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VOLUME 7 NUMBER 1 WINTER 2015

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Given the geographic and natural resource advantages that countries in the Americas have which will likely shape the business and trade climate in the 21st century, accelerating the development process for developing countries in the region takes on new significance for all involved. This work assesses ways in which Central American countries can use compliance with GATT-TRIPS and TRIPs-plus bilateral agreements to promote their economic development. The first section describes current approaches to IP protection in Costa Rica and El Salvador. The final section goes on to propose regional strategies and legal changes, which are GATT-TRIPS compliant that could potentially make the region more attractive for foreign direct investment.

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Few things are as ingrained in Americans’ daily lives as the Internet. A one-stop source for information, communication, and entertainment, the Internet has, for many, supplanted the old media that came before it such as books, telephones, fax machines, and television. Yet the Internet is an incredibly nebulous thing, a network of various private networks the regulation of which is currently even more amorphous. A recent decision of the D.C. Circuit, which has national effect, has rendered the traditional model of the Internet subject to upheaval. The fundamental principle in question, so-called “net neutrality,” stands for the idea that Internet providers must treat all traffic equally.
Blocking and preferential treatment of certain Internet content providers (websites) was disallowed under the now-vacated regulatory regime of the F.C.C.’s Open Internet Order. The crucial concern addressed by this Article is how Internet providers are now essentially free to force various services and websites like Netflix and even Google to pay a fee if they want to be made available for subscribers of the Internet provider’s service, a cost which is likely to be passed on to consumers.

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Organ transplantation has been a life-saving treatment option for many who require this intervention due to organ failure. However, there are many legal and ethical considerations regarding allocation of this limited resource. Some of these issues were brought to the forefront in the highly publicized cases of Steve Jobs, Sarah Murnaghan, and Javier Acosta. These were instances where it appeared that in getting their transplants, these individuals obtained an unfair advantage over others on the waitlist. When a resource is as scarce as an organ for transplantation, equitable distribution policies are integral to a just allocation system.

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Using GATT-TRIPs to Improve Development Opportunities: A Proposal for Central America

by CECILY ANNE O’REGAN*

PATRICK T. O’REGAN JR.**

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I. Introduction

In a world of unprecedented wealth, almost 2 million children die each year for want of a glass of clean water and adequate sanitation. Millions of women and young girls are forced to spend hours collecting and carrying water, restricting their opportunities and their choices. And water-borne infectious diseases are holding back poverty reduction and economic growth in some of the world’s poorest countries.¹

It is in the shadow of these pressing issues that developed countries, led by the United States, Europe and Japan, labor to ensure that developing countries,² and eventually least-developed countries,³ bring their national

laws into compliance with the General Agreement on Trade and Tariffs (GATT), particularly the section directed to Trade Related Aspects of Intellectual Property Rights (TRIPs). Dissatisfied with GATT-TRIPs, developed countries have increasingly relied on bilateral and regional trade agreements. Trade agreements, such as the Central American Free Trade Agreement (CAFTA), were designed to achieve perceived unfulfilled objectives of GATT-TRIPs. The United States Trade Representative (USTR), whose function it is to develop and coordinate international trade, recognizes the importance of intellectual property to the increased productivity and growth of the U.S. economy. However, this begs the question: at what cost to the developing countries?

One problem faced by developing countries, is that the most valuable asset the country may have is one or more natural resources. Natural resources include materials and components found in the environment, but can also be thought to include biodiversity and traditional knowledge. The importance of natural resources is increasingly recognized as the world faces shortages of food and water and an increasing cost of production of foodstuffs. So, while the developing may have thrown off the dominance of their colonial masters, some would argue that the yoke of the colonial master has been replaced with an exploitation by developed countries of their natural resources.

Poor countries have been told to preserve their . . . genetic resources on the off-chance that at some future date something is discovered which might prove useful to humanity False [They] are also told that the rich will not agree to compensate the poor for their sacrifices. The poor are not asking for charity. When the rich chopped down their own forests . . . and scoured the world for cheap resources, the poor said nothing . . . Now the rich claim a right to regulate the development of poor countries. And yet any suggestion that the rich compensate the poor adequately is regarded as outrageous. As colonies, [they] were exploited. Now, as independent nations, [they] are to be equally exploited.5

[1] World Trade Organization, GATT and TRIPs: A Legal Analysis of Past, Present and Future, (WTO, September 2009), (explaining that the WTO has a formula for making a country into a developing country).


Additionally, developing countries often have fragile economies that are easily, and often profoundly, impacted by the vagaries of weather, social unrest and political corruption. These countries are also often relatively small in size and economy which puts them at a considerable disadvantage in dealing with larger, economically more powerful, developed countries.

Not surprisingly, although the developing countries and least developed countries comprise a majority of the member countries of the WTO, their bargaining power against developed countries is nominal and many would argue ineffective. Certainly the failure to conclude the trade negotiation of the World Trade Organization’s (WTO) Doha Development Agenda, which commenced in November 2001 and has been stalled since 2008, illustrates a significant divide between developed countries and developing countries.\(^6\) Although, the objective of Doha was to lower trade barriers around the world, the developing countries wanted safeguards to protect their economies and to protect poor farmers in the event of an import surge or a price fall. These protections, if agreed to, would have allowed countries to impose a special tariff on certain agricultural goods.\(^7\) The impasse over these protections resulted in the collapse of Doha talks in July of 2008.\(^8\) In particular, there was an irreconcilable disagreement between India, arguing on behalf of the developing countries, and the United States over these safeguard mechanism.\(^9\) That said, some would still argue that even though the Doha Development Agenda remains stalled, the intended effect of Doha—i.e., a reduction in trade barriers—was achieved during the seven year negotiation between 2001 and 2008 because the global economy expanded by 30% and real foreign direct investment increased 25%.\(^10\)

It may seem hopeless that the developing countries can win at the development game under the yoke of GATT-TRIPs, much less any of the bilateral agreements. The bilateral agreements, referred to as TRIPs-plus, often impose an even higher burden on the DC to protect intellectual

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property rights other than TRIPs. Notwithstanding efforts by nongovernmental organizations (NGOs), like GRAIN,¹¹ it also seems unlikely that the developing countries will avoid the pressure to comply with GATT-TRIPs and any higher intellectual property right requirement that might be imposed by a bilateral TRIPS-Plus trade agreement.

This paper explores whether developing countries can win at the development game from the perspective of Central America, which is a biodiversity hotspot¹² rich in traditional knowledge, using Costa Rica and El Salvador as a vehicle to understand how these issues present themselves in the Central American region. This paper goes on to make recommendations for Central America, which will comply with obligations under GATT and the bilateral trade agreement CAFTA. The force of these two agreements may also enable Central American countries to create a regime that allows them to benefit from stricter IP protection.

II. Current Approaches to Intellectual Property Protection

A. Costa Rica

Costa Rica is a middle-income developing country.¹³ Costa Rica has been independent since 1821, and has had a Constitution since 1949.¹⁴ It is a small country, having an area of approximately 51,100 square miles,¹⁵ with a middle-income and extensive tourist facilities. English is a second language for many Costa Ricans,¹⁶ which puts Costa Rica in a position where it can engage with any country doing business in English. Like other Central American countries, Costa is rich in biological diversity. Additionally, Costa Rica has been able to economically benefit from its rich biodiversity by forming INBio, which is the result of an agreement entered into with the multinational chemical company Merck and which provides a mechanism for bioprospecting in Costa Rica,¹⁷ and establishing a robust ecotourism business.

¹⁵. Id.
¹⁶. Id.
Under Costa Rican law inventions that are capable of being applied in industry are eligible for patents. Consequently a patent of invention may be obtained for a product, a machine, a tool or a manufacturing process, provided the requirements of novelty and patentability are complied with. Costa Rica does not grant patents for discoveries, scientific theories, mathematical methods, computer programs, business methods, surgical methods, diagnostic methods, plant varieties, microbiological process, or anything that is contrary to law, morality, public health, or public safety. Costa Rica performs a substantive examination of any patent application that is filed. Moreover, Costa Rica requires ‘working’ in Costa Rica within four years of filing for a patent application or within three years of grant, whichever is later. Reciprocity for working in another Central-American country could also be relevant under Costa Rican law. Patents may be expropriated when it is in the public’s interest. Applications also require a power of attorney legalized by the nearest Costa Rican embassy.

Trademarks are registrable for 10 years and renewable for similar periods. There are some limitations on the types of marks available including, the color selection and specific letter of the alphabet. If a mark is not used within five years of the registration date, it will be vulnerable to cancellation for non-use. Costa Rica signed a free-trade agreement that included IP provisions with Mexico, El Salvador, Guatemala, Honduras and Nicaragua on November 22, 2011.

B. El Salvador

Like Costa Rica, El Salvador is also a constitutional democracy. The country of El Salvador is approximately 20,742 square miles, making

19. Id.
20. Id.
21. Id.
22. Id.
23. Id.
24. Id.
25. Id.
26. Id.
27. Id.
28. Id.
it significantly smaller than Costa Rica.\textsuperscript{31} Unlike Costa Rica, the people of El Salvador are largely mestizo, a mix of Spanish and indigenous people.\textsuperscript{32} Although a constitutional democracy, El Salvador struggled through a brutal 12 year civil war from 1980-1992 and has only become a democratic country more recently. El Salvador, like Costa Rica, is rich in biological diversity. In 2007, the United Nations Education, Science and Culture Organization (UNESCO) identified Apaneca-Llámatepec and Xiriualtíque Jiquitéco, El Salvador as part of the World Network of Biosphere Reserves.\textsuperscript{33} Apaneca-Llámatepec is notable because it can be used to assist in the development of shade grown coffee by establishing sustainable coffee production enterprises.

In 2002, the Salvadoran government enacted legislation to improve the legal framework for intellectual property.\textsuperscript{34} Judicial enforcement of intellectual property law is the weakest part of IP protection in El Salvador.\textsuperscript{35} Following GATT, El Salvador lengthened its patent to a twenty year term, bringing it in conformance with international practice.\textsuperscript{36} Pharmaceutical patents have a term of only fifteen years.\textsuperscript{37} Similar to the requirements in Costa Rica, inventions involve a great deal of industrial applicability.\textsuperscript{38} Restrictions to patentability include an exclusion of patents for discoveries, scientific theories, mathematical methods, business methods, mental steps, surgical methods, diagnostic or therapeutic methods, and anything that is contrary to public policy or morality.\textsuperscript{39} Patent applications are also subject to examination, which must be requested in writing.\textsuperscript{40} Applicants must provide a power of attorney legalized by the local Consulate of El Salvador.\textsuperscript{41} Unlike Costa Rica, El Salvador does not require working, but a compulsory license may be granted in the event of an emergency or for national security reasons.\textsuperscript{42}

\begin{thebibliography}{9}
\bibitem{31} Id.
\bibitem{32} Id.
\bibitem{34} Org. of Am. States (OAS), Foreign Trade Info. Sys. (SICE), \textit{Trade Summary, El Salvador}, 103 (2003).
\bibitem{35} Id.
\bibitem{36} Id.
\bibitem{38} Id.
\bibitem{39} Id.
\bibitem{40} Id.
\bibitem{41} Id.
\bibitem{42} Id.
\end{thebibliography}
In 2002, trademark law was amended to protect against bad faith registration of famous marks.\textsuperscript{43} El Salvador is also a member of the Central American Agreement for the Protection of Industrial Property of 1968.\textsuperscript{44} El Salvador has also signed a Free Trade Agreement with Mexico, Costa Rica, Guatemala, Honduras and Nicaragua on November 22, 2011.\textsuperscript{45}

III. Strategies for Central America to Meet its Obligations under GATT-TRIPs and any TRIPS-plus Bilateral Agreement in a Manner which Optimizes and Strengthens their own Developing Economies

A. Develop a Centralized and Harmonized IP Protection Regime, Eliminate Draconian Procedural Requirements, and Allow for filing Applications in the English Language

Both Costa Rica and El Salvador have conformed their Intellectual Property (IP) coverage to the minimum standards required as a result of their membership in CAFTA.\textsuperscript{46} However, neither country, nor any of the other countries in the region, are positioned to provide a well-equipped IP office to cost effectively prosecute intellectual property rights for applicants from outside the region. As noted by The Commission on Intellectual Property Rights, "almost all developing countries face shortages of professional staff in their national IP administration."\textsuperscript{47} Moreover, the countries of Central America have a GDP (purchasing power parity) that ranges from $3.08 billion (USD) for Belize\textsuperscript{48} to $61.43 billion (USD) for Costa Rica.\textsuperscript{49} Combined, however, the countries of Central America have a GDP of $240.72 billion (USD).\textsuperscript{50} This greater GDP for the region, if used collaboratively by the countries, would put the region in a

\textsuperscript{43} NATURAL HISTORY MUSEUM, Coffee and Biodiversity Conservation in El Salvador, (April 2002); Corrine Podger, Biodiversity-friendly Coffee to Help El Salvador, BBC NEWS (Sept. 17, 1999).

\textsuperscript{44} Id.

\textsuperscript{45} See ORG. OF AM. STATES, supra note 29.

\textsuperscript{46} See OFF. OF THE U.S. TRADE REPRESENTATIVE, CAFTA-DR Final Text, ARCHIVE available at http://www.ustr.gov/archive/Trade_Agreements/Bilateral/CAFTA/CAFTA-DR_Final_Texts/Section_Index.html.

\textsuperscript{47} COMM’N. ON INTELLECTUAL PROP. RIGHTS, Ch. 7: Institutional Capacity: Integrating Intellectual Property Rights and Development Policy, 137, 145 (2002).


\textsuperscript{50} U.S. C.I.A., World Factbook, El Salvador (June 22, 2014), Honduras (June 22, 2014), Nicaragua (June 20, 2014), and Panama (June 20, 2014).
stronger negotiating position with respect to developed countries and potentially attract foreign direct investment.

Thus, one proposed strategy would be to follow the European model of providing a centralized office for procurement of intellectual property rights. The Office can be staffed by qualified nationals from each of the regional countries, and offices for different aspects of the process can be set-up in different countries to level the impact. Once an applicant has procured rights, which are granted or allowed under the system, the right can then unbundle into selected national offices. These offices can then collect annual taxes or annuities or form the basis of a regional patent with a single annuity that is shared among the member countries. By establishing a centralized IP registration office for the region, the countries of Central America will be able to achieve an economy of scale for the effort required to manage and examine the applications—whether trademark or patent. Moreover, foreign applicants might be more inclined to pursue IP protection in a single application covering a region having a GDP of $240.72 billion (USD) as opposed to a series of separate applications for countries with a GDP as low as $3.08 billion (USD). A regional solution might also be advantageous if the countries of Central America can align themselves with respect to IP policy.

Another proposal would be to eliminate the legalization processes currently required by the national offices in El Salvador and Costa Rica for such routine documents as a power of attorney. A simplified procedure, such as notarization before an appropriate officer should be sufficient to satisfy any concerns the government officials have for fraud or unauthorized filing. However, requiring the additional step of processing the document through a consulate presents a disincentive for pursuing IP protection.

A regional IP office capable of receiving and examining English language applications, while providing regional protection, would favor an increase in filings from foreign applicants already having an English language specification. This stems from the pooling of resources provided by such a model. Belize is English speaking, Costa Rica is largely


52. COMM’N. ON INTELLECTUAL PROP. RIGHTS, Ch. 6: Patent Reform, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY 111, 142 (2002).

53. FOREIGN TRADE INFO. SYS., supra note 29.
bilingual, El Salvador aspires to become bilingual in the near term, and other countries, like Nicaragua and Panama, have English speakers to contribute but may not be fully capable of running such an office independently.

B. Provide a Patent Prosecution Highway-type Process based on Patent Prosecution in Selected Countries

The Patent Prosecution Highway (PPH) is an increasingly popular mechanism for streamlining the patent process and costs for applicants. Various countries including the United States, Canada, China, Germany, Japan, Korea, Mexico, Russia, Singapore, Sweden, United Kingdom, and the European Patent Office have entered into a set of initiatives for providing accelerated patent prosecution procedures. Even Nicaragua joined the PPH process by entering into a pilot program with the USPTO on May 25, 2010. By sharing information between the patent offices, and acknowledging patentability determinations made in selected patent offices, this process also permits each participating patent office to benefit from work previously performed by the other patent office. The goal of this process is to reduce examination workload and to improve patent quality. Another benefit is that

[under the Patent Prosecution Highway, an applicant receiving a ruling from [a PPH country] that at least one claim in an application is patentable may request that the USPTO fast track the examination of corresponding claims in corresponding applications. Similarly, if the USPTO determines that at least one claim is patentable, the applicant may request accelerated processing of corresponding applications filed at [the patent prosecution highway country patent office.]

The Central American countries could coordinate to provide a similar mechanism, for patentable subject matter under Central American law, for fast tracking claims deemed allowable in selected countries through having their own regional patent office.


It would, however, be prudent to balance any PPH-style reciprocity granted against the scope of the subject matter that can be patented. For example, the Commission on Intellectual Property Rights has recommended that the scope of information that can be patented be limited in the developing countries in order to provide a pro-competitive environment. Moreover, standards for patentability should be established that are commensurate with the inventive contribution made by the inventor and should form a gate through which an applicant must pass before a patent is granted. Additionally, when the subject matter touches or concerns traditional knowledge or local biodiversity then efforts should be made to ensure that patents are not granted covering information already in the local public domain, notwithstanding any indication of allowance in another jurisdiction.

C. Develop Regional Technology Transfer/Material Transfer Agreement Arrangements and Strategies with Multi National Corporations and Developed Countries

Issues surrounding traditional knowledge present a unique challenge to managing intellectual property. Not surprisingly, the view of developed countries toward the value of traditional knowledge is quite different than the view of developing countries. However, it is at least recognized that traditional knowledge and biodiversity does have the potential to make a valuable contribution toward innovation. The World Health Organization has stated that “[a]lthough development costs associated with genomics are likely to be high, some applications . . . have already shown to be cost effective compared to current practice. Approaches such as collaboration between developed and the DC, public-private partnerships and establishment of regional and local networks may take the field forward.” Thus, establishing a strategy for controlling access to the local biodiversity is a prudent course of action.

It has been argued that “[l]ocal governments, not foreign bioprospectors, hold primary responsibility for environmental damage attributable to the collection of biological specimens.” While local governments do have the power to control the manner in which materials are taken, as well as how their populace is compensated, foreign

58. COMM’N. ON INTELLIGENT PROP. RIGHTS, supra note 52 at 114.
59. Fergusson, supra note 7.
60. CIA World Factbook, Costa Rica, supra note 14.
bioprospectors are in a position to take advantage of the naïveté of the local government or unfamiliarity with the issues. Therefore, establishing a regional strategy for access to biodiversity and traditional knowledge will provide the greatest benefit to the countries involved and help insulate the countries from unethical negotiation strategies.

Costa Rica has certainly leveraged its appreciation of its natural resources and developed a process for ensuring sustainability.63 The establishment of INBio in Costa Rica provides a model for using and benefiting from natural resources from which other countries can work.64 By controlling access to underlying materials (plants and insects) the benefit from the discoveries serves to overcome the inherent problem with the process of obtaining a patent. Traditional knowledge regarding a therapeutic benefit of plant or animal species has typically been known for an extended period of time by many members of a particular culture or group of people, despite it being potentially subject to refinement over time. This group knowledge negates the concept of patent inventorship. Moreover, additional work is often required to isolate a target compound or active ingredient responsible for the identified therapeutic benefit. Therefore patent inventorship for information that is the subject of traditional knowledge does not fit within the rubric of intellectual property as practiced in developed countries.65

A criticism of the Merck-INBio arrangement is that indigenous communities, which make up two percent of Costa Rica’s inhabitants,66 were excluded from the negotiations with Merck.67 This actual result supports the concern expressed by some that the economic benefit might not necessarily trickle down to the local inhabitants where, for example, the government controls access to the national resource, as in the case of Costa Rica, or worse yet is corrupt. In fact, Article 3 of the Biodiversity Convention does not provide any obligation on the national government to actually benefit its own indigenous populations.68 However, trade agreements have provided a vehicle whereby developed countries encourage the developing and least-developed countries to conforming

64. Zebich-Knos, supra note 17.
their local practice in other areas, such as human rights, and could be used to persuade participating countries to ensure that indigenous people receive the benefit of any arrangement.

D. Leverage Trademark Protection and Geographic Indication to Add Cache and Intangible Value to Goods and Services Available from Central American Countries and Register Geographic and Cultural Indicia Internationally to Prevent Misuse

Trademarks, trademark rights and geographic indications also have the potential to significantly impact the amount of direct foreign direct investment. These also provide “a more powerful economic development lever than trade.” Trademark and geographic indications primarily serve to identify goods in the minds of the consumers. By providing strong trademark protection and establishing a geographic indication for goods developed within the developing countries, companies may have “an incentive to invest in making their marks more recognizable and easier to remember.” In turn, this could lead to development of and investment in the local economy which will create jobs.

As a first step, all countries in Central America should accede to the 1958 Lisbon Agreement for the Protection of Appellations of Origin and their International Registration (revised in 1967 and 1979). The Lisbon Agreement provides that “‘appellation of origin means the geographical name of a country, region, or locality, which serves to designate a product originating therein, the quality and characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors.” Currently, Costa Rica and Nicaragua are the only Central American countries that are Signatories to the Agreement. However, exploiting the ability to associate an appellation of origin to products and services could prove beneficial to the region. For example, the rich Mayan heritage of much of the region, as well as the ability to grow and export commercially desirable products, such as the shade grown organic coffee of El Salvador has been successful in accomplishing this.

70. Id.
The World Bank noted that “shade-grown coffee techniques . . . [could be] a lucrative venture, placing their products on gourmet world coffee markets.”

Countries of Central America should identify useful appellations and register those appellations with the International Bureau as a minimum level of protection. Currently, the only appellation recorded with the International Bureau under the Lisbon Agreement attributable to any country within Central America is Banano De Costa Rica for bananas registered by Costa Rica. The procedure for registration is straightforward and only requires that a “competent national authority” file for the appellation. Once registered, the countries can control use of the appellation by third parties. Although the first appellation granted under the Lisbon Agreement was to Pilsner, the process is probably most familiar with respect to the use of the word ‘champagne’ to designate beverages originating from the delimited territory within the departments of Marne, Aisne, Aube and Seine-et-Marne. While the United States is not a signatory to the Lisbon treaty many U.S. companies, nonetheless, adhere to its principles because of the international nature of their business. Moreover, under CAFTA, “geographical indications are indications that identify a good as originating in the territory of a Party, or a region or locality in that territory, where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographic origin.” By identifying and protecting geographical indications of the region, other parties, including the United States, will have to provide a legal means to protect the geographical indications of the other countries.

Although it has been noted that developing countries may “not gain significantly from the application of geographical indications,” providing

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76. Lisbon Agreement, *supra* note 71.


79. *Id.* at para. 2.

80. **COMM’N. ON INTELLECTUAL PROP. RIGHTS**, *Ch. 4: Traditional Knowledge and Geographical Indications*, INTEGRATING INTELLECTUAL PROP. RIGHTS AND DEV. POLICY 73, 90 (2002).
some level of minimum protection with a strategy would be preferable to no protection. Further targeted regional protection should also be considered, where available.

E. Exclude Trademark or Service Mark Registration of Geographic or Cultural Indicia Indication Alone or in Combination with Another Mark without Permission from the Rights Holder

While trademark and geographic indications serve to identify goods in the minds of the consumers; geographic and cultural indicia should be preserved for use associated with the geography or by the culture. These indicia could then be licensed to larger multinationals for use with their own brand. Starbucks received negative press for opposing Addis Abbas attempts to trademark Ethiopian coffee varieties in the United States.® Consumers of high-end coffee in developed countries, particularly the United States, would be familiar with the Ethiopian varieties of coffee. It follows that trademark protection is appropriate, and appellation of origin, discussed above, is arguably more important. There is also value to the party selling products associated with the name or appellation where that appellation carries with it an expectation of quality. Thus, a company should not be able to exclude the indigenous population or other parties from using a trademark or geographic indication associated with a particular area.

