Public Broadband Internet Access Service as a Title II Common Carriage Service Provides a Sound Basis for Preserving an Open Internet 20

 B. Section 706 Offers an Effective Alternative Path to Preserving an Open Internet22

V. CONCLUSION..... 25

APPENDIX A 28

APPENDIX B 30

EXECUTIVE SUMMARY

Institutions of higher education and libraries depend upon an open Internet to carry out their educational and civic missions, and to serve their communities. Our organizations remain concerned that broadband Internet access providers that offer services to the general public (*i.e.*, public broadband Internet access providers) face increasing financial incentives and growing opportunities to block, degrade or discriminate against certain content, services and applications. We thus continue to support the maintenance of strong, enforceable net neutrality policies and rules to protect and promote an open Internet. While Title II provides a sound legal foundation for the current rules, the overwhelming concern of our organizations is the maintenance of strong, enforceable rules that will ensure an open Internet.

In these comments, we review higher education’s role in the birth of the Internet, and how the Internet was inspired by and infused with certain values that originated in our community. These values – of openness, research, learning, and freedom of expression – were integral to the development of the Internet and remain critical to its vitality and continued evolution today. Higher education’s mission to serve and enrich society is tied to a truly open Internet that preserves those values.

We then discuss our continued support for clear rules that preserve an open Internet for higher education, libraries and the communities we serve. Specifically:

- The Federal Communications Commission (FCC or Commission) should retain its ban on “paid prioritization”;
- The Commission should retain its firm “no-blocking” rule and “no throttling” rules, barring public broadband Internet access providers from degrading delivery

or otherwise interfering with the consumer's choice of content, applications, or services;

- Net neutrality rules should be technology-neutral and should apply equally to fixed and mobile services;
- Net neutrality rules should continue to apply explicitly to public broadband Internet access service and not to private networks or end users;
- The Commission should retain current transparency rules which ensure consumers and edge providers have ready access to information about data caps and bandwidth speeds.

Finally, we discuss why Title II offers the strongest legal foundation for enforceable net neutrality rules sufficient to protect and promote the openness of the Internet. Maintaining Title II classification provides valuable certainty to the marketplace and places public broadband Internet access service on an equal regulatory footing with other communications services. With respect to the Commission's proposed cost-benefit analysis of bright-line net neutrality rules, we urge the Commission to recognize the qualitative public benefits higher education and libraries provide through access to an open and neutral public Internet.

As an alternative to Title II, we discuss how the Commission could establish enforceable net neutrality standards under its Section 706 authority. If the FCC chooses to implement rules under Section 706, we propose utilization of an "Internet reasonable" conduct standard that will reflect the unique character of the Internet as an open platform for innovation, freedom of speech, research and learning. We explain that such a standard need not constitute a common carrier regulation and would establish a presumption against certain conduct – a presumption that

would be rebuttable by public broadband Internet access providers if they can show the challenged conduct is in the public interest.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Restoring Internet Freedom) WC Docket No. 17-108

COMMENTS OF

AMERICAN ASSOCIATION OF COMMUNITY COLLEGES
AMERICAN ASSOCIATION OF STATE COLLEGES AND UNIVERSITIES
AMERICAN COUNCIL ON EDUCATION
ASSOCIATION OF AMERICAN UNIVERSITIES
ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES
ASSOCIATION OF RESEARCH LIBRARIES
EDUCAUSE
NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS
AND THE NATIONAL ASSOCIATION OF INDEPENDENT COLLEGES AND
UNIVERSITIES

I. INTRODUCTION

The American Association of Community Colleges (AACCC), the American Association of State Colleges and Universities (AASCU), the American Council on Education (ACE), the Association of American Universities (AAU), the Association of Public and Land-grant Universities (APLU), the Association of Research Libraries (ARL), EDUCAUSE, the National Association of College and University Business Officers (NACUBO), and the National

Association of Independent Colleges and Universities (NAICU)¹ welcome the opportunity to submit these comments in response to the Notice of Proposed Rulemaking in this proceeding.²

Our nation’s research libraries and institutions of higher education are leaders in creating, fostering, using, extending and maximizing the potential of the Internet for research, education and the public good. Research libraries and institutions of higher education depend upon an open Internet to fulfill their missions and serve their communities.³

Our organizations are thus extremely concerned with the prospect of this Commission reversing current net neutrality rules that now protect the openness of the Internet. While Title II provides a sound legal foundation for current rules,⁴ the overwhelming concern of our organizations is the maintenance of strong, enforceable rules that will ensure an open Internet. Broadband providers that serve the general public (which we refer to herein as “public broadband Internet access providers” and which the FCC has traditionally defined as mass-market retail broadband services) have the financial incentive and the opportunity, absent strong, enforceable network neutrality rules, to sell higher priority access to certain content providers

¹ Brief descriptions of each of these organizations are contained in Appendix B.

² *Restoring Internet Freedom*, Notice of Proposed Rulemaking, FCC 17-60 (rel. May 23, 2017) (*RIF NPRM*). The signatories to these comments representing institutions of higher education and research libraries re-articulated our key Net Neutrality Principles in a March 30, 2017, letter to Chairman Pai and his colleagues (*Libraries and Higher Education Net Neutrality Principles*, available at <http://glenechogroup.isebox.net/library-and-education-internet-freedom/higher-education-library-groups-urge-fcc-chair-to-uphold-net-neutrality-principles?default=AAx8h27e>; attached as Appendix B). These principles are vital to ensuring the Internet continues as a vital hub for our nation’s civic, intellectual, and economic life. These comments offer more detailed discussion of the benefits of these Principles and respond to specific questions raised in the NPRM. Please note the American Library Association, a signatory to the above-referenced letter, has filed separate comments in this proceeding.

³ While our comments reflect the views of the higher education and research library organizations, we note that libraries of all types, governmental organizations, elementary and secondary educational institutions, community-based organizations and other similar organizations whose missions are to serve the public interest benefit from an open Internet as well.

⁴ See *United States Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir 2016) (*USTelecom*) (upholding reclassification of broadband internet access services as a telecommunications service properly regulated under Title II of the Telecommunications Act, *reh’g en banc denied*, No. 15-1063, 2017 WL 1541517, at *1 (D.C. Cir. May 1, 2017).

and to discriminate against other providers that do not have the resources to pay for enhanced access. With consolidation involving the telecommunications industry expected to accelerate,⁵ these concerns will only grow if the Commission fails to maintain effective network neutrality protections. Allowing public broadband providers to degrade or discriminate against library or higher education content is unacceptable to our organizations because it will jeopardize our institutions' ability to fulfill their public interest missions of research, education, and service.

Our organizations therefore strongly urge the FCC to maintain enforceable rules that ensure an open Internet. Whether through Title II or other means, the FCC has all necessary authority to sustain such rules. Maintaining Title II classification can provide valuable stability to the marketplace by keeping public broadband Internet access service on an equal regulatory footing with other communications services. If, however, the FCC decides to again reclassify public broadband Internet access service, the FCC should strive to maintain current net neutrality rules using its authority under Section 706.

Our comments proceed as follows:

- First, these comments will explain why protecting and promoting an open Internet is so vitally important to the missions of institutions of higher education and libraries, as well as to the students, teachers, researchers, library patrons and communities they serve.

