Chairman Tillis, Ranking Member Coons, and Members of the Subcommittee:

Thank you for the opportunity to share my thoughts today about how the DMCA notice and takedown system works for research libraries and universities. My testimony is largely about my experience at Duke University, but it is reflective of the experience of many other libraries like those who are members of the Association of Research Libraries, the American Library Association, and the Association of College and Research Libraries. Those organizations have asked that I also present this testimony on their behalf, which I am happy to do.

The mission of most universities and research libraries is almost identical to that of the Copyright Act. Our very existence is meant to “promote the progress of Science and the Useful arts.”1 From the very first Copyright Act of 1790, “An Act for the Encouragement of Learning…,”2 higher education—the generators of so many new scientific discoveries—and libraries—the stewards of those ideas in printed form for the future—were central to the design of Copyright law. So, I appreciate the opportunity to present the viewpoint of a research library and university, whose experiences I hope will not be an afterthought for how Section 512 might be improved, but rather a central consideration.

1 U.S. Const., Art. I, Sec. 8, Cl. 8.
2 Copyright Act of 1790, 1 Stat. 124 (1790).
Duke, like most universities and research libraries, straddles both sides of Section 512; we operate as service provider for a large number of users, but we are also significant producers of creative copyrighted content and are rightsholders ourselves. In general, Section 512 works well for us now and I do not believe its balance is askew. Nevertheless, I do have some suggestions and concerns that I hope this subcommittee will consider.

1. Universities and libraries as rightsholders

I would like to start with our role as content creators because this is such an important part of what our university and our libraries do—promote the creation and dissemination of knowledge. At Duke alone, our faculty and other researchers author more than 10,000 articles every year, along with hundreds of books, reports, video content, software, visual works, learning resources, educational programs, and many other types of materials. For virtually all of this content, our primary aim is to get as many people as possible to read and engage with the ideas we are sharing to help increase our collective understanding of the world around us, and of each other. These works of authorship, more than almost any other, fall at the heart of what our Constitution states is the objective of Copyright Law: “to promote the progress of science and the useful arts.”

In most cases and for most of the published research Duke produces, we aim to disseminate these works with no direct financial return; no royalty. If possible, our authors generally want no financial barrier to stand in the way of engagement with their research, operating under the idea that more and faster progress will be made without those barriers. In many cases, we find ourselves licensing around the controls that copyright law automatically provides. For example, more than ten years ago, Duke Faculty voted to adopt an institutional open access policy that provides for free, widespread distribution of research articles that Duke faculty have authored.3

3 Duke Faculty Handbook, Appendix P, Intellectual Property Policy, https://provost.duke.edu/sites/default/files/FHB_App_P.pdf. There is some debate about whether articles written by researchers within the scope of their employment should be considered “works for hire” and owned by their employer/university. Under prior law there was a judicially-crafted “academic” exception to the typical work-for-hire ownership allocation rules. Since enactment of the 1976 U.S. Copyright Act, the continued applicability of that exception has been called into question, but most U.S. universities as a matter of policy state that copyright in works of scholarship created by university employees are owned by those individual creators. See Corynne McSherry, Who Owns Academic Work? (Harvard University Press 2003); Kevin L. Smith, Owning and Using Scholarship: An IP Handbook for Teachers and Researchers (American Library Association, 2014),
Duke leaves the ultimate decision on how to disseminate scholarship to the individual authors. Many authors post their materials to Duke systems (for example, DukeSpace, our institutional repository). But, many also share through nonprofit repositories such as ArXiv or bioArxiv, as well as commercial sites such as ResearchGate and Academia.edu. Because of the variety of content, and the desire to engage our research with the public, we also share content through more popular sites such as YouTube.

Given our interest in widespread dissemination of ideas, for research and academic work our strong preference is a system that is biased toward keeping content up online unless there is strong evidence that an infringement has occurred. The current notice and takedown system does not always accomplish this goal. First, for some academic works, the ownership of rights is far from clear. Although authors are the holders of those rights initially, they are often asked to license them away at least in part through publishing contracts that are confusing and vary significantly from journal to journal and which can change with some frequency. As a result, some academic authors are unsure of whether they are legally permitted to share their own work online under the terms of their publishing agreement. Many research articles are also subject to pre-existing licenses that attach automatically upon creation – for example, at Duke under our Open Access policy— which provide that authors and their institutions retain certain rights to share and reuse their work. My experience with takedown requests we receive at Duke is that publishers do not take into account pre-existing open access licenses even though their existence is widely known. In the case of a takedown request for an article an author has posted to an online platform, authors can feel uncertain how to respond since they may be unsure whether they actually have retained the necessary rights to distribute or reuse their own work.