A mechanism should be provided for remunerating the locals for use of the indicia which provides value to the final product. Companies should not be able to apply for trademark registration of their brand in combination with use of the appellation without permission from the competent national authority to whom the appellation has been registered. This seems particularly appropriate where use of an appellation can result in a 30% premium of price, as in the case of shade grown organic coffee described above.®

F. Provide a Clearly Defined Experimental Use Exception in the Local and Regional Patent Law to Promote Foreign Investment in Research and Product Development

One of the recommendations that the Commission on Intellectual Property Rights had for developing countries was to “[f]acilitate competition by restricting the ability of the patentees to prohibit others

82. Id.
from building on or designing around patented inventions. One mechanism for achieving such an objective would be to provide a clearly defined experimental use exception. The experimental use exception could then serve to promote foreign direct investment in research and product development. Several experimental use exceptions exist which could provide a model from which a Central American experimental use exception could be designed. A recognized problem for the developing countries is that there is a tight correlation between the per capita wealth of a country and the quantity and quality of its scientific papers, and of its investment in R&D. That is because nations get richer by introducing new technology. A rich country can do that through research, but a poor one can only copy.

By providing an environment where research can occur without fear of claims of patent infringement, while also providing basic patent protection, Central America would create a climate that fosters foreign direct investment in research.

One requirement that all companies have is the need to perform research and development. Performing research and development allows companies to stay relevant and compete in the marketplace. Research and development, depending on the industry, is a costly affair. Large multinational enterprises (MNE), may be able to risk researching, developing and launching a product irrespective of IP clearance. However, a cost-benefit analysis of funding new products favors developing and launching the product without spending an inordinate amount of time and money on determining whether the company is not running afoul of the IP rights of others. Providing an environment with an attractive cost of living and the ability to research and develop products free from the constraints of IP on the research and development could provide an attractive incentive for multinationals to invest in facilities within Central America. Moreover, there could be an incentive for expatriates to repatriate due to more opportunities. A variety of exemplary research exceptions can form the basis for any research exception implemented by the Central American countries. These exceptions include the Swiss research exception, the Japanese codified exclusion of research activities, and the more problematic, but informative, case law established in the United States governing experimental use.

83. COMM’N. ON INTELLECTUAL PROP. RIGHTS, supra note 52 at 114.
1. Swiss research exception

The Swiss research exception is an exemplar exception that could be codified in the Central American region. As discussed in the Gowers Review of Intellectual Property, the Swiss research exception provides guidance for basic elements of a codified research exception by providing that “acts undertaken in the private sphere for non-commercial purposes” are not covered by patents.\(^{86}\) Additionally, “acts undertaken for experimental and research purposes in order to obtain knowledge about the object of the invention, including its possible utilities,” are also not covered by the patent.\(^{87}\) This would be analogous to the exception provided for in the United States under 35 U.S.C. § 271(e) relating to activities engaged in to obtain market approval for pharmaceuticals and biotech formulations. Additional provisions could be included that allow for the use of an invention for teaching in schools, biological materials for purposes of discovering and developing new plant varieties and agricultural activities that are the result of chance.\(^{88}\) The Swiss research exception would clarify the research exception and create an environment where foreign companies could perform research and development in an environment free from a threat of infringement.

2. Japan’s Codified Experimental Use Exception

Article 69(1) of the Japanese Patent Act provides that “the effect of the patent rights shall not extend to the working of the patent right for the purposes of experiment or research.”\(^{89}\) This is another model of an explicit exemption of patent rights which encourages research and development and could be employed in the region. The Japanese courts have interpreted section 69(1) to apply towards activities that promote science.\(^{90}\)

To avoid ambiguity it would be prudent to ensure that such an inclusion is set forth in any experimental use exception at the outset. Japan’s definition also does not explicitly exempt acts of testing a device for business purposes. An additional provision, thereby including pharmaceutical testing for pre-market approval, would also be a recommended provision. However, any provision adopted by Central America should clearly provide for such testing at the outset. This could be

\(^{86}\) Id.

\(^{87}\) Id.

\(^{88}\) Id.


\(^{90}\) Id.
even more important given the possibility that research and development would likely include isolation and identification of bioactive materials from the indigenous biomaterials. However, at a minimum, Japan’s recitation of the experimental use exception is very straightforward and provides a benchmark for Central America to use in developing their own an experimental use section.

3. United States – Limited Experimental Use Based Largely on Case Law; Prior Commercial Use under the America Invents Act

The United States was the first to codify an exception governing regulatory activities for creation covered under 35 U.S.C. § 271(e). Although, the first to provide a law, the actual law governing experimental use has been clarified extensively by case law over the years. Experimental use has traditionally been a very limited defense to patent infringement in the United States. For example, a noncommercial activity “for amusement, to satisfy idle curiosity or for strictly philosophical inquiry” has been allowed. However, courts have been clear to distinguish between non-commercial use for philosophical inquiry and noncommercial use generally, such as that which would be engaged in by a University. Of course whether an activity is ‘commercial’ can still encompass a large territory of activity. Designing around a machine or process, arguably an infringing activity, has been considered to be a noninfringing experimental use in the US. On at least some levels, it makes business sense that a competitor should be able to prepare for marketing a generic drug once the patent has expired. Moreover, the patent laws are designed to provide a limited right to exclude others in exchange for placing information into the public domain and ultimately spurring further innovation. Understanding a patented device or process so that a new device or process can be developed achieves that public policy objective. The use of research tools that do not themselves require regulatory approval also falls outside the experimental use exception.

Under the America Invents Act (AIA), as of September 16, 2011, prior commercial use of a method is recognized as a defense against infringement as long as defined conditions are met. However, both

experimental use and prior commercial use could be included in the local laws to provide a basis for defense from the IP rights of others.

G. Develop a Regional Strategy to Protect Farmer’s Rights

Although Farmer’s Rights are not an intellectual property right per se, given the importance of conserving genetic resources, the important contribution that farmers make in developing countries with respect to conserving, improving and making resources available should not be overlooked. Protection of Farmer’s Rights is set forth in the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) which provides that each Contracting Party will take measures to protect Farmer’s Rights, including:

(a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture; (b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and (c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

The Treaty recognizes that farmers should have the right to “save, use, exchange and sell farm-saved seed/propagating material.” This could be established in a way to protect against the situation that some farmers found themselves in, whereby the makers of genetically altered seeds rely on contractual provisions to prevent farmers from using the seeds from one growing season to another. Additionally it may provide a safe harbor against the trend that makers of genetically altered seeds will pursue neighboring farms for growing crops from seeds that ended up on their property as a result of the natural dispersion process for seeds. The U.K. also introduced defenses in its Patents Act of 1977 designed to protect

97. COMM’N. ON INTELLECTUAL PROP. RIGHTS, Ch. 3: Agriculture and Genetic Resources, INTEGRATING INTELLECTUAL PROP. RIGHTS AND DEV. POLICY 63, 67 (2002).
99. Id.
farmers using traditional techniques for harvesting and livestock reproduction.\(^{102}\)

As the world food supply becomes increasingly at risk, the importance of sustainable farming practices is becoming increasingly important and will offer another mechanism for developing countries to advance economically. The World Bank has expressed concern that “the high price of food could lead to developing countries missing their international poverty targets.”\(^{103}\)

Honduras has recently begun appreciating the importance of their farmers. Honduras had been told by top economics over twenty years ago to invest in textiles and tourism.\(^{104}\) “Growing corn and beans [was] for losers,” they were indelicately told.\(^{105}\) However, with the increase in food riots and the world food production at risk, Honduras has made the decision to invest in farming and has made the decision to invest in genetically modified agriculture.\(^{106}\) While this is a positive step in some respects because genetically modified crops can have herbicide tolerance, insect resistance, disease resistance and drought resistance, it can also have a potentially significant and negative impact on the local biodiversity by leading to an increase in monoculture.\(^{107}\)

The Central American countries should work together to develop a consistent regional strategy that balances biodiversity with agricultural needs and potential. As crops continue to fail in other regions of the world, Central America can poise itself to become a premier provider of agricultural exports. This can be accomplished while ensuring that its own population has access to food.

**H. Exclusions to Patentable Subject Matter**

Although patents can essentially become a yoke that prevents economic advancement in developing countries they are not immune from complying with minimum intellectual property protection and enforcement standards either by virtue of GATT-TRIPs or a bilateral TRIPs-plus agreement like CAFTA. There is no requirement that patent protection be accorded to all things patentable or protectable elsewhere. For example,

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103. Rising World Food Prices, BBC NEWS (Apr. 11, 2008).


105. Id.

106. Id.

patent protection need not be granted for plants and animals, as provided for under Article 27.3(b) of TRIPs.

To the extent possible under GATT-TRIPs and CAFTA, countries in Central America should provide minimal patent coverage to avoid a situation where patent rights essentially impede their development. Toward that end, both El Salvador and Costa Rica already exclude several areas from the patentable subject matter including, discoveries, scientific theories, mathematical methods, computer programs, business methods, surgical methods, diagnostic methods, plant varieties, microbiological process, or anything that is contrary to law, morality, public health, or public safety.¹⁰⁸ This restriction to patentable subject matter may be a prudent approach that should be followed regionally. Lastly, all countries within Central America should coordinate to provide similar coverage; preferably under a regional patent system, as described previously.

I. Sui Generis

1. Develop a Traditional Knowledge Database

By developing a traditional knowledge database, the misappropriation and misuse of traditional knowledge can be decreased and, in some cases, avoided. Developing countries could work with Universities and other NGOs to compile information in a centralized database for the region which is then shared with the intellectual property offices internationally. This will thereby forms a basis for prior art against overly broad claims. One drawback that has been noted to the use of traditional knowledge as prior art currently arises where the information is not memorialized. In that instance, the information can be eliminated as prior art in other countries. For example, under U.S. law, one form of prior art applies where “the invention was known or used by others, or patented or described in a printed publication in this or a foreign country.”¹⁰⁹ A database would help prevent granting of broad patents based on existing information or known traditional knowledge.

In 1999 the Indian National Institute of Science Communication and the Department of Indian System of Medicine and Homeopathy agreed to collaborate on a traditional knowledge digital library. The “Traditional Knowledge Digital Library . . . [is an] ambitious project [that] began in 2002 and is transferring 5,000 years of ancient texts onto a digital database

¹⁰⁸. See MANUAL OF INTELLECTUAL PROP., Costa Rica, supra note 18; MANUAL OF INTELLECTUAL PROP., El Salvador supra note 37.

in Hindi, English and eventually French, Spanish and Japanese.\footnote{110} India believes that the database will safeguard traditional knowledge from patents. Skeptics believe it will just provide a mechanism to steal ideas. Either way, it may be more beneficial to place the traditional knowledge into a database to prevent others from trying to obtain an overly broad patent. The countries in Central America could, like India, coordinate to contribute to or prepare a traditional knowledge database for their contribution. The benefits to such a database would likely far outweigh the drawbacks.

2. Establish Uniform Rules Regarding Disclosure of Origin

Several countries, including India and Costa Rica, have taken a proactive step by requiring that patent applications disclose the origins for the biological material that is the basis for the application. Costa Rica Law 7788 provides that “[b]oth the National Seed Office and the Registers of Intellectual and Industrial Property are obliged to consult with the Technical Office of the Commission (for the Management of Biodiversity) before granting protection of intellectual or industrial property to innovators involving components of biodiversity.”\footnote{111} Countries within Central America should coordinate to provide similar disclosure requirements in their domestic or regional patent legislation.

3. Plant Variety Protection

Possibly one of the greatest resources available to the people in Central America is its diverse plant life. Under GATT-TRIPs countries are required to provide some sort of protection to plant varieties.\footnote{112} In 1995 it was estimated that the public sector spent $11.5 billion USD on agricultural research in the developing countries.\footnote{113} The purpose of the International Union for the Protection of New Varieties of Plants (UPOV) convention is to provide some protection, albeit with a lower threshold, to creators of a new plant variety.\footnote{114} By providing sui generis rights, instead of just signing on to the UPOV, countries in Central America can control the scope of the protection further to the manner in which Farmer’s Exception, as discussed above, are protected. Thus, it would be desirable for all

\footnote{110} Fred De Sam Lazaro, India Works to Shield Traditional Knowledge from Modern Patents, NPR NEWS HOUR (May 21, 2007).
\footnote{111} COMM’N. ON INTELLECTUAL PROP. RIGHTS, supra note 81 at 86.
\footnote{112} COMM’N. ON INTELLECTUAL PROP. RIGHTS, supra note 99 at 59.
\footnote{113} Id. at 60 (citing Philip G. Pardey & Nienke M. Beintema, Slow Magic: Agricultural R&D A Century After Mendel, INT’L FOOD & POLICY RESEARCH INST., WASH. D.C. (2001)).
countries in Central America to provide a mechanism for *sui generis* plant variety protection that also incorporates a uniform mechanism to protect Farmer’s Rights and prevents registration of existing plant varieties.

4. **Provide Regional Sui Generis Protection of Traditional Knowledge**

Prior informed consent should be an important component to accessing traditional knowledge. Moreover, informed consent can be tied to benefit sharing with the community. A few national and regional laws have set out prior informed consent requirements in their laws.\(^{115}\) It is important, however, that prior informed consent be on mutually agreed terms and that the issue is not ignored. Prior informed consent should not only include biodiversity and genetic issues, but it should also incorporate the rights of indigenous people. The Indigenous Peoples’ Rights Act (1997) was enacted in the Philippines and controls access to genetic resources and traditional knowledge on ancestral lands. Section 32 provides:

> Community Intellectual Rights.- ICCs/IPs have the right to practice and revitalize their own cultural traditions and customs. The State shall preserve, protect and develop the past, present and future manifestations of their cultures as well as the right to the restitution of cultural, intellectual, religious, and spiritual property taken without their free and prior informed consent or in violation of their laws, traditions and customs.\(^{116}\)

Costa Rica’s Biodiversity Law (1998) provides:

> [t]he biochemical and genetic properties of the components of biodiversity, wild or domesticated, belong to the public domain. The State will authorize the exploration, research, bioprospecting and use of the components of biodiversity which constitute part of the public domain, as well as the utilization of all the genetic and biochemical resources.\(^{117}\)

This requires consultations with indigenous communities prior to conducting any research on genetic resources, and benefits sharing arrangements for any commercialization of those resources. Similar coverage or indigenous rights and traditional knowledge should be established regionally.

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IV. Conclusion

As a practical matter, the developing countries will not be able to avoid their obligation under GATT-TRIPs and any TRIPs-plus agreement they have signed. These countries would be better served coordinating to protect and selectively exploit the valuable natural resources in a manner that promotes their economies and facilitates their further economic development. Central America is rich in biodiversity of culture and is strategically located. With the increasing food shortages and the need to understand and further develop the knowledge we gain from indigenous people as well as the value from their local biodiversity, the countries of Central America would be served by setting side any cultural and political differences and forming a cohesive strategy to meet their IP obligations and create an area that is attractive for foreign direct investment.

by JAMES H. RICHARDSON*

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I. Introduction

When an inventor applies to the U.S. Patent and Trademark Office ("USPTO") for a patent, there are legal and procedural requirements to the prosecution\(^1\) of that patent. One such requirement is the citation of similar inventions and patents that might enable, narrow, preclude, or otherwise relate to the patent currently being filed. Patent examiners subsequently review the patent application, any accompanying diagrams and descriptions, and any inventor cited prior art. Additionally, examiners may (and often do) attach further relevant citations to these applications. Empirical evidence, as well as common sense, suggest that patent examiners, assigned to parse through and assess the validity of patents, are overextended, and can devote only a relatively small amount of time and effort to the review of each individual patent. Thus, applicants, if they are so-inclined can choose to either overwhelm or underwhelm the examiner with lengthy and burdensome prior art citations, knowing full well that adequate attention will not be given to this bibliography.

This paper empirically evaluates the extent to which inventors either over, or underwhelm the patent office with information. This data is then channeled into an analysis of the effect of behavior upon the time from the filing of the patent to the eventual successful granting of that patent. Given the lack of available data on unsuccessful patent applications, as well as the fact that the overwhelming majority of patent applications are eventually successful, this paper focuses on time to patent, as opposed to deterministic outcome.\(^2\) Here, time is taken as a proxy for depth of analysis and scrutiny by a patent examiner. The paper performs two discrete analyses. First, this paper presents a careful analysis of the relationship between patent examiner citations and the amount of prior art cited by the applicant at the time that a patent is applied for. This analysis yields that the two statistics are inversely related. Specifically, the less prior art that is cited by the applicant, the more prior art the examiner eventually includes during prosecution. This association indicates that underwhelming the patent officer indeed leads to increased labor on behalf of patent examiners.

In light of this first analysis, a careful tabulation and discussion of the time to approval relative to the quantity of prior art cited is performed to create a foundational understanding of the extent to which this

\(^1\) Prosecution here refers to the process of applying for and receiving a patent.

\(^2\) See FTC, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy 217 (2003), available at http://www.ftc.gov/os/2003/10/innovationrpt.pdf (stating that the proportion of patent applications that are eventually approved is potentially as high as 98%).
overwhelming and underwhelming is impacting the time to receive a patent—a proxy for thoroughness. Empirical results indicate that while the time spent on examination increases with increased applicant citations, it does so marginally. This result taken in conjunction with the inverse relationship between applicant citations and examiner citations leads to the conclusion that applicants are better off citing little or no prior art, as this ensures that the examiner will spend more time searching for prior art, and less time evaluating the merits of the claims presented.

II. Literature Review

Empirical examination of the process of patent application has increased substantially in accord with the increasing amounts of data made available by the USPTO. The process of patent application obliges inventors to report any relevant inventions or discoveries that predate the inventors’ own, through citations to prior art. Prior art citations are then evaluated by a patent examiner at the U.S. Patent and Trademark Office in order to determine whether the invention is novel enough to merit patent protection. The preclusive effect of prior art citations, therefore, incentivizes inventors to conceal this information, either through over-citing, and attempting to bury the information, or by under-citing, and hoping that the patent officer will not find the relevant information in independent queries. Prior art citations are disaggregated into two categories: (i) applicant citations—prior art cited by the inventor or applicant, and (ii) examiner citations which are provided by the patent examiner during the process of patent approval. Prior art citation has been discussed extensively throughout the literature, and has long been one of the primary areas of research in patent law. Much of the literature focuses

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5. See id.

6. See Note, Prior Art and in the Patent Law, 73 HARV. L. REV. 369, 372 (1959) (discussing prior art, the standard of evaluation, and instances in which patents are not granted as a result of prior art conflicts).
on the importance of applicant cited prior art on examiner behavior.\textsuperscript{7} Research has also suggested that citations to prior art\textsuperscript{8} may be an indicator of patent value.\textsuperscript{9}

Building upon the model of backward citations as indicators of patent value, Hall et al. use the stock market valuation of the intangible assets of patent-holder corporations to intuit the value of these companies’ intellectual property.\textsuperscript{10} Under this metric, self-citations made by the applicant are a better predictor of patent value than are examiner citations; specifically, a one unit increase in the number of self-citations for all patents owned by a firm yields a 3\% increase in that firm’s market value.\textsuperscript{11} Hegpe and Sampat find that the opposite conclusion holds relative to the private value of patents.\textsuperscript{12} Namely, examiner citations are a stronger predictor of the value ascribed to inventions by the inventors. Irrespective, this association of value and citations makes clear the importance of prior art citation in the literature, as well as practically.\textsuperscript{13}

The value of patents—private, as well as public—underscores the importance of the process of approval. Patent prosecution is an extremely high-stakes field, and backward citations have a substantial impact on the value.\textsuperscript{14} Accordingly, inventors, research companies and law firms all have an interest in the implications of prior art citation. The importance of citations is tied intrinsically to the relationship between the examining officer, and increased patent applications. There is a growing sentiment that the USPTO is increasingly overwhelmed by the growing influx of patent applications; in comparison to the stagnation of resources


\textsuperscript{8} Also commonly referred to as “backward citations,” as opposed to forward citations, which account for an issued patent being cited by newer patents.


\textsuperscript{11} See id. at 34.

\textsuperscript{12} See Deepak Hegde & Bhaven Sampat, Examiner Citations, Applicant Citations and the Private Value of Patents, 108 ECON. LETTERS 287, 289 (2009) (discussing where private value is taken to mean the likelihood of patent renewal by an inventor; and thus the value to the inventor, as opposed to the market).

\textsuperscript{13} See id.

\textsuperscript{14} See Dietmar Harhoff, Fredricm. Scherer & Katrin Vopel, Citations, Family Size, Opposition and the Value of Patent Rights, 32(8) RES. POL’Y. 1343 (2002) (showing that references to prior literature are positively correlated with patent value).
apportioned to the office. In particular, they point out that the USPTO suffers from a severe dearth of resources and also from distorted incentive schemes. They propose a theoretical economic model devised to explain why poor examination leads to negative public utility outcomes. Thus, they posit, insufficient or inadequate patent examination stymies innovation, as it creates inventor reticence to challenge deficient patents. It would seem, then, that inventors’ over- or underwhelming examiners with either cumbersome quantities of prior art citations, or a complete dearth of prior art, lends itself to this same implication. Hence, the temporally determinative effects of patent applicant citations have a bearing on the socially unproductive approval of meritless patents.

Commensurate with the concerns of patent officers being overwhelmed by applications generally, is the concern that patent examiners lack the time, resources and capabilities to seek out prior art in the absence of some direction by the inventor. The literature has thus far focused on the proportionality of prior art citations by examiners relative to inventors. Empirical evaluation has shown that applicants often contribute an overwhelmingly low proportion of the prior art present in the final application. In fact, approximately 40% of patent applications contain only examiner citations, and no applicant citations. Yet, research also


17. See id.

18. See id. at 22-28. This model takes into account the cost and outcome of subsequent litigation relative to the cost of licensing.

19. See id.


22. See Sampat id. at 402.

23. See Alácer, Gittleman & Sampat, supra note 21, at 416.
suggests that this dearth of applicant citations is largely irrelevant, as examiners generally do not rely on these citations.\textsuperscript{24}

Yet, the bulk of the research on prior art citations focuses on examiner versus applicant cites, and the impact on the value of patents.\textsuperscript{25} While studies point to the importance of prior art citations in the discussion of overwhelming patent examiners, no research to date has examined the effect of backward citations on the time spent examining patents. An evaluation of the effect of prior art citations on the time for approval would corroborate intuitions regarding the overwhelming of patent examiners.

\textbf{III. Theory and Model}

While research has pointed out the importance of backward citations, and has speculated that this contributes to the overwhelming of patent examiners at the USPTO,\textsuperscript{26} no research to date has analyzed the temporal effects of either overwhelming or underwhelming patent examiners with prior art citations. By either grossly over- or under-citing to prior art in a patent application, an inventor might effectively shift the onus of searching for or researching preclusive art onto the patent examiner. Inventors (or more likely, law firms prosecuting patents) are likely fully abreast of the fact that the patent office and its examiners are overworked and under-resourced. Thus, strategically, applicants have an incentive to conceal any prior art or research that might undermine the probability of receiving a patent. This can be done either by willful omission of potentially preclusive prior art—or more frequently, a failure to cite any prior art. It can also be achieved by over-citing prior art, and forcing the examiner to mine through the sources listed—many of which are tangentially, if at all related to the invention submitted to the USPTO.

This strategic method of backward citation should lead to less preclusive prior art being discovered by examiners. And, therefore, patent applications which either under- or over-cite to existing inventions are less likely to be blown up during the approval stage. This then implies that patents with little innovative value-added will be more likely to be granted. Further, as patents are afforded the presumption of validity\textsuperscript{27} once

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\textsuperscript{24} See Christopher A. Cotropia, Mark A. Lemley & Bhaven Sampat, Do Applicant Patent Citations Matter, 42 RES. POL’Y. 844, 854 (2013) (pointing out that this failure to heed applicant citations is magnified by the fact that examiners are not well adapted to seek out non-patent prior art).