⁵ See, e.g., Reuters, *JP Morgan sees US telecom sector consolidation, T-Mobile deal*, CNBC, Jan. 23, 2017, <http://www.cnbc.com/2017/01/23/jp-morgan-sees-us-telecom-sector-consolidation-t-mobile-deal.html> (“U.S. telecom sector could be on the brink of a major consolidation . . . said JP Morgan Securities, which now sees a 90 percent chance of T-Mobile US being involved in a strategic transaction in the next five years.”) David Shepardson and Jessica Toonkel, *AT&T-Time Warner may signal start of new media industry consolidation*, Reuters, Oct. 23, 2016, <http://www.reuters.com/article/us-time-warner-m-a-at-t-consolidation-an-idUSKCN12N0GD>.

- Second, these comments will explain the continued importance of current bright line net neutrality rules while responding to some of the issues raised in the *RIF NPRM*.
- Third, these comments will discuss why Title II continues to provide predictability and the best legal foundation for current net neutrality rules. They also explain, however, an “Internet reasonable” conduct standard the Commission could alternatively establish under Section 706; such a standard would protect an open Internet by establishing rebuttable presumptions against certain types of conduct.

II. PRESERVING AN OPEN INTERNET IS ESSENTIAL FOR RESEARCH, EDUCATION, THE FREE FLOW OF INFORMATION, AND OTHER PUBLIC INTEREST BENEFITS PROVIDED BY INSTITUTIONS OF HIGHER EDUCATION AND LIBRARIES

High-capacity broadband is the key infrastructure that libraries, community colleges, public and private colleges and universities, and many other institutions need to fulfill their public interest missions. These institutions rely on an open Internet both to retrieve and contribute content on the World Wide Web. In fact, the public interest missions of libraries and institutions of higher education are inextricably intertwined with the Internet. The democratic nature of the Internet as a neutral platform for carrying information and research to the general public is strongly aligned with the public interest missions of higher education and libraries.

The *RIF NPRM* proposes a cost-benefit analysis as a method to evaluate and ultimately attempt to quantify the economic value of various open Internet regulatory scenarios.⁶ While our

⁶ See *RIF NPRM* at ¶¶ 105-115.

organizations respect such an undertaking as a logical and potentially useful exercise, we observe that the value of an open Internet for education, learning, research and other public services is not easily measured or quantified. Certainly commerce is important and inherently quantifiable, but what of the public interest benefits to society broadly from the research, education, and public service functions our institutions fulfill?

Libraries and institutions of higher education provide essential Internet-based services and content to their communities and the FCC should not overlook our institutions' perspective as it considers the value of the current net neutrality regime.

A. The Values of Openness, Research, Learning and Freedom of Expression that Define the Internet Reflect the Higher Education Culture in Which the Internet was Conceived

The initial protocols for the Internet were developed by institutions of higher education, and universities were the first to deploy the private high-speed data networks that formed the test-bed for what later became the public Internet.⁷ The Internet arose from the same university mindset that promotes the open exchange of information, intellectual discourse, research, free speech, technological creativity, innovation and learning.⁸ This essential character of the Internet as an open, universal platform should be preserved by the FCC. Integrating the principles on

⁷ See, e.g., Barry M. Leiner, Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts, and Stephen Wolff, *A Brief History of the Internet* (1997), available at <https://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet> (“Due to [Dr. Leonard] Kleinrock’s early development of packet switching theory . . . UCLA was selected to be the first node on the ARPANET. All this came together in September 1969 when . . . the first host computer was connected. . . . Stanford Research Institute (SRI) provided a second node. . . . One month later, when SRI was connected to the ARPANET, the first host-to-host message was sent from Kleinrock’s laboratory to SRI. Two more nodes were added at UC Santa Barbara and University of Utah.”). There are several papers available here that document the role of university professionals in creating the protocols that developed into what we know as the Internet today.

⁸ See *id.* (“The Internet is as much a collection of communities as a collection of technologies, and its success is largely attributable to both satisfying basic community needs as well as utilizing the community in an effective way to push the infrastructure forward.”); *id.* (“a condition for a U.S. university to receive NSF funding for an Internet connection was that ‘. . . the connection must be made available to ALL qualified users on campus.’”)

which the Internet was developed – openness, innovation without permission, freedom of expression, and transparency – into the treatment of Internet access is especially important in today’s age when such access is primarily provided by commercial companies. Internet openness is an essential driver of the “virtuous circle” that both the FCC and the Appeals Court have recognized as the engine for Internet development.⁹ The unimpeded flow of knowledge, information, and interaction across the Internet enables the circle of innovation, user demand, and subsequent broadband expansion that has generated the dramatic social, cultural, and economic benefits acknowledged by the Commission, the courts, and the nation as a whole.¹⁰

B. Higher Education and Libraries Bring the Benefits of the Internet to Segments of the Population that are Often Not Served by the Commercial Sector

An open Internet is especially important for libraries of all types to serve the needs of the most vulnerable segments of our population, including those in rural areas, unemployed and low-income consumers, and elderly and disabled persons. Many libraries specialize in providing Internet access to all people, especially the roughly one-third of people who do not have broadband access at home. Public libraries offer the only no-fee public Internet access in many communities.¹¹ The general public depends upon the availability of open, affordable Internet access from their local K-12 school and public and higher education libraries to complete school homework assignments, locate e-government services, access oral histories and primary source

⁹ See *USTelecom*, 825 F.3d at 694 (“the Commission’s ‘finding that Internet openness fosters . . . edge-provider innovation . . . was . . . reasonable and grounded in substantial evidence’ and . . . the Commission had ‘more than adequately supported and explained its conclusion that edge-provider innovation leads to the expansion and improvement of broadband infrastructure.’”) (citing *Verizon v. FCC*, 740 F.3d 623, 644 (D.C. Cir. 2014)).

¹⁰ *Id.*

¹¹ As noted previously, the American Library Association has filed separate comments in this proceeding.

materials, find health information, learn from job-training videos and apply for jobs, download streaming media, upload and share their own digital content, and more.¹² The nation as a whole benefits when libraries and their patrons have access to open, high-speed, online information and services.

Similarly, colleges and universities make Internet access available to their entire student bodies, faculty, researchers and administrators. Through extension programs, colleges and universities use Internet access to benefit the community at large. Higher education institutions make the Internet accessible and plentiful so that it provides a foundation for Internet-based learning and experimentation. College students who may not have broadband at home are able to develop a familiarity with the Internet on campus that they can take with them to their jobs, their families and their lives after college. Furthermore, the majority of college students live off-campus, which means that students rely on the availability of the public Internet for access to increasingly media-rich courses and learning resources, academic and student support, faculty and peer collaboration, and more.

This is particularly the case for the rapidly growing population of students in distance learning or hybrid courses, where all or a significant portion of the learning process takes place away from campus.¹³ Distance learning and hybrid courses increase higher education access, making it possible for adult learners and other students to pursue their academic goals when a traditional, campus-based academic experience might make that infeasible. However, such

¹² Indeed, the U.S. does not have a long tradition of Internet cafes the way other countries do. So, not only might a library be the only no-fee Internet access point, it may be the ONLY access point that someone from the public can use.

