Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Preserving the Open Internet	)	GN Docket No. 09-191
	)	
Broadband Industry Practices	)	WC Docket No. 07-52

COMMENTS OF THE DIGITAL EDUCATION COALITION

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SUMMARY

The Digital Education Coalition (the Coalition) is composed of organizations that promote learning through the use of the Internet and digital media. The Coalition feels that the six proposed rules advanced in the Notice of Proposed Rule Making (NPRM) are necessary for students and educators to take full advantage of innovative educational techniques.

It is particularly important to the Coalition that the Federal Communications Commission (FCC) enact the proposed nondiscrimination and transparency rules. The digital education community needs access to a wide variety of online content, which broadband service providers are currently able to block or filter. Further, members of the community need to transmit and access content such as videos, speeches and photos, which require large amounts of bandwidth. The only way to protect educational interests online is to prohibit content-based discrimination.

The Coalition would also benefit from the proposed transparency rule, which would provide members with necessary information related to the network management practices of service providers. This information is needed to plan curricula, teach students about network transmissions and create innovative teaching tools. To facilitate access to information, the FCC should require a service provider to disclose its network management practices on the provider's own website in language that is accessible by all Internet users. The FCC also should undertake to link service providers' websites to the FCC's website. Increased transparency would be consistent with both the business interests of service providers and the pedagogical goals of the Coalition.

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COMMENTS OF THE DIGITAL EDUCATION COALITION

The Digital Education Coalition (the Coalition) is composed of organizations that promote learning through applications of digital media, many of which rely on the Internet for their functionality. The Coalition supports codification of the six principles advanced by the Federal Communication Commission's (FCC) Notice of Proposed Rule Making (NPRM).[1] Specifically, it seeks to contribute to the discussion of the proposed nondiscrimination and transparency rules. The Coalition consists of the Media Education Lab at Temple University, the National Association for Media Literacy Education (NAMLE), the Entertainment Consumers Association (ECA), and the International Game Developers Association (IGDA).

Media literacy educators develop innovative pedagogical strategies to build students' critical thinking and communication skills through the analysis of media texts and digital-media composition activities. The Media Education Lab at Temple University is a research center with a mission to improve the practice of media literacy education. NAMLE is a national

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1 Notice of Proposed Rulemaking, FCC 09-93 (Oct. 22, 2009).

membership organization for media literacy educators at all levels, including K-12, college and university education, as well as learning in out-of-school settings.

The IGDA and ECA promote digital education by advancing the interests of developers who create online educational games and consumers who play such games. The IGDA supports game developers and strives to connect industry and academia through the development of curriculum guidelines for students seeking a career in games. The ECA is a non-profit membership organization established to serve the needs of those who play computer and video games, and it seeks to give gamers a collective voice with which to communicate their concerns, address their issues and focus their advocacy efforts.

I. *The Internet Must Continue to Foster a Common Educational Environment*

It is widely recognized that the Internet is an important source for our "common information and cultural environment."[2] It is also important that the Internet serve as a source for our common educational environment. The maintenance of a free and open Internet is critical to the development of innovative learning methods used by educators, students and game developers. As Thomas L. Friedman notes, "our schools have a doubly hard task now—not just improving reading, writing and arithmetic but entrepreneurship, innovation and creativity."[3] The use of a free and open Internet is indispensable to making these new improvements.

Educators increasingly use class-specific websites that allow students and teachers to post information and comments that expand class discussion. The integration of digital technology into education supports curricular goals because it creates opportunities for active engagement,

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2 Notice of Proposed Rulemaking, at ¶76 (quoting Yochai Benkler, *Property, Commons, and the First Amendment: Towards a Core Common Infrastructure*, at 13 (white paper for the First Amendment Program Brennan Center for Justice at NYU School of Law 2001)).
3 Thomas L. Friedman, The New Untouchables (Oct. 20, 2009) (available at http://www.nytimes.com/2009/10/21/opinion/21friedman.html).

participation in groups, and frequent interaction and feedback. In addition to facilitating such

integration, the Internet also serves educators' goals by providing access to visual and audio

information related to the academic subject, whether derived from education-specific websites or

elsewhere. For example, a social studies teacher may require access to content ranging from

online news articles, to political blogs, to video clips of famous historical speeches. Similarly, a

media literacy educator may want quick access to numerous online video clips for a side-by-side

comparison of different presentational techniques.

Students also rely on online resources to perform learning tasks. The Internet enables

students to conduct library research, compose papers, perform assignments, and share their ideas

with peers and educators.[4] The Coalition recognizes that students absorb information in different

ways and that students should have the ability to access various tools that are appropriate for

their individual learning styles. The Internet is also a critical vehicle for participation in dialogue

about contemporary issues, and many students acquire their initial understanding of the power

and responsibility of being a communicator by responding to Internet articles, engaging in online

discussion forums and contributing to online blogs.