\textsuperscript{25} See Alácer, Gittleman & Sampat, supra note 21, at 416; Hegde & Sampat.

\textsuperscript{26} See supra note 15.

\textsuperscript{27} See Black’s Law Dictionary, 1306 (9th ed. 2009) (the presumption of validity is “[t]he doctrine that the holder of a patent is entitled to a statutory presumption that the patent is valid

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approved, potentially thin patents can preclude actual innovation. Once a patent has been issued, potential competitors will have to factor in the added hurdle of litigation when determining whether or not to enter a particular market. Thus, patents which should never have been afforded protection might preclude more robust innovation, as future litigation must defer to decisions made by over-burdened patent examiners.

A. Examiner Citations as a Function of Applicant Citations

This paper performs a two-part analysis in order to determine the effect of over- and under-citation. First, the paper examines the extent to which the quantity of examiner citations is a function of the number of applicant citations. This question looks to the effect of inventors’ or applicants’ behavior on patent examiners. Prior to an analysis of the temporal implications of applicant citation, the effect on the examiner is warranted.

1. Hypothesis: Examiner Citations Vary Inversely with Applicant Citations

Intuition suggests that patent examiners must provide more citations for [applicant] citation deficient applications. Thus, examiner citations will increase in inverse proportion to applicant citations. If this is the case, this suggests that much of patent examiners’ time is being used performing research and citing to prior art. This has implications for subsequent analysis, irrespective of the effects of applicant citations on time required to patent. The model for this inverse relationship can be observed in the equation below:

\[
\text{Examiner} = \frac{1}{\text{Applicant}} + \beta_2 X + \varepsilon
\]

Here, Examiner represents the number of citations provided by the examiner, Applicant represents the number of applicant citations provided with the initial patent application, and \(X\) corresponds to a control vector. This control vector contains data regarding the number of claims present in the patent application (a measure of complexity), forward citations—the and that the burden is on the challenger to prove invalidity.” Thus decisions made by oft-overworked patent examiners are afforded a statutory presumption in subsequent litigation.

28. See Lichtman & Lemley, supra note 15, at 72 (2007) (suggesting that the granting of a higher burden of proof once patents are granted stymies innovation, given that patent examiners are over-utilized and do not possess the requisite resources to properly evaluate patents, or to discern which patents are potentially valuable versus those that are not).

number of times that the patent is cited as prior art in subsequent patent filings (a measure of eventual importance of the patent), and the year in which the patent is issued (a de facto control for time).

In the event that the above hypothesis is not corroborated by the data, this provides evidence that overwhelming is taking place. If patent examiners are providing the similar amounts of prior art (or perhaps more) when more prior art is cited by the applicant, this suggests that either (i) applicants are citing erroneous prior art, (ii) examiners are essentially starting from scratch with each application and ignoring prior art citations by the applicant, or (iii) some combination of the two. Thus, this analysis, too, would provide important insight regarding the strategic benefit of overwhelming. Irrespective of the result of this preliminary analysis, subsequent analysis of the effects of citation on the time to prosecute the patent is necessary to contextualize the results.

B. Time to Patent Approval as a Function of Applicant Citations

After examining the extent to which examiners adjust their behavior relative to applicant citations, analysis proceeds to the time to patent approval from date of filing as a function of the number of applicant provided citations. The first analysis purports to explain the extent to which patent examiners are adjusting behavior in response to applicant gamesmanship. The model for this second analysis is seen in the equation below:

\[
\text{Patent Time} = \beta_0 + \beta_1 \cdot \text{Applicant} + \beta_2 \cdot X + \epsilon
\]

In this equation, \(\text{Patent Time}\) represents the time (in days) from the initial application up to the time that the patent is granted. \(\text{Applicant}\), as in the equation above, represents the overall number of applicant citations provided in the patent application. And again, as above, \(X\) represents the control vector, containing data regarding the number of claims present in the patent application, forward citations – the number of times that the patent is cited as prior art in subsequent patent filings, and the year in which the patent is issued.

The implications of this research question have a bearing on both practitioner strategy and on policy. If little temporal variation is observed across examiner citations, there is a clear incentive toward strategically over- or underwhelming the examiner.\(^{30}\) If significant variation is observed, this too has practical implications. Such a finding shifts the calculus to a

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\(^{30}\) Note, also, given the compensation scheme for most law firms, practitioners will have an incentive to bill more hours, and thus to spend time overwhelming, as opposed to underwhelming.
balancing of interests: patent applicants will have to calculate the risk of not receiving a patent, relative to a delay in the time to approval. Under this rubric, a cash-strapped, infant company with a valuable patent will likely cite in a manner apt to promote the most expedited process of review, with less concern for the viability of the patent. Whereas, a corporation with deeper pockets can afford to wait longer to roll out a product. From a policy standpoint, this analysis provides concrete evidence as to the extent that patent examiners are overworked. If time to approval is taken as an appropriate proxy for the amount of time spent examining a patent, the variation in filing periods across applicant citations will provide insight as to whether there is increasing, decreasing or fixed marginal thoroughness of examination. Further, to the extent that applicants are engaging in strategic backward citation, this result should grab lawmakers’ attention. Such strategic opportunities stand opposite the overarching goal of Patent Law—“[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”

1. **Primary Hypothesis: Time to Patent Approval Does Not Differ Greatly Across Applicant Citations**

Intuitively, if patent examiners are overworked, then they have a limited amount of time to apportion to all patent application reviews. Thus, they should spend approximately the same amount of time examining patent applications, irrespective of complexity or the quantity of prior art citations. Provided that this hypothesis holds true, applicants have a clear incentive to obscure the search for prior art, and to make the process of review less straightforward to the examiner; no matter the relevance of applicant citations, examiners will spend the same amount of time reviewing the application. Moreover, given the statutory presumption of validity afforded to approved patents, patents are significantly harder to invalidate once granted. Thus, all patent applicants have a strategic incentive to over- or under-cite. In so doing, the applicant turns the application process into a *de facto* rubber stamp, which is then afforded increased protection in subsequent litigation. Moreover, this strategic incentive is magnified for inventors of patents less likely to pass muster.

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31. Though, as mentioned above, the presumption of validity likely mitigates this balancing test.
34. See Lichtman & Lemley supra, note 15.
If this hypothesis holds true, it provides empirical validation to the criticism that patent officers are overworked. It also shows that there is a clear incentive for inventors, research companies and the legal firms prosecuting a patent to engage in strategic gamesmanship; a problem which merits statutory consideration—or, at a minimum, larger resource apportionment to the USPTO.

2. Alternative Hypothesis: Time to Patent Approval Differs Across the Quantity of Applicant Citations

In the event that the above result does not follow from the analysis, and the time from initial filing until approval does in fact vary with the quantity of applicant citations, this result, too, has implications for practitioners as well as policy-makers. On the one hand, if time to approval increases with applicant citations, there is a question of whether this increases proportionally, or at a decreasing marginal rate. In either case, this increased time of review will lead to strategic decision-making by inventors looking to file for patent protection. However, in the event that the time to review decreases with increasing citations (or with no citations), this would suggest either (i) that examiners become more resigned when they receive no initial citations, or (ii) that more applicant citations is a self-selecting measure, and implies a more robust application which thus requires less time to review. No matter the implication, the outflow will again be strategic over-citation to dissuade examiners from laboring over the approval process.

Regardless of the results of this analysis, the association of the quantity of applicant cited prior art and time to patent approval has implications for practitioners as well as policymakers. That patent officers are overworked and that the majority of patents are eventually approved is well documented.35 However, little empirical evidence or exploration exists to corroborate these notions. Thus, this paper seeks to fill an important gap in the empirical literature surrounding prior art and its role in the process of patent application.

IV. Data

This paper utilizes two discrete datasets compiled from information released by the USPTO. The first dataset is comprised of metadata from

35. See Lichtman & Lemley, supra note 19, (suggesting that patent examiners are overworked, leading to the need for reform to the presumption of validity); see also Bronwyn H. Hall & Dietmar Harhoff, Post-Grant Reviews in the U.S. Patent System—Design Choices and Expected Impact, 19 BERKELEY TECH. L.J. 989 (for a useful discussion of definitional issues related to the term “patent quality”).
US utility patents issued from 1975 until the end of 2010. This data is a compilation of patent characteristics, including filing date, date of issue, number of claims, and number of backward as well as forward citations for patents published from Jan. 1, 1975, to Dec. 31, 2010. This data was assembled from the “front page” data for issued patents and consists of information on 3,995,847 patents spanning 109 years. It was extracted by Bhaven Sampat from the USPTO’s Casis BIB Patents DVD.

The second dataset utilized in analysis makes a distinction between different types of citations. In 2001, the USPTO began demarcating citations as either examiner citations or as applicant citations, in order to “better consider whether changes are required to the rules governing prior art statements.” This second dataset, too, was compiled by Sampat from publicly available information provided by the USPTO. This data set contains the variable of interest for this paper. The final dataset used for analysis was created by augmenting the 1975 to 2010 bibliographic dataset with the newer data containing information regarding examiner citations. Because this data is limited to patents approved from 2001 to 2010, the data analyzed in this paper was limited to these patents only. Taken together, this final dataset includes the time of publication, the patent number, the number of claims, the quantity of forward citations, the quantity of examiner citations and the quantity of applicant citations for each patent. In total, this dataset documents 1,643,596 patents granted across 9 years, with application dates extending as far back as December 15, 1944.

36. See Bhaven Sampat, USPTO Patent and Citation Data, HARVAD DATABASE NETWORK (Sept. 3, 2012), http://hdl.handle.net/1902.1/16412UNF:5:ERqPZ7

37. The earliest filing date is 1911.

38. See Sampat, supra note 24 (note, see codebook explaining the dataset).


40. Bhaven Sampat, Examiner Citation Data, HARVARD DATABASE NETWORK (Aug. 6, 2011), http://hdl.handle.net/1902.1/18735UNF:5:mkKUxLoeuskOler9Lq87cw===BhavenSampat[Distributor][V2][Version];

41. Note, the number of forward citations is (expectedly) right-skewed toward older patents, given that more recently issued patents have been published for less time, and therefore will not likely be drawn upon as heavily.
V. Analysis

A. Examiner Citations as a Function of Applicant Citations

Prior to regression analysis, qualitative examination was performed on the data to visually evaluate for trends. The first relationship analyzed is that between examiner citations and applicant citations. A scatterplot of the two variables provides a fairly clear portrayal of the relationship between the two variables. Note that, given the enormous size of the dataset—1,643,596 patents—scatterplots of the dataset in its entirety are unfeasible; as such, all scatterplots are comprised of a 1% sample (or 164,360) of the patents in the overall dataset. Figure 1 displays the scatterplot of the relationship between examiner and applicant citations. As hypothesized, there is a [visually discernible] inverse relationship between the two in the shape of a hyperbolic function. Repeated iterations of this plot with differing random samples confirmed this general trend. This figure indicates that the quantity of examiner citations appears to increase when the quantity of applicant citations is low, and decrease as applicants cite more data. This association implies that patent examiners are forced to spend more time on prior art searches and citations when the applicant opts to underwhelm the USPTO with prior art.

Building on this graphical representation, the inverse of applicant citations was generated. Subsequently, utilizing the statistical modeling package curvefit yielded that an inverse relationship did in fact exist. Ordinary least squares regression of this function was then carried out. Table 1 tabulates these coefficients. Regression (1) confirms that there is a significant inverse relationship between the two. This effect indicates that the marginal impact of an additional applicant citation is a reduction of the quantity of prior art cited by the examiner. Regressions (2) and (3) confirm this effect. Indeed, as more control variables are introduced, the effect actually increases slightly—meaning that the deleterious effect on examiner citations of each marginal applicant citation is magnified. Thus, there is strong empirical validation that applicant citations are inversely associated with the quantity of examiner citations; and, accordingly, with the amount of time spent in examination.

42. Liu Wei, “CURVEFIT: Stata module to produces curve estimation regression statistics and related plots between two variables for alternative curve estimation regression models,” Statistical Software Components S457136, Boston College Department of Economics (2010), revised 13 Apr 2013; Note, in this instance the inverse of the number of applicant citations was generated and then tested against the number of examiner citations using the linear OLS model.

43. It is important to bear in mind that all figures are apt to be statistically significant in the analysis of such enormous data. Overpower aside, analysis indicates that this relationship is significant at the 99.99999% level.
In order to provide context for this analysis, it is necessary to understand the extent to which inventors and applicants provide citations. Figure 2 illustrates that the large majority of patent applicants cite little or no prior art in patent applications. Nearly 40% of applicants provide no references;\(^4\) and, the mean number of citations is 10.5. Coupled with the inverse relationship presented above, this implies that many if not most patent examiners spend the bulk of their time searching for relevant prior art. This is a task which—given the broad range of inventions that flow through the Patent Office each day—examiners are significantly less equipped to discover than are inventors specializing in a narrow field.

Given that examiners are spending more time on citations (or are at least adding in more citations of their own) when applicants cite less prior art, the question shifts to whether or not applicants are spending grossly different amounts of time on applications based on the amount of prior art cited. If the USPTO is spending significantly more time on patents with fewer citations, this undermines the importance of the above result. If the USPTO were to take more time to approve patents with fewer applicant citations, this would merely reflect the increased time spent on providing more examiner citations. If, however, the time to patent approval did not vary greatly across the quantity of applicant cited prior art, then this would suggest that applicants who cite less prior art (and thus shift this burden onto the examiner) are deflecting attention from the merits of their patent application and are forcing the examiner to search for a “needle in a haystack,” so to speak; instead of spending time evaluating the substance of the patent application.

B. Time to Patent as a Function of the Quantity of Applicant Citations

The analysis of the temporal effects of strategic applicant prior art citations then carries significant weight. In order to ascertain specifically how to model the data, again, graphical representation was utilized. Figure 3 presents a scatterplot of the time from initial filing until patent approval against the quantity of prior art cited by the applicant. This chart illustrates a seemingly flat trend with select extreme values. Given these extreme values for the time to patent, a log transformation appeared appropriate. Applying this transformation to the dependent variable and re-plotting yielded Figure 4. Figure 4 provides a slightly more discernible trend. Once again, applying the curvefit package to this data, a log-linear relationship was confirmed. This model is seen in Figure 4 as an overlay.

\(^4\) See supra, note 16 (this result comports with the findings of Alcier et al., indicating external validation for these results).
Imposing a regression upon this log-linear relationship gave Table 2. Regression (1) delineates a positive, significant relationship between the number of applicant citations and the time between filing and approval. However, this effect is extremely small: 0.08%. Placing this result in context, this implies that for each additional prior art citation provided by an applicant for a patent, the time to approval increases by less than one one-thousandth of the overall time taken in the patent process. Applying this margin to the average time to receive a patent—1098 days, or almost exactly 3 years—each additional citation provided increases the time to receive a patent by 0.94 days. Even by adding 100 applicant citations, the increase in time spent examining would be only 9.4 days. Which, given the overall length of time spent in examination, is relatively trivial. By adding in additional controls, this already small effect is nearly wiped out entirely, regressions (2) and (3) show that the effect becomes negligible as more controls are applied.

That the time to patent increases with the quantity of prior art citations, albeit negligibly, in fact bolsters the claim that underwhelming the Patent Office is associated with an examiner spending a larger proportion of the time allotted to patent evaluation on finding and citing to prior art. And, to the extent that this task is mutually exclusive of substantive evaluation of the claims of the application, this has the effect of less deserving patents being afforded protection. It should, however, be noted that this result is not inconsistent with intuition: that higher quantities of applicant citations imply a higher degree of complexity, and therefore a prolonged period of review. Yet, this impact is theoretically controlled for by the inclusion of the number of individual claims in the application (a proxy for complexity). Indeed, the inclusion of this variable, and other controls has a deleterious effect upon the size of the coefficient. Regression (3) presents a minimally impactful effect of applicant citations on the time required for patent approval.

VI. Conclusion

The results of this analysis indicate (1) that patent examiners cite significantly more prior art when applicants provide less (which is often), and (2) applicants spend nominally more time on patents with more applicant cited prior art. Taken together, this implies that though examination time varies little with increased applicant citations to prior art, the quantity of examiner citations varies greatly. So too, then, does the time required of the examiner to provide these citations. And, since the

45. Adding an additional 200 citations, corresponds to only an 18.8 day increase. Though, adding 1000 additional examiner cites yields a less negligible 94 day (3 month) delay.
time spent in the approval process appears relatively fixed across applicant citations, applicants who purposefully omit prior art stand to gain by the examiner spending a larger share of this examination time seeking out relevant prior art.

Thus, applicants who under-cite or fail to cite any prior art stand to gain from decreased attention to the merits of their patent application. This effect is magnified for applicants of particularly weak patents. Moreover, given the strength of the presumption of validity, these patents are likely to be upheld in subsequent litigation, and also to preempt innovation more deserving of protection. Further, this analysis suggests that though the time to approval increases with applicant citations, it does so only marginally. This result lends weight to the conclusion that the USPTO is severely over-worked and under-resourced, and is applying a “one-size-fits-all” approach to the process of patent approval, apportioning approximately the same amount of time to all patents, regardless of their innate complexity.

In order for these conclusions to be strengthened, further research is necessary. In particular, it would be useful to understand the amount of time required of an examiner to cite prior art. It is possible that given the state of patent application, examiners have become particularly adroit at quickly finding and listing relevant prior art. Additionally, it is of interest the extent to which this process of searching for prior art overlaps with substantive evaluation of patents. It is indeed possible that in searching for prior art, examiners perform much of the diligence that they would otherwise perform in evaluating the patent. Though, it stands to reason that at least some time is wasted (i.e., the time wasted in finding unrelated patents). Notwithstanding, these conclusions have reaching implications for applicants, practitioners and policymakers. The current structure of the USPTO incentivizes applicants to shirk the task of citing to relevant prior art. This burden-shifting distracts examiners from their actual task of evaluating patents on their merits. Given the patent office’s justification for providing increased availability to examiner citation data, the PTO should take note of this phenomenon of under-citing and take the necessary actions to mitigate its impact.
VII. Appendix

A. Figures

Figure 1. Examiner Citations as a Function of Applicant Citations (2001-2010)

Figure 2. Density Plot of Applicant Citations to Design Patents (2001-2010)
Figure 3. Scatterplot of Time of Patent Review Against Number of Applicant Citations (2001-2010)

Figure 4. Scatterplot of Logged Time of Patent Review Against Number of Applicant Citations (2001-2010) With Linear Approximation
B. Tables

Table 1. OLS Regression of No. of Examiner Citations on the Inverse of No. of Applicant Citations

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<th>(3)</th>
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Standard errors in parentheses

Note: All statistics are significant at a level in excess of p<0.000001.

Table 2. Log-Linear Regression of Time to Patent on the No. of Applicant Citations

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Standard errors in parentheses

Note: All statistics are significant at a level in excess of p<0.000001.

*by ALEXANDER HURST*

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I. Introduction

Few things are as ingrained in Americans’ daily lives as the Internet. The Internet, a one-stop source for information, communication, and entertainment, has supplanted the old media that came before it such as books, telephones, fax machines, and television for many people. Yet the Internet is an incredibly nebulous thing, a network of various private networks the regulation of which is currently even more amorphous. A recent decision of the D.C. Circuit, which has national effect, has rendered the traditional model of the Internet subject to upheaval. The fundamental principle in question, so-called “net neutrality,” stands for the idea that Internet providers must treat all traffic equally. Blocking and preferential treatment of certain Internet content providers (websites) was disallowed under the now-vacated regulatory regime of the Federal Communications Commission (“F.C.C.”)’s Open Internet Order. Now, however, Internet providers are essentially free to force various services and websites like Netflix and even Google to pay a fee if they want to be made available for subscribers of the Internet provider’s service, a cost that is likely to be passed on to consumers.

The purpose of this Article is to explore the reasoning behind the holding in Verizon v. F.C.C. and examine whether the absence of net neutrality or an open Internet is good public policy. Part II of the Article provides a brief summary of the facts and holding of the case, followed by an explanation of the legal background and context of the regulation in question. Part III provides an in-depth analysis of the court’s reasoning and how that reasoning differed between the majority and the dissent. Part IV analyzes the court’s holding, first from a technical legal standpoint and second from a public policy standpoint. The analysis invokes questions of administrative statutory authority, the appropriate nexus of administrative regulation and antitrust, whether the absence of mandated net neutrality is good public policy in terms of potential anti- and pro-competitive effects, and what the future may hold for the Internet. The Article takes the position that the court’s decision was appropriate in its result for legal reasons, yet nevertheless opens the door to potential market failures in the future.
II. Verizon v. F.C.C. Marks the End of an Era

Telecommunications behemoth Verizon Communications, Inc. (“Verizon”) brought this petition for judicial review and notice of appeal of the F.C.C.’s Open Internet Order of 2010 (“Order”). Verizon sought to vacate the Order, which imposes anti-blocking, anti-discrimination, and disclosure requirements on providers of broadband Internet service. The Commission’s stated intent was to preserve the practice of “net neutrality”—referred to as “Internet openness” in the Commission’s terminology—whereby broadband Internet service providers must treat all information that passes over their networks equally without discriminating or censoring based on source or content. Although heard before an appellate court, this was a case in which the U.S. Court of Appeals for the District of Columbia Circuit exercised its unique original jurisdiction and authority of direct review over the orders and regulations of federal independent agencies, and therefore there was no lower court disposition. Verizon challenged the Open Internet Order on multiple grounds, namely that the Commission had exceeded its allotted statutory authority, that the rules imposed were “arbitrary and capricious” because they were not supported by substantial evidence, and, most significantly, that the Order was in contravention of “statutory provisions [that] prohibit[ed] the Commission from treating broadband providers as common carriers.”

The court found that the Commission had established valid affirmative authority to enact measures such as the one at bar encouraging the deployment of broadband infrastructure. Moreover, the majority found the Commission had reasonably interpreted Section 706 of the Telecommunications Act of 1996 as giving the Commission authority to regulate how broadband providers treat Internet traffic. It also found that the Commission’s justification for the rules, namely that they would facilitate the continued innovation driving the explosive growth of the

3. Id.
4. This term was coined by Columbia Law Professor Tim Wu and is the term most commonly used by the media (and this Article) for the Commission’s concept of “internet openness.” Jeff Sommer, Defending the Open Internet, N.Y. TIMES (May 10, 2014).
5. Verizon, 740 F.3d at 628.
7. Verizon, 740 F.3d at 634.
8. Id. at 628.
Internet, as similarly reasonable and “supported by substantial evidence.”\(^9\)
However, even though the majority found that the Commission was authorized to make these rules, the Order contravened one of the Commission’s earlier rulings that expressly exempted information service providers from treatment as common carriers.\(^10\) The authorizing statute granted the Commission the authority to impose antidiscrimination rules on only those providers that could be classified as common carriers, and because the Commission had previously made the determination that broadband Internet Service Providers (“ISPs”) were not common carriers but instead were information service providers, the Commission was estopped from nevertheless treating them as common carriers.\(^11\)
Accordingly, the court vacated the antidiscrimination and anti-blocking portions of the *Open Internet Order*.\(^12\)

**III. A History of the Internet and Its Regulation**

Part III will provide the necessary background to understand the issues and parties at hand in this dispute, including an overview of how the intricate yet amorphous group of interrelated networks called the Internet operates. It also looks at the level of deference normally given to administrative interpretations of statutory authority, gives a brief history of F.C.C. Internet regulation, and provides a detailed look at the *Open Internet Order* being challenged.