¹³ In “hybrid courses,” students learn in the classroom for part of the course time while learning online for other portions of the course time. For example, a hybrid course might have students attending class on campus once a week while learning via online modalities for the remainder of the course time that week.

courses and programs also make those students' learning experience highly dependent on high-bandwidth Internet access. Online courses rely more and more on multimedia resources, adaptive learning applications, and dynamic simulations for interactivity, engagement, and subsequent learning success.

University extension programs, and similar outreach programs, bring cutting edge research out of academia and into practice in community services, government, business, and industries across the country. These public outreach activities may be around topics highly relevant to industry, such as agriculture, forestry, fisheries and wildlife management, public land management, and more. In these contexts, university extension educators may provide information to dairy farmers about the latest research to increase the health and productivity of their stock, or work with park rangers and wildlife management staff to develop research-informed protocols for setting hunting and fishing limits.

Internet-enabled extension and outreach programs may also focus on public health topics, either by training local providers or via direct community programs provided by a university (and often community partners).

Just as degradation of Internet transmission speed can make an online video or video game for personal entertainment unwatchable or unplayable, such degradation could easily frustrate a learning experience utilizing online video, simulations, and so forth, with dire implications for the student or community member, his or her family and community, as well as our country writ large. Network neutrality protections ensure the expectations of students and communities that the educational and knowledge resources higher education institutions provide will work as intended, and thus convey the benefits they need, can be met.

C. Higher Education and Libraries Remain at the Forefront of Internet Innovation

Higher education institutions and libraries have been leaders in developing innovative uses of Internet bandwidth and new learning methodologies from the Internet's inception. Today, higher education institutions use the public Internet to advance learning (both in class and at a distance, including fully online and hybrid programs), research (increasingly involving “big data”), Digital Humanities¹⁴ and scholarly collaboration. Higher education specializes in developing innovative online services, such as multimedia instructional resources, dynamic simulations, and cloud computing capabilities.

Libraries have been among the most innovative Internet users and generators of online content. Virtually every library across the country now provides broadband services to its patrons at no charge, and 98% of public libraries provide wireless (Wi-Fi) access as well. Library patrons are constantly using the Internet to take advantage of educational services, remote medical services, job-training courses, distance learning classes, access to e-government services, computer and technology training, and more. Furthermore, librarians specialize in collecting and hosting robust databases of information, digitizing unique community artifacts and records, engaging community conversations through social media, developing innovative media, and preserving the free flow of information and research over the public Internet for all people.

¹⁴ For a brief introduction into the field of Digital Humanities, please see “A Guide to Digital Humanities” provided by Northwestern University, available at <http://libguides.northwestern.edu/dh>.

Below are some specific examples of projects and services that highlight our institutions' value in providing access to information and the importance of the open Internet in disseminating such information:¹⁵

- The National Library of Medicine (NLM), the world's largest medical library, provides a vast amount of information-based services, ranging from video tutorials to downloads of large genomic datasets. NLM provides valuable information and data to the public amounting to trillions of bytes each day disseminated to millions of users. Without rules to protect the open Internet, NLM's ability to provide access to this important information would be jeopardized. (<https://www.nlm.nih.gov/about/index.html>)
- Columbia University created the 9/11 Oral History Project, focusing on the aftermath of the destruction of the World Trade Center. The Project includes over 900 recorded hours on digital media. More than half of the Columbia collection is open and available to the public, and the entire archive will eventually be available for study and research. This content is currently used in New York K-12 public schools. (<http://library.columbia.edu/locations/ccoh/digital/9-11.html>)
- After receiving over 2,500 boxes of records and documents and 12,000 promotional photographs from the New York World's Fair of 1939 and 1940, the New York Public Library (NYPL) digitized the content and makes it available online. It provided the material in a free app that was later named one of Apple's "Top Education Apps" of 2011 and is used in New York K-12 public schools. (<https://digitalcollections.nypl.org/collections/new-york-worlds-fair-1939-1940-records#/?tab=navigation>)
- The North American Network of Science Labs Online (NANSLO) is an alliance of cutting-edge science laboratories that provide students enrolled in higher education science courses with opportunities to conduct their lab experiments on state-of-the-art science equipment over the Internet. From any computer, students can log into one of the labs' web interfaces and manipulate the controls on a microscope or other scientific equipment, participate in conversations with lab partners, ask for assistance from a knowledgeable lab technician in real time, and collect data and images for their science assignments. NANSLO makes it possible for students who cannot go to campus for a lab course because of their rural location or family and work obligations to still pursue a science degree. (<http://www.wiche.edu/nanslo>)

¹⁵ Additional examples of library and higher education uses of the open Internet are available here: <http://www.arl.org/storage/documents/publications/lt-pubint-nn13dec10.pdf>. (If this link does not function, please try pasting the address into your browser.)

- Scholars in the digital humanities are integrating historical documents and data sources with audio, video, and interactive simulations to provide immersive online learning experiences. For example, the University of North Carolina at Chapel Hill supports DH Projects @ UNC, a website that offers access to digital humanities projects spanning history, the arts, archeology, geography and urban studies, literature and languages, and classical studies. Many involve collaborations with other academic and cultural institutions, such as Photogrammar, an online platform for searching and visualizing tens of thousands of photos from the Great Depression along with the life histories of Americans from that era; or Pleiades, a web-based, interactive repository that “gives scholars, students, and enthusiasts worldwide the ability to use, create, and share historical geographic information about the ancient world in digital form.” (<http://dhprojects.web.unc.edu/>)
- nanoHUB serves as an online platform for nanotechnology research, education, and collaboration. The site hosts hundreds of online simulation programs for nanoscale phenomena. It also provides online presentations, courses, learning modules, podcasts, animations, teaching materials, and more. In addition, the site offers researchers a venue to explore, collaborate, and publish content, as well. Through nanoHUB-U, undergraduate and graduate students in engineering and applied sciences can access both instructor-led and self-paced courses incorporating online video and simulations, allowing them to obtain an essential grounding in the field. (<https://nanohub.org/>)

III. ENFORCEABLE NET NEUTRALITY RULES ARE ESSENTIAL FOR PRESERVING THE UNIQUE AND VITALLY IMPORTANT CHARACTER OF THE INTERNET TO PROMOTE RESEARCH, LEARNING, EDUCATION AND THE FREE FLOW OF INFORMATION

Our organizations believe foremost in the importance of net neutrality rules that are legally enforceable by the Commission. Maintaining the open character of the Internet is the most important component of any rules or regulations set forth. Below we discuss each of the current rules, and why they are and will continue to be important to our organizations and communities.

A. The Commission Should Retain its Ban on Paid Prioritization

In the *RIF NPRM*, the Commission suggests public broadband Internet access providers are not currently engaging in, or planning to engage in, paid prioritization and thus asks whether

a prohibition is needed – and whether the FCC has authority to maintain one.¹⁶ As we noted in our comments in the 2015 Open Internet Proceeding,¹⁷ the opportunity and financial incentives clearly exist for public broadband Internet access provider to provide favorable Internet service to certain edge providers or customers absent strong, enforceable net neutrality rules.¹⁸ Mergers and consolidation in the technology and broadband sector will increase pressure to act on these incentives.¹⁹ Indeed, as market power concentrates and traditional telecommunications companies expand their footprint in edge content development and provisioning, demands for new revenue growth will surely increase as traditional sources of revenue mature. From the standpoint of public service institutions that will rarely if ever have the resources to pay for priority treatment of their content, the opportunity for providers to extract prioritization fees, the clear financial incentives to do so, and the potential resulting harm – all are valid considerations that justify the existing rule.