These takedown efforts to remove content posted by authors can be highly disruptive. In our role as a service provider at Duke, we only receive a few such requests each year, but other online hosts of scholarly content have become targets. In 2017 the commercial publisher Elsevier, a Dutch-owned publishing conglomerate, reportedly issued 100,000 takedown notices to


4 See Eric Priest, Copyright and the Harvard Open Access Mandate, 10 NW. J. TECH. & INTELL. PROP. 377 (2012).
ResearchGate. ResearchGate is a for-profit site, but most of the content is submitted by academic authors to share for free with other researchers and the world.⁵ Subsequently, Elsevier and one other publisher, the American Chemical Society, sued ResearchGate for copyright infringement, identifying more than 3,000 articles they claimed rights to.⁶ At least some of those articles are likely to be covered by preexisting university open access licenses.⁷ At present ResearchGate reports that it hosts 150,000 Duke authored articles.⁸ Unfortunately, Section 512 currently contains few mechanisms to address these asymmetries of power and information in the notice and takedown process. For most academic authors I work with, including faculty but especially graduate students, responding to a takedown notice is an intimidating and time-consuming process that most will try to avoid if at all possible.

Second, and perhaps the most important thing I can convey in this testimony, is how important fair use is for research, teaching, and for libraries that support those functions. Most research is highly iterative, building upon the work of others. Often, for scholarly publication that means one must reference earlier work by copying—whether by simple quotation in a literary critique, by copying charts or graphs in a scientific publication, or by reusing images in a work commenting or criticizing art or history. These are all common place examples of fair use that academic authors and teachers rely on every day. Indeed, I have found that I seldom review a scholarly work that does not rely on fair use in some way. While the courts have consistently found that fair use supports these kinds of core scholarly and teaching uses, other provisions of the Copyright Act can make exercising the fair use right challenging. For scholarly authors who want to share their work through online platforms, Section 512 is one of them.

Section 512 does not explicitly address how fair use factors into the notice and takedown process. The Ninth Circuit’s decision in Lenz v. Universal Music Group Corp., 815 F.3d 1145

(9th Cir. 2016) (the “dancing baby” case) was a welcome development, as it mandated that a rightsholder first consider fair use in order to assert the required good faith belief of infringement when making a takedown request. However, in practice we know that in many instances automated content identification systems are the first method of assessment, and they do not handle fair use assertions well.

This is predictable given the fact-intensive balancing that fair use requires. It is an “equitable rule of reason” that requires careful consideration of several factors. For a recent, ironic, example, YouTube’s ContentID system reportedly flagged a video of a panel discussion of a law school copyright conference hosted by NYU’s Engelberg Center on Innovation Law & Policy. It identified multiple claims of infringement. The videos included several short clips of popular songs, which were necessary for the musical experts on the panel (experts from the well known “Blurred Lines” case) to in include in order to explain to the audience how to analyze songs for similarity. Although NYU had a strong fair use claim, ContentID had no way of understanding.

While automated systems certainly have their place, it is important to have adequate processes in place to protect those users, such as academic authors, who rely heavily on fair use when sharing their own research with the world.

2. Universities and research libraries are major service providers

Duke University, like many other large research and teaching institutions, is also a service provider in many different ways. Duke relies on Section 512 to provide these services. We operate a network that serves thousands of people. At Duke we have over 40,000 students, faculty and staff with network credentials—a population that if it were a county would rank larger than one third of North Carolina’s counties. Because (in normal times) we have a residential student population and activity on campus at all hours, our network acts in many

9 HR Rep No 94-1476, 94th Cong, 2d Sess. 65 (1976).
10 How Explaining Copyright Broke the YouTube Copyright System, ENGELBERG CENTER ON INNOVATION LAW & POLICY, NYU SCHOOL OF LAW, March 4, 2020, https://www.law.nyu.edu/centers/engelberg/news/2020-03-04-youtube-takedown
respects like that of a typical ISP, facilitating streaming content, email, file storage access, and all variety of other normal network traffic.