**A. The Internet Marketplace**

Judge Tatel’s opinion in *Verizon v. F.C.C.* summarizes the parties involved in the Internet as backbone networks, broadband providers (i.e. those that provide the “last mile” network over which end users access information, like Verizon or Comcast), edge providers (i.e. content providers like Google or Facebook), and end users.\(^13\) Using what he admits to be an oversimplified example, Judge Tatel describes the nexus of these parties as such:

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9. *Id.* Senior Circuit Judge Silberman wrote a separate opinion concurring in part and dissenting in part that took issue with the supposedly substantial evidence the Commission put forth purporting to show that such regulation was necessary to promote the development of broadband and prevent a harmful market failure, dismissing the claims as “sheer speculation.” *Id.* at 663 (Silberman, J., dissenting).
10. *Id.* at 628.
11. *Id.* at 655–56.
12. *Id.* at 628.
13. *Id.*
when an edge provider such as YouTube transmits some sort of content—say, a video of a cat—to an end user, that content is broken down into packets of information, which are carried by the edge provider’s local access provider to the backbone network, which transmits these packets to the end user’s local access provider, which, in turn, transmits the information to the end user, who then views and hopefully enjoys the cat.\(^\text{14}\)

This example illustrates how the ISPs and backbone providers act as intermediaries between end-user subscribers and content sources (feline-oriented and otherwise). It is this relationship between broadband providers and content providers that concerns advocates of net neutrality.

The standard by which Internet service can be considered “broadband” has evolved over the years as technology has progressed.\(^\text{15}\) The 1996 Telecommunications Act defined broadband as Internet service furnished with sufficient speed to enable users to “originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.”\(^\text{16}\) In 1999, the Commission defined the minimum threshold for meeting this requirement as 200 kilobytes per second (“kbps”)—fairly slow by today’s standards.\(^\text{17}\) Shortly before implementing the Order in 2010, the Commission determined that 200 kbps was inadequate for the modern needs of consumers, who often stream high-quality video while also browsing the web.\(^\text{18}\) Accordingly, the Commission raised the minimum threshold for broadband to four megabytes per second (“mbps”) for downloads and one mbps for uploads.\(^\text{19}\)

B. The APA and the Chevron Test of Administrative Deference

The disposition on whether a regulation is valid inevitably involves a question of administrative deference. There are two separate but overlapping authorities to which a court may look when determining whether a federal agency’s regulation is a valid use of the agency’s statutory authority: the Administrative Procedures Act (“APA”)\(^\text{20}\) and the test outlined by the Supreme Court in *Chevron, U.S.A., Inc. v. Natural*
Defense Council, Inc. The APA instructs courts reviewing the validity of regulations to determine whether the promulgating agency’s actions were “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” The Chevron inquiry involves asking whether Congress has directly spoken on the precise issue and, if it has not or if the statute is ambiguous, to determine whether the agency’s answer of that question is a permissible construction of the statute.

C. Jurisdiction and Regulations of the F.C.C.

The Communications Act of 1934 created the F.C.C. with the purpose of executing and enforcing federal communications law and regulating interstate communication without discrimination based on the traditionally protected classes, among other considerations. The enacting legislation states that the provisions of the chapter “shall apply to interstate and foreign communication by wire or radio . . . and to all persons engaged within the United States in such communication or such transmission by radio.” Title II of the Communications Act also sets forth regulations for any carrier or transmitter of communications that could be considered a common carrier.

Classification as a common carrier is accompanied by an affirmative duty “to furnish such communication service upon reasonable request therefor,” and also a requirement that “all charges, practices, classifications, and regulations for and in connection with such communications service . . . be just and reasonable.” In other words, a telecommunications provider that the Commission deems to be a common carrier may not discriminate between users of its service and must charge reasonable prices. For example, a phone company given common carrier status cannot refuse to complete the calls of some customers, but not others; it must treat all phone traffic equally.

23. Chevron, 467 U.S. at 842-43.
Although Congress undoubtedly did not contemplate the massively complex system that is the modern World Wide Web when it enacted the legislation in 1934, it seems clear that the Internet falls within the Commission’s stated jurisdiction encompassing all “interstate and foreign communications by wire or radio.” Indeed, since the Internet’s inception, the Commission has promulgated regulations over the various players in the Internet marketplace.

One of the first such efforts to govern the Internet came in 1980, when the Commission adopted what would be called the Computer II regime. The Computer II rules drew a distinction between “basic” and “enhanced” services, with the former subject to common carrier regulation and the latter given no such restrictions. Basic services were defined as those that involved the pure or bare transmission of customer-supplied information (e.g., telephone service), while enhanced services were defined as those which involved computer processing applications for deciphering transmitted applications. Thus, because connecting an end user to the Internet clearly requires computer-processing applications, under the Computer II regime, ISPs were providing “enhanced” services and were not subject to regulation as common carriers.

The next era of Internet regulation and classification began in the mid-1990s with the enactment of the Telecommunications Act of 1996. The 1996 Act replaced the basic versus enhanced services distinction with a parallel distinction between telecommunications carriers—equivalent to basic carriers and subject to common carrier regulation—and information-service providers equivalent to enhanced-service providers not subject to common carrier regulation. Beyond merely altering the Commission’s nomenclature, the 1996 Act also extended common carrier regulation to Digital Subscriber Line (“DSL”) services, at least as to the transmission facilities used:

29. Verizon, 740 F.3d at 640 (quoting 47 U.S.C. § 152(a)).
30. See id.
31. Id. at 629.
32. See id. at 627–28 (quoting Second Computer Inquiry, 77 F.C.C. 2d at 420 ¶¶ 96–97).
34. Id.
36. Verizon, 740 F.3d 623 at 630.
37. Id. DSL services furnish broadband over telephone wires. Id. at 630. DSL providers could exempt their Internet access services from common carrier restrictions as being separate
And yet, when the Commission was faced with the equivalent question of whether cable broadband providers could be considered information service providers four years later, it found in the affirmative.\textsuperscript{38} This was true even where cable providers operated the “last-mile” transmission facilities, because the Commission reasoned that the cable companies were providing “single, integrated information service[s].”\textsuperscript{39} This finding, ostensibly incongruent from the Commission’s classification of DSL providers, completely exempted cable broadband operators from common carrier regulation.\textsuperscript{40} The Commission later harmonized treatment of all broadband providers however, declaring them to be information services not subject to common carrier regulations.\textsuperscript{41} Even so, the Commission maintained it had the right to intervene with broadband providers’ network management even in the absence of common carrier status if it saw ISPs violating the Commission’s stated intention of preserving and promoting the “open and interconnected nature of the public Internet.”\textsuperscript{42}

In 2008, the Commission exercised this power in the form of an order dictating bandwidth management practices and disclosure to cable broadband provider Comcast after several of the company’s subscribers complained that Comcast was interfering with customer’s ability to use certain peer-to-peer networking applications such as BitTorrent.\textsuperscript{43} While the Commission claimed to be invoking the “ancillary jurisdiction” afforded to it to execute the functions of the Communications Act, the D.C. Circuit Court rejected this justification, finding that the Commission had failed to identify any “grant of statutory authority to which the Comcast Order was reasonably ancillary.”\textsuperscript{44} Accordingly, the Commission’s order from the transmission facilities themselves if and only if they operated them through a separate affiliate or quasi-independent ISP. \textit{Id.} at 631.

\begin{itemize}
  \item \textsuperscript{38} \textit{Id.}
  \item \textsuperscript{39} \textit{Id.; see also In Re Inquiry Concerning High-Speed Access to Internet over Cable & Other Facilities, 17 F.C.C. Red. 4798, 4824 ¶ 41 (2002). This apparent inconsistency in treatment between DSL and cable broadband providers was challenged before the Supreme Court in 2005, and the Court upheld the classification, reasoning that the Commission was entitled to deference in its interpretation of an ambiguous statute. Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Serv., 545 U.S. 967, 981 (2005); see also 47 U.S.C. § 153(53) (2012).
  \item \textsuperscript{40} \textit{Verizon}, 740 F.3d 623 at 631.
  \item \textsuperscript{41} \textit{Id.}
  \item \textsuperscript{42} \textit{Id.} at 631–32 (quoting \textit{In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities}, 20 F.C.C.R. 14986, 14988 ¶ 4 (2005)).
  \item \textsuperscript{43} \textit{Id.} at 632 (citing \textit{In re Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications}, 23 F.C.C.R. 13028 (2008)).
  \item \textsuperscript{44} Comcast Corp. v. F.C.C., 600 F.3d 642, 661 (D.C. Cir. 2010).
\end{itemize}
was vacated. It was in the wake of this defeat that the Commission adopted the *Open Internet Order* that became the subject of Verizon’s challenge.

**D. The Open Internet Order**

The *Open Internet Order*, adopted in 2010, set forth various prophylactic rules on broadband providers for the stated purpose of “incorporat[ing] longstanding openness principles that are generally in line with current practices.” Some of the requirements applied to both fixed broadband providers (traditional DSL and cable broadband employing fixed endpoints and stationary equipment) and mobile broadband (e.g., 4G Internet service for smartphones), while some applied only to fixed ISPs. The requirements were threefold: public disclosure and transparency mandates for both types of providers, anti-blocking proscriptions on both types of providers, and anti-discrimination prohibitions on fixed providers only.

The disclosure requirements assured that the public would have access to information regarding network management practices, performance, and commercial terms of the company’s Internet service. The anti-blocking requirements prevented broadband providers from blocking lawful applications and content—or content that competes with the broadband provider’s other services—subject to “reasonable network management.” Lastly, the antidiscrimination requirements imposed on fixed broadband ISP’s, but not mobile operators, forbade unreasonable discrimination in transmitting lawful Internet traffic.

The Commission averred that it had authority to make these regulations by citing a provision of the 1996 Telecommunications Act that directed the Commission to encourage the deployment of broadband. With what Verizon characterized as a “triple cushion shot,” the

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45. *Id.*
46. 25 F.C.C.R. at 17907 ¶ 4.
48. *Id.*
49. *Id.*
50. *Id.* (explaining that “reasonable network management” is defined as “practices designed to ensure network security and integrity, address traffic that is unwanted by end users, and reduce or mitigate the effects of congestion on the network”).
51. *Id.*
52. *Id.* at 634; see also 47 U.S.C. § 1302(a), (b) (2014).
53. *Id.* at 659. The “triple cushion shot” metaphor refers to a particularly convoluted trick shot in billiards whereby the cue ball rebounds off three different cushions before hitting its target.
Commission reasoned that net neutrality would spur investment among content providers, which in turn would lead to increased demand for broadband, thus encouraging increased investment in broadband infrastructure and ultimately leading to further innovation by content providers. The Commission feared that a lack of regulation would allow broadband providers to disrupt this “virtuous cycle of innovation” by preventing end users from accessing all content providers and vice versa, thus stifling the content provider’s ability to innovate. Compelling as this question of public policy is, it was largely sidestepped by the majority in Verizon.

IV. The Reasoning Behind the Verizon v. F.C.C. Decision

The court averred that its task was not to assess the wisdom of the rules, but rather to assess whether the Commission could demonstrate “that the regulations fall within the scope of its statutory grant of authority.” The court organized its opinion to first address Verizon’s argument that the Commission lacked affirmative statutory authority to assert the Open Internet Order and further that the rules were arbitrary and capricious. Next, the court turned to Verizon’s argument that, by treating a type of service provider the Commission had previously determined not to be a common carrier as a common carrier, the Commission contravened a statutory mandate. Finally, in a concurrence in judgment and dissent in part, Judge Silberman detailed the authority inquiry within an antitrust framework.

A. A Question of Statutory Authority

In dismissing Verizon’s argument that the Commission lacked statutory authority to promulgate the regulations, the court looked to Section 706 of the 1996 Telecommunications Act, which provides that the Commission should encourage the deployment of advanced telecommunications capability (i.e., broadband) to all Americans and use

54. Id. at 634.
55. Id. at 644–50. Whether this fear was justified remains to be seen; two of the F.C.C.’s commissioners even dissented to the imposition of the Order based in part on the belief that the regulations might actually stifle innovation rather than encourage it. Id. at 634.
56. Id. at 628–59.
57. Id. at 634–35.
58. Id. at 635.
59. Id. at 649.
60. See id. at 659.
regulating methods that remove barriers to investment.\textsuperscript{61} This section further provides that if the Commission finds broadband is not being deployed to all Americans in a reasonable and timely manner, it may take immediate action to accelerate deployment by removing barriers to infrastructure investment and promoting competition.\textsuperscript{62} Verizon contended that these provisions of the 1996 Act should be considered mere congressional statements of policy and, alternatively, that even if the provisions did grant the Commission authority, the particular regulations were not reasonable.\textsuperscript{63}

In determining whether the \textit{Order} fell within the Commission’s jurisdiction, the court looked to both the APA\textsuperscript{64} and the test outlined by the Supreme Court in \textit{Chevron}\textsuperscript{65} governing the deference given to federal agencies when they interpret an ambiguous statutory provision.\textsuperscript{66} The court observed that if the Commission’s interpretation of the statute represented a reasonable resolution of statutory ambiguity, then under \textit{Chevron} the court must defer to that interpretation, even if that interpretation involves an agency determining the scope of its own jurisdiction.\textsuperscript{67}

The court next discussed Verizon’s contention that the \textit{Order} represented an unreasonable departure from prior policy, and in doing so discussed the \textit{Advanced Services Order}, which was vacated by the court in the earlier \textit{Comcast} decision.\textsuperscript{68} Under the APA, an administrative agency normally must acknowledge and advance reasons for a change in policy.\textsuperscript{69} Nonetheless, the court found it had no reason to find that the Commission had ignored its prior interpretation of the relevant statute or had failed to provide a reasoned explanation for its changed interpretation.\textsuperscript{70} As prior cases had observed,\textsuperscript{71} a new interpretation of a statute that is contrary to an agency’s initial interpretation cannot be rejected simply because it is new.\textsuperscript{72} Instead of dwelling on past interpretations, the court chose to focus on whether the Commission’s current interpretation of Section 706(a) as a

\begin{thebibliography}{99}
\bibitem{61} 47 U.S.C. § 1302(a) (2012).
\bibitem{63} \textit{Verizon}, 740 F.3d 623 at 635.
\bibitem{64} 5 U.S.C. § 706(2) (2012).
\bibitem{66} \textit{Verizon}, 740 F.3d 623 at 636.
\bibitem{67} \textit{Id.} at 635.
\bibitem{68} \textit{Id.} at 636.
\bibitem{69} \textit{Id.} (citing F.C.C. v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009)).
\bibitem{70} \textit{Id.} at 636–37.
\bibitem{71} \textit{See}, e.g., Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Serv., 545 U.S. 697 (2005).
\bibitem{72} \textit{Verizon}, 740 F.3d at 636.
\end{thebibliography}
grant regulatory authority was reasonable and answered in the affirmative that it was.\textsuperscript{73}

The Act’s language, encouraging the deployment of broadband and removal of barriers to infrastructure investment, could easily be interpreted as a mere congressional statement of policy as Verizon suggested, but could just as easily be read to grant the Commission actual authority.\textsuperscript{74} In finding the Commission’s interpretation reasonable, the court observed that the 1996 Act was passed against the backdrop of the Commission’s long history of subjecting ISPs to common carrier regulation.\textsuperscript{75} Likewise, the court found it had no reason to believe from the legislative history that Congress would not have delegated such decisions to the Commission.\textsuperscript{76} While recognizing that Congress would likely not have intended to grant the Commission limitless authority, the court nevertheless concluded that the requirement that the provisions be proven to fulfill a specific statutory goal was a sufficient limitation.\textsuperscript{77}

The court next turned to the question whether Section 706(b) of the Act granted the Commission authority to take action.\textsuperscript{78} Deferring to the Commission’s interpretation, the court found that it did.\textsuperscript{79} In a departure from its previous conclusions, the Commission made the necessary determination that broadband was not being deployed to all Americans in a reasonable and timely manner in 2010.\textsuperscript{80} The catalyst for this determination, however, was sparked by the Commission’s own decision to raise the minimum threshold for what constitutes “broadband.”\textsuperscript{81} Although the court recognized the timing of this raised threshold and subsequent determination that broadband was not reaching enough Americans was “suspicious,” the timing alone did not render it unreasonable or arbitrary.\textsuperscript{82} Once this determination had been made, it was not unreasonable, in the court’s view, for the Commission to exercise its apparent authority under

\textsuperscript{73} Id. at 637.  
\textsuperscript{74} Id. at 637–38.  
\textsuperscript{75} Id. at 638.  
\textsuperscript{76} Id. at 639.  
\textsuperscript{77} Id. at 640.  
\textsuperscript{78} Id.  
\textsuperscript{79} Id.  
\textsuperscript{80} Id. Section 706(b) requires the Commission to find that “broadband deployment to all Americans is not reasonable and timely” as a prerequisite to invoking the section’s grant of authority to take immediate action to accelerate the deployment of broadband. Id.  
\textsuperscript{81} Id. at 641. See also supra notes 17-19 and accompanying text.  
\textsuperscript{82} Id. at 642.
In a related query, the court similarly rejected Verizon’s alternative theory that, even if the Commission did have authority, the specific rules exceeded that authority’s scope. The court further discussed how broadband providers have both the incentive and the means to discriminate between content providers. The court agreed with the Commission’s observation that broadband providers, which often also operate cable television and telephone services, do have an incentive to block or otherwise interfere with third-party Internet services that could compete with them in those other arenas. Likewise, ISPs have incentives to accept fees from content providers for either granting them prioritized access to end users or for blocking other competing content providers, and Verizon did not contest that it had the technical and economic ability to carry out such blocking and discrimination. Finally, the court recognized that because end users typically receive broadband from a single provider, that provider “functions as a terminating monopolist with power to act as a ‘gatekeeper’ to [content] providers.” While this does leave consumers with the option of merely switching broadband providers, they may be reluctant to do so given high switching costs or other considerations. Moreover, the majority found that the number of providers to which a dissatisfied consumer may switch is extremely limited in most parts of the country.

Verizon’s final contention as to the public policy wisdom of these regulations was that any benefit they give to content provider innovation and consequential demand for broadband infrastructure would “be outweighed by the diminished incentives” broadband providers would have to invest in infrastructure as result of the limitation in business models ISPs may use. The court decided that there was insufficient information to settle the regulatory issue, and thus it was up to the Commission to exercise its judgment based on the available information to make a policy conclusion. The court found that the Commission had offered a rational

83. _Id_ at 641.
84. _Id_ at 642–644 (explaining the court did not believe the regulations strayed too far beyond the “paradigm case” likely contemplated by Congress when it supposedly granted such authority).
85. _Id_ at 645.
86. _Id_.
87. _Id_ at 645–46.
88. _Id_ at 646.
89. _Id_ at 646–47.
90. _Id_ at 647.
91. _Id_ at 649.
92. _Id_.
connection between the available facts and the choice made and accordingly deferred to the Commission’s judgment. In summary, the court found that the Commission not only had the authority to regulate in this arena, but also that the regulations themselves were reasonably tailored to meet the statutory objective of promoting broadband deployment and removing barriers to infrastructure innovation.

B. The Common Carrier Problem

Although the opinion thus far had been highly favorable and deferential to the Commission, this would change when the court addressed the common carrier classification issue. In the court’s view, regulating broadband and mobile Internet providers as common carriers clearly violated the Communications Act, given that the Commission was bound by its own classification of broadband providers as “information services” rather than common carrier telecommunications services. Yet, as Verizon contended, by subjecting broadband providers to anti-blocking and anti-discrimination requirements, the Commission was nevertheless treating broadband providers with the same standard of regulation they would have received if the Commission had classified them as common carriers in the first place.

After examining the history of what the term “common carrier” actually meant, the court considered the Commission’s explanation of how the regulations were not, in fact, treating broadband providers as common carriers. The Commission’s primary reasoning was that with respect to content providers, broadband ISPs were not “carriers” at all because the customers at issue were the end users, not the content providers. Under the Commission’s theory, because broadband ISPs could still make individualized decisions in determining the terms of a subscriber’s Internet service under the Order, the broadband providers were not engaged in common carriage. In other words, the Commission’s view was that if the Commission did not restrict broadband ISPs’ ability to deal on individualized terms with their subscribers, the Commission was not regulating the ISPs as common carriers. The court disagreed.

93. Id.
94. Id. at 650.
95. Id.
96. Id. at 651.
97. Id. at 653.
98. Id.
99. Id.
100. Id.
Rather, the court relied on an earlier Supreme Court decision, *Midwest Video II*.\(^{101}\) Like the broadband providers’ customers in the case at bar, the cable operators’ primary customers in *Midwest Video II* were subscribers, and like broadband providers under the *Open Internet Order*, the cable operators were obligated to carry third-party content to customers that the cable operators otherwise would have been permitted to block.\(^{102}\) Given these similarities, it appeared that broadband providers were being treated as common carriers; a rose by any other name is, of course, still a rose.\(^{103}\) Failing in this argument, the Commission offered little else to justify its treatment of such providers as common carriers.\(^{104}\)

In summation, because the majority determined that the *Open Internet Order*’s treatment of broadband providers in terms of the anti-discrimination and anti-blocking requirements relegated the providers to common carrier status *pro tanto*, those requirements were vacated. At the same time, the disclosure provision was upheld because it did not impose common carrier obligations on the providers and the provision was severable. The majority left open the possibility that the Commission could modify the regulations in a permissible way to preserve the status quo of net neutrality. In contrast, Senior Circuit Judge Silberman wrote a separate opinion concurring in part and dissenting in part, whereby he acknowledged that the *Open Internet Order*’s treatment of broadband providers as common carriers was permissible, yet took the majority’s opinion a step further by averring that the F.C.C. had no authority to impose such regulations on broadband providers at all under Section 706 and the A.P.A.\(^{105}\)

**C. Judge Silberman’s Dissent**

Judge Silberman concurred with the majority in many respects, such as concluding that Section 706 is a positive grant of regulatory authority.\(^{106}\) Likewise, Silberman agreed with the majority that *Chevron* deference to the Commission’s interpretation of the statutory language was warranted.

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101. 440 U.S. 689 (1979) (dealing with whether cable operators should be treated as common carriers).
103. *Id.*
104. *Id.* at 655. Interestingly, the Commission never made any attempt to differentiate the *Order*’s prohibition on unreasonable discrimination from the nondiscrimination standard, which, by statute, applies to common carriers. *Id.* at 656. As a final inquiry, the court considered and rejected Verizon’s argument that the disclosure requirements were not severable from the other, stricken protections of *Order*. *Id.* at 659.
105. *Id.* (Silberman, J., dissenting).
106. *Id.* at 660.
yet nonetheless opined, based on a dissection of Section 706’s language, that the authority could not be stretched as far as it had been. Ultimately, Silberman determined that the Commission’s treatment of broadband providers was impermissible.

Silberman concluded that the Section’s operative words granting regulatory authority were that the Commission may implement “measures that promote competition in the local telecommunications market or other regulating methods that remove barriers to infrastructure investment.” Silberman accused both the Commission and the majority of conflating the two clauses though they have distinct functions, with the former requiring regulations that promote competition on price and quality among telecommunications providers and the latter not bearing any such requirement. Silberman’s view was that the Order must stand or fall on the “removing barriers” clause, because, by the Commission’s own theory, if it could spur demand for broadband the resulting increased investment in infrastructure would occur irrespective of competition. Vitaly, however, the Commission had never once identified a specific practice of broadband providers that could be considered a barrier to investment.

Silberman argued that the regulation, resting on the “triple cushion shot” theory, had not been designed to promote increased competition in the broadband market, but rather had the stated objective of “protecting consumer choice, free expression, end-user control, and the ability to innovate without permission,” an objective that falls outside the scope of Section 706’s statutory authority. Silberman’s main critique of the majority’s opinion was that it was predicated on the idea that an open Internet would spur demand for broadband infrastructure. Yet, Silberman observed “any regulation that, in the FCC’s judgment might arguably make the Internet ‘better,’ could increase demand.”