The harm from paid prioritization will occur because many institutions that serve the public interest, such as libraries, colleges and universities, will often not be able to afford to pay the extra fees simply for the transmission of their content. As such they could find their Internet traffic relegated to chokepoints (the “slow lane”) while prioritized traffic zips through to its

¹⁶ *RIF NPRM* at ¶¶ 85-88.

¹⁷ See Comments of American Association of State Colleges and Universities, American Council on Education, American Library Association, Association of American Universities, Association of College & Research Libraries, Association of Public and Land-grant Universities, Association of Research Libraries, Chief Officers of State Library Agencies, Council of Independent Colleges, EDUCAUSE, and Modern Language Association, in WC Docket 14-28, Jul. 18, 2014, available at <https://ecfsapi.fcc.gov/file/7521701640.pdf> (*Libraries and Higher Education Open Internet Comments*); Libraries and Higher Education Reply Comments, in WC Docket 14-28, Sep. 15, 2014, available at <https://ecfsapi.fcc.gov/file/7522698855.pdf> (*Libraries and Higher Education Open Internet Reply Comments*).

¹⁸ See also, e.g., *Verizon*, 740 F.3d at 645 (upholding Commission finding that “broadband providers . . . have incentives to interfere with the operation of third-party Internet-based services that compete with the providers’ . . . services.”) (internal quotes omitted).

¹⁹ See fn.5, *supra*.

destination. Paid prioritization inevitably favors those who have the resources to pay for expedited transmission and disadvantages those entities – such as higher education and libraries – whose missions and resource constraints preclude them from paying these additional fees.

Further, it is likely that those who are able to pay for preferential treatment will pass along their costs to their consumers and/or subscribers. In some cases, libraries and other public institutions may be among these subscribers who would then be forced to pay more for services they may broker on behalf of their patrons. Public libraries, for instance, subscribe to digital media services such as Hoopla, OverDrive, and Zinio, to provide access to video, audiobooks, e-books, and e-magazine titles.

Finally, prioritizing some traffic over others undermines one of the Internet's fundamental underlying principles: network operators are expected to use “best efforts” to deliver information to the end user. And from a broader perspective, paid prioritization creates artificial motivations and constraints on the use of the Internet, damaging the web of relationships and interactions that define the value of the Internet for both end users and edge providers. Notably, our opposition to paid prioritization recognizes that Quality of Service (QoS) guarantees for certain services – such as the two-way high-definition video services for deaf persons cited in the *RIF NPRM*, which rely on two-way real time communications²⁰ – are fully consistent with an open Internet and should be allowed under the rubric of reasonable network management practices.²¹

²⁰ See *RIF NPRM* at ¶ 86, fn.192.

²¹ See *Libraries and Higher Education Open Internet Comments*, at 25.

B. The Commission Should Retain Its Firm “No Blocking” Policy for Both Mobile and Fixed Broadband Providers

The *RIF NPRM* states this Commission continues to oppose all blocking of lawful material while noting previous Commissions have repeatedly found that a clear rule which protects the “freedom to send and received lawful content and to use and provide applications and services without fear of blocking is essential to the Internet’s openness.”²² Notwithstanding, the *RIF NPRM* asks whether there is a continuing need for such a rule and, if there is, on what legal authority it would rest in the event the Commission reclassifies broadband Internet access services as an information service under Title I.²³ In our view, the current no-blocking rule should be maintained with legal authority for the rule continuing to rest in Title II – that is, broadband Internet access service should continue to be recognized by this Commission as a Telecommunications Service. In the alternative, we revisit how a no-blocking rule could be grounded in authority under Section 706.

If the Commission reclassifies public broadband Internet access as an Information Service – which we do not support – we nevertheless offer the following on how it could fashion a no-blocking rule consistent with how the *Verizon* court suggested Section 706 authority could support such a rule: by not effectively imposing common carrier obligations.²⁴ The key sentence from the *Verizon* decision is as follows:

Thus, if the relevant service that broadband providers furnish is access to their subscribers generally, as opposed to access to their subscribers at the

²² *RIF NPRM*, ¶ 80.

²³ *Id.* at 81.

²⁴ *See Verizon v. FCC*, 740 F.3d 623, 649 (2014) (holding that “section 706 grants the Commission authority to promote broadband deployment by regulating how broadband providers treat edge providers [provided the Commission does not] utilize that power in a manner that [does not] contravene any specific prohibition contained in the Communications Act.”). Hence the holding that, because the Open Internet rules at issue in *Verizon* effectively regulated broadband providers as common carriers, they were not sustainable.

specific minimum speed necessary to satisfy the anti-blocking rules, then these rules, while perhaps establishing a lower limit on the forms that broadband providers' arrangements with edge providers could take, might nonetheless leave sufficient 'room for individualized bargaining and discrimination in terms' so as not to run afoul of the statutory prohibitions on common carrier treatment."²⁵

If the Commission takes a broader view of the definition of the service that is being provided ("access to their subscribers generally") – a definition that would encompass both individually negotiated levels of service and a lower level "boundary" (not a mandated minimum) – imposing a no-blocking rule on public broadband Internet access service providers would not treat them as common carriers.

The relevant service being provided is to connect the end user/subscriber to the Internet "cloud." For this purpose, there is no need to define a "minimum level of access or service" being "provided" to the edge provider. It is sufficient to say that a broadband provider may not block access to any lawful website, application or service chosen by the end user/subscriber, subject to reasonable network management.

The no-blocking rule, as defined by the choice of the end user/subscriber, would not run afoul of the statutory provision that bars non-Title II broadband providers from being regulated as common carriers. Defined in that way, this type of "no-blocking rule" does not run the risk that a court would find it to be similar to a common carrier-like obligation to serve the public indiscriminately. Rather, a no-blocking rule defined as carrying out the will of the consumer simply says that, once a public broadband Internet access provider connects an end user/subscriber to the Internet "cloud," it cannot take affirmative steps to block a certain lawful web site, application or service that the consumer chooses to access from that "cloud." Rather

²⁵ *Id.* at 658 (citing *Cellco Partnership v. FCC*, 700 F.3d at 534, 548 (D.C. Cir. 2012)).

than directing each public broadband provider to serve each individual website, application or service, such a no-blocking rule would simply say that the provider cannot block those edge providers connected to the Internet cloud from serving the requests the providers' subscribers have made of them.

To clarify the “no-blocking” rule and to avoid the risk of being overturned on appeal, the Commission should insert the end user’s perspective into the current “no-blocking rule”,²⁶ so that it would read as follows:

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not block an end user from accessing lawful content, applications, services, or non-harmful devices, subject to reasonable network management.

Our organizations strongly believe the “no-blocking” rule should be applied equally to both fixed and mobile services. The policy of differentiating between fixed and mobile technologies cannot withstand scrutiny. As explained in the next section, the technologies for mobile services are developing rapidly, and speeds of 4G mobile devices are faster than the lowest level of fixed broadband service when the FCC first adopted its open Internet policies in 2005. Mobile services are expected to carry ten and hundred megabit levels in the near future. Furthermore, even if one were to accept the theory that mobile networks have greater technical constraints than fixed (with which we disagree), any differential no-blocking rule for mobile should be reasonably related to these technical differences.