Among the most powerful learning tools available on today's Internet are educational

games. Developers who create Internet-based teaching tools, such as online educational video

games, provide learners with a common link between enjoyment and education. Interactive

learning systems have become part of our mainstream culture, and they promote a comfortable

learning environment by allowing individuals to learn at their own pace and engage in hands-on

activities. Online educational games also facilitate learning because educators make use of

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4 *See, e.g.*, *Reno v. American Civil Liberties Union*, 521 U.S. 844, 853 (1997) (explaining that
  internet users view the World Wide Web as "a vast library including millions of readily
  available and indexed publications").

these online tools to reach students with various learning styles and to keep all students engaged with academic subjects.

Coalition members depend upon commercial service providers for access to all of these educational resources. Commercial service providers offer Internet access to schools, individuals and organizations, and they control the flow and speed of content over their network. As such, the ability of Coalition members to create and access online content is subject to the network management practices of service providers—and potentially at risk because of those practices.

The Coalition believes that the proposed nondiscrimination and transparency rules are essential for the continued growth of online education in all its forms. In absence of regulation, a service provider's power to block, slow, or divert Internet content related to the educational process will limit access to essential learning resources. In addition, unless service providers are required to disclose their network management practices, the ability of individuals and organizations to create online educational content will be undermined. For example, the development of online educational games will be reduced if game developers are unable to determine whether their products will reach intended users. The ability of media literacy educators to teach substantively about the creation and flow of digital content will also be limited if they are unable to discern how, and by whom, the flow of Internet content is controlled. Thus, the Coalition believes that the proposed nondiscrimination and transparency rules are essential to the future development of digital education techniques.

II. *The Proposed Nondiscrimination Rule is Necessary to Provide the Educational Community the Ability to Access and Create Digital Content*

As the FCC recognizes in the NPRM, discrimination by Internet service providers will

create significant "social costs."[5] Chief among those costs is the threat that discrimination poses

to education. As practitioners and proponents of digital education, the Coalition believes that the

proposed nondiscrimination rule will foster educators' and students' use of the most innovative

learning tools. Access to these innovative learning tools is not only needed in the classroom but

also to complete out-of-class homework assignments and to facilitate online learning at home.

The Coalition also requests that any flexibility provided by the proposed reasonable network

management exceptions not be permitted to undermine the spirit of the proposed

nondiscrimination rule.[6]

A.   *Digital Education Depends on the Use of a Large Amount of Bandwidth*

Educators are highly susceptible to the potential discriminatory practices of service

providers because they use a large amount of bandwidth. Many teachers, from Kindergarten to

college, use the Internet as a source for audio-visual support materials, including websites of all

types, online games, video streaming and online media production tools like Jing[7] and

VoiceThread.[8] Further, digital education is not limited to the classroom setting. Games such as

Brainage[9] and *Learning with the PooYoos*[10]—educational tools for use on computers and home-

gaming systems—can require a large amount of bandwidth. In the absence of the proposed

nondiscrimination rule, the needs of educators, students and game developers would be disrupted

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5 *Id.* at ¶ 103
6 *Id.* at ¶ 140
7 Jing is a program for taking pictures or video of your screen and sharing it through email,
    chat, and the Internet. *See* Jing FAQ, http://www.jingproject.com/faq (last visited Jan. 12,
    2010)
8 VoiceThread is an online software for collaborative commenting on source materials. *See*
    VoiceThread About Page, http://www.voicethread.com/about (last visited Jan. 12, 2010)
9 What is Brain Age?, http://www.brainage.com/launch/what.jsp (last visited Jan. 12, 2010)
10 Learning With The PooYoos – Episode 1,
    http://www.nintendo.com/games/detail/b27_45MOEaWuBuY7MHVPFB6HZwToYDU7 (last
    visited Jan. 12, 2010)

if a service provider inappropriately determined that their bandwidth consumption was unreasonable.

Discrimination against large bandwidth consumption will hinder new and innovative educational methods. For example, educators and game developers are creating games that capture and stream assessment data that educators can use to comprehensively track individual student achievement.[11] The Internet also facilitates communication, research and knowledge in the field of education.   There are over 300 online open access peer review journals for educators that are designed especially for sharing new instructional practices.[12] Many of these journals come in either pdf format or other innovative digital formats that are bandwidth intensive. The proposed nondiscrimination rule is necessary to ensure that service providers do not intentionally, or unintentionally, hinder the development of academic and educational endeavors.