Our network also serves a special purpose—it is the technological backbone supporting Duke’s teaching and learning for our undergraduates, it acts as a critical research pipeline for faculty and graduate students, and serves as an important pathway for health-related information for our university health system. I cannot overstate how critical network access has become for modern teaching and learning, which has become easy to see over the last several months. Even in ordinary times, denying a student network access can be debilitating. That student in many cases cannot get her homework, cannot submit assignments, cannot take exams. In the current environment, depriving a student of internet access would be almost equivalent to expulsion. Starting in mid-March, in response to the Coronavirus pandemic, Duke moved over 6,000 courses to an online only format. This required thousands of instructors and tens of thousands of students to rely entirely on their internet access, including their home networks as well as our campus network, to stream online lectures, access digitized course materials, and use online tools to conduct research. We believe the fall semester will also likely include a substantial online component, and longer-term we anticipate that instruction will permanently depend more on online teaching.

In addition to our faculty, students, and staff, Duke seeks to engage deeply with our local community and so we open our campus and libraries to the public. Through terminals inside our libraries, we provide public internet access and access to specialized electronic resources we have purchased or licensed. Many libraries fill this same need for their local communities, even when their physical buildings are closed. For example, during the covid-19 pandemic, some community colleges that were otherwise closed still allowed students without broadband to use internet-connected computer terminals in the college libraries.11 In my experience, users who come to the library for internet access are doing so because they have few other choices, and need to get important work done. A 2013 survey by the Pew Internet and American Life Project found that 60% of those who used the Internet at a public library in the previous 12 months did research for school or work; 42% say they got health information; 42% say they visited

11 Lauren Lumpkin, A community for students’ needs, Washington Post, B1, April 2, 2020.
government websites or got information about government services; and 23% say they looked for jobs or applied for jobs online. One reason users rely on library internet access is because they do not otherwise have good access at home. A 2017 report on Texas public libraries reported that library directors found that even for users with home internet access, individuals would use library Internet because of its greater bandwidth and service. Additionally, not all users have the option of Internet access at their residence; as the same survey report explained, “[r]anchers and others in rural area in particular have difficulty obtaining reliable and reasonably priced Internet at their residences.” Further, numerous directors reported that users with laptops accessed their libraries’ wireless service after normal hours; they cited examples of users parking near the library when the library was closed to access an Internet connection. This has become common practice during the pandemic, when public libraries are closed.

Like other service providers, Duke relies heavily on the Section 512(a) safeharbor for “mere conduits” to safeguard against onerous copyright liability because of user activity, whether they be visitors, students, or others. Unlike other service providers, Duke and other universities are actually subject to a higher standard under the Higher Education Opportunity Act, which requires the university to, among other things, put in place written plans to combat infringement by network users, “including through the use of a variety of technology-based deterrents.” For 2020, Duke has received an average 380 takedown notices per month, the vast majority of which are claims regarding students who have shared popular media on the internet. However, over time (we suspect because of the rise of streaming services) Duke has seen a steady decline in notifications overall.

Finding information online is critical to all aspects of teaching and research, and Duke operates several services that rely on the protections of 512(d) for electronic information location tools.

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12 Pew Internet & American Life Project, Libraries at the Crossroads, http://www.pewinternet.org/2015/09/15/libraries-at-the-crossroads/. A 2013 survey also showed 16% of Internet users at libraries paid bills or did online banking and 16% took an online class or completed an online certification program. Pew Internet & American Life Project, Library Services in the Digital Age (2013), http://libraries.pewinternet.org/2013/01/22/Library-services/.
One of the primary functions of our research library is to lower barriers to the discovery of research materials. One way we do this is through our online library catalog, which contains millions of records related to information resources located locally (e.g., physical books) as well as links to online materials. We are continually seeking ways to enhance discovery of relevant content, which in many cases means including links that our librarians did not create, and directions to resources whose copyright status would be impossible for us to independently verify.

To give a sense of scale, as of the date of this testimony, Duke University Libraries’ online discovery portal includes online links to materials including 156 million journal articles, 768 million newspaper articles, 33 million magazine articles, 24 million trade publication articles. Our online catalog also includes millions of records pointing to content held by libraries we closely collaborate with at UNC Chapel Hill, NC State University and NC Central University through the Triangle Research Library Network. In order to surface so many critical scholarly resources, it is important that our librarians be able to share links to those materials without fear of copyright liability, which Section 512(d) safeguards against.