²⁶ 47 C.F.R. § 8.5; *see also* 47 C.F.R. § 8.7 (mirroring section 8.5 language with respect to throttling). While our organizations similarly favor retaining the current “No Throttling” rule, we note that the “Internet reasonable” conduct standard we discuss below (Section IV.B., *infra*) could also be used to effectively limit improper service degradation.

C. Net Neutrality Rules Should Be Technology-Neutral

Consumers and edge providers use fixed and mobile services interchangeably, often switching from one device to another to surf the web, send and receive email, post to Twitter accounts, use applications, download e-books, view lectures and listen to podcasts. The proliferation of 4G mobile networks makes it easy to upload and download data using mobile devices, and the pending launch of 5G mobile networks offers the potential for mobile transmission of content such as high-definition videos, for example, at speeds that previously could only be achieved via fixed connections.²⁷ Students, library patrons, faculty and researchers are increasingly dependent on using tablets and other mobile devices, and mobile services will only become more prevalent as 5G network access proliferates. We urge the FCC to think ahead to the enormous growth of mobile technologies and sustain policies that anticipate the future. As the current rules acknowledge, mobile data transmission technologies have matured to the point that broadband Internet policies should be independent of the connection technology (wired, wireless, satellite, fiber-optic, etc.). Whatever adjustments to network neutrality protections the Commission may consider, it should continue to apply open Internet rules to public broadband Internet access services no matter which technology is used to deliver them.

D. Net Neutrality Rules Should Continue to Apply to Public Broadband Providers and Not to Private Networks or End Users

To the extent the FCC continues current bright-line net neutrality rules, they should continue to exempt private networks or end users. The *2010 Open Internet Order* correctly found

²⁷ See, e.g., Antonio Villas-Boas, *Your internet speeds will be insanely fast when 5G arrives*, Business Insider, Mar 4, 2017, <http://www.businessinsider.com/5g-speed-network-lte-2017-3/#how-does-it-work-6> (“At Mobile World Congress this year, Samsung showcased its 5G Home Routers, which achieved speeds of up to 4 gigabits-per-second (Gbps) [or] 500 megabytes-per-second, which could let you download a 50GB game in under two minutes, or a 100GB 4K movie in under four minutes.”).

that the open Internet rules should not apply to premise operators, such as individual consumers' home Wi-Fi connections or bookstores or coffee shops that provide wireless services to their patrons. (This provision is sometimes misleadingly called the "coffee shop exception.")²⁸ The *Title II Order* further clarified "to the extent that coffee shops, bookstores, airlines, private end-user networks such as libraries and universities, and other businesses acquire broadband Internet access service from a broadband provider to enable patrons to access the Internet from their respective establishments, provision of such service by the premise operator would not itself [generally] be considered a broadband Internet access service."²⁹ More recently, this Commission in the *BDS Order* acknowledged and left undisturbed its historic recognition of research and education (R&E) networks as providers of private rather than common carriage.³⁰ We support these conclusions and ask the Commission continue to follow them in this proceeding.

E. The Commission Should Retain Transparency Rules Which Ensure Information about Data Caps and Bandwidth Speeds are Displayed Prominently and Clearly to Consumers and Edge Providers

The *RIF NPRM* indicates that the FCC continues to support transparency objectives but asks for comment on whether improvements or modifications should be made, particularly with respect to the transparency rule enhancements made in the *Title II Order*.³¹ Our organizations

²⁸ See *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905, 17935-36, ¶ 52 (2010) (*2010 Open Internet Order*).

²⁹ See *In the Matter of Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601, 5749 ¶ 340 (2015) (*Title II Order*).

³⁰ See *Business Data Services in an Internet Protocol Environment, Technology Transitions, Special Access for Price Cap Local Exchange Carriers, AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 16-143, GN Docket No. 13-5, WC Docket No. 05-25, RM-10593, Report and Order, 32 FCC Rcd 3459, 3580, ¶ 285 (2017) (*BDS Order*).

³¹ See *RIF NPRM* at ¶¶ 89-91.

support the 2015 enhancements to the transparency rules and believe they are providing consumers, edge providers, the Internet community and policy-makers the information they need about broadband Internet access providers' services and network management practices.

Consumers have a right to know the scope and quality of the services that they are purchasing, especially in light of the high complaint volume associated with advertised bandwidth offerings that may exceed the actual amount of provided bandwidth.³² Furthermore, public broadband providers are continually changing their network equipment, routing tables, and management practices, so any disclosures should be updated regularly. Requiring public broadband providers to make available the information about the actual scope and quality of their broadband services allows regulators to hold providers accountable for those services and make sure that their actual services align with how providers describe them to end users of all types, including colleges, universities, and libraries. Moreover, the requirement to display this information in a standardized format allows consumers to easily compare different providers' services.

³² The potential marketplace confusion is nicely illustrated by this recent item: Jeff Dunn, *Verizon and AT&T both launched misleading services this week — and it points to a larger problem*, Business Insider, Apr. 30, 2017, <http://www.businessinsider.com/verizon-att-gigabit-5g-misleading-consumers-2017-4> (“There's a certain type of language we've come to expect from carriers and internet service providers over the years. Actual words are tossed into a blender; they come out meaning half of what they really do; and the rest of the definitions are tucked away in fine print at the bottom of the page.”).

IV. AS MARKETS EVOLVE AND INTERNET PROVIDERS CONSOLIDATE, THE COMMISSION HAS ALL NECESSARY AUTHORITY TO MAINTAIN OPEN INTERNET RULES SUFFICIENT TO PRESERVE THE CHARACTER OF THE INTERNET AS AN OPEN PLATFORM FOR EDUCATION, RESEARCH AND FREE SPEECH

A. The Classification of Public Broadband Internet Access Service as a Title II Common Carriage Service Provides a Sound Basis for Preserving an Open Internet

Classification of public broadband Internet access service as a Title II “common carrier” service has allowed the Commission to establish policies and procedures that effectively ensure the broader public interest goals of an open Internet are met, while providing the Commission with the flexibility to adapt and tailor these regulations as market conditions change. Treating providers of broadband services offered to the general public as Title II common carriers provides valuable certainty to the marketplace about the FCC’s legal authority to establish and apply network neutrality rules, and it places public broadband Internet access service on an equal regulatory footing with other communications services. Classification under Title II has proven legally sustainable and will ensure providers are not able to engage in “unreasonable discrimination” against or in favor of any particular content, application or service.