107. Id. ("Chevron is not a wand by which courts can turn an unlawful frog into a legitimate prince.") (quoting Assoc. Gas Distrib. v. F.E.R.C., 824 F.2d 981, 1001 (D.C. Cir. 1987)) (internal quotations omitted).
108. Verizon, 740 F.3d at 667.
109. Id. at 660 (emphasis supplied).
110. Id.
111. Id. at 660–661.
112. Id. at 661.
113. See supra note 53 and accompanying text.
115. Id. at 662.
116. Id.
“free the Commission of its congressional tether” by being overbroad because almost any regulation could be interpreted to advance the statutory requirement that regulations must encourage broadband deployment, thus making the requirement illusory.\footnote{117}{Id. The majority claimed there was a limitation via the Commission’s subject matter jurisdiction, yet Silberman dismissed this too as being an illusory restriction. \textit{Id.}}

Silberman’s dissent next turned to the assertion that, even assuming valid authority, the \textit{Order} was arbitrary and capricious in light of the fact that the Commission’s findings were not supported by substantial evidence.\footnote{118}{Id.} Contrary to the majority, Silberman did not believe the Commission had ever made any legitimate finding that broadband providers would or even could (technologically and economically) engage in discrimination and blocking of content providers were it not for the open Internet requirements.\footnote{119}{Id. at 663.} To illustrate this, Silberman stated that the Commission’s proffered evidence consisted primarily of “may” and “might” conclusory statements speculating how Internet providers would behave in the absence of net neutrality.\footnote{120}{Id.} Silberman concluded that the “triple cushion shot” theory rests on a faulty factual premise—that broadband providers have the economic clout to profitably engage in such discrimination and blocking as “gatekeepers” to end consumers.\footnote{121}{Id. at 664.} Silberman’s view was that a consumer dissatisfied with degraded Internet service could simply switch to another provider with relative ease.\footnote{122}{Id. at 664–65.}

While the Commission asserted why such switching would be difficult, Silberman posited that such a rationale implies that broadband providers have market power in the industry, without actually examining whether they do.\footnote{123}{Id. at 664.} The Commission pointed to only four possible instances of blocking and discrimination conduct.\footnote{124}{Id. at 664.} Silberman concluded that “the Commission’s failure to conduct a market power analysis [was] fatal to its attempt to regulate, because it [meant] that there [was] inadequate evidence to support the lynchpin of the Commission’s economic theory.”\footnote{125}{Id. at 665.} Likewise, the Commission had not alleged that broadband
providers were dividing territory and avoiding head-to-head competition; in some areas the opposite seemed to be true.\textsuperscript{126} Lastly, Silberman noted that the Justice Department had previously warned the Commission that unless the Commission focused its regulations on market power, any regulation might actually discourage broadband development.\textsuperscript{127}

V. The Domino Effect of a Legally-Defensible Decision

The questions \textit{Verizon v. F.C.C.} raised concern issues from administrative stare decisis to statutory authority, antitrust market power analysis, and, most importantly, overall public policy. While the judges in this case interpreted the letter of the law correctly (or at least reasonably), it is far more significant that the public is left to wonder how a lack of net neutrality may impact the Internet provider industry and its now potentially vulnerable consumers in the years to come.

This section first addresses the concurrence in the opinion as to the Commission’s impermissible treatment of broadband providers as common carriers. Next, this section analyzes the disagreement between the majority and dissent as to whether the Commission had affirmative statutory authority to implement the \textit{Open Internet Order}. Later, this section addresses whether a net neutrality regime is in the best interests of consumers and the market as a whole. As a final matter, this section speculates on the likely outcome of the \textit{Verizon} decision and the Commission’s—and broadband providers’—likely next move.

A. Stare Decisis and the Common Carrier Commonality

As an almost perfunctory matter, it bears mentioning that the conclusion that the Order was invalid as a technical matter was reasonable. Both the majority and Judge Silberman concluded that the Commission’s treatment of broadband providers as common carriers—after it had already made the determination that such providers were not common carriers—was impermissible.\textsuperscript{128} The majority’s opinion explains that the statutory substitute products such as slower Internet service and mobile Internet service would have to be included because the products affect a broadband provider’s ability to raise prices. \textit{Id.}

\textsuperscript{126} \textit{Id. at 666}.

\textsuperscript{127} \textit{Id.} Judge Silberman also raised the argument that the \textit{Order} granted an economic preference providing protection from market forces to a powerful group of constituents: Internet content providers. \textit{Id. at 668}. Section 706 requires the Commission to identify an actual threat to competition or barrier to infrastructure investment, supported by evidence that such a threat or barrier exists, and if such a requirement was not met, the Commission lacked the authority to promulgate the regulation in the first place. \textit{Id. at 667–68}. This theory was moot, however, because Silberman agreed that the \textit{Order} was invalid on other grounds. \textit{Id. at 667}.

\textsuperscript{128} \textit{Id. at 650, 667}.
definition stipulates that a telecommunications carrier may be treated as a common carrier only to the extent that it is providing “telecommunications services.” This was problematic, given that the Commission previously determined that broadband carriers are instead providing information services. The terms of the Order prevent disparate treatment of traffic in substantially the same way that common carriers are prevented from discrimination in rendering service. Therefore, even though the Commission never expressly stated it was attempting to treat broadband ISPs as common carriers, it becomes clear that the Order represents a de facto violation of the nexus of the statutory and administrative definitions involved because it treats broadband providers as common carriers by necessary implication.

The court’s opinion never once uses the terms “stare decisis” or “estoppel,” but those are the legal principles being employed. While the Commission is not necessarily bound by its own decisions as a matter of stare decisis, the Commission is bound to abide by its own definitions that are still in effect, which means that imposing common carrier obligations in broadband providers was unwarranted. An agency may not simply disregard rules or categorical delineations that are still on the books.

The principle that the Commission could change its policy to define broadband providers as telecommunications providers, subject to the constraints of the A.P.A. and the “arbitrary and capricious” standard, was also discussed at length in the opinion in relation to the change of interpretation of the Commission’s own statutory authority when it implemented the Order. The Commission would merely need to acknowledge and explain the reasons for reclassifying ISPs as telecommunications services. One motivation the Commission may

129. Id. at 650; see also 47 U.S.C.A. § 153(51) (2012).
131. Verizon, 740 F.3d at 650–58.
132. Id.
133. Id.
134. See generally Honeywell Int’l, Inc. v. Nuclear Regulatory Comm’n, 628 F.3d 568 (D.C. Cir. 2010).
135. Verizon, 740 F.3d at 650–58.
136. 5 U.S.C. § 706(2) (1966); see also NetCoalition v. S.E.C., 615 F.3d 525, 536 (D.C. Cir. 2010).
137. Verizon, 740 F.3d at 635–36.
138. Id. at 636.
have had to avoid such a reclassification was that it had previously faced opposition to the proposal of reclassifying broadband providers as common carriers.\textsuperscript{139} Besides industry opposition to common carrier regulation, forty-eight members of Congress had requested that the Commission leave any such change in policy to the legislature in a 2010 congressional resolution.\textsuperscript{140}

By declining to officially reclassify broadband providers as common carriers, yet nevertheless treating them as such, the Commission found an inconspicuous way to treat ISPs as it desired without inviting the immediate ire that an outright reclassification would bring. It is clear from the reasons outlined in the \textit{Verizon} opinion that this arguably somewhat devious approach to regulation was invalid.\textsuperscript{141} The better question is whether the Commission had the authority to impose antidiscrimination and anti-blocking rules in the first place, a matter over which the majority and Judge Silberman disagreed.\textsuperscript{142}

**B. Affirmative Statutory Authority and the Antitrust Antithesis**

It seems fairly clear that Section 706 of the Telecommunications Act did make an implicit grant of statutory authority to the Commission to regulate within this arena.\textsuperscript{143} It is also not contested that the granted statutory authority has limitations, although the majority’s explanation of the extent of those limitations is somewhat unsatisfactory.\textsuperscript{144} Saying that the Commission is limited to its subject matter jurisdiction and that any regulation must encourage deployment of advanced telecommunications ability is indeed no limitation at all other than an illusory one.\textsuperscript{145} The Commission could shoehorn just about any telecommunications regulation into this jurisdictional scope. This is not entirely a bad thing, however, since the Commission is the appointed expert on the Internet and therefore is better equipped to make nuanced decisions about its regulation than is Congress. An alternative argument would be that although the Commission may have stretched the scope of its authority too far, the real

\begin{itemize}
\item \textsuperscript{139} H.R. Con. Res. 311, 111th Cong., 2d Sess. (July 30, 2010).
\item \textsuperscript{141} \textit{See Verizon}, 740 F.3d at 650–658.
\item \textsuperscript{142} \textit{See id.} at 660–667 (Silberman, J., dissenting).
\item \textsuperscript{143} \textit{See id.} at 638 (majority opinion).
\item \textsuperscript{144} \textit{Id.} at 662 (Silberman, J., dissenting).
\item \textsuperscript{145} \textit{See id.}
\end{itemize}
problem is that the Commission was simply not given enough authority to regulate effectively.

A key component of the dissent’s counterargument in this case was that the Commission may have overstepped its limited authority in the Open Internet Order because the regulation was arguably made without the validation of substantial evidence that there were significant barriers to infrastructure investment, thus rendering the regulation “arbitrary and capricious.” ¹⁴⁶ As to the lack of supporting evidence of any real problem supporting the Order’s provisions, Judge Silberman remarks in his dissent that the Commission never once identified any current practice of broadband providers that was an actual barrier to investment.¹⁴⁷ The Commission did purport to show that, absent regulation, barriers to infrastructure and market failures might result, however.¹⁴⁸ For example, the Commission stated that a broadband provider:

may have economic incentives to block or otherwise disadvantage specific edge providers[,] ¹⁴⁹
might use this power to benefit its own or affiliated offerings at the expense of unaffiliated offerings[,] ¹⁴⁹
may act to benefit edge providers that have paid it to exclude rivals[,] ¹⁴⁹
may have incentives to increase revenues by charging edge providers[,] and
might withhold or decline to expand capacity in order to ‘squeeze’ non-prioritized traffic.[] ¹⁴⁹

As the dissent was quick to point out, these all amount to speculation, rather than actual evidence.¹⁵⁰ Although these certainly represent valid concerns, it may be true that the evidence was too anemic to support such a sweeping regulation based on the current statutory authority allotted to the Commission.¹⁵¹ Specifically, if Internet providers do in fact have the “technical and economic” ability to impose restrictions on content

¹⁴⁷. Verizon, 740 F.3d at 661 (Silberman, J., dissenting).
¹⁴⁸. Id. at 663.
¹⁴⁹. Id.
¹⁵⁰. Id.
providers—the lynchpin of the Commission’s theory—why had they not done so before the Order’s implementation?\textsuperscript{152}

Surely broadband providers do have some incentives to engage in blocking and discrimination.\textsuperscript{153} One reason they may decline to do so is because of a lack of economic clout or market power. This raises questions of antitrust, a body of law that often finds itself intertwined and occasionally adverse to administrative regulation.\textsuperscript{154} Judge Silberman argued that because the Commission had not conducted a market power analysis prior to implementing the Order, its findings were invalid.\textsuperscript{155} The Commission and majority both declared that ISPs represent a “terminating monopoly” over Internet content because Internet users tend to access the Internet via just one fixed provider.\textsuperscript{156} The content thus becomes inaccessible to them entirely when the ISP decides to act as a gatekeeper of specific content.\textsuperscript{157} The extent to which this represents actual market power depends upon the availability of other local providers, however.\textsuperscript{158}

In the earlier years of the Internet, the last-mile service of the Internet was something of a “natural monopoly” like that of public utility companies, but today it is more common for consumers to have options among ISPs, at least in nonrural areas.\textsuperscript{159} Whereas the majority followed the Commission’s belief that consumers are unlikely to respond to discrimination and blocking of content by switching ISPs,\textsuperscript{160} the dissent broadly criticized this conclusion on the grounds that switching would only

\textsuperscript{152} See generally id. (providing a thorough analysis of this question).

\textsuperscript{153} See infra Part V(C).

\textsuperscript{154} See generally Babette E. L. Boliek, FCC Regulation versus Antitrust: How Net Neutrality Is Defining the Boundaries, 52 B.C. L. Rev. 1627, 1629 (2011). The authority to regulate and enforce antitrust threats granted to the Federal Trade Commission and the Department of Justice does alleviate the F.C.C. from bearing the sole responsibility for ensuring that a lack of net neutrality does not result in some sort of catastrophic market failure. See id. at 1628.

\textsuperscript{155} Verizon, 740 F.3d at 665. That said, the Commission is not the expert in ascertaining what constitutes impermissible market power, and therefore any antitrust-focused attempt at regulation might encroach on the authority of the Federal Trade Commission. Id.

\textsuperscript{156} Many, if not most, users access the Internet via both a single wireline broadband provider and over a separate mobile provider on smartphones. Still, some content, such as Netflix, is more valuable used via wired broadband.

\textsuperscript{157} Verizon, 740 F.3d at 646.

\textsuperscript{158} See id. (“If end users could immediately respond to any given broadband provider’s attempt to impose restrictions on edge providers by switching broadband providers, this gatekeeper power might well disappear.”).

\textsuperscript{159} See id. at 666.

\textsuperscript{160} Id.
be difficult if the ISPs had real market power. The majority’s assertion that consumers would not switch providers because they would be unaware of such blocking or discrimination is somewhat dubious, at least as to major content providers like Netflix, Skype, Google, and Facebook.

Surely, in the case of one of those giants, any such degradation or blocking would sooner or later be covered by the media, and as a result, consumers could easily find out if a service had been blocked as opposed to, say, having been shut down. This is less true as to smaller content providers, the degradation or blocking of which would be more likely to go unnoticed. Yet because the portion of the Order that requires disclosure of network management practices remains intact, an ISP’s blocking of content could never truly be secret—just inconspicuous.

At the same time, Judge Silberman makes an equally dubious argument when he implies that consumers would have an easy time switching between providers, thus rendering market power and concentration weak. This ignores the reality that in many areas consumers’ choices of full-fledged broadband service are quite limited.

One recent F.C.C. study in 2010 found that “approximately 96% of the population has [access to] at most two wireline providers” of Internet service. And while—given the increasing coverage and quality of mobile high-speed Internet—this may be based on a faulty definition of the relevant product market that is arguably too narrow, it is an alarming reality nonetheless. Taken to its most extreme, there are some Americans who have only one option for wired Internet, period. For example, citizens of America’s Pacific island territory of Saipan, CNMI, have only one Internet provider and have suffered monopolistic pricing issues as a result, a clear

161. Id. at 664.
162. See accord, Andrew Orlowski, Almost everyone read the Verizon v. FCC net neutrality verdict WRONG, The REGISTER (Jan. 18, 2014), http://www.theregister.co.uk/2014/01/18/why_almost_everyone_got_the_net_neutrality_verdict_wrong/.
163. Anyone motivated enough to seek it out this information could conclusively determine whether a content provider was, in fact, being blocked or degraded.
164. See Verizon, 740 F.3d at 663–64 (Silberman, J., dissenting).
165. Id. at 665. Silberman’s view that slower Internet providers and mobile providers reduce broadband providers’ market power has some flaws as well, dependent on what the specific consumer plans to do with his or her Internet connection. For example, if the consumer’s sole reason for wanting wired Internet access is to engage in online gaming on networks such as Xbox Live, either substitute service provides no value, and thus does not affect the fixed-line broadband provider’s ability to raise prices or tamper with price structures.
166. Connecting America.: The Nat’l Broadband Plan, 2010 WL 972375 (F.C.C. Mar. 16, 2010). The Commission cited a 2009 statistic that seventy percent of households were in areas where only one or two broadband providers were available when it defended its implementation of the Order as being supported by evidence. Verizon, 740 F.3d at 665.
indication of market power.\textsuperscript{167} Anywhere an Internet provider can flex its market power in this way is an area in which a provider could also censor content without economic backlash. In any case, even Americans who live in areas not quite as remote suffer from a limited number of providers: If only two fixed broadband providers are available\textsuperscript{168} and they both independently or collusively decide to block and degrade certain content, the effect is exactly the same. Similarly, consumers could also face barriers to exit in the form of early termination fees from their old provider and initial connection fees from any new provider, either of which might serve to deter switching.

In summation, Judge Silberman’s objection to the Commission’s failure to establish the market power of broadband providers is a valid one. However, because the market for broadband Internet service is highly concentrated for many consumers, the Order addressed a legitimate concern. In other words, even though the Commission may have exceeded its authority with the Order, or at the very least did not implement it properly with prior-established evidence, the Order’s mandate of net neutrality may yet be sound because it addresses a number of potential market failures.

\section*{C. Problematic Public Policy?}

Looking at the technical and textual statutory authority and stare decisis issues at hand, the court’s decision in this case seems wholly proper. Regardless of the wisdom of the regulation, it was the court’s task to affirm or vacate the Order based on its legal validity.\textsuperscript{169} That said, the court’s opinion does little to address the far more compelling question at hand: whether net neutrality is good public policy. Throughout its young existence, the Internet has proved to be an admirably level playing field where small start-ups often supplant established players (i.e., Facebook replacing MySpace). In a regulatory scheme that allows for paid prioritization, start-ups—and particularly bandwidth-intensive start-ups—will likely find themselves unable to put forth the capital necessary to

\begin{thebibliography}{99}
\item \textsuperscript{167} Telephone Interview with Ghassan Harb, Consumer Counsel at the Att’y Gen.’s Off. of the Commonwealth of the N. Mar. I. (Feb. 24, 2014). As an aside, this and other U.S. island territories such as American Samoa are areas where telecommunications infrastructure investment is currently severely lacking. Michael Calabrese et. al., \textit{The Most Expensive Internet in America}, SLATE: FUTURE TENSE (May 24, 2012), http://www.slate.com/blogs/future_tense/2012/05/24/internet_access_and_cost_in_american_samoa_northern_marianas_islands_guam_.html.
\item \textsuperscript{168} The presence of mobile broadband changes the market power analysis to mean such a scenario is not quite a duopoly, yet there are still services for which mobile broadband access is ineffective. \textit{See supra} note 165.
\item \textsuperscript{169} \textit{Verizon}, 740 F.3d at 634–35.
\end{thebibliography}
obtain a level of service similar to that of established competitors and therefore may never get off the ground.

Content providers are concerned that in the absence of an open Internet their content will be blocked or degraded, that it will encourage ISPs to further vertically integrate into content and applications, and that it will contribute to the diminution of free speech on the Internet. At the heart of this debate is that ISPs essentially want a “piece of the pie” from any content provider making money on the Internet via the ISP’s network. If cable companies can charge video aggregators like Netflix, YouTube, and Hulu, or communications providers like Skype, a fee in order to avoid being blocked or degraded (a sort of now-legal extortion), those companies will respond by passing along costs to the consumer or inserting even more advertisements than they already do.

Netflix publicizes the performance speeds it receives from various broadband providers, and upon examination the graphical data does seem to indicate that the streaming service is being forced via degraded service into making special paid arrangements with ISPs. To be fair, streaming video providers comprise some of the most expensive content for broadband providers to carry because they are invariably bandwidth intensive. Netflix alone was reported to account for roughly thirty percent of downstream Internet traffic. Likewise, if broadband providers continue to be forced to abide by open Internet practices, they might simply begin charging more for their own services, meaning that added costs arising out of the increasingly bandwidth-intensive ways in which the average consumer uses the Internet are somewhat unavoidable. Still, there are other, more worrying, potential market failures here.

170. Ohlhausen, supra note 146 at 81.
172. See id.
175. See Gary Kim, Globally, Bandwidth Consumption Continues to Double Every Two Years, TECHZONE360 http://www.techzone360.com/topics/techzone/articles/2012/07/18/299247-globally-bandwidth-consumption-continues-double-every-two-years.htm (July 18, 2012) (explaining global bandwidth demand roughly doubles every two years).
Some commentators have argued that cable companies in particular may have a more nefarious reason to want to degrade or block content, and especially video streaming content: eliminating competition. In many ways video aggregators like Netflix and Hulu Plus are formidable rivals to cable companies. An increasing number of Americans have switched off cable, finding entertainment in online video sources instead. Hulu in particular, a joint venture of three of the major broadcast television networks, could be perceived as a threat because it offers much of the same content people pay to view on cable with the added convenience of being on demand and usually available the morning after a show airs. Likewise, many cable providers offer their own on-demand video services, sometimes for a fee. Moreover, some cable companies already pay additional fees to cable networks to ensure that only cable subscribers can view certain content on those networks’ websites, indicating a willingness to cut deals with video content providers. That said, while it is one thing to say that cable companies providing broadband could block or degrade competing video aggregators and other sources of streaming video, it is another thing to say that they actually would, given market pressures and the potential that gains from blocking might be offset by losses in demand for the provider’s Internet service.

176. Aaron Taube, *Proof That Netflix is Destroying Cable TV*, YAHOO FINANCE (Apr. 16, 2014, 7:07 PM), https://finance.yahoo.com/news/proof-netflix-destroying-cable-tv-000400548.html (noting subscribers to Netflix and Hulu Plus were reported to be three times as likely to not have a cable subscription).


178. *These are NBC Universal, News Corp. (Fox), and Walt Disney Co. (ABC).* See Boliek, supra note 154 at n. 248.


182. See Boliek, supra note 154, at n. 243. It is also worth noting that if blocking did induce people to unsubscribe from a cable company’s Internet service, it could also induce them to switch television providers at the same time, resulting in further losses.
The same possible market failure exists with cable and DSL broadband providers vis-à-vis an alternative communications service like Skype, which competes with traditional phone services typically provided by those same companies. Given that the residential landline telephone is falling into near irrelevance,\textsuperscript{183} however, this is a somewhat petty concern. A more compelling concern would be about how mobile broadband providers might want to block Skype because its voice and video service competes with the original use of the cellular telephone. The evidence would suggest that on the contrary, mobile carriers have embraced Skype, however.\textsuperscript{184}

The anticompetitive argument proposed by net neutrality advocates, which is not without its faults,\textsuperscript{185} may be magnified when it comes to one broadband provider in particular: Comcast. The company recently vertically integrated to acquire NBC Universal (owner of NBC and a host of cable networks) from General Electric and thus faces competition from streaming video available online in more ways than usual.\textsuperscript{186} Net neutrality was, not surprisingly, a key inquiry in the F.C.C.’s review and eventual approval of that acquisition.\textsuperscript{187} Additionally, Comcast later made a bid to acquire Time Warner Cable, which could make the company the broadband provider for roughly one third of American households.\textsuperscript{188} Comcast is a powerful player not just in the market, but politically too; the company spent an astonishing $18,810,000 on lobbying during 2013.\textsuperscript{189} This would seem to make Comcast a particularly frightening potential abuser of market power. However, under a consent decree related to its acquisition of NBC
Universal, Comcast agreed to abide by net neutrality principles until 2017, an agreement that remains in place even though the Open Internet Order was struck down.\textsuperscript{190} So at least for the next few years, Comcast’s subscribers (and Time Warner’s subscribers if the deal goes through) will have their worries about the outcome of the Verizon case mitigated, although the agreement has not stopped Comcast from entering a streaming deal with Netflix.\textsuperscript{191}

Although evidence of broadband providers actually blocking competing content is somewhat scarce, for evidence that they might engage in such practices if permitted one need look no further than the smartphone application blocking that has been done by Verizon itself in the past. In 2012, Verizon accepted a $1.25 million settlement with the F.C.C. after it impermissibly blocked various “tethering” applications that competed with the carrier’s own mobile hotspot service.\textsuperscript{192} Likewise, cable networks and cable providers are no stranger to arranging for a type of permissible blocking of their own.\textsuperscript{193} Cable television networks have worked with cable companies to ensure that the videos provided on many cable channel’s websites and apps do not cannibalize one of their primary revenue sources—the fees collected from cable providers to carry the network. The networks do this by requiring online viewers to authenticate that they have a cable subscription with a participating cable company before they are allowed to watch.\textsuperscript{194}

In the wake of its victory in Verizon v. F.C.C., Verizon publically stated that it has been and remains committed to an open Internet and that the court’s decision had not changed this.\textsuperscript{195} But if Verizon did not want to operate outside the rules of net neutrality, why would it have bothered with the trouble and expense of this lawsuit in the first place? Indeed, Verizon expressly told the court in this proceeding that if it were not for the open Internet rules, “[it] would be exploring . . . commercial arrangements [with

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\footnotesize
\textsuperscript{190} Id.
\textsuperscript{191} See infra notes 215-17 and accompanying text.
\textsuperscript{192} Peter Svensson, Verizon Can’t Block Tethering Apps Says FCC; Carrier Pays to Settle Probe, HUFFINGTON POST (July 31, 2012, 4:19 PM), http://www.huffingtonpost.com/2012/07/31/verizon-cant-block-tethering-apps_n_1725466.html.
\textsuperscript{193} See, e.g., Dorothy Pomerantz, ESPN Tries to Have It Both Ways, FORBES (Jan. 27, 2014, 4:43 PM), http://www.forbes.com/sites/dorothypomerantz/2014/01/27/espn-tries-to-have-it-both-ways/.
\textsuperscript{194} Id. ESPN’s strategy is to charge cable companies that want their subscribers to have access to its app an extra fee. Id. Note that ESPN is already the most expensive channel for cable companies to carry. Id.
\end{flushleft}
services like Netflix],"196 and it since has.197 Verizon claimed to the public that it merely wanted to manage its network in the way it saw fit.198 In a press release, Verizon further stated that the decision would allow “broadband providers to offer new and innovative services to their customers,” that it would allow “more room for innovation,” and that it would keep the Internet “a of hub of innovation.” This prompted talk show host Stephen Colbert to sarcastically quip, “See, net neutrality’s only been dead a week, and already three innovative uses of the word ‘innovation.’”199 The innovation of which Verizon spoke presumably means new billing practices, a shift that has the potential to spell bad news for consumers.