Many of these bandwidth-intensive educational uses of the Internet occur outside of the classroom. The Internet enables teachers to make at-home educational activities a more effective tool in the educational process by creating a deeper kind of learning experience for students. These activities subsume traditional homework, but they also represent much more. Educators regularly rely on virtual classrooms, digital interaction with students outside of the classroom and assignments that are given and performed online. At-home educational activities include analyzing video content on YouTube, participating in a WebQuest to find and evaluate

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11 North Carolina State University's William & Ida Friday Institute for Education Innovation is currently developing these online video games. These games give administrators the ability to assess teaching skills while affording educators a quick snapshot of student progress.

12 *See* The Directory of Open Access Journals, http://ww.doag.org (last visited Jan. 12, 2010) (maintains a comprehensive list of these scholarly resources. There are 4543 journals in the director). Journal of Media Literacy Education, http://www.jmle.org (last visited Jan. 12, 2010) (example of an open-access peer review journal for educators exploring how to build critical thinking and communication skills using mass media, digital media and popular culture).

information, and playing online educational games. In addition, many educators maintain

websites or blogs for hosting video content that they have cut together to create new tools that

engage students outside of the classroom. For example, the Media Education Lab at Temple

University has developed My Pop Studio, a series of 15 online interactive games that take girls

ages 9 to 14 "behind-the-scenes" of magazines, television, the music industry and digital

media.[13] These and other such online educational games rely on bandwidth-intensive digital

content, including streaming audio and video materials.[14]

     B. *Digital Education Relies on Access to Diverse Internet Content*

Members of the Coalition are also concerned that service providers might discriminate

based on the nature of digital content. A service provider may find reasons to discriminate

against content expressing particular unpopular views, ideas or information. Given the history of

debates regarding access to controversial educational material,[15] it is not difficult to imagine a

service provider blocking a website that provides controversial content that would be useful in

the classroom, such as content related to sex education, flag-burning, or profanity in literature.

Education relies on diverse and often controversial information to spark classroom discussion

about social issues.

Compounding educators' difficulties would be their inability to determine when a service

provider has blocked or filtered content. In the absence of information, users—including those

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13 *See* My Pop Studio: About this Site, http://www.mypopstudio.com/about_site.php (last visited
    Jan. 12, 2010)

14 A second form of discrimination is discrimination based on charging content providers for
    access to network subscribers. *See* Jonathan Zittrain, *The Future of the Internet and How to*
    Stop It 23 (Yale University Press 2008) (explaining how predecessors to the modern Internet,
    such as CompuServe, charged websites for access to the CompuServe users).

15 *See, e.g., United States v. American Libraries Association*, 539 U.S. at 194, 201 (2003)
    (explaining that attempts to filter or "block pornography may sometimes block other sites that
    present neither obscene nor pornographic material but that nevertheless trigger the filter[,]"
    including information related education, history, and medicine).

represented by the Coalition—are not able to determine when a service provider has engaged in discriminatory practices, let alone determine whether such discrimination is motivated by content or bandwidth usage. Only a detailed and comprehensive nondiscrimination rule will enable the Internet to serve as an educational platform.

III.   ***The Proposed Transparency Rule is Necessary to Make Educators and Students Informed Users and Critics of the Internet***

The transparency of network management practices directly affects the continued growth and success of American education in the 21st century, as the Internet becomes an increasingly important medium for educational communication. In addition to codifying the proposed nondiscrimination rule, it is important that the FCC require service providers to inform the public of their network management practices by enacting the proposed transparency rule. Members of the digital education community currently have limited access to the network management practices of service providers. Yet, this information is needed to help educators to plan their curricula, enable media literacy educators to teach about network transmissions and assist game developers in the creation of innovative teaching tools. To facilitate transparency, network management practices should be easily accessible to all users, including members the digital education community. Increased transparency will also promote the business interests of service providers and the educational goals of Coalition members.

A.   *Determining the Availability of Internet Content is Essential to Digital Education*

Educators need to know which types of Internet content will be accessible in order to plan effective and efficient curricula. Educators are currently unable to determine whether digital content is likely to be blocked, filtered or slowed by a service provider. For example, when a history teacher develops a lesson plan or homework schedule, he or she must be capable of determining whether a website that hosts a historical speech is likely to be slowed or filtered.

Similarly, when a media literacy educator requires students to create an online project utilizing innovative digital media tools, such as Poll Everywhere[16] and Glogster[17] that depend on real-time transmission and multi-media interaction, he or she first must ascertain whether students will be able to access these tools.

Information regarding network management practices is particularly important to media literacy educators who teach classes specifically dealing with the dissemination, management and flow of digital content. Media literacy educators seek to build students' "behind-the-scenes" knowledge about the various forms of digital media, including websites, videos, games and other digital content. In order to teach effectively about the creation and flow of digital messages, it is essential that educators and students understand who is controlling the flow of digital content and the methods used to exercise such control. For example, if service providers engage in "pay for play" practices, it will dramatically affect the content that consumers receive.[18] Without access to useable information about the practices of service providers, media literacy educators and students cannot accurately analyze the creation and transmission of digital content.