Through the *RIF NPRM*, the Commission seeks to explore a range of possible *quantitative* impacts related to Title II classification of public broadband Internet access service. Although the benefits of net neutrality rules to public service organizations such as higher education and libraries are not readily quantifiable, the rules are vital to meeting the education, research, and community service missions of colleges, universities, libraries, and similar organizations. To be sure, there are some quantitative outcomes that can, and should, be taken into account including students and patrons served, degrees and certifications achieved, higher levels of economic and social contributions attained, and so forth; however, the value in

educating, providing access to information, sharing research, providing platforms to promote the exchange of ideas and host new creations, and more, is more qualitative. As we have discussed, maintaining strong, enforceable network neutrality rules preserves the capacity of our member institutions and organizations to achieve the essential public interests for which they were established. We ask the Commission to include the qualitative value of those critical public interests in its calculation of the costs and benefits associated with sustaining reliable network neutrality protections.³³

Moreover, as the Commission considers whether to (again) reclassify broadband Internet access service, it should recognize that the Telecommunications network regulated under Title II has historically been integral to providing widespread Internet access. Reliable, basic, and universal Title II services helped to form the foundation on which the Internet grew and ultimately prospered. As this legacy Telecommunications network is decommissioned and replaced with an all-IP network, the basic universal services that in some respects have backstopped the Internet are disappearing. Despite the rapid disappearance of a ubiquitous Telecommunications network, however, basic, universal access to the public Internet remains a necessity. The Commission’s 2015 reclassification of the broadband access links to the public Internet as a Telecommunications service rightly recognized this reality.

Widespread access to an advanced services network was certainly a goal of the 1996 Telecommunications Act. But it is highly doubtful the disappearance of a universal level of basic services was envisioned. As information services become more advanced, it reasonably

³³ *Cf. Verizon*, 740 F.3d at 649 (“This is, in other words, one of those cases—quite frequent in this circuit—where “the available data do[] not settle a regulatory issue and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion.”) (citation omitted).

follows that services that yesterday were considered and classified as “advanced” may today be considered “basic” – with such services in need of a degree of Commission oversight that is only possible when they are recognized as such. Basic Internet access provided by public broadband Internet access providers is such a service.

B. Section 706 Offers an Effective Alternative Path to Preserving an Open Internet

While Title II regulation of public broadband Internet access offers the benefits noted above, in the alternative, the Commission could craft legally-sustainable rules to protect and promote Internet openness using the Section 706 authority that was upheld by the U.S. Court of Appeals in the *Verizon* decision. As discussed above, the *Verizon* court provided some specific guidance as to how to structure open Internet rules under Section 706 that could be legally sustainable.

Our organizations previously proposed an “Internet reasonable” standard be adopted pursuant to Section 706 that would recognize that the Internet itself is fundamentally an ecosystem that supports a myriad of personal, institutional, community, and commercial relationships and interests. As with any other ecosystem, if the conditions that foster those relationships and interests are negatively impacted, the system as a whole is subject to collapse. The virtuous circle the FCC identified and the *Verizon* court endorsed is a function of a healthy ecosystem – preserving the system's capacity for healthy growth and evolution means preserving the essential conditions that catalyzed its development in the first place.

There are several key features of the Internet that can be incorporated into an “Internet reasonable” standard. In evaluating whether an action by a public broadband Internet access

provider is “Internet reasonable”, the FCC could assess whether or not the action violates certain rebuttable presumptions, such as the following:

1. *“Innovation without Permission”*: This phrase (often articulated by one of the “fathers” of the Internet, Vint Cerf) captures the notion that end users and edge providers should not have to obtain the permission of a public broadband provider to use the Internet. Any action taken by a public broadband provider to require its “approval” to carry certain lawful content, applications or services should be presumed to be in violation of what is “Internet reasonable.” In other words, it should be presumed to undermine the virtuous circle of innovation validated by the court because it fundamentally and negatively alters the basis on which the Internet as an ecosystem functions.
2. *“No Paid Prioritization”*: The Internet is built on a democratic model that allows any individual, library, college, start-up business, or huge commercial conglomerate to obtain access to each other’s content, services or applications without actions by the public broadband provider to prioritize some traffic over others. Any action by a public broadband provider to sell or provide enhanced transmission to some content or service providers over others should be presumed to violate what is “Internet reasonable.”³⁴ Paid prioritization of some traffic over others would fundamentally alter the Internet as a whole by creating artificial motivations and constraints on its use, damaging the web of relationships and

³⁴ Of course, broadband providers may continue to charge consumers and content, application and service providers for their broadband connections to the Internet, and may receive greater compensation for greater bandwidth capacity chosen by the consumer or content, application or service provider. This principle limits the broadband provider’s ability to prioritize certain traffic over other traffic after the initial connection is purchased.

interactions that define the value of the Internet for both end users and edge providers.

3. “*Open Platform*”: The Internet is unique because it uses a decentralized, open architecture that has few barriers to entry. Any action by a public broadband provider to undermine the open architecture of the Internet should be presumed to violate what is “Internet reasonable,” due to its inevitable adverse impact on the capacity of the Internet to maintain and advance the virtuous circle of innovation.³⁵
4. “*No Degradation*”: It should be presumed that public broadband providers should refrain from taking any action to favor one party if it would degrade the level of service provided to other parties. But this is not all. The networks that carry Internet traffic are undergoing continual change. Internet demand is following an exponential growth curve. If the Internet transmission speed available to a given user or edge provider does not keep pace with this growth, then the user or edge provider may effectively experience a degraded level of service as compared to those whose transmission speeds maintain or exceed that pace. Any action by a public broadband provider that would discourage it from investing in greater bandwidth to the non-prioritized party should also be presumed to violate the “Internet reasonable” standard.

The factors above are not hard and fast barriers – they establish rebuttable presumptions that the broadband providers could overcome if they can demonstrate a public interest benefit. If

³⁵ This concept is also similar to the “broad form” of the “end-to-end” design of the Internet, as articulated in *Internet Architecture and Innovation*, by Barbara van Schewick, MIT Press (2010), available at <https://netarchitecture.org>.

a public broadband provider’s action violates these presumptions, it would have the burden of proving that its action was nevertheless in the public interest. For instance, a public broadband provider might be able to justify an individually negotiated agreement for prioritized transmission of telemedicine services, of emergency or public safety communications, or other services that are particularly necessary in the public interest. The provider might be able to explain that it uses QOS to enhance some traffic in a manner that does not degrade the traffic of other users. The provider may also have the opportunity to justify its action if the network is congested, particularly if the adjudicatory body finds that the congestion is not due to the provider’s own failure to invest.

By articulating these and perhaps other factors ahead of time, the FCC could fashion an approach using an “Internet reasonable” standard that would incorporate the flexibility that the *Verizon* court found wanting in the prior rules,³⁶ while also providing as much guidance as possible to consumers, edge providers, libraries, colleges and universities, and the Internet ecosystem as a whole.