Another possible shortfall of the new regulatory scheme, or lack thereof, is that it could result in degradation beyond just those services that involve streaming video. Although it is sheer speculation, the majority theorized that an Internet provider could accept payment from content rivals to degrade a competitor,200 e.g., degrading or blocking Bing if Google paid it to do so. This concern becomes even more relevant in light of the vertical integration that has already taken place in the industry.201 Google recently vertically integrated to make the foray into providing Internet service via Google Fiber.202 On the one hand, the emergence of Google as a provider softens cable and DSL broadband providers’ potential market power.203 On the other hand, Google has incentive to degrade the service of a competitor like Bing, or the competitor of any one of its various services, like Google Plus and its thus-far inauspicious attempt to compete with Facebook.204 Likewise, Comcast now owns NBC Universal

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196. Id.
197. Several months later, Netflix begrudgingly agreed to a paid peering deal with Verizon. Sam Gustin, Netflix Pays Verizon in Streaming Deal, Following Comcast Pact, TIME (Apr. 28, 2014), http://ti.me/1pHVPrT.
198. Id.
200. Verizon, 740 F.3d at 629.
202. Id.
203. See id.
and therefore is also a part owner of MSNBC, and without net neutrality it could, in theory, block or degrade the websites of competing firms such as Fox News or CNN. At that point, the issue starts to evolve into one of free speech and censorship. In any case, a lack of net neutrality represents at best a “mixed bag” practice and at worst a potentially massive market failure should the fears of net neutrality advocates actually come to pass.

D. An Uncertain Future

Contrary to the expectations of many, the Commission ended up deciding not to appeal the Verizon v. F.C.C. case to the Supreme Court. F.C.C. chairman Tom Wheeler had previously said the Commission might appeal the decision at the time it was released, although he may not have ever planned to do so, given that he had previously voiced support for the idea of allowing Internet providers to experiment with new business models. Wheeler, a former telecommunications industry insider, said at the time that the Commission would be developing new rules to replace the Order. The Commission did later propose a new set of net neutrality regulations several months later in May 2014, albeit a fairly anemic set that allowed for so-called “Internet fast lanes” where content providers could pay ISPs for preferential treatment.

The post net neutrality marketplace is still very much nascent, but some evidence of newly-permitted practices by ISPs have already emerged. Comcast recently inked a deal with Netflix to allow faster, smoother streaming. Netflix had previously complained that streaming speeds on Comcast were starting to lag behind those on other ISPs, sparking

206. If successful, a merger of Comcast and Time Warner would yield a disturbing amount of influence over speech coming from movie studios, television producers, and news organizations, given that all those industries would have to rely on the combined organization to get their messages to the general public. Reich, supra note 189.
208. Edward Wyatt, Rebuffing F.C.C. in ‘Net Neutrality’ Case, Court Allows Streaming Deals, N.Y. TIMES, Jan. 15, 2014, at B1, available at http://nyti.ms/1cjF1t. This represents a shift from Wheeler’s predecessor, who implemented the Open Internet Order. Id.
209. Tutillic, supra note 207.
211. Chloé Albanesius, Comcast, Netflix Ink Deal to Improve Streaming Speeds, PC MAGAZINE (Feb. 23, 2014), http://www.pcmag.com/article2/0,2817,2453878,00.asp.
accusations that Comcast was deliberately stifling Netflix traffic to extort payment from the video aggregator.\textsuperscript{212} The deal requires Netflix to pay for use of Comcast’s network and presumably allows Comcast subscribers to view Netflix’s new Ultra High Definition content, a service that Netflix so far has only provided to ISPs that participate in its Open Connect Network.\textsuperscript{213} That network allows Netflix to connect directly to ISPs or embed its content servers inside an ISP’s network, thus eliminating middleman backbone networks.\textsuperscript{214} Comcast has said that Netflix will still not receive preferential network treatment, as doing so would violate its consent decree,\textsuperscript{215} but the arrangement and others like it—such as the one recently inked by Verizon\textsuperscript{216}—are nonetheless suspect.\textsuperscript{217}

\section*{VI. Conclusion}

It is certainly rare for a Circuit Court case over an administrative order within the telecommunications industry to invoke such strong feelings on either side of the debate,\textsuperscript{218} yet \textit{Verizon v. F.C.C.} is no ordinary case because net neutrality is no ordinary issue.\textsuperscript{219} The ways in which this decision could spell bad news for consumers are myriad. Content providers may start paying fees for preferred service, which in turn would result in higher costs for those services passed on to the consumer. Furthermore, net neutrality previously allowed anyone to become a content producer by leveling the playing field, which is pivotal to ensuring innovative newcomers are not boxed out by established content providers.

\begin{thebibliography}{99}
\bibitem{212} See Lien, \textit{supra} note 174.
\bibitem{213} Albanesius, \textit{supra} note 211.
\bibitem{214} Id.
\bibitem{215} See \textit{supra} note 190 and accompanying text.
\bibitem{216} See Gustin, \textit{supra} note 197.
\bibitem{217} Lien, \textit{supra} note 174 (“Netflix is conceding they have to do this, that they cannot survive as an Internet content provider without paying the cable companies a fee.”).
\bibitem{218} Indeed, talk show host John Oliver made light of the disinterest most people have for things like the minutiae of F.C.C. regulations when he did a segment on his show about net neutrality and its recent shake-up, theorizing that net neutrality’s esoteric nature had shielded it from greater public outcry. \textit{Last Week Tonight with John Oliver, Ep. 5: Net Neutrality} (HBO broadcast June 1, 2014), available at http://www.hbo.com/last-week-tonight-with-john-oliver/episodes/01/5-june-1-2014/video/net-neutrality.html#/ (“The cable companies have figured out the great truth of America: If you want to do something evil, put it inside something boring.”).
\bibitem{219} It would seem that the public, once educated on the issue, is quite opinionated about Net Neutrality and the F.C.C.’s new proposed rules. The Commission received over a million comments to its proposed rules, a record number and a volume so high it caused the F.C.C.’s website to crash. See Elise Hu, \textit{One Million Net Neutrality Comments Filed, but Will They Matter?}, National Public Radio, http://www.npr.org/blogs/alltechconsidered/2014/07/21/332678802/one-million-net-neutralitycomments-filed-but-will-they-matter (last accessed Oct. 26, 2014).
\end{thebibliography}
who see them as a threat. Simply put, the Internet was not broken before, and yet it may be now.

At the same time, despite the sensationalist speech on this issue being disseminated to the public, one must be careful not to overreact. It may be that many of those notions of a dystopian future for cyberspace are unlikely to come to pass in most areas due to normal market pressures and the still-present and potent force that is federal antitrust law. Indeed, prophylactic authority in this arena is actually somewhat dispersed: the protections put in place by the F.T.C. and Department of Justice that guard against market failures are unaffected by this decision, meaning the market is not completely vulnerable. Perhaps this window of opportunity for broadband providers to experiment with “innovative” business models—which will be open at least until the Commission approves a new set of rules in accordance with the court’s decision—is a good thing because it could partially settle the net neutrality debate. Conversely, if the Commission ultimately fails to adopt another net neutrality regulation, this interim period of free experimentation could become permanent, for better or worse.

The seminal question is an age-old one that is raised whenever there is a potential for market failures: whether the laissez-faire open market or effective regulation is the means to an optimally efficient result. It may very well be true, as some have posited, that addressing any market failures from an absence of net neutrality is more efficiently left to the “wait and see” approach of antitrust law than ex ante regulation. Moreover, one may argue that it is inefficient and unavailing to attempt to closely regulate such a rapidly changing industry where technological innovations routinely alter the competitive landscape. Indeed, the Commission should be cautious about forming regulations based on concerns of undue market power because it is not the designated expert in that field. The answer to the question of what solution is optimal will take time to flesh out if it is ever reached at all. In the meantime, however, the future of the Internet—which is itself a symbol and embodiment of the principles of future progress, innovation, and competitive fair play—hangs in the balance.

221. See Boliek, supra note 154 at 1681–82.
222. See generally id.
Distributive Injustice and Organ Transplant Waitlists

by HUMA ZARIF*

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If the distribution of organs becomes subject to the success of individual publicity campaigns, with organs going to those who hire the best PR firms and lawyers, who on the waiting list would remain confident that their priority would be decided on the merits . . . [a]nd who would agree to donate organs to a system supposedly based on rational, humane, and fair selection criteria but that would actually be determined by the assets of the highest bidder?!

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I. Introduction

You have been diagnosed with organ failure and told you need an organ transplant to live. You are placed on the transplant waiting list knowing that there is a real risk you may die prior to receiving an organ transplant, your last hope for survival. You hear the story of a millionaire receiving an organ transplant in a state far from his home shortly after being listed . . . and two children being placed on an adult list to receive lung transplants . . . you think, how can that be? Can I be placed on additional waitlists to increase my options and chances of obtaining an organ transplant?

Organ transplantation has been a life-saving treatment option for many who require this intervention due to organ failure. However, there are many legal and ethical considerations regarding allocation of this limited resource. Some of these issues were brought to the forefront in the highly publicized cases of Steve Jobs, Sarah Murnaghan, and Javier Acosta. These were instances where it appeared that in getting their transplants, these individuals obtained an unfair advantage over others on the waitlist. When a resource is as scarce as an organ for transplantation, equitable distribution policies are integral to a just allocation system.

The late Steve Jobs obtained a liver transplant in Tennessee, despite being a resident of California. Jobs was able to obtain a transplant in Tennessee because the transplant policies allow individuals to join multiple waitlists. However, not everyone has the same ability to access multiple waitlists due to the financial burden of going through an evaluation at each transplant center, and the inability to travel far distances at a moment’s notice.

In the case of the children, Sarah Murnaghan and Javier Acosta, both were suffering from end-stage cystic fibrosis and required lung transplants in order to survive. Since the availability of adult organs far exceeds the

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3. Whitehouse, supra note 2, at 1.


availability of pediatric organs\(^7\) by as much as fifty times more,\(^8\) the parents of these children sought to set aside the United Network of Organ Sharing (UNOS) prohibition against children being placed on the adult transplant waitlist.\(^9\) Through judicial intervention, these children were able to obtain a temporary restraining order (TRO) against the UNOS “under age twelve rule” so that they could be considered for adult lungs based on the medical urgency of their cases.\(^10\) In granting the TROs for these children, Judge Baylson held that the under twelve rule “discriminates against children and serves no purpose, is arbitrary, capricious, and an abuse of discretion.”\(^11\) Ultimately both children received adult lungs that they may not have otherwise received.\(^12\) The cases of these children received much publicity and ultimately led to a temporary policy change at the Organ Procurement and Transplantation Network (OPTN).\(^13\) The policy change is due to expire July 2014 but is being considered for permanent adoption.\(^14\)

The public sentiment was that any parent would do the same if faced with the circumstances Sarah Murnaghan and Javier Acosta’s parents were.\(^15\) However, as Secretary Sebelius of the Department of Health and Human Services (DHHS) stated at the time, it was an “incredibly agonizing situation where someone lives and someone dies.”\(^16\) Sebelius also noted that there

7. Ryan Jaslow, Children Added to Adult Lung Transplant List Amid Outcry a Dilemma for Doctors, CBSNEWS.COM (July 8, 2013), http://www.cbsnews.com/news/children-added-to-adult-lung-transplant-list-amid-outcry-a-dilemma-for-doctors/ (Marlie Hall presenting) (reporting that in 2012 there were twenty lung donors under the age of twelve while there were 1700 adult lung donors).


9. E.g., Norman, supra note 1.

10. Murnaghan TRO, supra note 8; Martinez, supra note 8.

11. Id.

12. Id. See also Murnaghan supplemental memo, supra note 8.


14. See infra Part III.C. See also At-a-Glance: Proposal for Adolescent Classification Exception for Pediatric Lung Candidates, supra note 13.

15. Bethany Mandel, Organ Allocation Should be Done by Doctors, Not Judges, COMMENTARY (June 12, 2013 7:00 AM), http://www.commentarymagazine.com/2013/06/13/organ-allocation-should-be-done-by-doctors-not-judges/ (stating “One cannot help but feel the utmost sympathy for families like the Murnaghs as they watch, helplessly, as their child suffers.”).

were three other children in the same hospital under similar life-and-death circumstances\(^\text{17}\) and that there were forty others on the highest-acuity list in Pennsylvania at the time.\(^\text{18}\) As Dr. Stuart Sweet, medical director of the world’s largest pediatric lung transplant program in St. Louis stated, "the organ allocation system is designed to offer organs as fairly as possible for every patient waiting for organs"\(^\text{19}\) and if the system is changed for one patient’s advantage, then there is another patient who will be at a disadvantage.\(^\text{20}\)

This note will address the inequities of the current organ transplant waitlist system. Section II will begin with a review of the history of the organ transplant system in the United States. Section III will examine the transplant waitlist process and organ allocation systems. Sections IV and V will discuss options to consider in pursuit of achieving a more equitable organ transplant system.

## II. Background

### A. The Uniform Anatomical Gift Act

The current mechanism for organ donation in the United States is through an anatomical gift.\(^\text{21}\) Prior to 1968, organ donation was handled at the state level and systems varied significantly from state-to-state.\(^\text{22}\) The Uniform Anatomical Gift Act (UAGA) promulgated in 1968 by the National Conference of Commissioners on Uniform State Laws was the first piece of legislation regarding organ transplantation in the United States, creating the power that was not yet recognized at common law to donate organs, eyes, and tissue as a gift.\(^\text{23}\) The UAGA was revised in 1987 and again in 2006.\(^\text{24}\)

\(^{\text{17}}\) Mandel, supra note 15.

\(^{\text{18}}\) Sebelius Rejects 10-Year-Old Girl’s Appeal for Life-Saving Waiver From Federal Regulation, supra note 16.


\(^{\text{24}}\) Id.
All states had adopted the 1968 UAGA, but only twenty-six states enacted the 1987 revision resulting in non-uniformity amongst the states. The diversity in the law amongst the states was considered an impediment to transplantation. Thus, the 2006 revision was an attempt to increase efficiency of the organ transplant system by resolving perceived inconsistencies in the system and is limited in scope to donations from deceased donors. The 2006 revision has been adopted in every state except Delaware, New York, Florida, and Pennsylvania where it has been introduced for consideration this year.

The UAGA has three goals in mind including: (1) encouraging individuals to make anatomical gifts; (2) respecting the autonomy of individuals in deciding whether or not to make an anatomical gift; and (3) prohibiting the sale and purchase of organs.

B. National Organ Transplant Act

In 1984 the National Organ Transplant Act (NOTA) was passed by Congress. NOTA prohibits the sale of human organs, established the Organ Procurement and Transplantation Network (OPTN) to ensure fair and equitable allocation of donated organs, and provided grants to establish and expand organ procurement organizations (OPOs). The OPTN organizes the procurement, distribution, and transplantation of organs and is managed by a private non-profit organization, United Network for Organ Sharing (UNOS). OPTN is managed by UNOS through contract with the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services (DHHS) and has been the only organization managing

25. ANATOMICAL GIFT ACT, supra note 21.
27. ANATOMICAL GIFT ACT, supra note 21.
30. Timeline of Historical Events, supra note 23.
the OPTN since 1986 when it was first awarded the contract by DHHS.33 UNOS and OPTN have a shared board of directors that includes medical professionals, regional representatives, and general public representatives.34 Specifically, the OPTN board must include fifty-percent transplant surgeons and physicians and at least twenty-five percent transplant candidates, transplant recipients, organ donors, and family members.35 The OPTN committees and its board of directors develop policies while UNOS coordinates committee and board actions.36

OPTN is charged with establishing: (1) a national list of individuals in need of organs, either through regional centers or in one location; (2) a national system of organ matching; and (3) criteria for allocation of organs.37 OPTN must also assist OPOs in equitable distribution of organs among transplant patients nationwide and work actively to increase the supply of donated organs.38

All OPOs must participate in the OPTN39 and be certified by the Centers for Medicare and Medicaid (CMS).40 Additionally, all OPOs are members of the Association of Organ Procurement Organizations.41 Fifty-eight OPOs exist in the United States and are responsible for increasing the number of registered donors and coordinating the donation process when actual donors become available within their designated service area.42 Some states like Hawaii and Alabama have one OPO, while other states such as New York and Ohio have up to five OPOs.43 CMS conditions of participation require that any hospital involved in the procurement of organs must be a member of an OPO while a hospital that performs organ transplants must be a

35. 42 C.F.R. § 121.3 (2014).
38. Id.
42. Id.
43. See id.
member of the OPTN. These conditions of participation apply to heart, heart-lung, intestine, kidney, liver, lung, and pancreas centers.

The nation has been divided into eleven geographic regions by OPTN to facilitate transplantation.

Each region is represented on the OPTN/UNOS Board of Directors. These regions are further delineated into donation service areas (DSA) defined as “[t]he geographic area designated by the Centers for Medicare and Medicaid Services (CMS) that is served by one organ procurement organization (OPO), one or more transplant hospitals, and one or more donor hospitals.”

III. Waitlisting & Allocation Decisions

A. The Dreaded Waitlist

Despite the OPTN and OPOs being charged to increase the supply of donated organs, the gap between individuals in need of transplant and donors is widening.

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44. 42 C.F.R. § 482.45 (2014); 42 C.F.R. § 482.72 (2014). See 42 C.F.R. § 482.104 for additional requirements for kidney transplant centers.
45. 42 C.F.R. § 482.68 (2014).
46. Members, supra note 41.
47. Id.
There are over 120,000 candidates awaiting transplant and although an average of seventy-nine transplants are conducted daily, another eighteen individuals die due to organ shortages. Of those currently waiting for transplant, over 99,000 are waiting for kidneys. Transplant candidates are only placed on the waiting list for an organ at a transplant program if the transplant program has current OPTN transplant program approval for that organ type.

Currently there are 244 transplant centers nationwide. Determining whether an individual is a candidate for transplant at a given time varies amongst transplant centers across the country. That is because discretion is left to the medical professionals and individual hospitals in deciding when

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51. The Need is Real: Data, supra note 49.
52. Data, supra note 50.
54. Members, supra note 41.
55. Furrow et al., supra note 32 at 1489.
to add a candidate to the list. Each center has its own criteria for listing transplant candidates. When an individual is referred to a transplant center for evaluation and placement on the transplant list the “transplant center runs a number of tests and considers the patient’s mental and physical health, as well as his or her social support system[]” prior to accepting or rejecting the individual for placement on the list. Transplant centers also ask about an individual’s financial situation, including insurance or other resources to pay for the surgery and immunosuppressant medication following transplantation. This means that an individual may be rejected for listing at one transplant center but accepted and placed on the list at another transplant center.

B. Multiple Listing Quandary

Transplant candidates are explicitly allowed to register at multiple transplant sites for the same organ.

Candidates may be registered for an organ at multiple transplant programs within the same Donation Service Area (DSA) or different DSAs. A transplant program may choose whether or not to accept a candidate seeking multiple registrations for an organ. Transplant hospitals may access a report from the OPTN Contractor that identifies any candidates that have multiple registrations for the same organ. This report will not include the identities of the other hospitals where the candidates are registered.

It is this policy that allowed the late Steve Jobs to be placed on multiple lists for his liver transplant. Similarly, the TRO that both Sarah Murnaghan and Javier Acosta obtained allowing them to be placed on the adult waitlist while still on the pediatric list was consistent with this policy.

Much of the controversy surrounding multiple listing is that transplant centers do not have similar access to organs—“not all OPOs are created equal.” It is well established that hospitals vary widely in the number of


61. Id.

transplants they perform and that OPOs vary widely in the number and types of donors they receive each year. Some consider multiple listing as “gaming the system.” Not everyone can access multiple lists because first you have to show up for an extensive in-person evaluation. Then you have to be available for a transplant in the area within hours of an organ becoming available. And while one jurisdiction might accept you as a charity case, if you want to play the field you’ll have to prove you can pay for the transplant yourself. You also get priority points for being able to guarantee follow-up medical care, since this assures transplant allocators that the organ will be well cared for.

The American Medical Association (AMA) Council on Ethical and Judicial Affairs (CEJA) finds multiple listing problematic because “reliance on criteria of questionable ethical value may lead to inherently unfair or unjust allocation decisions” and “the different interpretations and valuations assigned to each criterion by different decision makers can result in inconsistent decisions across institutional lines.” Instead CEJA recommends five factors that should be considered in allocation of scarce resources such as organs including:

1. the likelihood of benefit to the patient
2. the impact of treatment in improving the quality of the patient’s life
3. the duration of benefit
4. the urgency of the patient’s condition (i.e., how close the patient is to death), and
5. the amount of resources required for successful treatment.

These recommendations have yet to be fully considered, embraced, or implemented by UNOS.


64. Saletan, supra note 5.


68. Id.
When an individual is listed at a transplant center, he or she is generally considered for organs from a donor in that local area first. If a patient is put on the list at multiple transplant centers, then he or she will be considered for donated organs that become available in multiple local areas. Although the policy allows for multiple listing in the same local area, because each OPO has a defined service area and there is a limit to designating one OPO to each service area, there appears to be no advantage to listing at multiple centers in the same OPO. Each region may establish regional review boards (RRBs) for specific organs to provide “confidential medical peer review of transplant candidates placed on the waiting list at a more urgent status than the standard listing criteria justifies.” The RRBs may then decide whether the requested status is appropriate following a review of the justification forms submitted by the transplant center documenting the candidate’s current condition. Transplant hospitals are to ensure that individuals are placed on the transplant waiting list as soon as his or her candidacy for transplantation has been determined.

C. Allocation Enigma

When a deceased organ donor is identified the OPO accesses the UNet system, the centralized UNOS computer network that electronically links all transplant hospitals and OPOs, which then generates a ranked list or match run of candidates who are suitable to receive the organ.

70. Id.
73. Frequently Asked Questions, supra note 57.
75. Id.
76. 42 C.F.R. § 121.5 (2014).
Factors affecting candidate ranking include tissue match, blood type, length of time on the waiting list, immune status, distance between the potential recipient and the donor, and degree of medical urgency (for heart, liver, lung and intestines). OPTN is clear that for each organ that becomes available, UNet’s ranking of potential recipients is based on the objective criteria specific to that organ. OPTN further states that “[e]thnicity, gender, religion, and financial status are not part of the computer matching system.”