Duke also supports numerous services that host and distribute content stored at the direction of users. These are critical to our goal of sharing knowledge with the world and our overall pursuit of the progress of science. Duke’s faculty and graduate students have deposited thousands of research articles, reports, theses and dissertations, and data sets through our library’s repositories. Every month these materials are downloaded on average more than 100,000 times by users in almost every corner of the world. One important feature of this system is that it enables scholars to quickly and easily disseminate the results of their research, access to which can be time sensitive. For example, a recent upload to our repository, deposited by a Duke faculty member, explained a method for decontamination of N95 respirators to address PPE shortages in healthcare settings.

Research today is highly collaborative and crosses institutional boundaries. So, Duke also hosts repositories that invite content from contributors beyond the Duke community. For example, Morphosource is a project-base data archive of 27,000 published 3D models of biological specimens (largely, skeletal material), led by faculty member Doug Boyer.\(^{19}\) It allows researchers to store and organize, share, and distribute their own 3D data. Funded by the National Science Foundation, repositories like MorphoSource fill an important role in the research community in providing a centralized platform through which to share research data within others.

Without the protections that Section 512(c) provide, Duke would be unable to host these services in the way it currently does. Also important are the provisions of Section 512(e), which recognize principles of academic freedom and reflect the reality of academic research by stating that knowledge of infringing activity by faculty members or graduate students will not be imputed to the university under certain circumstances.\(^{20}\) Effectively, this means we can treat their uploads as if they were third-party uploads to these systems. Many other research libraries offer similar repository services, which comprise the network of systems that allow public access to millions of research articles, data sets, and other research and teaching related materials.\(^{21}\) At Duke, we have on occasion received takedown notices for content posted to these systems, though in very small numbers and almost all of which were resolved satisfactorily for both the user and the claimant.

3. Thoughts on 512 going forward

On the whole, Section 512 works well for research libraries and research institutions. I realize that viewpoint is not shared by all other stakeholders. My first and primary concern is that this subcommittee consider the unintended consequences that changes to Section 512 could have on research and learning. Copyright law, and the DMCA in particular, has a significant effect on how scientists, graduate students, post-docs, and teachers share their work. Some things important to universities and research libraries in thinking about changes are:

\(^{19}\) Morphosource by Duke University, https://www.morphosource.org/
\(^{20}\) § 512(e).
1. **Protect the flexibility of fair use.** Fair use is essential to our mission: research, teaching and learning. Particularly for publicly engaged scholarship, academic authors need to be able to share their works—which often include portions of third-party works—on a wide variety of online platforms. If automated systems identify and systematically exclude materials that are dependent on fair use, the right of fair use becomes diminished. Under the holding in the *Lenz* case, requiring that rightsholders consider fair use before making a takedown request is helpful. Service providers also play a role. Some service providers have been proactive about protecting fair use by, in certain circumstances, requiring more supporting documentation from those who make takedown requests. Unlike the Copyright Office, which in its recent Section 512 Study Report was critical of these practices, we applaud them and believe services providers should be protected when doing so.

2. **Take care with repeat infringer rules.** Almost every aspect of teaching now requires internet access. For students, especially now that so much teaching is remote, being cut off from network access can be the practical equivalent of expulsion. At least one recent judicial decision, *BMG Rights Management v. Cox Communications*, 881 F. 3d 293 (4th Cir. 2018), has held that to be eligible for safe harbor protection under 512(a), service providers must have polices in place for termination of subscribers who are not just repeat “adjudicated infringers,” but merely “infringers” with no due process required to verify allegations. Termination of internet access based on allegations alone, especially when few other internet access alternatives are available, seems too low a bar.

3. **Increase education about copyright law.** A copyright education initiative is something proposed in the U.S. Copyright Office’s recent 512 Study Report. I agree that education about copyright law and the function of the DMCA is important. In my experience with

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22 U.S. COPYRIGHT OFFICE, SECTION 512 OF TITLE 17: A REPORT OF THE REGISTER OF COPYRIGHTS 155 (May 2020), https://www.copyright.gov/policy/section512/section-512-full-report.pdf (“OSPs do not appear to be fully honoring the requirement in section 512(c)(1)(C) that, upon receiving a takedown notice that is compliant with section 512(c)(3), they “respond[] expeditiously to remove, or disable access to” the material.”

23 *Id.* at 171.
authors of research papers and published scholarship, users have great respect for copyright and in fact often presume that a license is required when it is not. The challenge I encounter often is users who self-censor themselves and presume that the law does not allow them to do many things that are permissible, for example under fair use. This hampers the distribution of research and is not in keeping with the Act’s overarching goal of promoting the progress of science. Education for both rightsholders and for service providers about the broad scope of fair use for research and teaching could be valuable.