V. CONCLUSION

Libraries and institutions of higher education are greatly concerned that public broadband Internet access providers have and will continue to have the financial incentive and the opportunity to block, degrade or prioritize the Internet transmission of some at the expense of others unless the Commission maintains strong, enforceable network neutrality rules. Such

³⁶ See *Verizon*, 740 F.3d at 657 (“Moreover, unlike the data roaming rule in *Cellco*—which spelled out ‘sixteen different factors plus a catchall . . . that the Commission must take into account in evaluating whether a proffered roaming agreement is commercially reasonable,’ thus building into the standard ‘considerable flexibility,’—the Open Internet Order makes no attempt to ensure that this reasonableness standard remains flexible.”) (internal citation omitted).

practices, if permitted, could have severe adverse impacts on online education, research, learning and free speech. We urge the FCC to recognize the needs of higher education and libraries as it considers the utility of current open Internet rules. We support the following principles:³⁷

- a. Open Internet rules should continue to apply to public broadband Internet access providers that serve libraries, institutions of higher education and other public interest organizations;
- b. “Paid prioritization” should be prohibited;
- c. Net neutrality rules should continue to be technology-neutral and apply equally to fixed and mobile services;
- d. The “no-blocking” rule which bars public broadband Internet access providers from interfering with the consumer’s choice of content, applications, or services should be retained in codified form;
- e. Current disclosure rules should be retained;
- f. Public broadband providers and ISPs should not be permitted to degrade the transmission of Internet content, applications, or service providers, either intentionally or by failing to invest in adequate broadband capacity to accommodate reasonable traffic growth;
- g. Public broadband network operators and ISPs should be able to engage in reasonable network management to address issues such as congestion, viruses, and spam as long as such actions are consistent with these principles. Policies and

³⁷ See *Libraries and Higher Education Net Neutrality Principles*, Appendix B.

procedures should ensure that legal network traffic is managed in a content-neutral manner;

- h. The FCC should continue to recognize that libraries and institutions of higher education operate private networks or engage in end user activities that are not subject to open Internet rules; and
- i. The FCC should preserve the unique capacities of the Internet as an open platform by maintaining judicially upheld Title II reclassification and the network neutrality rules it supports; alternatively, the Commission should adopt an “Internet reasonable” standard under Section 706 that also enables network neutrality rules capable of preserving the virtuous circle of innovation critical to the present and future growth of public broadband Internet access services nationwide.

Respectfully Submitted,

AMERICAN ASSOCIATION OF COMMUNITY
COLLEGES

NATIONAL ASSOCIATION OF COLLEGE AND
UNIVERSITY BUSINESS OFFICERS

AMERICAN ASSOCIATION OF STATE
COLLEGES AND UNIVERSITIES

THE NATIONAL ASSOCIATION OF
INDEPENDENT COLLEGES AND UNIVERSITIES

AMERICAN COUNCIL ON EDUCATION

ASSOCIATION OF AMERICAN UNIVERSITIES

ASSOCIATION OF PUBLIC AND LAND-GRANT
UNIVERSITIES

ASSOCIATION OF RESEARCH LIBRARIES

EDUCAUSE

APPENDIX A

About the American Association of Community Colleges (AACC)

Founded in 1920, AACC has, over nine decades, become the leading proponent and the national “voice for community colleges.” The association was conceived when a group of presidents representing public and independent junior colleges met in St. Louis, Missouri, for a meeting called by the U.S. commissioner of education. Today, the association represents nearly 1,200 two-year, associate degree–granting institutions and more than 13 million students, as well as a growing number of international members in Puerto Rico, Japan, Great Britain, Korea, and the United Arab Emirates. The colleges are the largest and fastest-growing sector of U.S. higher education, enrolling close to half (45 percent) of all U.S. undergraduates. AACC supports and promotes its member colleges through policy initiatives, innovative programs, research and information and strategic outreach to business and industry and the national news media.

<http://www.aacc.nche.edu/Pages/default.aspx>

About the American Association of State Colleges and Universities (AASCU)

AASCU is a Washington-based higher education association of nearly 420 public colleges, universities and systems whose members share a learning and teaching-centered culture, a historic commitment to underserved student populations and a dedication to research and creativity that advances their regions' economic progress and cultural development.

<https://aascu.org/>

About the American Council on Education (ACE)

Founded in 1918, ACE is the major coordinating body for the nation’s colleges and universities. We represent nearly 1,800 college and university presidents and the executives at related associations, and are the only major higher education association to represent all types of U.S. accredited, degree-granting institutions: two-year and four-year, public and private. Our strength lies in our loyal and diverse base of member institutions, 75 percent of which have been with ACE for over 10 years. That loyalty stands as a testament to the value derived from membership. We convene representatives from all sectors to collectively tackle the toughest higher education challenges, with a focus on improving access and preparing every student to succeed.

<http://www.acenet.edu/Pages/default.aspx>

About the Association of American Universities (AAU)

Founded in 1900, AAU comprises 62 distinguished institutions in the United States and Canada that continually advance society through education, research, and discovery. Our U.S. member universities earn the majority of competitively awarded federal funding for academic research, are improving human life and wellbeing through research, and are educating tomorrow’s visionary leaders and global citizens. AAU members collectively help shape policy for higher education, science, and innovation; promote best practices in undergraduate and graduate education; and strengthen the contributions of research universities to society.

<https://www.aau.edu/>

About the Association of Public and Land-grant Universities (APLU)

APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. With a membership of 237 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. The association's work is furthered by an active and effective advocacy arm that works with Congress and the administration as well as the media to advance federal policies that strengthen public universities and benefit the students they serve. (<http://www.aplu.org/>)

About the Association of Research Libraries (ARL)

ARL is a nonprofit organization of 123 research libraries at comprehensive, research institutions in the US and Canada that share similar research missions, aspirations, and achievements. The Association's importance and distinction are born from the ARL membership and the nature of the institutions represented. ARL member libraries make up a large portion of the academic and research library marketplace, spending more than \$1.4 billion every year on library materials. (<http://www.arl.org/>)

About EDUCAUSE

EDUCAUSE is a higher education technology association and the largest community of IT leaders and professionals committed to advancing higher education. Technology, IT roles and responsibilities, and higher education are dynamically changing. Formed in 1998, EDUCAUSE supports those who lead, manage, and use information technology to anticipate and adapt to these changes, advancing strategic IT decision making at every level within higher education. A global nonprofit organization, EDUCAUSE members include 1,658 U.S. and 264 international colleges and universities in 45 countries, 348 corporations, 76 not-for-profit organizations serving higher education, and 19 K-12 institutions. With a community of more than 85,000 individual participants located around the world, EDUCAUSE encourages diversity in perspective, opinion, and representation. (www.educause.edu)

About The National Association of College and University Business Officers (NACUBO)

NACUBO is a membership organization representing more than 2,100 colleges and universities across the country. NACUBO specifically represents chief business and financial officers through advocacy efforts, community service, and professional development activities. The association's mission is to advance the economic viability, business practices and support for higher education institutions in fulfillment of their missions. (<http://www.nacubo.org/>)

About the National Association of Independent Colleges and Universities (NAICU)

NAICU serves as the unified national voice of independent higher education. With more than 1,000 member institutions and associations, NAICU reflects the diversity of private, nonprofit higher education in the United States. They include traditional liberal arts colleges, major research universities, church- and faith-related institutions, historically black colleges, Hispanic-serving institutions, single-sex colleges, art institutions, two-year colleges, and schools of law, medicine, engineering, business, and other professions. (<https://www.naicu.edu/>)

APPENDIX B

March 30, 2017

The Honorable Ajit Pai
Chairman
Federal Communications Commission
445 12th St. SW
Washington, DC 20554

The Honorable Mignon Clyburn
Commissioner
Federal Communications Commission
445 12th St. SW
Washington, DC 20554

The Honorable Michael O’Rielly
Commissioner
Federal Communications Commission
445 12th St. SW
Washington, DC 20554

Dear Chairman Pai, Commissioner Clyburn and Commissioner O’Rielly

The organizations below firmly believe that preserving an open Internet is essential to our nation’s freedom of speech, educational achievement, and economic growth. The Internet now serves as a primary, open platform for information exchange, intellectual discourse, civic engagement, creativity, research, innovation, teaching, and learning. As you review the Open Internet Order adopted in February 2015, we urge you to endorse the principles attached to this letter and maintain the approach adopted in that Order to preserve the openness of the Internet.