UNOS has a national distribution policy for most organs, relying on medical urgency and waitlist time for allocation. “Prior to 2000, UNOS policy was to retain organs in the geographic area where they were recovered if a transplant candidate with the appropriate medical status was in that area, even if patients with a more urgent need or who presented better survival prospects waited in other regions.” The justification for organ retention in

78. Id.
81. Furrow et al., supra note 32, at 1488.
82. Id.
local geographic areas is organ viability. The distance between the donor’s hospital and the potential recipient’s hospital is more important for matching hearts and lungs than it is for kidneys or livers because the heart and lungs can survive outside the body for only four to six hours while kidneys can survive up to thirty-six hours and livers up to twelve.

Each organ type has a specific allocation policy. Distinct allocation calculators are utilized for each type of organ. The allocation of hearts, livers, lungs, and kidneys all include special pediatric provisions whereas allocation of intestines and pancreas do not. The allocation of kidneys, the organ in highest demand, is done “locally first, then regionally, and then nationally.” This clearly encourages individuals in need of a kidney transplant to engage in multiple listing to increase his or her chances of transplantation. Unfortunately, multiple listing is not a realistic option for everyone.

Even the purported objective criteria used to determine organ allocation include a level of subjectivity that may exacerbate inequities in organ distribution. For instance, the Calculated Panel Reactive Antibody (CPRA) is one of the three allocation calculators used to identify kidney candidates, and is used to estimate the percentage of likely incompatible donors based on the candidates’ unacceptable antigens. Discretion is left to the transplant centers to determine their own criteria for unacceptable antigens. Each transplant center may specify the minimum acceptance criteria for a deceased donor organ and maximum antigen mismatch. If the transplant program specifies a mismatched antigen maximum, then the OPO will only offer organs from deceased donors with mismatched antigens equal to or less than the maximum specified.

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84. Id.
87. OPTN Policies §§ 6 - 11, supra note 85.
89. See discussion supra Section III.B.
90. Allocation Calculators, supra note 86.
92. Id.
94. Id.
determined to not be a match at one transplant center, but at another transplant center would be a match.

The lung allocation system for candidates twelve years of age and older is based upon a lung allocation score (LAS).\textsuperscript{95} Donor lungs are offered to candidates according to their medical characteristics, directing lungs to candidates with the most urgent medical need and the greatest chance of survival, instead of relying on waitlist time.\textsuperscript{96} The measures used to calculate the LAS are: waiting list urgency measure, or the expected number of days a candidate will live without a transplant during an additional year on the waiting list; the post-transplant survival measure, or the expected number of days a candidate will live during the first year post-transplant; the transplant benefit measure, or the difference between the post-transplant survival measure and the waiting list urgency measure; and the raw allocation score, which is the difference between the transplant benefit measure and the waiting list urgency measure.\textsuperscript{97} These measures are then plugged into an equation specified by the OPTN to determine an individual’s LAS.\textsuperscript{98} Priority is given to candidates based on his or her LAS, blood type, and the geographic distance between the candidate and the donor hospital.\textsuperscript{99} Age factors in only so far as lungs from pediatric and adolescent donors are offered first to pediatric and adolescent transplant candidates before they are offered to adults.\textsuperscript{100}

Prior to June 10, 2013, lung candidates younger than twelve years old were sorted based on pediatric priority waiting time and total waiting time, longest to shortest.\textsuperscript{101} The pediatric candidates were assigned as priority one and priority two.\textsuperscript{102} Priority one was assigned to pediatric candidates with respiratory failure, pulmonary hypertension, or as an exception granted by the Lung Review Board (LRB).\textsuperscript{103} All other pediatric candidates were


\textsuperscript{96}. Id.


\textsuperscript{98}. See id.

\textsuperscript{99}. Frequently Asked Questions About the Lung Allocation System (LAS), supra note 95.

\textsuperscript{100}. Id.


\textsuperscript{103}. Id.
assigned priority two.\textsuperscript{104} Within each priority blood type and then waitlist time were used to identify eligible candidates.\textsuperscript{105}

Following Murnaghan and Acosta’s involvement of the judicial system to obtain an advantage over others on the pediatric waitlist, OPTN reevaluated its pediatric allocation policy and has temporarily approved a policy permitting pediatric lung candidates to request an exception from the LRB to be classified as an adolescent to be prioritized by LAS.\textsuperscript{106} This “adolescent classification exception” is due to expire on July 1, 2014.\textsuperscript{107} However, the OPTN Thoracic Committee is considering permanent implementation of the policy change as it allows for pediatric candidates who are suitable for lung offers from larger donors to apply for an exception.\textsuperscript{108}

Some may argue that what Murnaghan and Acosta did through judicial intervention was justified in that it spurred a change in the pediatric lung allocation policy. However, the issue still remains that the system was changed for these specific individuals to obtain an advantage for transplantation resulting in a disadvantage to another individual on the waitlist.\textsuperscript{109} The stated goal is to provide equitable allocation of organs amongst potential recipients,\textsuperscript{110} but the question remains as to how this can best be achieved.

\section*{IV. National Distribution}

The OPTN uses geographical areas for organ allocation including DSA, region, nation, and zones. Although UNet centralizes the organ transplant system, the distribution of organs is initially at a local level and then expanded to a broader geographic area if the organ is not matched or is declined in the local area.\textsuperscript{111} Thus, although OPTN is charged with establishing a national list of individuals in need of organs,\textsuperscript{112} the national list is simply the names of the individuals in need of transplantation.

\begin{thebibliography}{112}
\bibitem{104} Id.
\bibitem{105} Id.
\bibitem{106} Proposal for Adolescent Classification Exception for Pediatric Lung Candidates, \textit{supra} note 13.
\bibitem{107} Id.
\bibitem{108} Id.
\bibitem{109} Allahpundit, \textit{supra} note 20.
\bibitem{110} 42 C.F.R. § 121.8 (2014).
\bibitem{111} See OPTN Policy § 2.1, DEPT OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf (stating “Each organ procurement organization (OPO) must establish criteria for an acceptable deceased donor or deceased donor organ for the transplant programs in its Donation Service Area (DSA). If a host OPO rejects a deceased donor, the OPO must offer the organs to OPOs that have more liberal acceptance criteria.”).
\bibitem{112} 42 U.S.C. § 274 (2014).
\end{thebibliography}
nationwide. The national system that is alluded to is actually just general criteria set out by UNOS and OPTN that centers are to rely on in matching donors and candidates as well as for allocation purposes. But there is much discretion left to the OPOs and the transplant centers.

The idea of a national transplant list has been discussed as far back as when NOTA was first passed. Although Congress called for OPTN to “establish one nationwide list of individuals awaiting transplantation and a national system that would allow for donated organs to be quickly matched with medically suitable candidates on that list” national distribution was not mandated.113 Rather than establishing a national list and a national system in one central location, it specified this could occur in regional centers.114 For instance, transplant programs have discretion in establishing criteria for organ acceptance.115 Thus one transplant center may accept organs that another would decline.

The arguments against a national list include the likely increase in need for cross-country transportation of organs, prolonging ischemia times and resulting in the wastage of donated organs, increased re-transplantation rates, fewer transplanted candidates and more waitlist deaths.116 However, currently multiple listing is allowed requiring cross-country transportation of the individual requiring transplantation. Thus, individuals who can afford it are able to travel to a distant transplant center to obtain the donated organ. Organ survivability will likely not be affected whether it is the organ travelling from the donor hospital to the recipient hospital or the individual in need of transplant travelling across the country because the organ is outside of a human body for the same duration. Implementing a system whereby organs are distributed nationally and the organ travels from the donor hospital to the recipient hospital would be more equitable than the current system allowing for those who can afford it to be listed at multiple transplant centers.

A national system with uniform policies and standards is essential to a more equitable distribution system.117

114. Id.
115. 42 C.F.R. § 121.6 (2014).
117. Yessian, supra note 114.
V. Reducing the Waitlist

A. HIV Organ Policy Equity Act

The HIV Organ Policy Equity (HOPE) Act enacted November 2013 allows for the transplantation of organs from donors infected with HIV to recipients who are infected with HIV.\(^\text{118}\) It is estimated that 500 individuals infected with HIV will be eligible for transplants annually.\(^\text{119}\) This will in turn reduce waitlists for individuals not infected with HIV.\(^\text{120}\) OPTN has convened a workgroup to develop criteria for conducting research on organs procured from HIV-positive individuals in order to assess the feasibility, effectiveness, and safety of transplantation of HIV infected organs.\(^\text{121}\) Although this is a promising step in the right direction, the shortage of organs will not be alleviated through this measure alone.

B. Opt-in versus Opt-out

The UAGA adheres to an opt-in principle whereby an “individual becomes a donor only if the donor or someone acting on the donor’s behalf affirmatively makes an anatomical gift.”\(^\text{122}\) This is contrary to an opt-out standard whereby consent is presumed “rendering all persons de facto organ donors unless they choose to expressly opt-out.”\(^\text{123}\) Some argue that an opt-out standard may help increase organ donation.\(^\text{124}\) However, this does not appear to be the case in Europe, where many countries have adopted the presumed consent standard but do not have better donation rates than the United States.\(^\text{125}\) This may be because even with the presumed consent laws, explicit approval is still required.\(^\text{126}\) If the U.S. instituted presumed consent


\(^{\text{120}}\) Id.


\(^{\text{124}}\) Furrow et al., supra note 32, at 1491.

\(^{\text{125}}\) Henry Hansmann, Markets for Human Organs, in A Legal Framework for Bioethics 145 (Cosimo Marco Mazzoni et al., eds., 1998).

\(^{\text{126}}\) Id.
laws, in which strictly enforced and explicitly held approval is not required, then the donor pool would potentially see an increase.

C. Compensation for Donation

United States law prohibits the sale of human organs.127 This stems from ethical and moral values as well as fear of the poor being taken advantage of.128 However, due to the scarcity of organs available for transplantation, those who can afford it seek solutions outside of U.S. borders.129 The phenomenon whereby individuals who have the means go to another country where organ purchase is permitted, or at least not specifically prohibited, transplant tourism is on the rise due to organ shortages.130 Some medical professionals are concerned about the substandard care the organ recipients may be receiving.131 In one case, someone who had gone to China for transplantation, returned for follow-up care to his providers in the U.S.132, 133 Shortly thereafter, he became septic, was hospitalized, and ultimately transplanted again in the U.S.134 There was some disagreement amongst the transplant team whether it was morally right to provide him with a transplant, but the consensus was to proceed based on the nonjudgmental regard and beneficence principles of medical ethics.135 Thus, not only did this individual go to another country and purchase an

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132. Id.
133. Id.
organ that could have gone to someone else, when that transplant failed, he ended up requiring another transplant in the U.S.

There are also the ethical considerations regarding paid organ donors—many of whom are poor and do not receive adequate follow-up care.\textsuperscript{136} Individuals, who sell their organs or tissue, are referred to as \textit{vendors}.\textsuperscript{137} One study conducted on vendors in Pakistan revealed that all but two of the thirty-four subjects had "sold a kidney to pay off debts owed to landowners, or to pay for medical expenses, burial of the dead, or dowries related to marriage."\textsuperscript{138} The vendors felt as though they lacked other options and turned to selling an organ, which opponents of organ sales say is a perpetuation of social and economic inequality rather than the vendor exercising the freedom to make an autonomous choice.\textsuperscript{139} In some cases, the vendors did not even receive the promised payment that led him or her to agree to selling the organ in the first place.\textsuperscript{140, 141}

Iran has legalized the sale of organs.\textsuperscript{142} Living non-related donation of kidneys was legalized in 1988 and a government-organized transplantation system was established to regulate and fund the transplant process as well as compensate donors for organs.\textsuperscript{143} The Dialysis and Transplant Patients Association, a third-party independent association, was established to arrange contact between donors and recipients and still carries out this function while staffed on a voluntary basis by end-stage renal failure patients.\textsuperscript{144} It is illegal for the medical and surgical teams involved in the transplant to receive any form of payment.\textsuperscript{145} The donors receive free health

\begin{thebibliography}{99}
\bibitem{136} MacInnis, \textit{supra} note 131.
\bibitem{138} Id.
\bibitem{139} Id.
\bibitem{141} For discussion on the prolific organ purchase system in Israel see Michael Finkel, \textit{This Little Kidney Went to Market}, \textit{NEW YORK TIMES MAGAZINE} (May 27, 2001), available at http://www.nytimes.com/2001/05/27/magazine/27ORGAN.html?pagewanted=all (“[T]here have been instances in which a patient has elected not to accept the offer of a kidney donation from a well-matched relative. ‘Why risk harm to a family member?’ one patient told me. Instead, these patients have decided that purchasing a kidney from someone they’ve never met—in almost all cases someone who is impoverished and living in a foreign land—is a far more palatable option.”).
\bibitem{143} Id.
\bibitem{144} Id.
\bibitem{145} Id.
\end{thebibliography}
insurance and the recipients are provided with subsidized immunosuppression. To prevent transplant tourism, Iran has outlawed potential recipients from abroad travelling to Iran to receive a kidney donation from an Iranian. It appears that Iran may have successfully addressed the shortage of organs with reported outcomes for recipients being favorable. However, opponents of the Iranian system indicate that there are still substantial waiting times for organs and that the poor are still the ones being preyed upon for donations.

The U.S. prohibition on organ sales does not include “the reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage of a human organ or the expenses of travel, housing, and lost wages incurred by the donor of a human organ in connection with the donation of the organ.” This is consistent with the view of the American Medical Association, and may actually serve to encourage living donation.

The concerns of the poor being forced into donation due to dire circumstances are primarily regarding living donors. However, there may be a market for cadaveric organs. One idea for a cadaveric organ market is a futures market. The right to harvest an individual’s organs upon the individual’s death would be purchased in advance while the individual is alive and in good health. This could be done through health insurance companies. The inducement would be a lower insurance premium for

146. Id.
147. Id.
149. Major, supra note 143. But see Deghan, supra note 149 (“As a result, there is no shortage of the organs—but for those trying to sell a kidney, there is a lot of competition.”); Benjamin E. Hippen, Organ Sales and Moral Travails Lessons from the Living Kidney Vendor Program in Iran, POLICY ANALYSIS No. 614 (Mar. 20, 2008), (“[O]nly one country in the world doesn’t suffer from an organ shortage: Iran.”).
150. 42 U.S.C. § 274(c).
153. Hansmann, supra note 126, at 145.
154. Id. at 147.
155. Id.
156. See id. at 147-49.
those who agree to donate, or alternatively a penalty for those who decline to donate.\textsuperscript{157} However, it is unlikely that penalizing an individual for refusing to donate would be Constitutional as it infringes on an individual’s liberty, autonomy, and privacy.\textsuperscript{158} Another more realistic option is to have the state purchase the rights when an individual is obtaining or renewing a driver’s license or state identification through a reduction in the fee for the license or identification.\textsuperscript{159} All states have legal consent driver’s license donor designation provisions.\textsuperscript{160} Hence, the foundation for implementing future markets in cadaveric organs exists and only determination of price or premium reduction need be considered.\textsuperscript{161}

\textbf{VI. Conclusion}

Organs are a scarce resource and as such require equitable distribution policies to ensure a just allocation system. While UNOS and OPTN are charged with oversight of the transplant system to ensure equitable distribution of the life-saving organs, much discretion is left to OPOs and transplant centers, resulting in variations in listing and distribution criteria. Allowing for multiple listing only serves to exacerbate the inequities inherent in the system.

One solution could be to fully embrace a national distribution system. Another option to reduce the waitlist includes the recently passed HOPE Act which could ultimately permit HIV-positive donor to HIV-positive recipient transplantation, resulting in reduction of the waitlist for individuals not infected with HIV. Lastly, considering compensation for both living donors modelled after the Iranian system, and cadaveric donors in a \textit{futures market} framework may serve to reduce the ever-widening gap between donors and those in need of transplants.

\textsuperscript{157} Id. at 147.
\textsuperscript{158} See generally Rodriguez, supra note 124 (discussing Constitutional concerns of implementing an opt-out system as opposed to the current opt-in system in the U.S.).
\textsuperscript{159} Hansmann, supra note 126, at 148 n.3.
\textsuperscript{161} Hansmann, supra note 126, at 148 n.3.
Fair Use in the Classroom; A Conundrum for Digital User-Generated Content in the “Remix” Culture

by SAMANTHA VON HOENE*

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Introduction

The age of digital media has broadened the ability of consumers to access, create, manipulate and reproduce content with great ease and speed.1 With these advances in technology comes the growing trend of user-generated content, which involves a wide variety of media that is created by consumers and end-users.2 While this user-generated content has allowed creativity to flourish, and has in part led to the creation of the “remix culture,” many copyright concerns have arisen from this growing trend.3

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The entertainment and original content industry, in an effort to preserve their copyright interests during this time, have created programs and services to deal with the ever-increasing amount of user-generated content available online. However, these programs and services have not been able to handle the increasing demands of an online system that is being overloaded by the constant stream of uploaded user-generated content. Because of this, the programs that were designed to help the content industry patrol their legitimate copyright interests have become overly formulaic and label user-generated content as infringing without first considering if the content falls within the range of acceptable fair use.

By filing content removals and takedowns, without a full fair use consideration, the content industry is violating the Digital Millennium Copyright Act. This functional absence of fair use in our current copyright system, as it relates to user-generated content and digital media, has created fear and a misunderstanding of the implications of fair use. This fear and misunderstanding is extremely prevalent in the educational setting, where teachers have been stifled and scared away from using user-generated content in their classrooms because they don’t understand fair use and its role in copyright law.

User-generated content provides a critical opportunity for the “remix culture” to express their creativity and communicate effectively, which is why user-generated content must play a key role in classrooms and education. However, the current state of copyright and fair use rules makes it hard for teachers and educators to allow user-generated content in their teaching, which leads to lower levels of student engagement and understanding. In order to help fix the copyright and fair use laws, a complete overhaul of the law is not what needs to occur, but rather an

10. See supra note 8.
overhaul in the way society views fair use. If fair use can, again, be weighted with the same importance that it was originally intended to have, then educators, teachers, and the entire “remix culture” would benefit tremendously.

Part I provides a brief background of user-generated content and the remix culture. Part II examines the inherent problems with user-generated content in the realm of copyright law. Part III discusses the potential disappearance of fair use and Part IV examines the implications of this disappearance. Finally, Part V discusses possible changes to fair use rules and how those proposed changes would affect education.

I. User-Generated Content and the Remix Culture

The history of the term “user-generated content” (UGC) is a short one, with its first use appearing in articles around 1995. After about ten years, the term began to gain some fame, as Internet use became more prominent. User-Generated content refers to “a range of media content available in a range of modern communications technologies.” The term is used to describe a wide variety of applications, including news, research and trending issues, and “reflects the expansion of media production through new technologies that are accessible and affordable to the general public.” UGC can be found everywhere from individualized wikis and blogs to popular websites like YouTube, Facebook and Twitter, with the future reach of UGC yet to be described or envisioned.

Modern Internet users want more new technology development, in addition to more connectivity and user control with each new technological advance. But the growing scope of UGC includes many problematic issues within the realm of copyright law. In order to understand why

13. Using Lexis Nexis search, the earliest article that references “user-generated content” was in 1995 by Dana Blankenhorn, Cf. Dana Blakenhorn, Judge: Prodigy is Liable for User-Generated Content, Interactive Age, June 5, 1995, at 35.
16. Id.
19. See supra note 17.
copyright law can clash against this wave of UGC, it is necessary to first consider the historical context of this new kind of content.

Lawrence Lessig, one of the reigning authorities on intellectual property in the Internet age, likens this shift in content to what computer geeks would refer to as “read only” versus “read/write” content. Lessig traces this history back to 1906, when the “new technology” of phonographs hit the market. During this time, people were concerned that the days of singing outside and creating music, by piano or other instruments, would end because the new mechanical music devices, such as phonographs, created a shortcut to hearing your favorite song. These new technologies meant you didn’t have to learn how to play the piano or guitar if you wanted to hear music—all you have to do is stick a record on the machine. The creative era was in danger of a complete wipe-out by the start of the 20th century, with the new culture morphing into what Lessig refers to as the “read only” culture, where people only soak in what they hear and see.

As technology developed, the 20th century became a time of “happy competition” among “read only” technologies. Each new technology was better than the last, with records being replaced by tapes, then CDs and MP3s, while radio, television and eventually the Internet began to take shape. By the turn of the 21st century, this competition had made a wide range of technology and culture available to the masses like never before. The boom in “read only” culture had brought jobs to millions, raked in billions of dollars in revenue, and created superstars who spoke powerfully to the millions of people “listening.”

But as the speed in technology development continues to increase, the “read only” culture has started to reshape itself into what Lessig now dubs the “Read/Write” culture. With mass accessibility to applications like YouTube, Instagram, Pinterest and Facebook, technology users are no longer just soaking in what they hear and see, but now are interacting with

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21. Id. at 24.
22. Id. at 26.
23. Id.
24. Id. at 26–27.
25. Id. at 30.
27. Id. at 30–31.
28. Id.
29. Id. at 57.
the content and changing it to make their own transformative videos, pictures and other works called UGC. The assembly line approach of the “read only” culture, where content was made by the original few and dispersed out to the uncreative masses for consumption, is morphing into a world where amateur producers create new content based on their own feelings, emotions and skills.\textsuperscript{30} The term “user” in UGC now attaches to anyone who allows their creative energies to be a part of the new, un commodified culture they create.\textsuperscript{31}

With the advance of technology to its current point, the number of users who interface with programs and applications on a daily basis is continuing to skyrocket. Couple this with the ability of the masses to post, snap or pin almost anything online, and you get very few original options out there for people to showcase as their own. Thus, the only thing left to do—the only content left to generate—is made by remixing another person’s content with your own to make a novel work.\textsuperscript{32} As the amount of true original content continues to dwindle, the “remix culture” and the UGC they rely on have run head on into several copyright problems.

\section*{II. Problems with UGC}

These remixed works cut across all different varieties of UGC and pop up on almost any popular website or blog. UGC has become a major headache for those who hold the copyrights to certain original works because of the sheer amount of potentially infringing UGC that is created each day. Take, for example, the viral video recently posted by movie star Vin Diesel, in which he spends over seven minutes dancing and singing to two different famous songs created by other artists.\textsuperscript{33} This homemade video currently has over 200,000 views and is being shared on multiple online platforms.\textsuperscript{34} Diesel’s video was not aired to further his own commercial impression or name, but rather, as per Diesel’s words, to show how happy he was that his fans support him.\textsuperscript{35} Yet, this fan “shout-out” has a glaring copyright infringement problem—Diesel has “remixed” his own thoughts.

\begin{itemize}
  \item \textsuperscript{31} Id. at 929-30.
  \item \textsuperscript{32} Lessig, supra note 20, at 1-9.
  \item \textsuperscript{33} \textit{Vin Diesel Doing Beyonce’s Surfboard Dance}, YouTube, https://www.youtube.com/watch?v=SnVGQeMmgN8 (last visited Apr. 1, 2014).
  \item \textsuperscript{34} Id.
  \item \textsuperscript{35} Kelly Canniff, 6 Things We Learned for Watching Vin Diesel Dance to Katy Perry and Beyonce, Time, (Jan. 28, 2014), http://time.com/2253/6-things-we-learned-from-watching-vin-diesel-dance-to-katy-perry-and-beyonce/.
\end{itemize}
and feelings (along with his unique dance moves) with the copyrighted songs of other famous artists.

According to the current copyright law under the Digital Millennium Copyright Act (DMCA), this video could promptly be removed from all online platforms, should the copyright holders wish to do so, because Diesel has merely used the song of another artist (even though the song is only in the background and not the main focus of the video). This is an example of the illegal copying that DMCA was designed to protect against. A casual viewer of the video would not see any copyright problem with this video, as Diesel clearly is not trying to claim these songs as his own. However, Diesel’s video remains in the sphere of infringing user-generated content because copyright law has not adapted to the current “remix” culture.