Individuals and organizations that create online educational games also would benefit from the proposed transparency rule because it would allow them to determine whether their innovative software will be accessible by the intended users. The successful transmission of

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16 Poll Everywhere Frequently Asked Questions, http://www.polleverywhere.com/faq (last visited Jan. 12, 2010) (an interactive polling software that enables mobile device users to create polls and vote in real time through text messaging). It is interesting to note that Poll Everywhere operates not just through wide broadband wireline connections, but also through narrow broadband wireless connections. This increases an educators need to know if service providers will block or filter these connections.

17 Glogster Frequently Asked Questions, http://glogster.com/faq (last visited Jan. 12, 2010).

18 *See* Zittrain, supra note 14 (describing CompuServe's "proprietary network model" in which certain companies which were charged for access to CompuServe's subscribers were unwilling to pay these prices, which limited the companies ability to transmit content over CompuServe's network).

online educational games depends upon the ability of game developers to anticipate actual network management practices. The proposed transparency rule will serve as a benchmark to determine whether content is likely to reach the audience.

B. *Network Management Practices Should Be Disclosed in Language that is Accessible to Various Members of the Digital Education Community*

In addition to the above-mentioned benefits of transparency, the FCC also recognizes that increased transparency will protect Internet users and empower consumers "to maximize the efficient operation of relevant markets" by providing consumers with necessary information related to network management practices.[19] Members of the digital education community will be able to participate effectively in this market only if the information about network management practices is complete, reliable and expressed in language that is accessible. If these groups become empowered with knowledge about the specific network management practices of service providers, they will be able to better compare providers' practices and, thus, better able to choose a service provider that will support their own educational goals.

To ensure that disclosure of network management practices is useful to educational users and content providers, the FCC should require service providers to disclose their management practices in two forms. First, the practices should be available in a clear and concise "plain language" version, so that any layperson can understand the general policies of the service provider in question, and the basics of their implementation. Second, the service provider should be required to provide a more technical description of the management practices to ensure that knowledgeable professionals—including game developers, as well as computer programmers and engineers—are able to access detailed information necessary for compatible technological

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19 Notice of Proposed Rulemaking at ¶ 118.

developments in their fields. Transparency is only meaningful to the extent that it serves a useful purpose to the widest range of Internet users.

C. *Network Management Practices Should Be Posted on the Service Provider's Website, and the FCC Should Post Links to These Sites*

Requiring service providers to reveal their network management practices will be useful only if users and content providers can easily access this information. To promote ease of access, the FCC should require a network to disclose its management practices on the provider's website, and the FCC should undertake to post links to the various network sites in a dedicated area of its own website. This system would centralize all of this information, and provide educators, students and game developers with easy and quick access to this information.

This centralized system will help realize the FCC's goal of creating an efficient and competitive marketplace by allowing consumers to choose service providers that best fulfill their needs. This option will permit educators and game developers to conduct an efficient search for the types of content that a particular service provider permits. A centralized system also will allow educational users and content providers to compare the practices of various service providers before subscribing to a specific service.

D. *The Proposed Transparency Rule Balances the Goals of Service Providers and Individuals Concerned with Digital Education*

The proposed transparency rule will achieve the FCC's stated goal of protecting the business needs of service providers, as well as the public interest in innovation and communication.[20] The proposed transparency rule will not undermine strategic business choices of providers but will merely create a market of more informed consumers who can influence providers' policies through their purchasing decisions. Consumer choice will encourage

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20 *Id.* at ¶ 50. The FCC seeks to "protect the legitimate business needs of broadband Internet access service providers and broader public interests such as innovation, investment, research and development, competition, consumer protection, speech, and democratic engagement."

increased competition and provide incentives for service providers to enable access to a broad range of digital content—including educational content.

In addition, the ability of educators, students and game developers to learn about network management practices will allow them to avoid actions that would be inconsistent with the usage policies of service providers. For example, game developers could create educational games knowing that the content complies with the service provider's practices and that the game would effectively reach the target audience. By the same token, transparency offers networks the opportunity to explain policies regarding usage and helps consumers understand how to use the network most efficiently. This process will help reduce congestion and maximize efficient use of the network by all—including the community represented by the Coalition.

IV.   *Conclusion*

The Coalition applauds the FCC for its efforts in this process and hopes that the FCC considers the importance of promoting digital education by preserving a free and open internet. In particular, the Coalition emphasizes the essential role that the proposed nondiscrimination and transparency rules will have in fostering innovative educational tools and making members of the educational community more informed and empowered Internet users.

_____/s/_____   _____/s/_____
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