The higher education and library communities are deeply concerned that broadband internet access service providers, as defined by the FCC in the 2015 Order¹ and hereafter referred to as “commercial ISPs,” have financial incentives to interfere with the openness of the Internet in ways that could be harmful to the Internet content and services provided by libraries and educational institutions. Preserving the unimpeded flow of information over the public Internet and ensuring equitable access for all people is critical to our nation’s social, cultural, educational, and economic well-being.

In February 2015, after a rulemaking process that generated the greatest number of public comments in the agency’s history, the Federal Communications Commission (FCC) approved an Order that gave Internet users the strongest net neutrality protections to date. In June 2016, a federal appeals court affirmed the FCC’s Order, ruling that the agency has the proper authority to issue such rules, that it followed proper procedures, and that the “net neutrality” rules are permitted under the Communications Act and Telecommunications Act.

¹ In the Matter of Protecting and Promoting the Open Internet, Report and Order, FCC 15-24 (2015), p.10

March 30, 2017

We support the FCC's February 2015 Order and believe that it has served the interests of consumers, broadband providers, libraries, and higher education. More generally, the FCC's adoption of these "net neutrality" policies ensures that the Internet remains open to free speech, research, education, and innovation. We believe that commercial ISPs should operate their networks in a neutral manner without interfering with the transmission, services, applications, or content of Internet communications. Internet users often assume (and may take for granted) that the Internet is inherently an open and unbiased platform, but absent a law or regulation like the FCC's rule, nothing requires commercial ISPs to be neutral. Without "net neutrality" policies, such providers could act as gatekeepers—they could give enhanced or favorable transmission to some Internet traffic, block access to certain web sites or applications, or otherwise discriminate against certain Internet services for their own commercial reasons, or for any reason at all.

We are especially concerned that, absent strong "net neutrality" protections, commercial ISPs have financial incentives to provide prioritized Internet service to certain commercial Internet companies or customers, thereby disadvantaging nonprofit or public entities such as colleges, universities, and libraries. For instance, such providers could sell faster or prioritized transmission to certain entities ("paid prioritization") or could degrade Internet applications that compete with the commercial providers' own services. Libraries and higher education institutions that cannot afford to pay extra fees could be relegated to the "slow lane" on the Internet.

Specifically, the loss of "net neutrality" protections would most threaten the high bandwidth applications and services that enable real-time collaboration, content creation, sharing, and learning by education and other community institutions, including libraries. By and large, such institutions cannot afford to pay for prioritized access. Those who can, like entertainment providers, will have their uses of the Internet prioritized ahead of education, access to information, and other public interests, with significant, negative consequences. For example, if students and library patrons cannot use online educational resources effectively, which would likely result if commercial content is prioritized ahead of non-commercial uses, they may abandon those resources, regardless of the ultimate impact on their learning. After colleges, universities, and libraries pay to create content and pay to connect that content to the Internet, they should not have to pay yet again to prioritize access to those resources.

So a non-neutral net, in which commercial providers can pay for enhanced transmission that libraries and higher education cannot afford, endangers our institutions' ability to meet our educational mission.

To be clear, we do not object to end users paying for higher-capacity connections to the Internet; once connected, however, users should not have to pay additional fees to receive prioritized transmission, and their Internet messages or services should not be blocked or degraded. Such discrimination or degradation could jeopardize education, research, learning, and the unimpeded flow of information.

March 30, 2017

For these reasons, we believe that there must be continued, enforceable policies to protect the openness of the Internet. Our organizations have joined together again to reaffirm the key principles attached to this document that we believe policymakers at the FCC, in Congress, and in the Executive Branch should adopt and implement to preserve an open Internet. We urge you to support these policies.

Sincerely,

American Association of Community Colleges (AACC)
American Association of State Colleges and Universities (AASCU)
American Council on Education (ACE)
American Library Association (ALA)
Association of College & Research Libraries (ACRL)
Association of Public and Land-grant Universities (APLU)
Association of Research Libraries (ARL)
Chief Officers of State Library Agencies (COSLA)
EDUCAUSE
Modern Language Association (MLA)

Library and Higher Education Net Neutrality Principles

Ensure Neutrality on All Public Networks: Neutrality is an essential characteristic of broadband Internet access services provided to the general public. These neutrality principles must apply to all commercial ISPs, regardless of underlying transmission technology (e.g., wireline or wireless) and regardless of local market conditions.

Prohibit Blocking: Commercial ISPs should not be permitted to block access to legal web sites, resources, applications, or Internet-based services.

Protect Against Unreasonable Discrimination: Every person in the United States should be able to access legal content, applications, and services over the Internet, without unreasonable discrimination by commercial ISPs. This will ensure that such providers do not give favorable transmission to their affiliated content providers or discriminate against particular Internet services based on the identity of the user, the content of the information, or the type of service being provided. “Unreasonable discrimination” is the standard in Title II of the Communications Act; the FCC has generally applied this standard to ensure that commercial ISPs do not treat similar customers in significantly different ways.

Prohibit Paid Prioritization: Commercial ISPs should not be permitted to sell prioritized transmission to certain content, applications, and service providers over other Internet traffic sharing the same network facilities. Prioritizing certain Internet traffic inherently disadvantages other content, applications, and service providers—including those from higher education and libraries that serve vital public interests.

Prevent Degradation: Commercial ISPs should not be permitted to degrade the transmission of Internet content, applications, or service providers, either intentionally or by failing to invest in adequate broadband capacity to accommodate reasonable traffic growth.

Enable Reasonable Network Management: Commercial ISPs should be able to engage in reasonable network management to address issues such as congestion, viruses, and spam as long as such actions are consistent with these principles. Policies and procedures should ensure that legal network traffic is managed in a content-neutral manner.

Provide Transparency: Commercial ISPs should disclose network management practices publicly and in a manner that 1) allows users as well as content, application, and service providers to make informed choices, and 2) allows policy-makers to determine whether the practices are consistent with these network neutrality principles. This rule does not require disclosure of essential proprietary information or information that jeopardizes network security.

Continue Capacity-Based Pricing of Broadband Internet Access Connections: Commercial ISPs may continue to charge consumers and content, application, and service providers for their broadband connections to the Internet, and may receive greater compensation for greater capacity chosen by the consumer or content, application, and service provider.

Adopt Enforceable Policies: Policies and rules to enforce these principles should be clearly stated and transparent. Any commercial ISP that is found to have violated these policies or rules should be subject to penalties, after being adjudicated on a case-by-case basis.

Accommodate Public Safety: Reasonable accommodations to these principles can be made based on evidence that such accommodations are necessary for public safety, health, law enforcement, national security, or emergency situations.

Maintain the Status Quo on Private Networks: Consistent with the FCC's long-standing principles and practices, and the 2015 Order, the Commission should decline to apply the Open Internet rules to premises operators, such as coffee shops and bookstores, and private end-user networks, such as those of libraries and universities. As the FCC has historically found, end users should be free to decide how they use the broadband services they obtain from network operators and commercial ISPs.