The DMCA was enacted into law in 1998 as an amendment to Title 17 of the United States Code, with goals to extend the reach of copyright protection for copyright owners, amending the original copyright laws codified in 1976. It has had slight changes and additions over the years, with the most recent being in 2010. However, none of these changes or additions have taken into account the new “remix culture” we find ourselves in today. Videos like Vin Diesel’s stand as proof of this new “remix culture.” Vin Diesel could have shared a video with his fans that only included his own voice and his own content, but he did not send a message in that way, because that is not how our current culture operates. The current “remix culture” communicates by using the sounds of sights of other people and places to make our own product and our own message stronger.

The Internet has provided the current culture with the instantaneous ability to find a picture, search for a song or video, or edit existing content to make it just right for their own needs. “Remixers” post and exchange content multiple times per day on the Internet, through a variety of apps and online programs and don’t see any problem with that process—they are simply expressing themselves by making user-generated content. But the DMCA and the current copyright laws view this UGC process a bit differently. From the prospective of the industry (the original content producers), the consumers (the “remixers”) have become thieves who are

37. Id.
38. Id.
taking over the technologies of production for their own personal gain.\textsuperscript{40} Due to this theft and loss of control the industry feels, they now police their content more closely and more actively than ever before.\textsuperscript{41}

\textbf{III. Fair Use Abandonment}

Sites like YouTube and Google continue to receive hundreds and thousands of takedown notices for “infringing” UGC from the industry.\textsuperscript{42} DMCA requires that these host sites do something about these notices in a timely manner through Section 512, which was written as a safe-harbor provision for online service providers.\textsuperscript{43} This safe harbor was created at a time when the technology was simpler, and the boom of UGC had yet to occur.\textsuperscript{44} But because of the constant removal burdens placed on the online service providers through Section 512, the system of content consideration for removal has become bogged down, causing erroneous takedowns and other negative legal ramifications.\textsuperscript{45} Paul Goldstein, a copyright law professor at Stanford Law School, points out that “the system is working on a scale that Congress never intended, with millions of postings every day.”\textsuperscript{46}

With millions of postings and subsequently high numbers of takedown requests, the reporting process regarding alleged infringing content has become standardized to a fault. The process has now become automated and robotic, and often involves a computer algorithm that scans for specific copyrighted words, notes, phrases, or pictures.\textsuperscript{47} If the UGC that is attempting to be uploaded or used contains any part of a copyrighted works already in the computer system, the UGC will be labeled as copyright infringement, without any fair use consideration.\textsuperscript{48}

Overly sensitive computer algorithms are not the only problem with copyright reporting. A glaring and well-known instance of the reporting process gone wrong involves a video titled “Beijing Olympics Opening

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40. Hatcher, supra note 17, at 930.
42. Mike Masnick, \textit{DMCA Copyright Take-downs to Google Increased 10x Just in Past Six Months}, (Dec. 12, 2012 at 10:00AM), http://www.techdirt.com/articles/20121211/1615201352/dmca-copyright-takedowns-to-google-increased-10x-just-past-six-months.shtml.
44. See supra note 36.
45. Seidenberg, \textit{supra} note 5.
46. \textit{Id}.
48. \textit{Id}.
\end{flushleft}
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Ceremony” that the International Olympic Committee (IOC) ordered YouTube to take down. Presumably, the people of the IOC had not looked past the video’s title when ordering YouTube to take down the video, as they were sure it would infringe on their copyrighted material. If they had looked at the video, even for five seconds, they would have immediately seen that the video was, in fact, not an infringement of their copyrighted material at all, but rather a showing of a protest outside of the Chinese Consulate in New York City, made by an impassioned student group. These hasty removals of content, where reporters seem to neglect the consideration of fair use in its entirety, are increasingly problematic to the current “remix culture,” who rely on UGC to communicate effectively.

The DMCA and its safe harbor provisions were not designed to allow content owners to silence legitimate speech, but that is exactly what happened in the IOC example. And this example is just one of thousands like it, where videos and other legitimate UGC get taken down simply because they fall into the formula of infringement that an overwhelmed system has been forced to use. However, Section 512(c) “requires a copyright owner to consider the fair-use doctrine in formulating a good-faith belief that ‘use of the material . . . is not authorized by . . . the law.'” Thus, issuing a takedown notice “without proper consideration of the fair-use doctrine” exposes the copyright owner to liability for misrepresentation under section 512(f) of the DMCA.

However, even with this fair use provision written into the DMCA, which places liability on copyright owners to first consider fair use, it seems that the trend is to remove UGC without any of the legally required fair use considerations. This careless removal of content has lasting effects on the perception of copyright law, including forcing many to see fair use as an exception to copyright law. Fair use however, is not the exception, but rather, the rule of copyright law—a rule that seems to be continuously


50. Id.

51. Id.

52. John Paul Titlow, 5 Absurd Copyright Takedowns that Make the Law Look Outdated, (Jan. 22, 2013), http://readwrite.com/2013/01/22/5-absurd-copyright-takedowns-that-make-the-law-look-outdated#awesm=oAexmXUFSHyKQ.


54. Id.

forgotten by copyright owners in the current digital age of the “remix culture.”

The formulaic reporting system now used by content owners and online service providers, allowing essentially automatic UGC removal, leaves no space for a fair use determination because fair use is something that threatens the control that content owners seek.\(^{56}\) However, without fair use, almost all UGC would be of an infringing nature. Through these erroneous and prevalent content takedowns, the “remix culture” has been sent a message that fair use is not an important or relevant part of copyright law. Ironically enough, that message couldn’t be further from the truth.

IV. Fair Use Standards and their Implications in the Educational Setting

Fair use is critical because it provides a way for creators to fairly use parts of the content of others to create novel content and ideas without committing copyright infringement. Fair use has a four-part evaluation process that involves looking at the original work and the UGC and weighing each of the factors involved.\(^{57}\) The four factors considered are (1) the purpose and character of the use, (2) the nature of the copyrighted work, (3) the amount and substantiality of the portion taken, and (4) the effect of the use upon the potential market.\(^{58}\) Per the current copyright laws, these factors are supposed to be weighed in every instance of alleged copyright infringement, and if the UGC falls within the scope of fair use, then it does not violate any copyright laws.\(^{59}\) In most Internet cases where the alleged copyright infringement is taken to court, fair use is found in favor of the UGC creator.\(^{60}\) Despite this fact, much of the UGC that is removed from websites like YouTube and Facebook is taken down without any fair use consideration whatsoever.

While the four factors of fair use are not particularly challenging to comprehend or apply, they have an important role in protecting UGC from being reported as copyright infringement. In addition to the general societal importance of fair use rules, fair use plays a critical role in allowing educators and students to express themselves creatively and

\(^{56}\) Mukai, see supra note 6, at 783.


\(^{58}\) Id.


efficiently through various forms of UGC made in the “remix culture” for classroom use. Unfortunately, the threat of content removal, incorrect reporting and possible litigation have all cast a large shadow over the creative sphere that UGC flourishes in.

In education, the confusion and misinformation about copyright laws and acceptable use in the classroom is an ongoing problem that affects thousands of teachers, and consequently, their students.61 Because the role of fair use has been essentially removed from copyright law as a practical matter, at least in the eyes of copyright holders and online providers, educators are afraid to rely on fair use and instead rely on rigid copyright recitations that have been passed down to them from their school and district administrators. Educators and teachers are often held to rigid and specific standards about what they can and cannot do to remain within the copyright laws in their classroom.62 These standards are usually written

Figure 1: http://www.techlearning.com/techlearning/pdf/events/techforum/tx05/teachercopyright_chart.pdf.

down for teachers in the form of a chart or diagram, created by textbook companies who have attempted to make copyright law easier to understand for educators.63

The problem with these charts is that they often have the label or title of “Fair Use” across the top, but in reality, they are just strict explanations of what teachers are allowed to use in their classroom to be in compliance with copyright law.64 These charts only amplify the conflicting messages teachers get from their colleagues and supervisors about what fair use actually entails, because they don’t properly describe fair use considerations.65 Because of this, teachers and educators often have no idea what the fair use factors are or why fair use can actually help them in the classroom.66 They, instead, are crippled by the fear of litigation and incorrect reporting that they see in our current culture.67 This fear leads to teachers relying almost exclusively on these charts and diagrams outlining copyright law, instead of on the rules related to fair use.

These charts are created to detail the educator and classroom “exemptions” available in our current copyright law.68 But such charts are problematic because they are verbose, confusing, and misleading to educators and teachers regarding the rules of fair use in copyright law.

These charts force teachers to assume that fair use really doesn’t exist at all, unless they follow the strict “fine print” of these charts and diagrams. As a relevant example, this chart showcases the reason these copyright rules can be

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64. See supra note 60.
65. See supra note 8.
66. Id.
67. See supra note 8.
confusing. The chart tells teachers what printed material can be used in the classroom. Rules like “teachers may make copies in nine instances per class per term” are so rigid and inflexible that teachers steer clear of using copies of printed copyrighted material at all, even when it could be of huge benefit to their teaching and classroom instruction.

In addition, teachers are forced to follow detailed and often-constricted specifics when choosing what works they want to use. As seen in the “Specifics” portion of the chart, when a teacher wants to use a printed work, they would first have to engage in word counts and genre determinations before feeling comfortable using certain copyrighted material in their classroom. While these guidelines may have been written to show teachers an example of what fair use could look like, many teachers assume that the these rigid specifics are actually the fair use laws for copyright use in the classroom. This ignorance of copyright law, coupled with the fear of legal action, keeps educators from engaging in a fair use analysis of their materials used for teaching, and instead forces strict adherence to the copyright charts and listed requirements.

The Center for Social Media at the School of Communication at American University released a report called The Cost of Copyright Confusion for Media Literacy, which detailed the understanding and use of fair use and copyright law by educators. This report explored the relationship between copyright beliefs and teaching practices. It found that teachers are often unaware of the expansive nature of fair use, and instead rely on various “guidelines” and charts circulating on the web, like the ones previously pictured. These guidelines are mainly products of the publishing industry and either negate fair use completely or cast it in a conservative light.

Although these guidelines are often not an accurate picture of copyright law and fair use rules, educators adhere to them out of the fear of legal battles and litigation over copyright infringement. This fear is validated in some ways by the forceful actions the content industry
currently takes against possible infringing works, and the outright refusal by copyright holders to consider fair use before filing a legal claim against UGC. This behavior is evidenced by stories of people like Stephanie Lenz, a young mother, who has been locked in a six-year legal battle with Universal Music Corporation over a 29-second video she posted to YouTube that showcases her young son dancing to a popular Prince song. Upon watching the video, the faint Prince song in the background is hardly noticeable, as Ms. Lenz’s son and his dance moves take center stage.

However, despite how insignificant or miniscule the use of the Prince song was in the Lenz family video, the video’s YouTube posting was expeditiously removed once Universal Music Corporation made the report to the online service provider, claiming that the video infringed on their copyrighted material.

This simple act of immediate removal sends yet another message to creators of UGC that fair use determinations are almost nonexistent when dealing with powerful corporations and overwhelmed Internet service providers. When the four factors of fair use are applied to the dancing baby video Stephanie Lenz posted, three out of four factors seem to slant toward fair use versus infringement (Inf.), yet the video was still stripped from the Internet and has caused Ms. Lenz to seek legal counsel from the Electronic Frontier Foundation in order to reinstate her video.

When educators see an example like the Lenz case, it undoubtedly causes concern and confusion. Just as Stephanie Lenz had created a

80. Mesherry, see supra note 78.
81. Id.
personal video by remixing parts of her daily culture together, educators and classroom teachers do the same thing to make their lessons more efficient and engaging. In addition, educators continuously request that their students create UGC to express their own understanding of concepts and curriculum. This approach is taken because there are many benefits to engaging students with user-generated content, including building stronger critical thinking and problem solving skills.\textsuperscript{82}

But educators, faced with verbose charts of strict copyright laws in addition to cases where fair use has been completely disregarded, are left scared of copyright law completely. The Brennan Center for Justice at NYU School of Law researched fair use and its effect on people who make critical contributions to culture and democratic discourse.\textsuperscript{83} This study found that out of 320 cease and desist letters that had been send to UGC creators claiming alleged copyright infringement, over 50% of those claims has the potential to chill protected speech, meaning the that the UGC the letter was sent remove fell within the bounds of fair use, and should not have been sighted as copyright infringement in the first place.\textsuperscript{84} This high percentage of fair use oversight continues to fuel the fear of educators, who feel forced to give up on using UGC in their classroom and with their students, at the risk of being slapped with, at the very least, a cease and desist letter from a corporate copyright holder.

IV. Confusion of Fair Use Rules in Education

The cost of educator confusion regarding copyright law is great.\textsuperscript{85} The fear of copyright regulations and the uncertainty of fair use considerations can lead to the less effective teaching materials, constriction of creativity for teachers and students, and the perpetuation of misinformation.\textsuperscript{86} If fair use is not actively discussed and given weight in all arenas of copyright law, then confusion and a trend against UGC will occur, making it almost impossible to be a relevant and engaging educator in the age of the “remix culture.”

Copyright confusion by teachers limits the quality of teaching and learning in the classroom.\textsuperscript{87} Quality teaching occurs when students are


\textsuperscript{84.} \textit{Id}.

\textsuperscript{85.} \textit{Id.}

\textsuperscript{86.} \textit{Id.}

\textsuperscript{87.} \textit{See supra} note 8.
engaged in their own learning. One of the easiest ways to engage students is to bring in relevant material like jokes, poems, or articles from the student’s culture into the classroom and ask questions about it. But the problem with this approach from a copyright law perspective is that as soon as another person’s work is being used, like the comic of a famous cartoon artist, teachers immediately fear that they will suffer legal ramifications from copyright infringement. This is because educators are unclear about the implications of copyright law in the classroom. The current trend of pricey litigation and numerous alleged copyright infringement reports make teachers feel that it is easier to just forgo the use of another’s materials completely.

In addition, copyright confusion limits student’s creative expression. If teachers do not feel comfortable using other people’s work in their teaching, then they will feel less compelled to allow students to use other’s work when sending creating their own projects and presentations. In the “remix culture,” the integration of Internet use and UGC has been a growing trend, with over 70% of Internet users being consumers of UGC themselves. The implication of this statistic is that if students aren’t

88. See supra note 11.
89. Id.
90. See supra note 8.
permitted to creatively use the works of others to make UGC, then their educational experiences with suffer because of the limitations on creativity they are constrained by.92

Lastly, the perpetuation of misinformation affects educator’s views of copyright law when unclear information about fair use and its importance continues to circulate.93 When speaking about educators and their knowledge of fair use rules, Peter Jaszi, a professor at the Washington College of Law at American University remarked, “the collective judgment of every creative community informs the interpretation of fair use. Courts take notice of what creators regard as fair and reasonable.”94 If educators want a change in the fair use rules, they must first be well-informed about the rules that govern fair use. If more educators knew the true considerations of fair use, and weren’t clouded by the hasty takedown trends of the current era, educators could focus on effective teaching through UGC without worrying about the legal ramifications of copyright law.

V. Proposed Copyright Law Changes to Allow UGC in the Remix Culture

Copyright law has been through changes and adaptations as each era brings new challenges to the rules.95 However, the historical change of fair use rules and the effect of fair use rules on educators has morphed at a far slower pace than general copyright regulation, with the last major review of fair use designations for educators taking place in 1994 and 1996.96 Because of this slow pace and the resistance to change, fair use rules have continued to confuse educators and leave a general haze of misconception among teachers regarding what they can and cannot use in their classroom to educate the “remix culture.”

In 1994, the U.S. Department of Commerce established CONFU: The Conference on Fair Use, to bring together copyright owners and users to discuss fair use issues that new technologies raise and to develop guidelines for fair use by librarians and educators.97 The CONFU participants spent

92. See supra note 8.
93. See supra note 9.
94. See supra note 8.
97. Id.
over two years trying to develop new fair use guidelines, but in the end, the participants could not reach a consensus regarding changes to fair use laws.\textsuperscript{98} Copyright owners thought the guidelines gave too much away, and educators and librarians thought the guidelines were unworkable and overly restrictive.\textsuperscript{99} “The unfortunate result of the situation,” Nancy Willard of the College of Education at the University of Oregon said, “is that teachers are in an incongruent position of trying to push the limits of the fair use exception at the same time that they have an obligation to teach students about respect for copyright law.”\textsuperscript{100}

Following CONFU, members of a number of educational, scholarly, and copyright user organizations—including the National Education Association, the National School Boards Association, and the American Library Association—issued the following Conference on Fair Use Joint Statement: “CONFU participants’ inability to craft consensus guidelines presents educators, scholars, and librarians—and their national representatives—with the opportunity and responsibility to explore the appropriate parameters of fair use to the extent that experience and good faith permit.”\textsuperscript{101} However, many feel that if even the experts can’t agree on acceptable fair use guidelines for UGC created using new technologies, then this leaves educators in a strange position.\textsuperscript{102}

By 1996, the Consortium of College and University Media Centers (CCUMC) brought together a diverse group of publishers, educators, industry representatives, and legal experts to draft a set of fair use guidelines for educators and students to use while creating UGC and other multimedia projects.\textsuperscript{103} The guidelines they developed are not legally binding, but rather, represent an agreement among most institutions and organizations affected by educational multimedia.\textsuperscript{104} While the new shift in views is helpful to educators, the constant borage of guidelines and specifications about what teachers can and cannot use in their classroom continues to overwhelm teachers and feed the fear of copyright infringement through the use of UGC in classrooms.

The inability of copyright law to adapt to the “remix culture” and the practical loss of fair use in education has sparked many influential scholars to comment regarding proposed changes to copyright law. Some, like Peter...
Jaszi remark that our copyright law is actually more slanted to UGC creators and educators than we think, saying:

Trying to ‘fix’ fair use through legislation would be a high risk undertaking. The codification of the doctrine in 1976 was, generally speaking, a victory for the creators, educators, journalists, artists, and others. Developments in the courts since then (especially the rise of “transformativeness” analysis) have underlined just how big a victory it actually was! If Sec. 107 were “opened up” for amendments there is a real chance (nay, a near certainty) that owners would seize the opportunity to rework the statute to their own advantage—and (believe me) there are many ways this could be accomplished. We would be looking then at a naked political contest that I’m afraid users would lose, as they have in so many other battles in recent years.\textsuperscript{105}

Jaszi does admit, however, that the vagueness of fair use can sometimes be problematic, thus he recommends a Code of Best Practices to fix the issues of educators misinterpreting or not understanding the doctrine of fair use.\textsuperscript{106}

Anthony Falzone, executive director of the Fair Use Project at Stanford University, agrees with Jaszi, commenting that “The open-ended nature of the fair use framework is a net positive. While it can reduce predictability in some situations relative to say, a laundry list of very specific exemptions, it’s that open-ended nature that makes fair use a dynamic tool that can respond effectively to changes in technology and culture.”\textsuperscript{107} When the original copyright law was codified in 1976, the Internet was an unforeseen entity, an entity that completely revolutionized the way copyright law is affected by culture.\textsuperscript{108} However, Falzone argues that the beauty of the open-ended rules of fair use is that they can adapt quickly to unforeseen changes and can be applied even when culture is changing rapidly.\textsuperscript{109}

However, Falzone realizes the burdens of the open-ended framework of fair use and their effect on UGC creators.\textsuperscript{110} He comments:

\textsuperscript{106} Id., see also http://www.copyright.gov/copyrightmatters/speakers/matters_jaszi.html
\textsuperscript{107} Id., see also http://fairuse.stanford.edu/
\textsuperscript{108} Glasser, see supra note 105.
\textsuperscript{109} Id.
\textsuperscript{110} Id.
The people who feel [the burdens] most are the masses—the ordinary people who create for the sake of creating and do so non-commercially. For them, the system is complicated and expensive to use and they are not equipped to bear the risk of guessing wrong. The burdens this system imposes on ordinary people who use copyrighted content in genuinely creative and transformative—but non-commercial—ways is tremendous, and seriously out of whack relative to the tiny impact these non-commercial uses have on copyright holders.  

Falzone believes that one way to fix the copyright system is to create safe harbors for certain uses that will relieve noncommercial actors of this burden.

Yet another copyright scholar, J.D. Lasica, has a more detailed and formal approach to fixing the copyright system. Lasica, co-founder of OurMedia and author of Darknet, suggests that the digital generation will eventually come to embrace the concept of digital rights, through the cultural norms that are now taking shape. He recommends that “Congress should specify users’ digital rights by mapping out an expansive, affirmative set of rights delineating the scope of the public’s right to sample, reuse, build upon, and share the digital works they legally acquire.”

The trend among media and copyright law professionals appears to be a proposed slant in the application and understanding of fair use and copyright laws, rather than a complete overhaul of the rules. The suggestions given by these scholars would leave the fundamental structure of fair use intact, but would simply change the way some common digital uses, like UGC, were treated within copyright law. By continuing to keep fair use open ended, it would allow for new technologies and creative uses not yet conceived or discovered, but would also allow for specific exceptions for activities that are well-known and clearly of benefit to consumer, like UGC in the educational setting.

111.  Id.
112.  Id.
113.  Id.
114.  Glasser, see supra note 105.
115.  Smith, see supra note 12.
116.  Id.
117.  Id.
The real movement in copyright laws and fair use rules will not come with legislation and doctrinal shifts, but rather through societal changes. Like Lawrence Lessig has spoken about time and time again, we are now in the era of the “remix culture.” This culture creates user-generated content as a main method of communication. In order to teach and interact with this remix culture, we must speak their language. If we as a society continue to allow fair use to be shifted to the back burner and given little to no weight in copyright considerations, then we will lose our ability to communicate with the “remix culture.”

One of the most crucial places we must feel comfortable with UGC is in the classroom. Teachers cannot continue to live in confusion regarding copyright laws and what fair use really is. These misunderstandings only generates fear and an adherence to misleading standards. Teachers should be explicitly taught the four factors of fair use and given the opportunity to carefully consider their own UGC and that of their students, in order to assess if it falls within the acceptable range of fair use.

In addition, like Antohny Falzone recommends, certain educational uses, like UGC used for classroom purposes, should fall completely within a safe harbor, where teachers and students do not have to worry about the threat of legal action against certain educational UGC they have created. Until we see these societal shifts and a true compliance with the rules of fair use by copyright holders, educators and the “remix culture” they teach will continue to have their creativity and UGC stifled by copyright confusion and the looming threat of legal action.

Luckily, recent activity in the copyright sphere supports a finding that a shift in society’s views of fair use and copyright law has already begun. Four years ago, Lawrence Lessig gave a lecture on copyright law at a conference for the organization Creative Commons. In this lecture, he used clips of fans dancing to the band Phoenix’s song “Lisztomania” as an example of proper “fair use” principles. He later uploaded the full lecture, which included the clips, to YouTube, but Phoenix’s managers removed the video and the threat of legal action followed, as Phoenix saw the video as a copyright infringement of their songs.

118. Lessig, see supra note 20.
119. Glasser, see supra note 105.
121. Id.
122. Id.
By February of 2014, a complete apology by Phoenix’s managers had been issued to Lessig regarding the takedown of Lessig’s video.\(^{123}\) Phoenix’s manager stated “[The video] was removed by a member of our staff without being reviewed and [was removed] under a misunderstanding of the relevant law. Upon learning of the mistake, we immediately reinstated Lessig’s video, amended our review process and have worked cooperatively with Lessig to resolve this matter as quickly as possible.”\(^{124}\)

The band Phoenix later commented:

Not only do we welcome the illustrative use of our music for educational purposes, but, more broadly, we encourage people getting inspired and making their own versions of our songs and videos and posting the result online. One of the great beauties of the digital era is to liberate spontaneous creativity—it might be a chaotic space of free association sometimes but the contemporary experience of digital re-meditation is enormously liberating. We don’t feel the least alienated by this; appropriation and recontextualization is a long-standing behavior that has just been made easier and more visible by the ubiquity of the internet.\(^{125}\)

It is indeed one of the great beauties of the digital era, and the “remix culture,” to liberate spontaneous creativity through user-generated content and other unique and transformative works. This creativity brought by user-generated content can only be freed through the adaptation and recognition of fair use as a critical part of copyright law in the classroom and beyond.


\(^{124}\) Brown, see supra note 120.

\(^{125}\) Id.
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